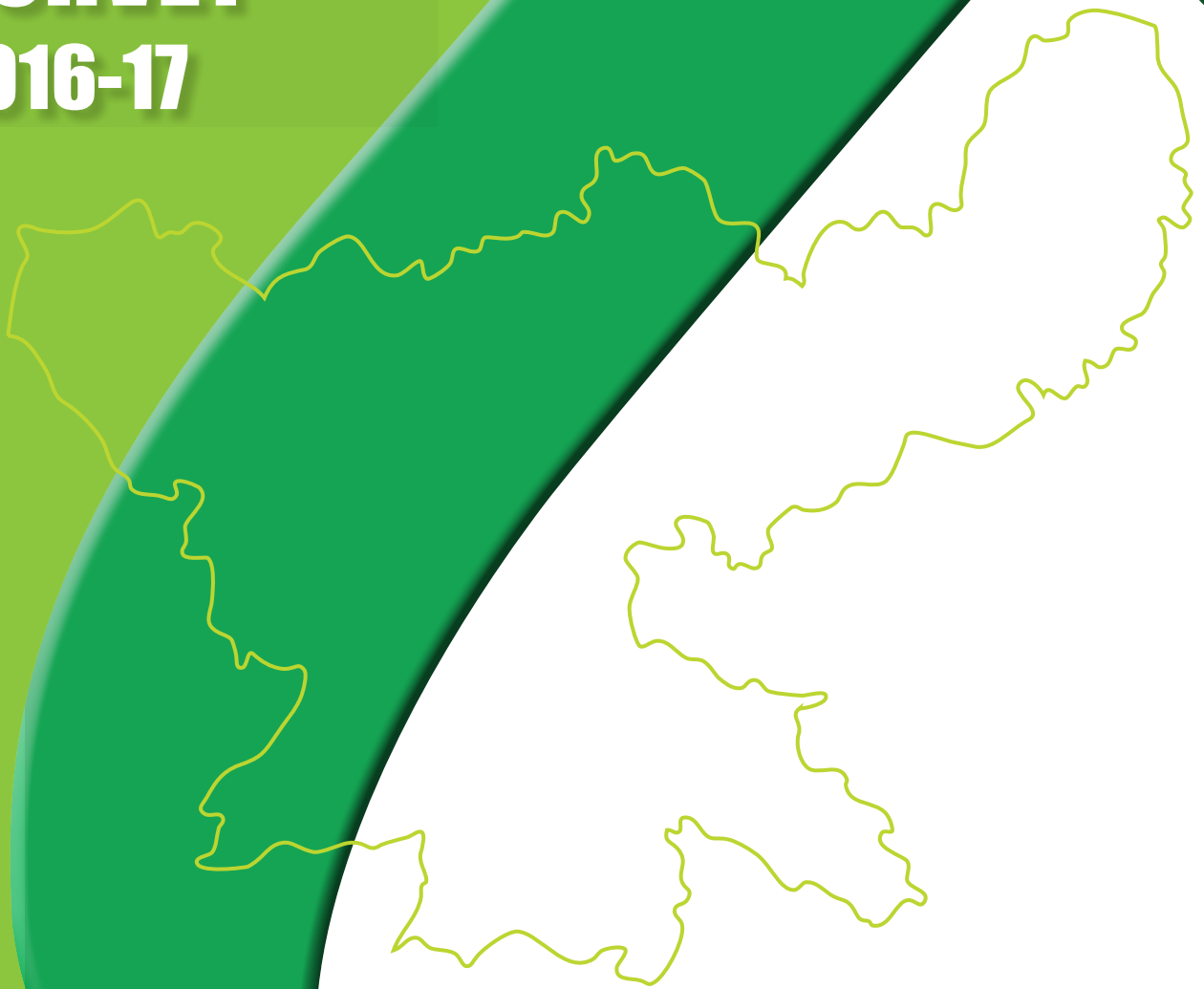


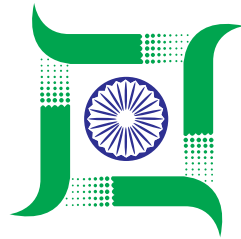


Government of Jharkhand

JHARKHAND ECONOMIC SURVEY 2016-17



**PLANNING-CUM-FINANCE DEPARTMENT
FINANCE DIVISION
GOVERNMENT OF JHARKHAND**



Government of Jharkhand



**JHARKHAND
ECONOMIC SURVEY
2016-17**

**PLANNING-CUM-FINANCE DEPARTMENT
FINANCE DIVISION
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Government of Jharkhand

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Acronyms and Abbreviations

AABY	Aam Admi Bima Yojana
AAGR	Average Annual Growth Rate
AAH	Anna Amrutha Hastham
AAP	Annual Action Plan
AAP	Annual Action Plan Model
ACA	Additional Central Assistance
ACP	Annual Credit Plan
AD	Authorised Dealer
ADB	Asian Development Bank
AHP	Affordable Housing in Partnership
AIADA	Accelerate Irrigation Benefit Programme
AIBP	Aditayapur Industrial Area Development Authority
AIBP	Accelerate Irrigation Benefit Programme
AIC	Agricultural Insurance Company
AID	Alternative for India Development
AIR	Action Taken Report
AJSVN	Anusuchit Janjati Sahakarita Vikas Nigam
AKM	Aajeevika Krushak Mitra
ALIMCO	Artificial Limbs Manufacturing Corporation of India
ANBC	Adjusted Net Bank Credit
ANCDR	Annual New Case Detection Rate
ANM	Auxiliary Nurse Midwifery
ANR	Aided Natural Regeneration
APMC	Agricultural Produce Market Committee
APY	Atal Pension Yojana
ARSH	Adolescent Reproductive Sexual Health
ARWSP	Accelerated Rural Water Supply Programme
ASDP	Aajeevika Skill Development Programme
ASER	Annual Status of Education Report
ASHA	Accredited Social Health Activist
ASIDE	Assistance to States for Development of Export Infrastructure and Allied Activities
AT&C	Aggregate Technical and Commercial
ATDC	Apparel Training & Design Centre
ATS	Apprenticeship Training Scheme
AWC	Anganwari Centre
BAIF	Bharatiya Agro Industries Foundation
BCCL	Bharat Coking Coal Limited
BE	Budget Estimated
BEMOC	Basic Emergency Obstetric Care Training
BIADA	Barhi Industrial Area

<i>Acronyms and Abbreviations</i>	
BMB	Bharatiya Mahila Bank
BMMU	Block Mission Management Unit
BOT	Build Operate And Transfer
BPED	Bachelors in Physical Education
BPL	Below Poverty Line
BRGF	Backward Regions Grant Fund
BSUP	Basic Services to Urban Poor
CAB	Clinical, Anthropometric and Bio-chemical
CADWM	Command Area Development and Water Management
CAGR	Compound Annual Growth Rate
CAMPA	Compensatory Afforestation Fund Management and Planning Authority
CAPART	Council for Advancement of People's Action and Rural Technology
CASP	Community Aid & Sponsorship Programme
CBO	Community Based Organization
CBR	Crude Birth Rate
CCB	Central Cooperative Bank
CCDU	Communication and Capacity Development Unit
CCSAMMN	Climate change and Sustainable Agriculture: Monitoring, Modeling and Networking
CD	Credit Deposit
CDLG	Capacity Development for Local Governance
CDR	Crude Death Rate
CFC	Common Facility Centre
CGPA	Comulative Grade Point Average
CGTMSE	Credit Guarantee Fund Trust for Micro and Small Enterprises
CHC	Community Health Centres
CIDC	Construction Industry Development Council
CIF	Community Investment Fund
CIL	Coal India Limited
CMSA	Chief Minister's Social Assistance
CPL	Commercial Pilot License
CPS	Child Protective Services
CPSU	Central Public Sector Undertaking
CRF	Central Road Fund
CRISIL	Credit Rating Information Services of India Limited
CRP	Community Resource Person
CSO	Central Statistical Organisation
CSPS	Certified Special Population Specialists
CSR	Corporate Social Responsibility
CSS	Centrally Sponsored Schemes
CTE	Colleges for Teacher Education

Acronyms and Abbreviations

CTI	Central Training Institute
CTS	Craftsman Training Scheme
CWC	Child Welfare Committee
CWSN	Children with Special Needs (CWSN)
DANIDA	Danish International Development Agency
DANWADEP	Danida's Watershed Development Programme
DAP	Di Ammonia Phosphate
DBT	Direct Benefits Transfer
DCBC	District Capacity Building Committee
DCCB	District Central Cooperative Banks
DDUGJY	Deendayal Upadhyaya Gram Jyoti Yojana
DDU-GKY	Deen Dayal Upadhyaya Grameen Kaushal Yojana
DELP	Domestic Efficient Lighting Programme
DEO	District Education Officer
DIC	District Industries Centre
DIET	District Institutes of Education and Training
DISE	District Information System for Education
DKVK	Divyayan Krishi Vigyan Kendra
DMMU	District Mission Management Unit
DMP	Disaster Management Plan
DoIT	Department of Information Technology
DPAP	Drought Prone Areas Programme
DPR	Detailed Project Reports
DRDA	District Rural Development Agencies
DRS	Debt Restructuring Scheme
DSS	Direct Subsidy Scheme
DSWWCD	Department of Social Welfare, Women and Child Development
DTR	Dynamic Thermal Rating
DVC	Damodar Valley Corporation
EAP	Externally Aided Project
ECCE	Early Childhood Care and Education
EI & IS	Economically Important & Inter-State
EMOC	Emergency Obstetric Care Training
EMRS	Eklavya Model Residential Schools
ENC	Essential New Born Care
EOC	Emergency Operation Centres
EOI	Expression of Interest
EPA	Entry Point Activity
ERO	External Resource Organisations
FDA	Forest Development Agencies

<i>Acronyms and Abbreviations</i>	
FFS	Farmers Field School
FLCC	Financial Literacy and Credit Counselling
FPIS	Family Planning Indemnity Scheme
FPLMIS	Family Planning Logistic Management Information System
FRBM	Fiscal Responsibility and Budget Management
FRH	Forest Rest House
FTK	Field Test Kits
GCF	Gross Capital Formation
GDI	Gender Development Index
GDP	Gross Domestic Product
GEM	Gender Empowerment Measure
GER	Gross Enrolment Ratio
GHG	Green House Gases
GOI	Government of India
GOJ	Government of Jharkhand
GPDP	Gram Panchyat Development Programme
GPF	General Provident Fund
GPS	Global Positioning System
GSDP	Gross State Domestic Product
GSVA	Gross State Value Added
GVA	Gross Value Added
HDI	Human Development Index
HGM	Home Grown Model
HIS	Hydrologic Information System
HLTC	High Level Technical Committee
HRD	Human Resource Department
HUNAR	Hallmarking of Unrecognized Novice and Amature Resources
HYV	High Yield Varieties
IAP	Integrated Action Plan
IASE	Institute for Advance Studies in Education
IAY	Indira Awas Yojna
ICDS	Integrated Child Development Services
ICPS	Integrated Child Protection Scheme
ICT	Information Communication Technology
IDP	Institute Development Plan
IDTR	Indo Denish Tool Room
IEC	Information Education and communications
IFAD	International Fund for Agricultural Development
IFSR	Indian Forest Survey Report
IGA	Income Generation Activities

Acronyms and Abbreviations

IGMSY	Indira Gandhi Matritva Sahyog Yojna
IGNDPS	Indira Gandhi National Disability Pension Scheme
IGNOAPS	Indira Gandhi National Old Age Pension Scheme
IGNWPS	Indira Gandhi National Widow Pension Scheme
IGWDP	Indo German Watershed Development Programme
IHHL	Individual Household Latrines
IHSDP	Integrated Housing and Slum Development Programme
IINRG	Indian Institute of Natural Resins and Gums
IITF	India International Trade Fair
IL&FS	Infrastructure Leasing & Finance Company
IMC	Institute Management Committee
IMIS	Institute of Management & Information Science
IMNCI	Integrated Management of Neonatal Childhood Illness
IMR	Infant Mortality Rate
INM	Integrated Nutrients Management
IPM	Integrated Pest Management
IRCTC	Indian Railway Catering and Tourism Corporation
IRO	Internal Resource Organization
ISFR	India State of Forest Survey
ISM	Indian Institute of Science
ISRO	Indian Space Research Organisation
ITDA	Integrated Tribal Development Authorities
ITDP	Integrated Tribal Development Projects
ITI	Industrial Training Institute
IUCD	Intra Uterine Contraceptive Device
IUD	Intrauterine Device
IWMP	Integrated Watershed Management Programme
IYCF	Infant and Young Child Feeding
JAC	Jharkhand Academic Council
JARDCL	Jharkhand Accelerated Road Development Co. Ltd
JARDP	Jharkhand Accelerated Road Development Plan
JBVNL	Jharkhand Bijli Vitaran Nigam Ltd
JCERT	Jharkhand Council for Educational Research and Training
JCL	Juvenile in conflict with law
JEPC	Jharkhand Education Project Council
JFM	Joint Forest Management
JFMC	Joint Forest Management Committee
JHARNET	Jharkhand State Information and Communication Network
JHASCOFISH	Jharkhand State Co-Operative Fisheries Federation Ltd.
JIMMS	Jharkhand Integrated Mines & Minerals Management System

<i>Acronyms and Abbreviations</i>	
JINFRA	Jharkhand Infrastructure Development Corporation
JIP	Jharkhand Industrial Policy
JJB	Juvenile Justice Board
JLG	Joint Liability Groups
JNNURM	Jawaharlal Nehru National Urban Renewal Mission
JREDA	Jharkhand Renewable Energy Development Agency
JRHMS	Jharkhand Rural Health Mission Society
JSAC	Jharkhand Space application centre
JSCB	Jharkhand State Co-operative Bank
JSCPS	Jharkhand State Child Protection Society
JSDMS	Jharkhand Skills Development Mission Society
JSEB	Jharkhand State Electricity Board
JSFDC	Jharkhand State Forest Development Corporation
JSLPS	Jharkhand State Livelihood Promotion Society
JSRP	Jharkhand State Road Project
JSRRDA	Jharkhand State Rural Road Development
JSSPS	Jharkhand State Sports Promotion Society
JSWM	Jharkhand State Watershed Mission
JSWSH	Jharkhand State Water and Sanitation Mission
JTDC	Jharkhand Tourism Development Corporation
JTDEP	Jharkhand Tribal Development and Empowerment Project
JTDP	Jharkhand Tribal Development Program
JTDS	Jharkhand Tribal Development Society
JTELP	Jharkhand Tribal Empowerment & Livelihood Programme
JTET	Jharkhand Teachers Eligibility Test
JTRI	Jharkhand Tribal Research Institute
JUSNL	Jharkhand Urja Sancharan Nigam Ltd
JUUNL	Jharkhand Urja Utpadan Nigam Ltd
JUVNL	Jharkhand Urja Vikas Nigam Ltd
JWDS	Jharkhand Women Development Society
KCC	Kisan Credit Card
KGBV	Kasturba Gandhi Balika Vidyalaya
KVA	Kilovolt amps
KVIB	Khadi and Village Industries Board
KVIC	Khadi and Village Industries Commission
LFPR	Labour Force participation Rate
LSAS	Life Saving Anesthetic Skill Re orientation
LWE	Left Wing Extremism
MCA	Ministry of Corporate Affairs
MCD	Minority Concentration Districts

Acronyms and Abbreviations

MCS	Model cluster Schools
MCW	Maternity and Child Welfare Centres
MDG	Millennium Development Goals
MDM	Mid Day Meal
MDR	Major District Roads
MEC	Microenterprise consultant
MECON	Metallurgical & Engineering Consultants Limited
MESO	Micro Economic Social Organisation
MFI	Micro Finance Institution
MFP	Minor Forest Produces
MGNREGA	Mahatma Gandhi National Rural Employment Guarantee Scheme
MHRD	Ministry of Human Resource Development
MHUPA	Ministry of Urban Housing and Poverty Alleviation
MIS	Management information systems
MKSP	Mahila Kisan Sashaktikaran Pariyojana
MLLY	Mukhyamantri Ladli Laxmi Yojna
MMJSSA	Mukhya Mantri Janani Shishu Swasthya Abhiyan
MMP	Mission Mode Projects
MMR	Maternal Mortality Rate
MMS	Mandal Mahila Samakhya
MMU	Mobile Medical Unit
MoPR	Ministry of Panchayati Raj
MoRD	Ministry of Rural Development
MOU	Memorandum of Understanding
MPED	Masters in Physical Education
MSDP	Multi Sector Development Programme
MSE	Micro and Small Enterprise
MSME	Micro Small and Medium Enterprises
MTC	Malnutrition Treatment Centres
MTP	Medical Termination of Pregnancy
MVI	Motor Vehicles Inspector
MYRADA	Mysore Resettlement and Development Agency
NABARD	National Bank for Agriculture and Rural Development
NADMS	National Agriculture Drought Monitoring System
NAEB	National Afforestation and Eco-Development Board
NAP	National Afforestation Program
NAPCC	National Action Plan for Climate Change
NBFC	Non-Banking Financial Companies
NCERT	National Council of Educational Research and Training
NCVT	National Council on Vocational Training

<i>Acronyms and Abbreviations</i>	
NDRF	National Disaster Response Force
NDVI	Normalized Difference Vegetation Index
NeGP	National e-Governance Plan
NER	Net Enrolment Ratio
NESCL	NTPC Electric Supply Company
NFBS	National Family Benefit Scheme
NFSA	National Food Security Act
NFSM	National Food Security Mission
NGO	Non-Government Organisations
NIRD	National Institute of Rural Development
NITI	National Institution for Transforming India
NMR	Neonatal Mortality Rate
NPA	Non Performing Assets
NPA	National Park Authority
NPEGEL	National Program for Education of Girls at Elementary Level
NPRE	Non Plan Revenue Expenditure
NPS	Non Priority Sector
NRDWP	National Rural Drinking Water Programme
NREP	National Rural Employment Programme
NRHM	National Rural Health Mission
NRLM	National Rural Livelihood Mission
NRLP	National Rural Livelihoods Project
NSDP	Net State Domestic Product
NSS	National Social Scheme
NSSF	National Small Saving Fund
NSSK	Navjat Shishu Suraksha Karyakaram
NSU	National Sports University
NSV	No-Scalpel Vasectomy
NTFP	Non Timber Forest Produce
NTPC	National Thermal Power Corporation
NWDPPRA	National Watershed Development Programme for Rain fed Areas
OBC	Other Backward Classes
OFC	Optical Fibre Cable
OFWM	On Farm Water Management
OSP	Office of Strategy & Planning
P&L	Profit and Loss
PACS	Primary Agricultural Credit Societies
PAT	Profit After Tax
PCARDB	Primary Cooperative Agriculture and Rural Development Banks
PCC	Plain Cement Concrete

Acronyms and Abbreviations

PCI	Per Capita Income
PCLDB	Primary Cooperative Land Development Banks
PEAIS	Panchayat Empowerment and Accountability Incentive Scheme
PESA	Panchayat Extension to Scheduled Areas
PHC	Primary health centres
PIM	Participatory Irrigation Management
PIU	Project Implementation Unit
PLF	Plant Load Factor
PMEGP	Prime Minister Employment Generation Programme
PMEYSA	Panchayat Mahila Evam Yuva Shakti Abhiyan
PMFBY	Pradhan Mantri Fasal Bima Yojana
PMGAY	Pradhan Mantri Gramin Awas Yojana
PMGSY	Pradhan Mantri Gram Sadak Yojna
PMJDY	Pradhan Mantri Jan-Dhan Yojana
PMMY	Pradhan Mantri Mudra Yojana
PMRY	Prime Minister Rozgar Yogna
PMSBY	Pradhan Mantri Suraksha Beema Yojana
PMU	Project Management Unit
POERI	Power over Economic Resources
POS	Point of Sale
PPIUCD	Post Partum Intra Uterine Contraceptive Device
PPP	Public Private Partnership
PRADAN	Professional Assistance for Development Action
PRC	Performance Review Committee
PRI	Panchayati Raj Institution
PSA	Priority Sector Advances
PSB	Phosphate Solubilizing Bacteria
PSE	Pre School Education
PSUs	Public Sector Unit
PTG	Primitive Tribal Groups
PTI	Panchayat Training Institution
PTTC	Primary Teachers Training Colleges
PVTG	Particularly Vulnerable Tribal Groups
PVUNL	Patraru Vidyut Utpadan Nigam Limited
PWCS	Primary Weavers Cooperative Societies
PWD	Public Works Department
PWSS	Piped Water Supply Scheme
PYKKA	Panchayat Yuva Krida Aur Khel Abhiyan
QCD	Quality Control Directorate
RAD	Rainfed Area Development

<i>Acronyms and Abbreviations</i>	
RAPDRP	Restructured Accelerated Power Development & Reforms Programme
RAY	Rajiv Awas Yojana
RBI	Reserve Bank Of India
RCD	Road Construction Department
RDD	Rural Development Department
RDDE	Research, development, diffusion, and evaluation
RDF	Random Decision Forest
REC	Renewable Energy Corporation
REGP	Rural Employment Generation Programme
RFS	Rural Franchisee Schemes
RGVY	Rajiv Gandhi GraminVidyutikaranYojna
RGPSA	Rajiv Gandhi Panchayat Shasaktikaran Abhiyan
RGSEAG	Rajiv Gandhi Scheme for Empowerment of Adolescent Girls
RGSY	Rashtriya Gram Swaraj Yojana
RIADA	Ranchi Industrial Area
RIDF	Rural Infrastructure Development Fund
RIMC	Rashtriya Indian Military College
RKVY	Rashtriya Krishi Vikas Yojna
RMSA	Rashtriya Madhyamik Shiksha Abhiyan
RoGP	Rate of growth of Population
RoPCI	Rate of growth of PCI
RPWSS	Relaince Power Wash Sales Services
RRB	Regional Rural Banks
RRP	Road Requirement Plan
RSETI	Rural Self Employment Training Institute
RTE	Right to Free and Compulsory Education
RUSA	Rashtriya Uchcharat Shiksha Abhiyaan
SAF	South Asian Federation
SAIL	Steel Authority of India Limited
SAJHA	Sports Authority of Jharkhand
SAM	Severe and Acute Malnourished Children
SAP	Special Area Programmes
SAPCC	State Action Plan on Climate Change
SBA	Skilled Birth Attendant
SBLP	SHG bank-linkage program
SBM	Swachh Bharat Mission
SCA	Special Central Assistance
SCA	Satutory Central Auditors
SCARDB	State Cooperative Agriculture and Rural Development Bank
SCB	State Cooperative Banks

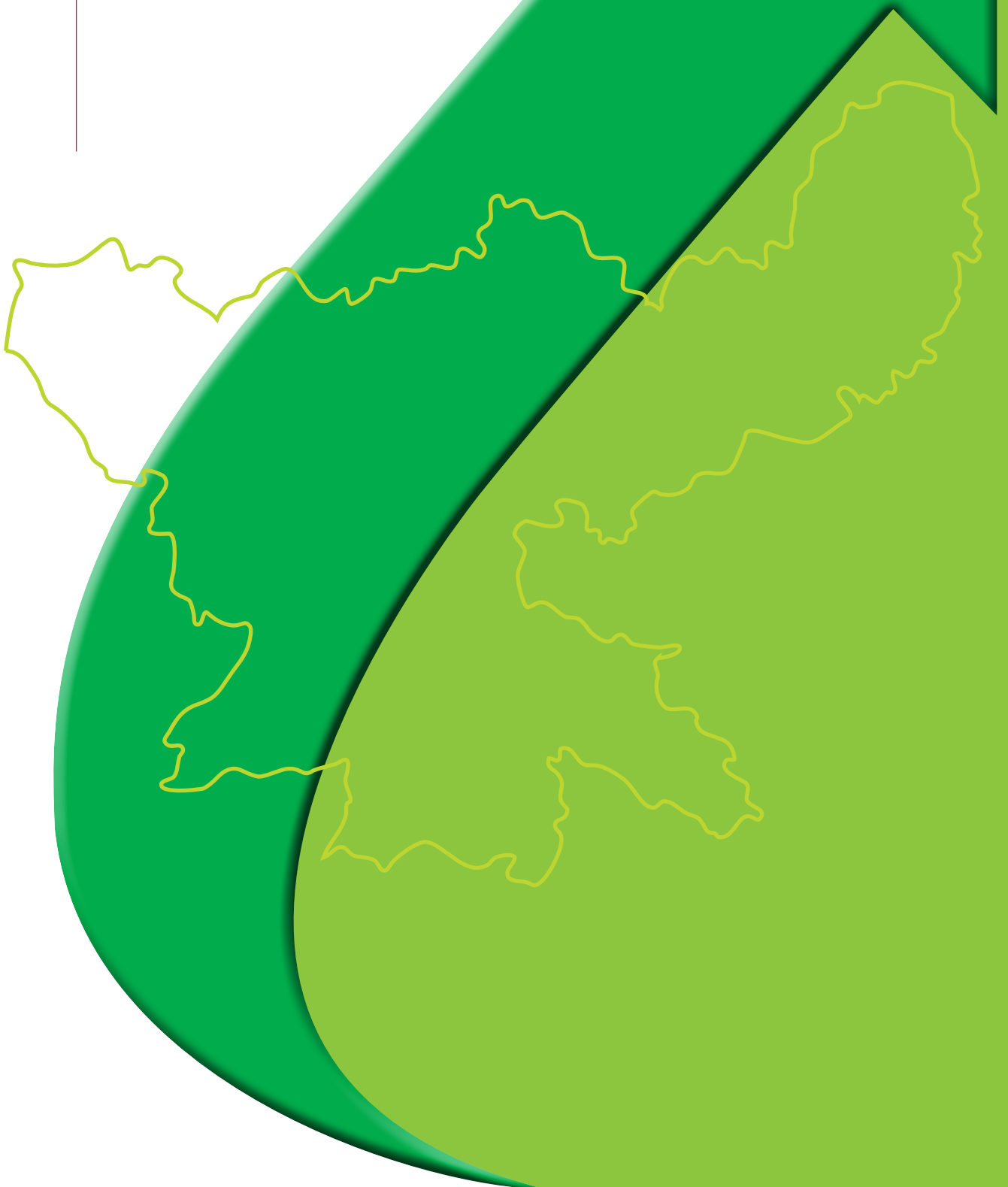
Acronyms and Abbreviations

SCI	Systematic Crop Intensification
SCLDB	State Cooperative Land Development Bank
SCSP	Scheduled Caste Sub Plan
SCSP	Special Component Sub Plan
SDC	SAARC Documentation Centre
SDEO	Sub Divisional Education Officer
SDIS	Skill Development Initiative Scheme
SDMA	State Disaster Management Authority
SDP	School Development Plan
SDRF	State Disaster Response Fund
SECC	Socio Economic Caste Census
SFD	State Forest Department
SGSY	Swaranjayanti Gram Swarajgar Yojna
SHAJ	State Highway Authority of Jharkhand
SHG	Self Help Group
SHM	Soil Health Management
SHPI	Self-help Promoting Institution
SJSRY	Swarna Jayanti Shahari Rozgar Yojana
SKIPA	Sri Krishna Institute of Public Administration
SLBC	State Level Bankers Committee
SMART	Simple Methodical Accountable Responsive Transparent
SMC	Soil & Moisture Conservation
SMMU	State Mission Management Unit
SNP	Supplementary Nutrition Programme
SOR	State's Own Revenue
SPIADA	Santhal Paragna Industrial Area Development
SRCW	State Resource Centre for Women
SRI	Systematic Rice Intensification
SRLM	State Rural Livelihood Mission
SRS	Sample Registration System
SRS	Supported Residential Services
SSA	Sarva Siksha Abhiyan
SSDG	State Service Delivery Gateway
STEP	Support to Training and employment Programme for Women
STEP-UP	Skill Training for Employment Promotion amongst Urban Poor
SWAN	State Wide Area Network
SWI	Systematic Wheat Intensification
T&D	Transmission and Distribution
TCDC	Tribal Co-operative Development Corporation
TE	Total Expenditure

<i>Acronyms and Abbreviations</i>	
TFR	Total Fertility Rate
THR	Take Home Ration
TIC	Tourist Information Centres
TOF	Trees Outside Forests
TSP	Tribal Sub Plan
UCDN	Urban Community Development Network
UDAY	Ujjwal Discom Assurance Yojna
UEE	Universal Elementary Education
UGC	University Grants Commission
UNDP	United Nations Development Programme
UNFCCC	United Nations Framework Convention on Climate Change
UNICEF	United Nations International Children's Emergency Fund
UPSS	Usual Principal and Subsidiary Status
USEP	Urban Self-Employment Programme
UWSP	Urban Women Self-Help Programme
VDF	Vehicle Damage Factor
VEDC	Village Environment Development Committee
VFMP	Village Forest Management & Protection Committee
VHSNC	Village Health Sanitation & Nutrition Committee
VLE	Village Level Entrepreneurs
VTIP	Vocational Training Improvement Project
VWSC	Village Water and Sanitation Committee
WAMS	Works and Accounts Management Information System
WASH	Water Sanitation and Hygiene
WHO	World Health Organisation
WLL	Wireless in Local Loop
WPR	Worker Population Ratio
WSA	Water Spread Area
WUA	Formation and involvement of Water User Association
YOY	Year on Year

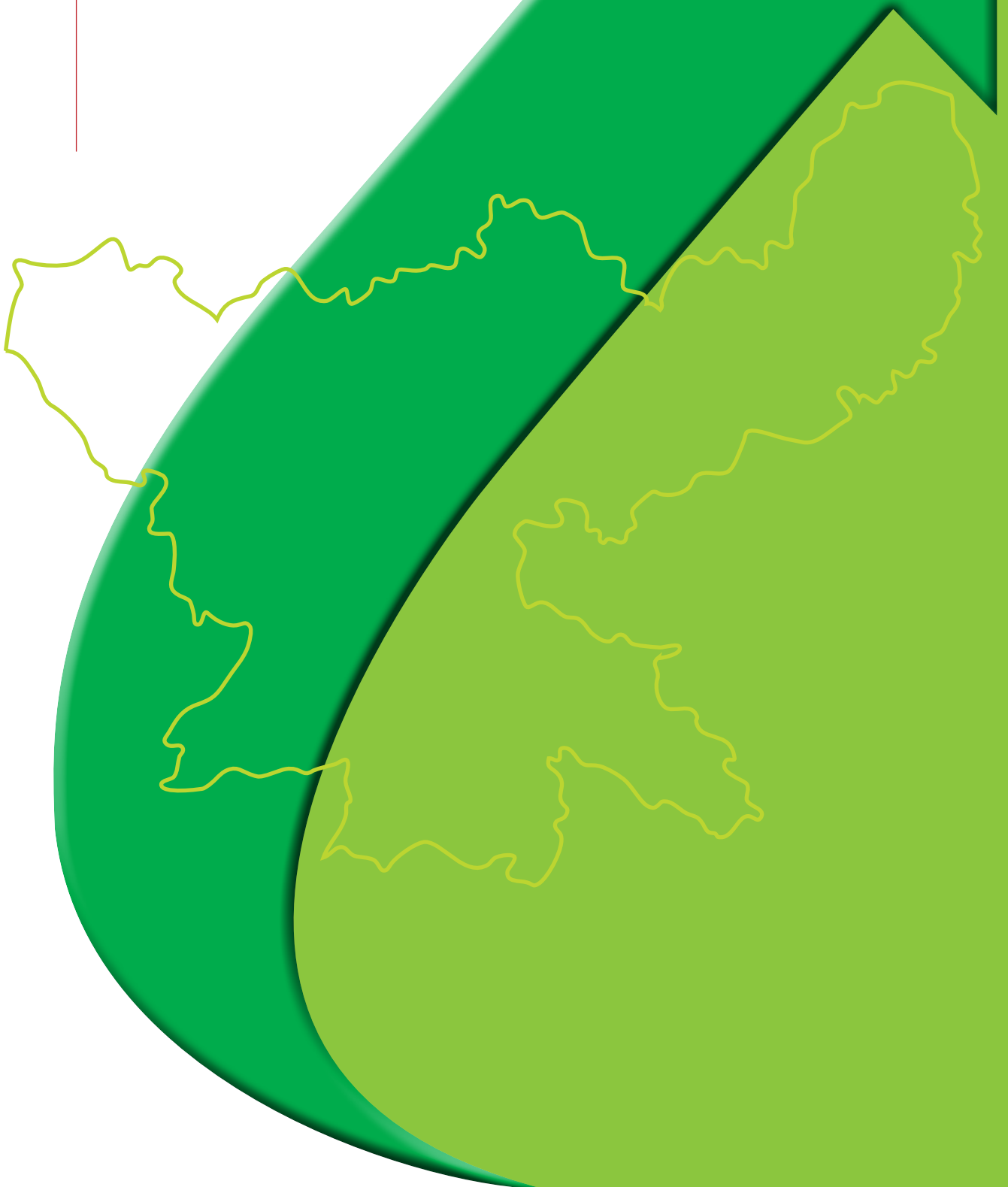
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MACRO ECONOMIC OVERVIEW



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MACRO ECONOMIC OVERVIEW



Though income and per capita income of Jharkhand is low in comparison to rest of the country, its growth rate is higher than most of them. The per capita income of the State is not only much less than the all India average but is lesser than most of the states of the country; it is better than only five states of the country, namely Bihar, Uttar Pradesh, Madhya Pradesh, Manipur and Assam. However, its growth rate is not only higher than the all India average, but has been higher than most of the states and Union Territories of the country. The growth rate of only three of the states of the country, namely, Gujarat, Mizoram and Tripura, has been better than that of Jharkhand.

The growth in Jharkhand is all pervasive. All the sectors and most of the sub-sectors of the economy have recorded impressive growth in the last five years.

State Income and Related Aggregates

In consonance with the centre, Jharkhand too, has changed the base year, from 2004-05 to 2011-12, for estimation of state income and related aggregates. This new series of data of income and related aggregates, gives a new set of figures and different growth rate than their estimates based on 2004-05 base year. This is because the new series include new and emerging sectors and is based on changed weights of the existing sectors and revised method of estimation of state income aggregates (Box: 1).

The Gross State Value Added (GSVA)¹, both at current and constant (2011-12) prices, was Rs. 139130 crore in the year 2011-12. The GSVA at constant prices grew at an average annual rate of more than 8 percent between 2011-12 to 2015-16; at 8.37 percent on year to year (y-to-y) basis and 8.26 percent at compound rate (CAGR²). GSDP, NSDP and per capita income at

constant prices, in this period, on y to y basis, grew at an average annual rate of 8.6, 8.9 and 7.1 percent, respectively.

The average annual growth rate would have been in double digits had the performance not been abysmally poor in the year 2013-14. This year the GSVA at constant prices grew by only 0.9 from the previous year; GSDP grew by 1.6 percent and NSDP by 0.7 percent.

Box: 1 Rebasing and Bubble in GSDP

Revision of base year for estimation of national (and also state) income data is a routine affair. A change in the structure of the economy makes it imperative. The Central Statistical Organization (CSO) of the country has revised the base year from 2004-05 to 2011-12, known as 'the new series of national accounts statistics', to accommodate the recent changes in the production and demand pattern in the economy.

This new series has included many new products, revised the weights of the existing products, revised the sources of data and improved the methodology in estimation of national and state income statistics. These changes have caused better estimation of income statistics of the country and the states.

The CSO, in the new series, has adopted, internationally approved and acclaimed, income based approach for estimation of national accounts. Under this approach, GDP is expressed as aggregate gross value added (GVA) plus product taxes (such as excise, sales, service tax) minus product subsidies (such as petroleum, fertilizer subsidies).

1 GVA = GDP - taxes on products + subsidies on products.

2 Compound annual growth rate (CAGR) is a term for the geometric progression ratio that provides a constant rate of growth over a time period. It dampens the effect of volatility of growth that can render

arithmetic means irrelevant. It is calculated through the formula, $CAGR(t_0, t_n) = (V(t_n)/V(t_0))^{1/(t_n-t_0)} - 1$, where $V(t_0)$ is start value, $V(t_n)$ is finish value, $t_n - t_0$ is number of years.

The Gross Value Added (GVA) is given as the sum of a) compensation of employees; b) consumption of fixed capital which is often captured from 'depreciation' in corporate profit and loss (P&L) account; c) operating surplus is approximated by Profit After Tax (PAT) adjusted for property income and current transfers to trade channels and d) Production Taxes less Subsidies. (Production taxes/subsidies need to be differentiated from product taxes/subsidies since the former is related to the overall production process itself and includes items such as Land revenues, stamp/registration fees while the latter is specific to actual units produced)

Another important methodological change has been in agriculture sector, where the crop production and livestock have been segregated in the new series.

In the GDP calculation of old series (2004-05 base year), the key source of information about private corporate sector was RBI Study on Company Finances, which considered financial results of around 2500 companies (around 1500 non-financial companies). The new series justifiably has attempted to increase the coverage of the corporate sector and has used the MCA21 database maintained by the Ministry of Corporate Affairs. Approximately 14 lakh companies are registered with MCA, of which 9.8 lakh companies are active. Post filtering for data availability, 5 lakh companies have been analysed and used for GDP estimation for 2011-12 and 2012-13 and about 3 lakhs since 2013-14.

These changes brought about a revision of growth rate and the share of different sectors and sub-sectors in the GDP of the country and GSDP of the states. The new series (base year 2011-12) estimated the 2013-14 GDP growth at 6.9 percent compared to 4.7 percent as per the old series.

The change in the base year has revised the growth rates of GSDP and in its sectors and sub-sectors in Jharkhand also. The new series (base year 2011-12) estimated the growth rate of 2014-15 at 12.5 percent compared to 8.5

percent in the old series; an upward revision of about 4 percentage points. For 2015-16 also the growth figure has been upward revised by about 3 percentage points in the new series.

Table 1.1: GSDP and GSDP growth rate at 2004-05 and 2011-12 Base Year

Year	GSDP in Rs. Crore				GSDP growth rate in %	
	2004-05		2011-12		2004-05	2011-12
	Constant prices	Current prices	Constant prices	Current prices	Constant prices	Constant prices
2012-13	100500	151655	150918	150918	7.43	8.2
2013-14	109408	172773	163250	174724	8.91	1.6
2014-15 (P)	118743	197514	165816	188567	8.53	12.5
2015-16 (A)	129225	226405	186491	217107	8.83	12.1

Source: Directorate of Economics and Statistics (DES)

This upward revision in the growth rate in last two years has mainly been because of methodological improvement in estimation of the value of output of the sectors and

sub-sectors of the economy. Manufacturing sector, for example, in the old series had been estimated to grow at - 0.3 and - 0.11 percent in these two years, while the new series

estimated their growth rate at 10.7 and 12.4 percent, respectively, in 2014-15 and 2015-16. The new series revised the growth rates

of the other sectors and sub-sectors also; has upward revised the growth rate of some of the sectors and downward of some other sectors.

Table 1.2: Growth Rate of Jharkhand at constant prices in the Old (2004-05 base year) and New Series (2011-12 base year) of GSDP estimation (in %)

Sectors/sub- sectors	2012-13		2013-14		2014-15		2015-16	
	2004-05	2011-12	2004-05	2011-12	2004-05	2011-12	2004-05	2011-12
Agriculture/crop	7.3	11.6	9.2	-4.5	9.2	6.7	9.2	16.1
Fishing	5.4	5.4	8.5	8.5	16.2	1.5	16.2	9.0
Forest & Logging	0.9	1.2	3.6	0.9	3.6	0.4	3.6	7.5
Construction	3.9	-6.6	9.3	10.4	9.3	2.7	9.3	11.0
Electricity, Gas & Water	18.6	18.7	2.3	1.6	2.3	0.6	2.3	12.4
Manufacturing	6.7	19.8	3.2	-7.2	-0.3	10.7	-0.11	12.5
Railway	0.2	15.9	5.7	8.5	5.7	7.7	5.7	16.6
Hotel & Restaurant	10.6	19.5	8.3	0.6	8.3	26.6	8.3	24.6
Communication	12.2	8.8	24.0	16.8	24.0	11.8	23.9	18.2
Public Administration	9.1	-12.5	15.4	-6.8	15.4	11.3	15.4	3.5

Source: Directorate of Economics and Statistics (DES)

Because of the revision of the base year the contribution of different sectors and sub-sectors to the total GSDP of the State has also changed. The share of industry, especially the

manufacturing sector has increased while the shares of agriculture and allied sector and tertiary/service sector have decreased in the estimation of new series.

Table 1.3: Change in Sectoral share because of change in base year

Sectors/sub- sectors	2012-13		2013-14		2014-15		2015-16	
	2004-05	2011-12	2004-05	2011-12	2004-05	2011-12	2004-05	2011-12
Agriculture & allied sector	16.74	14.5	16.65	14.0	16.64	13.1	16.61	13.1
Industry	38.52	42.7	37.50	41.3	36.11	40.3	34.78	39.9
Manufacturing	17.73	22.1	16.80	20.2	15.43	19.9	14.17	20.0
Mining & quarrying	12.37	10.6	12.31	10.4	12.30	10.6	12.25	10.2
Tertiary/ Services	44.74	34.9	45.86	36.2	47.24	37.0	48.62	38.4

Source: Directorate of Economics and Statistics (DES)

The per capita income, this year, contracted by 0.9 percent in comparison to the previous year; it declined by about Rs. 400 in absolute terms from Rs. 44176 in the year 2012-13 to Rs. 43779 in 2013-14. The poor performance in the year 2013-14 was mainly because of the contraction in the value of the output of crop,

manufacturing and public administration by 4.5, 7.2 and 6.8 percent, respectively. About one third of the GSDP is contributed by these three sectors; about 9 percent of the GSDP is contributed by crop sector, about 20 percent by manufacturing sector and about 5 percent by public administration. Hence, the contraction

in their output caused an excessive decline in the growth rate of the economy of Jharkhand.

The GSVA and NSDP, at constant prices, grew by a mere less than 1 percent and GSDP by less than 2 percent in the year 2013-14, whereas in the same year, at the current prices, they grew by more than 7 percent. This was mainly because of high rate of inflation in that year (Box 2).

The growth rate picked up from the very next year. The GSVA, at constant prices, grew by 11.1 percent in the year 2014-15 and 13.4 percent

in the year 2015-16. The GSDP at constant prices grew by about 12.5 percent and 12.1 percent, NSDP by 12.17 and 13.3 percent and per capita income by 10.9 and 11.5 percent in these two years.

The growth rates of GSVA, GSDP and NSDP, at current prices, in the year 2015-16 are less than those at the constant prices. It is because of the moderation in the inflation rate in the year 2015-16.

Box: 2 Inflation Rate

The divergence between the GSDP at constant and current prices is because of the inflation rate. The inflation rate initially in the period from 2011-12 to 2015-16 was very high. Except for the months of December 2011 and January and February, 2012, in all other months of financial year 2011-12, the rate of inflation was above 8 percent. The average rate of inflation in the year 2011-12 was 8.4 percent, which increased to 10.43 percent the next year. The rate of inflation for 21 months following March 2012, the terminal year of financial year 2011-12, remained very high. The rate of inflation in this period was mostly in double digit. It caused wide divergence in the GSDP and GSDP growth rate at constant and current prices. The rate of inflation started moderating since February, 2014 and has remained under control since then. The average rate of inflation in the year 2014-15 was 6.67 percent, which further decreased to 5.85 in the next year. The average rate of inflation in the first seven months of the current financial year is 5.4 percent.

Table 1.4: Inflation Rate

	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
April	9.41	10.21	10.24	7.08	5.79	5.86
May	8.72	10.16	10.68	7.02	5.74	6.59
June	8.62	10.05	11.06	6.49	6.1	6.13
July	8.43	9.84	10.85	7.23	4.37	6.46
August	8.99	10.31	10.75	6.75	4.35	5.3
September	10.06	9.14	10.7	6.3	5.14	4.14
October	9.39	9.6	11.06	4.98	6.32	3.35
November	9.34	9.55	11.47	4.12	6.72	
December	6.49	11.17	9.13	5.86	6.32	
January	5.32	11.68	7.24	7.17	5.91	
February	7.57	12.06	6.73	6.3	5.53	
March	8.65	11.44	6.7	6.28	5.51	
Annual rate	8.41	10.43	9.71	6.67	5.85	5.40

Source: Directorate of Economics and Statistics (DES)

The high rate of inflation caused wide divergence in GSDP at current and constant prices in the year 2012-13, 2013-14 and 2014-15, but a very small difference in 2015-16. The GDP deflator, which increased by about 7 percentage points in 2013-14 and 2014-15,

increased only by 3 percentage points in 2015-16. The difference in growth rate of GSDP at constant and current prices, which was very high in 2012-13 and 2013-14, became insignificant in 2015-16.

Table 1.5: GSDP and GSDP growth rate at 2011-12 Base Year

Year	GSDP in Rs. Crore		GDP Deflator	GSDP growth rate in %		Difference between GSDP at current and constant prices
	Constant prices	Current prices		Constant prices	Current prices	
2012-13	139130	139130	100.0	8.2	15.77	7.57
2013-14	150306	160827	107.0	1.6	7.92	6.32
2014-15 (P)	151724	172532	113.7	12.5	15.14	2.64
2015-16 (A)	168503	196232	116.5	12.1	11.44	-0.66

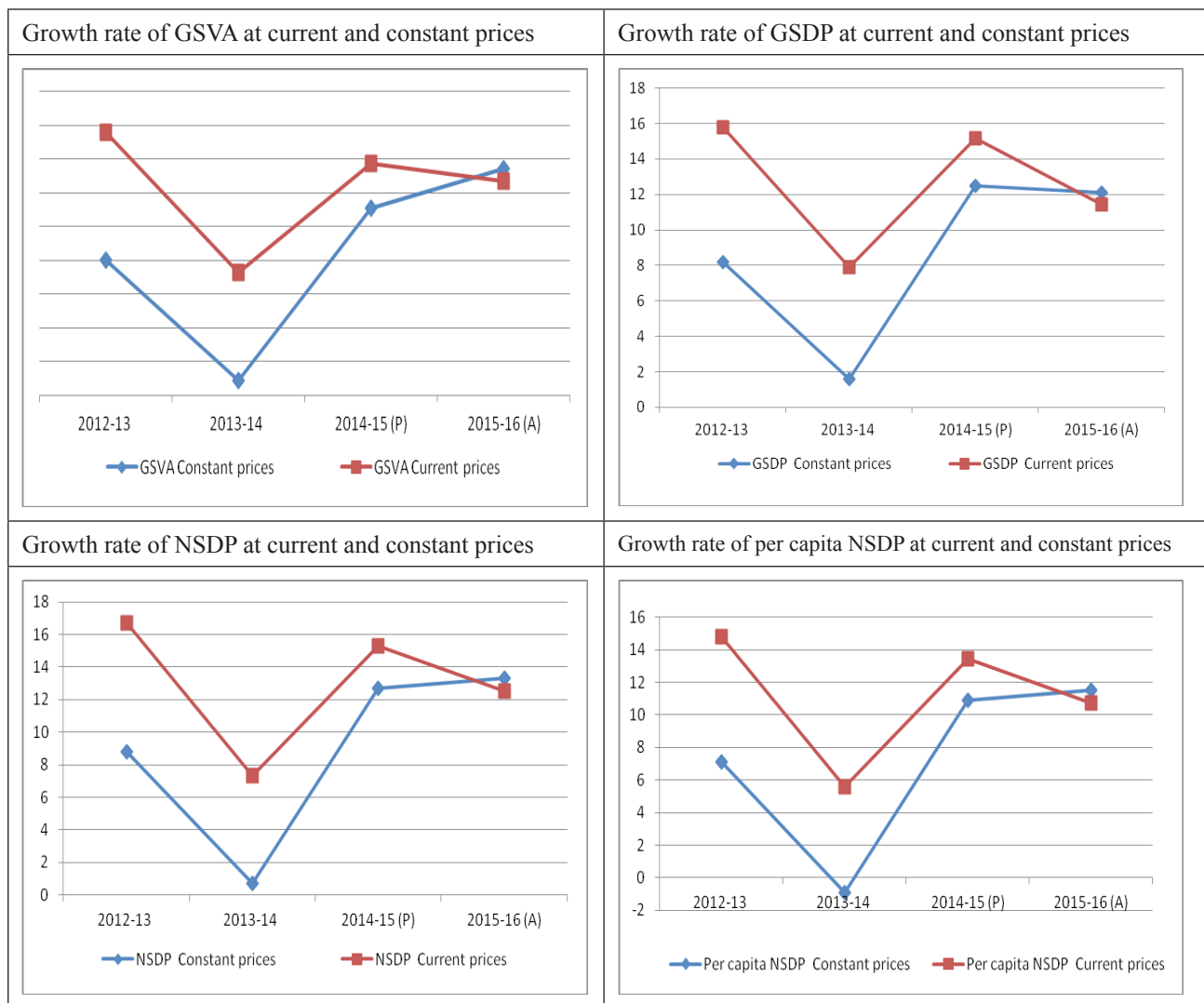
Source: Directorate of Economics and Statistics (DES)

Table 1.6: Growth in GSA, GSDP and NSDP at factor cost, at Constant (11-12) and Current Prices

Year	GSA		GSDP		NSDP		Per capita NSDP	
	Constant prices	Current prices	Constant prices	Current prices	Constant prices	Current prices	Constant prices	Current prices
2012-13	8.0	15.59	8.2	15.77	8.8	16.68	7.1	14.80
2013-14	0.9	7.28	1.6	7.92	0.7	7.32	-0.9	5.59
2014-15 (P)	11.1	13.74	12.5	15.14	12.7	15.32	10.9	13.46
2015-16 (A)	13.4	12.66	12.1	11.44	13.3	12.52	11.5	10.71
Average of year to year growth between 2011-12 & 2015-16	8.37	12.3	8.59	12.57	8.9	12.96	7.1	11.14
CAGR between 2011-12 & 2015-16	8.26	12.27	8.50	12.52	8.8	12.90	7.0	11.08

Source: Directorate of Economics and Statistics (DES), GoJ. (P-Provisional, A- Advanced estimates)

Figure 1.1: Growth rate of GSVA, GSDP, NSDP and per capita NSDP at current and constant prices



The Gross State Domestic Product (GSDP) of Jharkhand, which was Rs. 150918 in the year 2011-12, increased to Rs. 209137 at constant prices and Rs. 241955 at current prices in the year 2015-16.

The Gross State Value Added (GSVA), which constitutes more than 90 percent of the GSDP of the State, was Rs. 139130 crore in the year 2011-12. It increased to Rs. 191149 crore at

constant prices and 221079 at current prices in the year 2015-16.

The NSDP of the State, in the same period, increased from Rs. 137383 crore to Rs. 192404 crore at constant prices and Rs. 223234 at current prices and the per capita income (per capita NSDP) from Rs. 41254 to Rs. 54140 at current prices and Rs. 62816 at current prices between 2011-12 to 2015-16.

Table 1.7: Gross and Net State Domestic Product at Factor Cost at current and constant prices

Year	GVA in Rs. Crore		GSDP in Rs. Crore		NSDP in Rs. Crore		Per capita NSDP in Rs.	
	Constant prices	Current prices	Constant prices	Current prices	Constant prices	Current prices	Constant prices	Current prices
2011-12	139130	139130	150918	150918	137383	137383	41254	41254
2012-13	150306	160827	163250	174724	149526	160304	44176	47360
2013-14	151724	172532	165816	188567	150609	172030	43779	50006
2014-15 (P)	168503	196232	186491	217107	169758	198386	48550	56737
2015-16 (A)	191149	221079	209137	241955	192404	223234	54140	62816

Source: Directorate of Statistics, GoJ. (P-Provisional, A- Advanced Estimate)

The Economic Performance of Jharkhand and India

The performance of Jharkhand, in the last five years, has been better than the performance of the country as a whole. While the GDP of India grew at an average annual rate of 6.8 percent (CAGR), the GSDP of Jharkhand grew at the average rate of 8.8 percent per annum between 2011-12 and 2015-16. Except for the year 2013-14, when the growth rate of Jharkhand was abysmally low, in all other years, the performance of the economy of Jharkhand has been better than the all India average. The growth rate of Jharkhand, in the last two years, has been a little more than 12 percent, while that of the country has been a little above 7 percent only. As a result, while the GSDP of Jharkhand was 1.69 percent of the GDP of the country in the year 2013-14, it became 1.84 percent of the GDP of the country

in the year 2015-16.

Similarly, the growth in per-capita income, both at current and constant prices, has also been higher in Jharkhand than in India. The per capita income in Jharkhand has increased by 11.1 percent at current prices and by 7 percent at constant prices, while in India they have increased by 10.1 at current prices and 5.1 percent at constant prices between 2011-12 and 2015-16. But, despite the higher rate of growth, the per capita income of Jharkhand is less than that of all India average. The gap between the per capita income of Jharkhand and India, however, has narrowed down. In the year 2011-12 it was about 35 percent less than the all India average and in the year 2015-16 it was only less than 30 percent of it³.

³ The per capita income is calculated by dividing the NDP/NSDP at factor cost by the projected population of the year. The calculation of per capita income of India and Jharkhand, in this period is based on the assumption that the population of the country is increasing by 1.7 percent and that of Jharkhand by 1.64 percent.

Table 1.8: GDP of India and GSDP of Jharkhand at Constant (11-12) prices in Rs. Crore

Years	India		Jharkhand		
	GDP	Percentage Growth over previous year	GSDP	Percentage Growth over previous year	Percentage of GSDP of Jharkhand to National GDP
2011-2012	8737575		150918		1.73
2012-2013	9226879	5.6	163250	8.2	1.77
2013-2014	9839434	6.6	165816	1.6	1.69
2014-2015	10552151	7.2	186491	12.5	1.77
2015-2016	11350962	7.6	209137	12.1	1.84
CAGR 2011-12 to 2015-16		6.8		8.5	

Source: For India, Economic Survey 2015-16 and for Jharkhand, DES, Gov. of Jharkhand

Table 1.9: Per Capita Income (PCI) of India and Jharkhand at Current and Constant prices

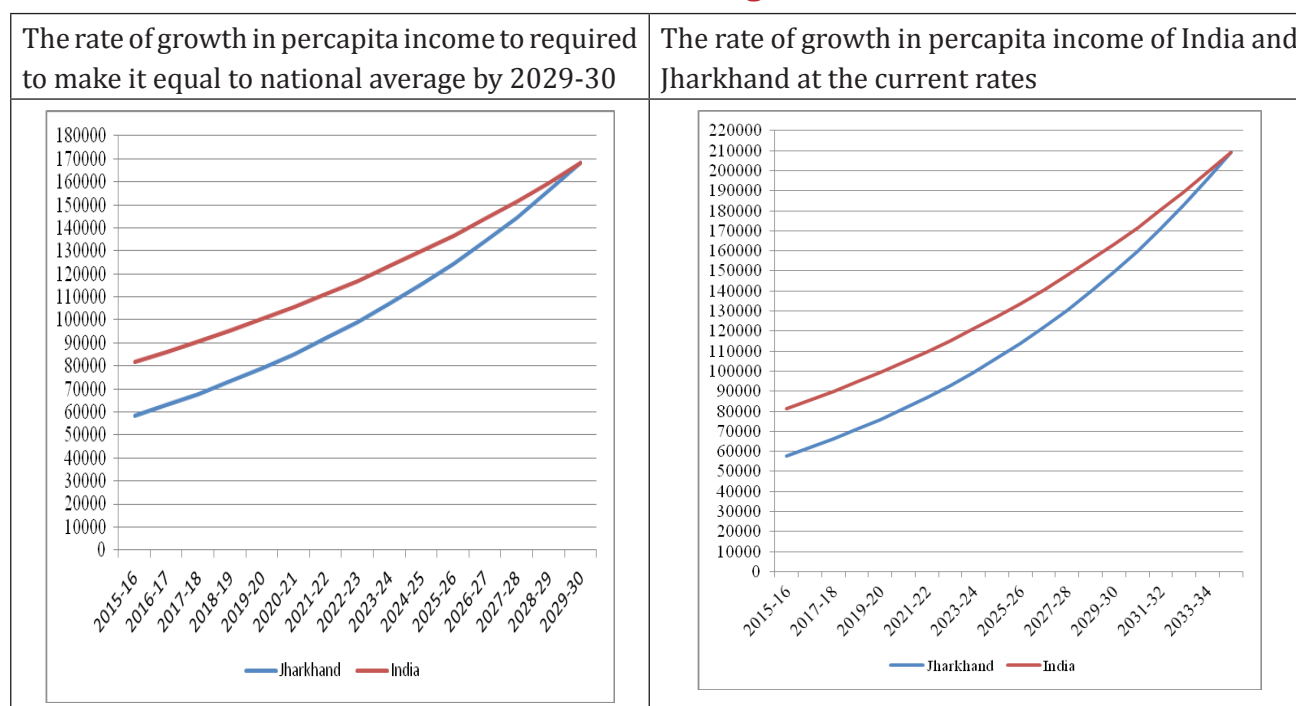
	India				Jharkhand					
	PCI at current prices	Percentage Growth over previous year	PCI at constant prices	Percentage Growth over previous year	PCI current prices	Percentage Growth over previous year	Percentage of PCI of Jharkhand to PCI of India at current prices	PCI at constant prices	Percentage Growth over previous year	Percentage of PCI of Jharkhand to PCI of India at constant prices
2011-12	63473		63473		41254		64.99	41254		64.99
2012-13	71050	11.9	65695	3.5	47360	14.8	66.66	44176	7.1	67.24
2013-14	79412	11.8	68914	4.9	50006	5.6	62.97	43779	-0.9	63.53
2014-15	86879	9.4	72911	5.8	56737	13.5	65.31	48550	10.9	66.59
2015-16	93231	7.3	77432	6.2	62816	10.7	67.38	54140	11.5	69.92
CAGR 2011-12 to 2015-16		10.1		5.1		11.1			7.0	

Source: For India Economic Survey 2015-16 and for Jharkhand DES, Govt. of Jharkhand

If the per capita income of the country and Jharkhand grows at the current rate of 5.1 and 7 percent per annum, respectively, then it will take another 18 years for the per capita income of the State to become equal to the national average. It will become equal to the national average by the year 2034-35. But, if the State

has to match with the per capita income of India by 2030 (assuming that the per capita income of India continues growing by the current 5.1 percent), the per capita income of Jharkhand must grow by 7.85 percent per annum.

Figure 1.2: The projected time for Per capita income of Jharkhand to become equal to the National average.

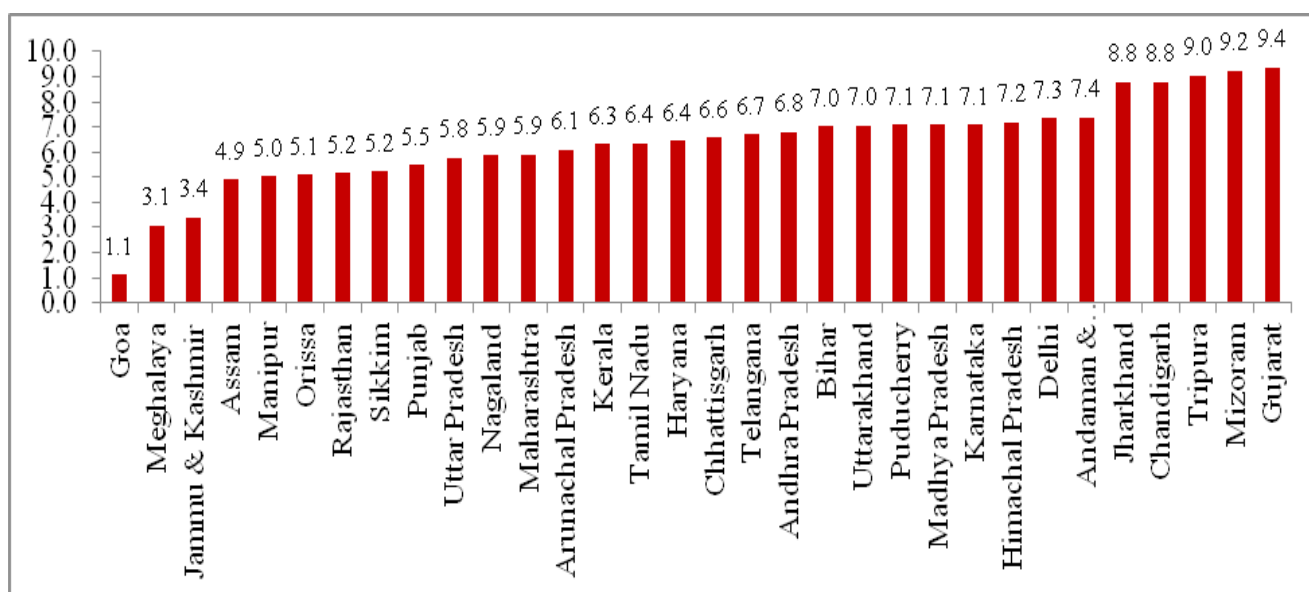


An Inter-State Comparison: The Relative Performance of Jharkhand's Economy

The performance of Jharkhand has not only been better than the all India average, but has been better than most of the states and Union Territories of the country. The growth rate (CAGR between 2011-12 and 2014-15) of only three of the states of the country, namely, Gujarat, Mizoram and Tripura, has been better than that of Jharkhand. While the NSDP at

constant prices of Jharkhand and Chandigarh grew at a compound annual rate (CAGR) of 8.8 percent and that of Gujarat, Mizoram and Tripura grew by more than 9 percent between 2011-12 and 2015-16, it grew by less than seven and half percent in all other states and union territories of the country.

Figure 1.3: The growth rate (CAGR) in NSDP at constant (2011-12) prices

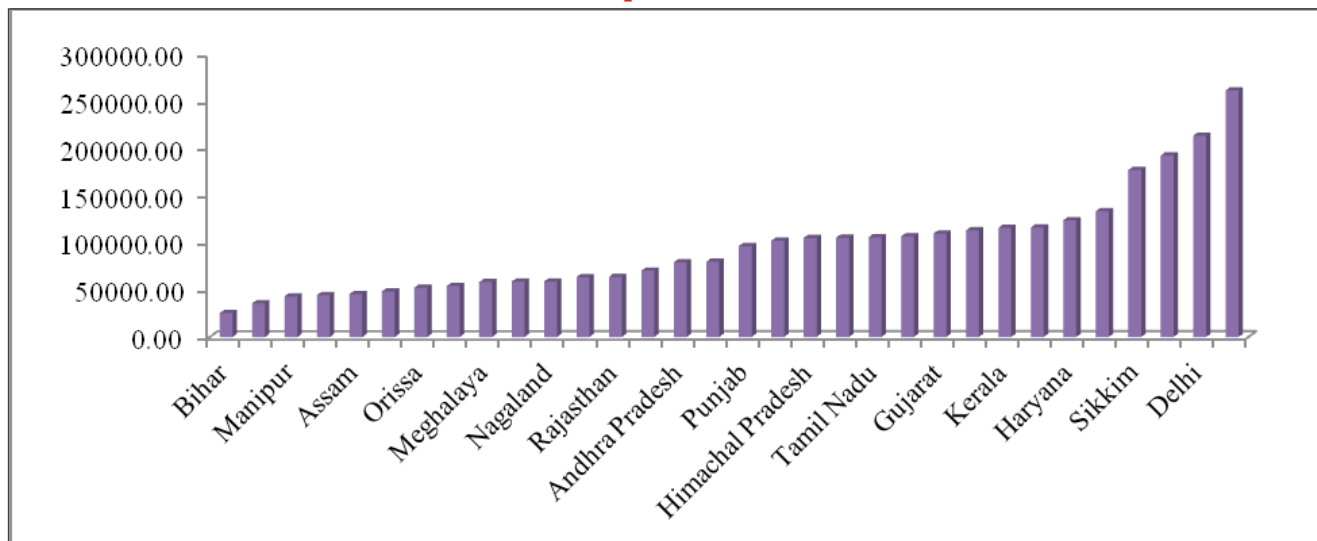


But despite an impressive growth rate, the per-capita income of the State is better than only five of the states of the country, namely Bihar, Uttar Pradesh, Madhya Pradesh, Manipur and Assam. The per capita income of Bihar is almost half of that of Jharkhand and of Uttar Pradesh is three fourth of that of Jharkhand. The per capita income of Madhya Pradesh, Manipur and Assam is only marginally below

that of Jharkhand. A relatively higher growth in Jharkhand could not improve the relative position of the State in per capita income; it, however, has narrowed down the gap in the per capita income of this state vis-a-vis most of the other states of the country. The per capita income of Goa was 527 percent more than that of Jharkhand in the year 2011-12 and it became 540 percent more than it in 2015-16.

Similarly, the per capita income of Orissa was 14 percent more than that of Jharkhand in the year 2011-12, it became only about 8 percent more than it in the year 2015-16.

Figure: 1.4: The per capita income of states of India in 2015-16 at constant (2011-12) prices

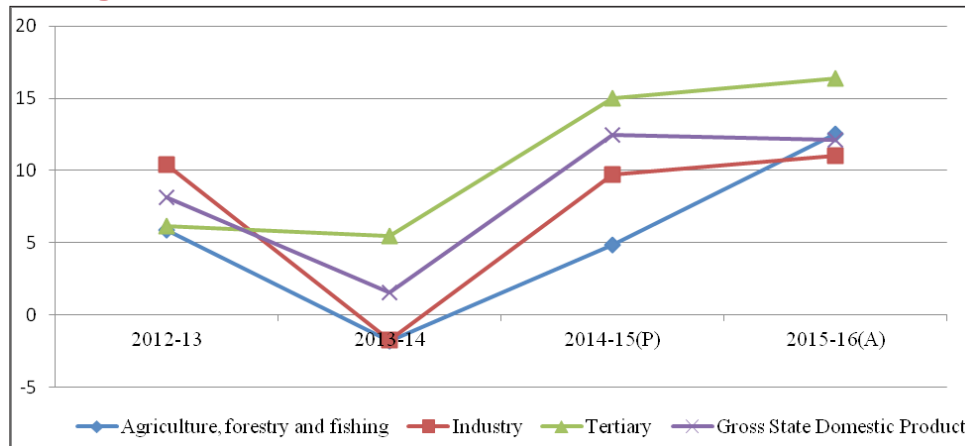


Sectoral Growth and Changes in Sectoral Share in GSDP

All the major sectors and sub-sectors of the economy have experienced an impressive growth in the period 2011-12 to 2015-16. In this period, agriculture and allied sectors grew at a compound annual rate (CAGR) of 5.23 percent, industry by 7.20 percent and the service sector by 10.63 percent. The growth rate, however, has neither been steady throughout this period nor uniform across the sectors. In comparison to previous year, these three sectors, the agriculture and allied, industry and service, recorded about 6 percent, 10 percent and 6 percent rate of growth, respectively, in the year 2012-13, but made a sharp dip the very next year. The year 2013-14, was a very bad year for Jharkhand economy. The GSDP of the state grew at mere 1.6 percent from its previous year and that too because of positive growth in the value of

output of service sector, otherwise, the value of output of agriculture and allied, and industry sectors, at constant prices, were less than their previous year's values; both of them recorded a - 1.6 (minus one point six) percent growth that year. All the sectors, however, improved their performance from the next year, that is from the year 2014-15 and have continued to grow at an impressive rate thereafter. In the year 2015-16, all the three major sectors of the economy recorded a double digit growth; the agriculture and allied sector grew by 12 percent this year, industry by 11 percent and service by 16 percent. The state, this year, that is in 2016-17, has experienced a normal monsoon and a spurt in other economic activities, hence, is expected to repeat an equally impressive performance this year.

Figure 1.5: Sectoral Growth rate from 2005-06 to 2015-16



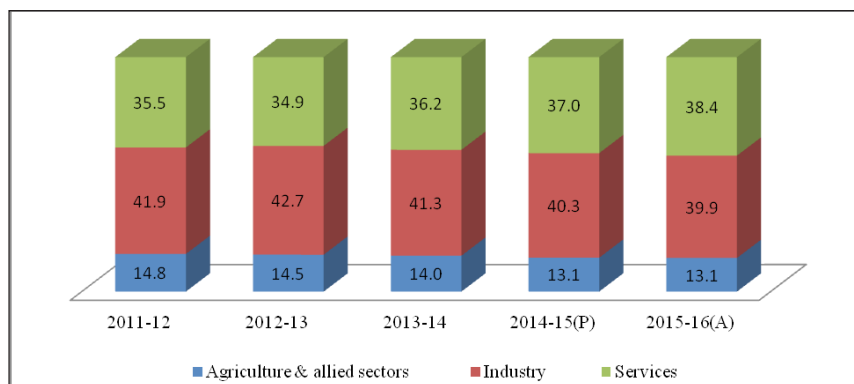
Source: Calculated from the GSDP data provided by Directorate of Statistics, GoJ

As a result of a differential rate of growth, the relative shares of these sectors have brought a change in the GSDP of the State. The share of the service sector in the GSDP of the State has increased at the cost of the other two sectors; the agriculture and allied and industry sectors. The value of the output of service sector (at constant prices), which constituted 35.5 percent of the GSDP of the State in the year 2011-12, increased to 38.4 percent in the year 2015-16; the share of agriculture and allied sector decreased from 14.8 to 13.1 and that of industry from 41.9 to 39.9 in the same period (Figure 1.6). The decline in the share of agriculture and allied sector is a normal outcome of the process of development, but fall

in the share of industry is a matter of concern⁴. This has happened because the growth in this sector has been slower than that of the GSDP; this sector grew by 7.20 percent per annum (CAGR) while the GSDP grew by 8.50 percent per annum during this period. The State government is making efforts to improve the performance of this sector by attracting investment in both infrastructure, especially electricity generation, and manufacturing sector.

⁴ Being dependent on nature, the agriculture and allied sector experiences the law of diminishing return much earlier than the other sectors of the economy. The other reason for the slow growth of this sector is that the demand of the product of this sector is less income elastic than the product of the other two sectors. But, since Jharkhand is a resource rich state, the scope for improvement in the performance of the industry is very high.

Figure 1.6: Sectoral Contribution to GSDP⁵



Source: Calculated from the GSDP data provided by Directorate of Statistics, GoJ

⁵ Since the values of output of the sectors and sub-sectors have been calculated in terms of GSVA, the sum of the share of the sectors does not add to 100 (GDP= GSVA + taxes on production – subsidy on production).

Table 1.10: Share and growth rate of Sectors and sub-sectors in GSDP at Constant Prices

Year/ Sectors and sub-sectors	Share in GSDP					Growth rate of sectors and sub sectors				
	2011-12	2012-13	2013-14	2014-15(P)	2015-16(A)	2012-13	2013-14	2014-15	2015-16	CAGR
Crop	8.9	9.2	8.6	8.2	8.5	11.6	-4.5	6.7	16.1	7.18
Livestock	3.2	2.7	2.8	2.5	2.4	-6.7	3.5	3.1	5.6	1.25
Forestry & logging	2.4	2.2	2.2	2.0	1.9	1.2	0.9	0.4	7.5	2.50
Fishing	0.4	0.4	0.4	0.4	0.3	5.4	8.5	1.5	9.0	6.06
Agr. & Allied	14.8	14.5	14.0	13.1	13.1	5.9	-1.8	4.8	12.6	5.23
Mining & quarrying	10.7	10.6	10.4	10.6	10.2	6.8	-0.6	15.3	8.0	7.22
Primary	25.5	25.1	24.4	23.7	23.3	6.3	-1.3	9.3	10.5	6.08
Manufacturing	20.0	22.1	20.2	19.9	20.0	19.8	-7.2	10.7	12.5	8.50
Construction	9.5	8.2	9.0	8.2	8.1	-6.6	10.4	2.7	11.0	4.11
Electricity, gas & Water supply	1.6	1.8	1.8	1.6	1.6	18.7	1.6	0.6	12.4	8.08
Secondary	31.1	32.1	30.9	29.7	29.7	11.7	-2.2	7.8	12.1	7.19
Industry	41.9	42.7	41.3	40.3	39.9	10.4	-1.8	9.7	11.0	7.20
Transport, Storage & Communication	6.5	6.6	7.1	6.8	7.0	10.3	9.7	6.7	16.5	10.73
Trade, hotels, repairs and restaurants	7.6	7.9	8.4	9.1	10.1	11.7	8.8	21.8	23.3	16.3
Financial Services	2.7	2.8	2.8	2.7	2.7	9.4	2.9	8.1	10.0	7.6
Real estate, Ownership of dwellings & Prof. Services	7.3	7.3	7.5	7.7	8.1	8.0	5.0	14.6	18.0	11.3
Public Administration	6.5	5.3	4.8	4.8	4.4	-12.5	-6.8	11.3	3.5	-1.5
Other services	4.9	5.0	5.4	5.9	6.2	11.9	9.3	22.8	16.8	15.11
Tertiary	35.5	34.9	36.2	37.0	38.4	6.1	5.4	15.0	16.4	10.63
GVA	92.2	92.1	91.5	90.4	91.4	8.0	0.9	11.1	13.4	8.26
Taxes on products	10.0	10.4	10.6	11.5	10.3					9.25
Subsidies on products	2.2	2.5	2.1	1.9	1.7					1.61
GSDP	100.0	100.0	100.0	100.0	100.0	8.2	1.6	12.5	12.1	8.50

Source: Calculated from the GSDP data provided by Directorate of Statistics, GoJ

Agriculture and Allied Sector

The Agriculture and Allied sector has recorded an impressive average annual growth of above 5 percent between 2011-12 and 2015-16. This sector includes crop production, livestock, forestry and logging, and fisheries. But the overall performance of this sector has mainly been dependent on crop production, the value of output of which constitutes more than 60 percent of the value of output of this sector. This crop production has grown at an average annual rate of 7.18 percent per annum

between 2011-12 and 2015-16. As a result, despite not so good performance of livestock and forestry and logging sub-sectors, the overall performance of Agriculture and Allied sector has remained good.

The crop production in Jharkhand is mainly rain-fed; as a result, its production has fluctuated from year to year, depending on the weather condition in the State. In comparison to previous year, its production declined by 4.5 percent in the 2013-14 and increased by

16 percent in the year 2015-16. But, on the whole it has shown an increasing trend. This has been because of both improvement in productivity and change in composition of crops in favour of high valued crops.

Fishing, despite the absence of perennial sources of water and recurrent drought in the State, has made rapid progress; it has grown at an average annual rate of about 6 percent in the last 5 years. Its contribution to the economy, however, is insignificant. Its share in the GSDP of the State is only 0.4 percent and 2.6 percent to the value of output of Agriculture and Allied sector. Because of relatively better performance of fishing in the State its contribution to the value of the output of this sector has improved from 2.5 percent in the year 2011-12 to 2.6 percent in the year 2015-16.

Livestock and forestry and logging sub-sectors have made very slow progress in the last five years. They grew at an average annual rate

of 1.25 percent and 2.5 percent per annum, respectively. Their contribution to total GSDP or to the value of output of Agriculture and Allied sector, however, is so low, that they do not affect the growth of GSDP or growth of the output of the Agriculture and Allied sector. In the year 2011-12, the output of livestock contributed 3.2 percent to the GSDP of the state and 21.38 percent to the value of output of Agriculture and Allied sector. Because of its poor performance its contribution to the GSDP declined to 2.4 percent in the year 2015-16 and to 18.33 percent the value of output of Agriculture and Allied sector. Similarly, the output of Forestry and Logging sector constituted 2.4 percent of the GSDP of the State and 16 percent of the value of output of Agriculture and Allied sector in the year 2011-12. In the year 2015-16, the output of this sector constituted 1.9 of the GSDP and 14.41 percent of the value of the Agriculture and Allied sector.

Table 1.11: Production and growth rate (%) of Agriculture and Allied sector (at 2011-12 prices)

(In lakh Rupees)

	2011-12	2012-13	2013-14	2014-15 (P)	2015-16(A)	CAGR (11-12 to 15-16)
Crop production	1342099	1498008	1430467	1526077	1771414	
Growth rate		11.6	-4.5	6.7	16.1	7.18
Livestock	477585	445735	461145	475380	502000	
Growth rate		-6.7	3.5	3.1	5.6	1.25
Forestry & logging	357560	361880	365303	366931	394614	
Growth rate		1.2	0.9	0.4	7.5	2.50
Fishing	56302	59331	64380	65368	71243	
Growth rate		5.4	8.5	1.5	9.0	6.06
Agri. & Allied Sectors	2233546	2364954	2321295	2433756	2739271	
Growth rate		5.9	-1.8	4.8	12.6	5.23

Source: Directorate of Statistics, GoJ

Table 1.12: Share of the sub-sectors of Agriculture and Allied Sector in the total value of output of Agriculture and Allied Sector (%)

	2011-12	2012-13	2013-14	2014-15(P)	2015-16(A)
Crop Production	60.09	63.34	61.62	62.70	64.67
Livestock	21.38	18.85	19.87	19.53	18.33
Forestry & logging	16.01	15.30	15.74	15.08	14.41
Fishing	2.52	2.51	2.77	2.69	2.60
Agri. & Allied Sectors	100.00	100.00	100.00	100.00	100.00

Source: Directorate of Statistics, GoJ

Industrial Sector

The Industrial sector grew at an average annual rate of 7.2 percent between 2011-12 and 2015-16. The value of the output of this sector, at constant (2011-12) prices, was about Rs. 63 thousand crore, which increased to Rs. 83 thousand crore in 2015-16. Except for the year 2013-14, which was an year of economic slowdown for the State, growth in its output remained almost uniform thorough this period. In the year 2013-14, the output of this sector decreased by 1.8 percent; its output at constant prices decreased by Rs.1236 crore in a single year – from about Rs. 69,760 crore in the 2012-13 to Rs. 68,523 crore in the year 2013-14. It grew at a rate between 9 to 11 percent per annum in the rest of the years.

Within the Industrial sector, the Manufacturing sector, which accounts for almost 50 percent of the output of the Industrial sector, recorded the most impressive growth. It recorded an average annual growth of 8.5 percent in the value of its output at constant prices during this period; from about Rs. 30 thousand crore in the year 2011-12 to about Rs. 41 thousand crore in the year 2015-16. The year 2013-14, however, turned out to be a very bad year for this sector as well. The output of this sector, which reached to about Rs. 36 thousand crore in the year 2012-13 from about Rs. 30 thousand crore of the previous year – a growth of about 20 percent in a single year, - declined

to about Rs. 33 thousand crore in the year 2013-14. It, however, recovered in successive years by recording 10.7 and 12.5 percent rates of growth, respectively, in the 2014-15 and 2015-16.

Mining and Quarrying, an another important constituent of the Industrial sector in the State, grew at an average annual rate of 7.22 percent during this period. The construction sub-sector, however, recorded a very modest growth in last five years; it grew by an average annual rate of 4.11 percent per annum only. The modest performance of this sector can be attributed to its poor performance in the years 2012-13 and 2014-15. Compared to the output of the previous year, the value of the output of this sector decreased by 6.6 percent in the year 2012-13, and increased by only 2.7 percent in the year 2014-15. The value of the output of this sector, otherwise, recorded an impressive growth in 2013-14 and 2015-16 – by more than 10 percent in comparison to the output of previous years.

Electricity, Gas and Water Supply, has recorded a growth of about 8 percent per annum, mainly because of its impressive double digit growth in the years 2012-13 and 2015-16. Otherwise, in 2013-14 and 2014-15 its growth was very low -1.6 percent and 0.6 percent, respectively.

Table 1.13: The value of output (at 2011-12 prices in lakh Rs.) & Growth Rates of Industrial Sector

Sector	2011-12	2012-13	2013-14	2014-15 (P)	2015-16(A)	CAGR (11-12 to 15-16)
Mining & quarrying	1620374	1730483	1720631	1983916	2141761	
Growth rate		6.8	-0.6	15.3	8.0	7.22
Manufacturing	3016583	3614824	3356361	3716292	4181247	
Growth rate		19.8	-7.2	10.7	12.5	8.50
Construction	1439526	1344315	1484303	1523709	1691220	
Growth rate		-6.6	10.4	2.7	11.0	4.11
Electricity, Gas & Water Supply	241235	286345	291006	292750	329192	
Growth rate		18.7	1.6	0.6	12.4	8.08
Industry	6317718	6975967	6852301	7516667	8343420	
Growth rate		10.4	-1.8	9.7	11.0	7.20

Source: Directorate of Statistics, GoJ

Though, there is about 2 percentage point decline in the contribution of industry in the GSDP of the State between 2011-12 and 2015-16, there is very little structural change within this sector. The contributions of mining and quarrying and electricity, gas and water supply has remained constant during last five years. While Mining and Quarrying contributed about 25 percent, Electricity, Gas and Water supply contributed around 4 percent to the output of this sector. The contribution of manufacturing to the output of the industrial sector has fluctuated around 50 percent and that of

construction at around 20 percent in last five years. The contribution of manufacturing was 47.7 percent to the output of this sector in the year 2011-12. It increased to 51.8 percent in 2012-13, the year in which this sector recorded an exemplary progress of about 20 percent. Its contribution to the total output of the Industrial sector fluctuated around 50 percent thereafter. Similarly, the contribution of construction was 22.8 percent to the output of industrial sector, decreased to 19.3 percent the very next year and then fluctuated around 20 percent thereafter.

Table 1.14: Share of the sub-sectors of Industry in the total value of output of industrial sector

Sector	2011-12	2012-13	2013-14	2014-15	2015-16
Mining & quarrying	25.6	24.8	25.1	26.4	25.7
Manufacturing	47.7	51.8	49.0	49.4	50.1
Construction	22.8	19.3	21.7	20.3	20.3
Electricity, Gas & Water Supply	3.8	4.1	4.2	3.9	3.9
Industry	100.0	100.0	100.0	100.0	100.0

Source: Directorate of Statistics, GoJ

Service or Tertiary Sector

The service or tertiary sector has remained the most dominant sector of the State economy in

terms of growth rate or in terms of contribution to the State's GSDP. This sector recorded an

annual growth of 10.63 percent during the last five years. Most of the important constituents of this sector recorded a double digit growth in this period. Except for Road transport, storage, financial services and Public administration, the growth rates of all other sub-sectors in the service sector have been in two digits. Air transport, though very insignificant in terms of its contribution to the value of output of this sector recorded an extremely impressive growth of about 64.68 percent per annum in this period – from about Rs. 13 crore in the year 2011-12 the value of the output of this sub-sector jumped to about Rs. 100 crore in the year 2015-16. ‘Trade, Hotels and Restaurants’, and ‘Other Services’ are the other two sub-sectors which have made impressive progress in the last five years, growing by more than 15 percent per annum on an average.

Some of the constituents of the tertiary sector, however, have failed to match up with

its overall performance. Storage, which is another insignificant sub-sector in terms of its contribution to the output of the Tertiary sector, recorded a considerable decline in its output. The value of its output decreased from Rs. 3.8 crore in 2011-12 to Rs. 2.5 crore in 2015-16, at the rate of about 10 percent per annum. The public administration also shrank by 1.5 percent per annum during this period. The value of output of this sector, which is the salary paid to the employees engaged in this sector⁶, has declined by about rupees six hundred crore in the last five years, from about rupees nine thousand eight hundred crore in the year 2011-12 to rupees nine thousand two hundred rupees in the year 2015-16.

⁶ The output of service sector is measured through income method. The value of output of this sector in general and that of public administration in particular, is therefore the wages and salaries paid to the persons engaged in this sector.

Table 1.15: Growth Rates of Services and its components in Jharkhand's NSDP

(Output in lakh rupees and growth rate in %)

Sl. No.		2011-12	2012-13	2013-14	2014-15 (P)	2015-16(P)	CAGR (2011-12 to 2015-16)
1.	Transport, Storage & Communication	975954	1076288	1180454	1259298	1467070	
	Growth Rate		10.3	9.7	6.7	16.5	10.73
1.1	Railways	297906	345399	374927	403702	470865	
	Growth Rate		15.9	8.5	7.7	16.6	12.13
1.2	Road transport	458247	490939	535722	556658	643061	
	Growth Rate		7.1	9.1	3.9	15.5	8.84
1.3	Air transport	1373	1285	2256	5754	10098	
	Growth Rate		-6.4	75.6	155.1	75.5	64.68
1.4	Storage	384	369	332	261	251	
	Growth Rate		-3.9	-10.0	-21.4	-3.8	-10.08
1.5	Communication	195729	212871	248722	277983	328572	
	Growth Rate		8.8	16.8	11.8	18.2	13.83
2.	Trade, Repairs, Hotels & Restaurants	1152143	1287305	1400566	1706315	2104622	
	Growth Rate		11.7	8.8	21.8	23.3	16.26
3.	Financial Services	414386	453306	466489	504239	554627	
	Growth Rate		9.4	2.9	8.1	10.0	7.56
4.	Real Estate	1101151	1189599	1249340	1432194	1690618	

Sl. No.		2011-12	2012-13	2013-14	2014-15 (P)	2015-16(P)	CAGR (2011-12 to 2015-16)
	Growth Rate		8.0	5.0	14.6	18.0	11.31
5.	Public Administration	981782	859075	801042	891318	922459	
	Growth Rate		-12.5	-6.8	11.3	3.5	-1.55
6.	Other services	736279	824103	900892	1106486	1292786	
	Growth Rate		11.9	9.3	22.8	16.8	15.11
	Total of Service	5361695	5689676	5998783	6899850	8032182	
	Growth Rate		6.1	5.4	15.0	16.4	10.63

Source: Directorate of Statistics, GoJ

The relative contribution of most of the constituents of this sector has remained almost constant throughout this period. In the output of the Tertiary sector, the share of only Trade, Hotels and Restaurants, and Other Services has increased and that of public administration has decreased. The share of almost all other sectors has remained almost constant.

The share of Trade, Hotels and Restaurants in the total output of the Tertiary sector has increased from 21.5 percent in 2011-12 to 26 percent in 2015-16 and the share of other services increased from about 13.7 percent to 16 percent during the same period. The share of public administration, on the other hand, has decreased from 18.3 percent in 2011-12 to 11.5 percent in 2015-16.

Table 1.16: Share of Services and its components in Jharkhand's NSDP

Sl. No.	Sector	2011-12	2012-13	2013-14	2014-15 (P)	2015-16 (A)
1	Transport Storage & Communication	18.20	18.92	19.68	18.25	18.26
1.1	Railways	5.56	6.07	6.25	5.85	5.86
1.2	Road Transport	8.5	8.6	8.9	8.1	8.0
1.3	Air Transport	0.0	0.0	0.0	0.0	0.0
1.4	Storage	0.01	0.01	0.01	0.00	0.00
1.5	Communication	3.65	3.74	4.15	4.03	4.09
2	Trade, Hotels & Restaurants	21.49	22.63	23.35	24.73	26.20
3	Financial Services	7.73	7.97	7.78	7.31	6.91
4	Real Estate	20.54	20.91	20.83	20.76	21.05
5	Public Administration	18.31	15.10	13.35	12.92	11.48
6	Other Services	13.73	14.48	15.02	16.04	16.10
	Total	100.00	100.00	100.00	100.00	100.00

Source: Directorate of Statistics, GoJ

Disparity within the State

There exists a wide regional and inter - district disparity in Jharkhand. Santhal Pargana, located in the north-east of the State and Palamau, located in the north-west of the State are the least developed regions of the

State. A composite index of developmental indicators prepared by the Institute for Human Development discovered that usually the districts located in the north-eastern and north-western parts of the state are less

developed compared to those located in the central and western parts of the State. This composite index has been made on the basis

of 17 indicators related with eight major dimensions of development. The list has been given below.

Table 1.17: Indicators of Development of the Districts

Dimension	Indicators	Source
Economic well-being	<ul style="list-style-type: none"> • Average rural casual Wage Rate • Per capita value of Agricultural output • Monthly per capita consumption 	NSS, 2011-12 Agri census, 2011 NSS, 2011-12
Infrastructural development Asset Ownership	<ul style="list-style-type: none"> • % villages having paved road of any of National/ State/district/other • % of households electrified • % of households with banking facility • % assets (% of households with TV, Computer, telephone, scooter/car) 	Census, 2011 Census, 2011 Census, 2011 Census, 2011
Urbanization	<ul style="list-style-type: none"> • Urbanization Rate • % of Villages having town within 10kms (for rural area) 	Census, 2011 Census, 2011
Education	<ul style="list-style-type: none"> • Female literacy rate • Gross enrollment rate middle level (Class VI-VI-II) 	Census, 2011 DISE, 2013-14
Health	<ul style="list-style-type: none"> • % villages having PHCs within 5 km • Infant Mortality Rate • Female population with BMI above 18.5 and below 30 	Census, 2011 AHS, 2011 AHS, 2011
Non farm sector development	<ul style="list-style-type: none"> • Percentage of workers in other than Agriculture sector 	Census, 2011
Water & sanitation	<ul style="list-style-type: none"> • Percentage of household having access to safe drinking water • Percentage of household having access to toilet 	Census, 2011 Census, 2011

This composite index of all the indicators shows that Dhanbad, Bokaro, Ramgarh, Ranchi, Sarikela-Kharsawan and Purbi Singhbhum are the most developed districts while Pakur, Garhwa, Chatra, Palamau, Dumka and Godda are the least developed. Ranking of the districts on different dimensions or indicators of development is almost the same indicating that the developed districts have fared well

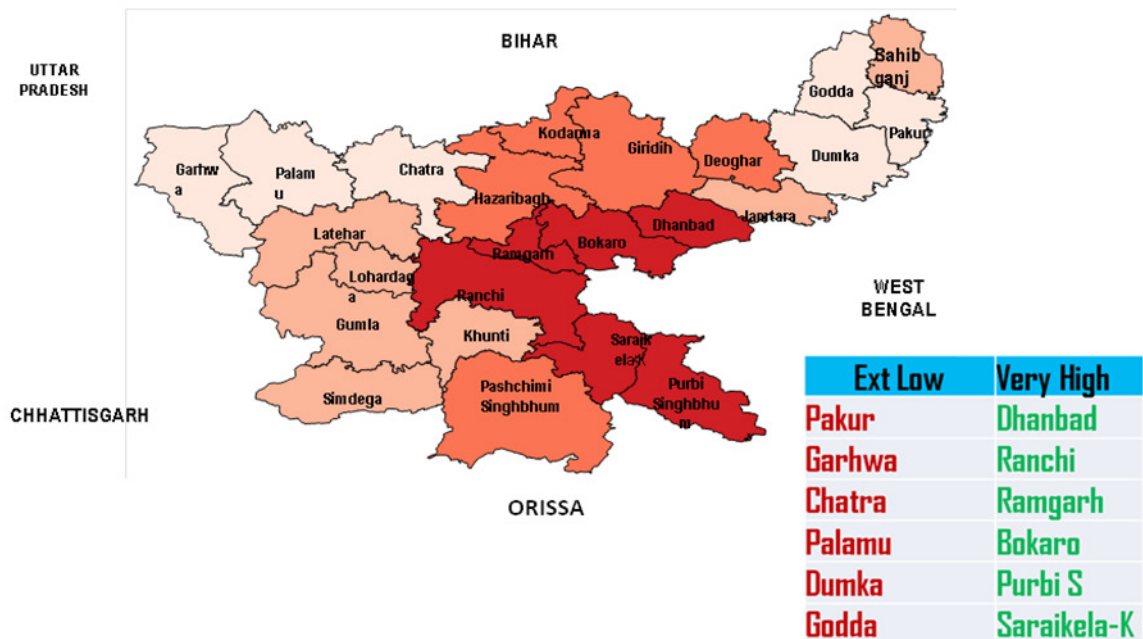
in almost all the indicators of development and the less developed have lagged behind in almost all fronts of development.

Generally the more urbanised and industrialised districts are more developed than the rest. The corridor which starts from the east and ends at the south east, where the districts of Dhanbad, Bokaro, Ramgarh, Ranchi, Saraikela – Kharsawan and Purbi Singhbhum

are located, is more developed than the North-West and North-East because this region is more urbanised than the latter two regions

and is the hub of mining, commercial and industrial activities.

Map 1.1: Overall Development Index



Conclusion

Though, the per capita income of Jharkhand is one of the lowest in the Country – about 30 percent less than the national average and more than only five states of the country - its growth rate is faster than most of them. Performance of Jharkhand, in last five years has been better than all except the five states and union territories. Growth in GDP and per capita income, both at current and constant price, has been higher than India. But even then it will take another 18 years for its per

capita income to become equal to the national average.

The service or tertiary sector has remained the most dominant sector of the State economy in terms of growth rate or in terms of contribution to State’s GSDP.

With normal monsoon, spurt in other economic activities and the initiatives taken by the Government, the State is expected to have an impressive performance this year again.

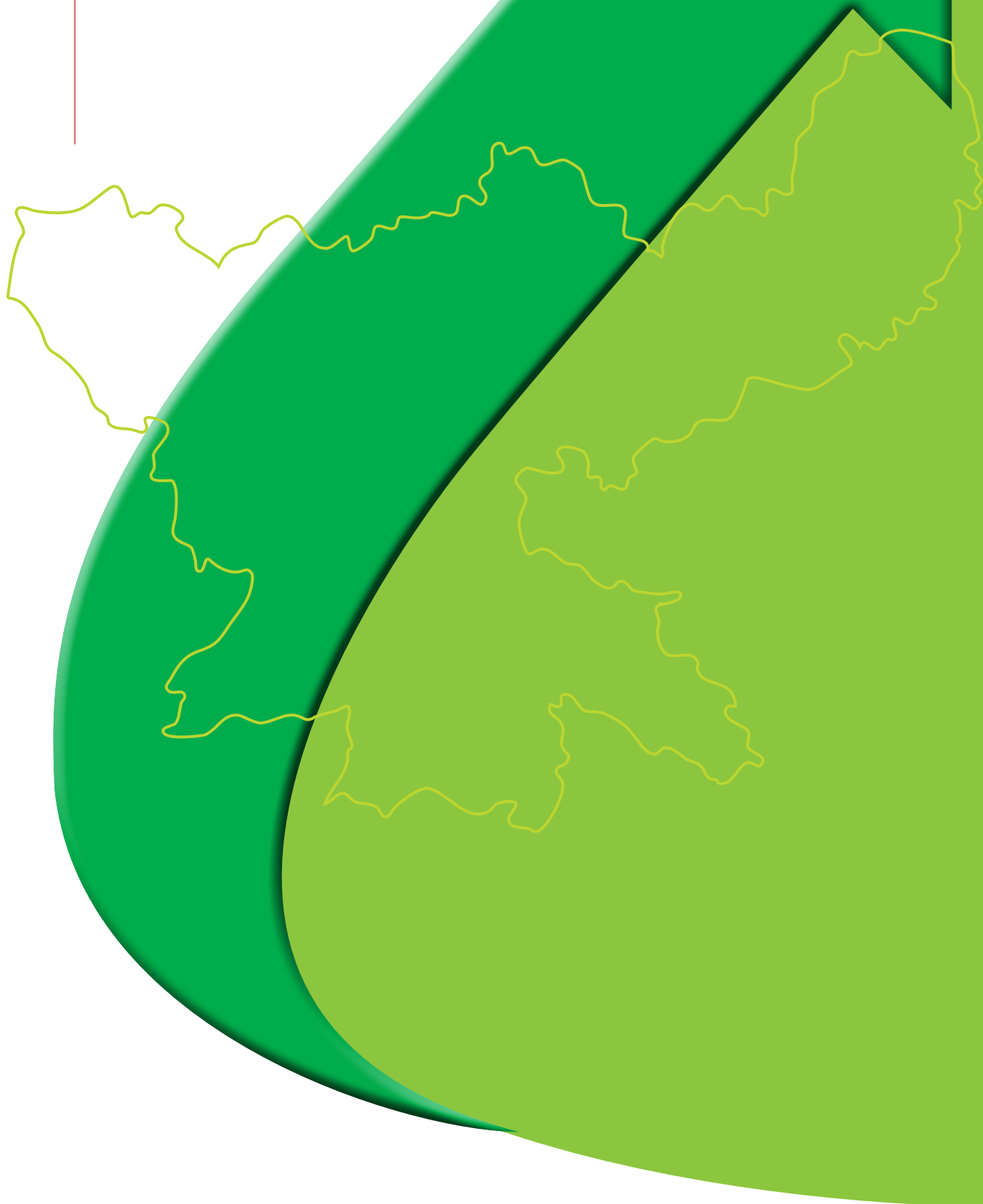
Table 1.18: Overall Development Index

District	Tribal and Urban Population			Infrastructural Development & Asset Ownership				Education		Economic Wellbeing			Health		Water & Sanitation	
	Population in Lakhs	Urban (%)	ST%	% villages having Paved Road	% of Hhs Electricity	% of Hhs with Banking Facility	% of households with assets	Female literacy rate	Gross enrollment rate middle level (Class VI-VIII)	Average Rural casual wage rate per day	Per-capita value of agricultural output	Monthly per capita consumption expenditure	% villages having PHCs within 5 km	Infant Mortality Rate	% of Hhs having access to toilet	% of Hhs having access to safe drinking water
Bokaro	41.3	47.7	12.4	43.7	70.2	64.2	86.6	60.6	85.4	118	7.4	1147	18.0	30.3	33.5	62.3
Chatra	20.9	6.0	4.4	38.9	14.9	48.3	70.2	49.9	70.2	113	27.5	761	25.1	18.9	10.1	53.8
Deoghar	29.8	17.3	12.1	38.4	50.0	49.5	82.0	51.8	80.8	103	18.8	1066	17.1	25.6	16.4	60.0
Dhanbad	53.7	58.1	8.7	51.3	85.6	66.8	87.1	64.3	86.2	134	0.3	1198	33.3	27.0	39.8	72.4
Dumka	26.4	6.8	43.2	34.3	22.8	44.2	73.5	48.8	80.4	107	70.6	893	8.9	21.7	9.9	70.4
Garhwa	26.5	5.3	15.6	55.0	11.5	39.7	63.9	47.6	92.9	159	58.9	984	9.4	25.6	7.1	75.3
Giridih	48.9	8.5	9.7	46.9	32.0	56.1	81.8	48.7	70.0	146	15.4	907	12.7	27.8	10.8	31.0
Godda	26.3	4.9	21.3	37.9	17.2	39.2	68.2	44.1	78.1	123	42.0	833	23.2	15.4	10.5	72.5
Gumla	20.5	6.4	68.9	38.2	16.8	52.8	79.1	55.9	68.8	122	17.3	967	17.2	20.4	10.4	33.1
Hazaribagh	34.7	15.9	7.0	40.1	58.7	67.2	83.7	59.0	78.3	197	24.1	1147	22.1	26.3	19.6	36.5
Jamtara	15.8	9.6	30.4	43.6	32.9	45.5	86.1	52.2	78.6	95	14.4	1013	12.8	21.7	9.8	72.8
Khunti	10.6	8.5	73.3	44.7	28.4	44.0	78.4	53.7	72.8		23.6	937	14.6	25.0	8.4	36.1
Kodarma	14.3	19.7	1.0	44.4	54.6	63.9	82.2	53.2	81.3	174	10.8	1159	21.5	27.8	16.5	44.0
Latehar	14.5	7.1	45.5	42.7	28.8	38.4	62.7	48.7	73.5	119	28.0	1055	21.8	20.0	10.8	57.3
Lohardaga	9.2	12.4	56.9	66.5	31.5	57.6	83.0	57.7	76.2	123	40.0	728	22.2	17.5	14.9	48.9
Pakur	18.0	7.5	42.1	34.0	17.4	31.7	66.3	40.5	54.1	130	22.5	1039	14.7	17.0	10.2	81.6
Palamu	38.8	11.7	9.3	38.2	19.2	50.9	69.2	52.1	87.9	137	57.5	914	15.4	20.0	13.1	73.6
W. Singhbhum	30.1	14.5	67.3	41.2	40.7	40.2	70.9	46.3	70.5	142	2.9	1418	14.0	32.3	11.8	71.7
E. Singhbhum	45.9	55.6	28.5	37.1	81.4	65.4	88.6	66.8	91.4	135	1.0	1147	15.4	17.0	49.9	80.3
Ramgarh	19.0	44.1	21.2	54.1	84.2	65.2	86.7	63.1	88.1	197	11.7	1763	31.8	26.3	32.9	51.1
Ranchi	58.3	43.1	35.8	41.2	63.0	65.3	87.8	67.4	86.6	123	15.7	696	14.2	25.0	40.9	59.2
Sahibganj	23.0	13.9	26.8	31.3	15.5	33.3	59.6	43.3	75.2	130	19.4	1125	19.2	16.4	15.3	72.1
Saraikela-Kharsawan	21.3	24.3	35.2	45.2	63.4	60.3	84.5	55.9	76.9	75	2.2	937	23.1	32.3	20.3	76.9
Simdega	12.0	7.2	70.8	55.9	14.5	43.7	81.1	59.9	74.0	73	14.4	1147	10.7	20.4	8.2	41.5

Source: NSS 2011-12, Agri census 2011, DISE 2013-14, AHS 2011

2

FISCAL DEVELOPMENT AND STATE FINANCES



With the participatory budget making in process and Jharkhand's compliance with the FRBM targets, the roadmap of the Jharkhand economy is well on track. The fiscal indicators like total receipts and total expenditure is seen to be in tandem with each other and the fiscal deficit position is estimated to be at 2.16 percent. The revenue receipts show a gradual increase with the Non tax revenue growing at a faster pace. The major contributor to the non-tax revenue is the income from non ferrous mining and metallurgical industries, which indicate a high dependence of revenue collection from mining activities and sale of coal. However, the paradigm lies on the long term dependence of revenue collection from a non-renewable source of energy. The major contributor of the tax revenue is the sales tax and state excise duty. Hence, the Total Receipts and Expenditure is estimated (budget estimate) to be 24 percent of the GSDP. The Primary deficit is expected (budget estimate) to be curtailed at 0.76 percent, and the Revenue deficit is in the surplus at -2.70 percent.

Receipts

From the last three years, the fiscal position of the state has witnessed improvement. Total Receipts of the state, which had experienced about 17 percent rate of growth in the years

2011-12 and 2012-13 dipped by 0.13 percent in the year 2013-14 but thereafter it showed improvement and increased by 31.44 percent in 2014-15 and 35.95 percent in the following year. It is estimated to increase to 16.65 percent in the year 2016-17. The Total Receipt of the state, which had increased at a compound annual growth rate (CAGR) of 8.1 percent between 2011-12 and 2013-14, jumped to 25.9 percent between 2014-15 and 2016-17.

The Revenue Receipt, too, has made an impressive growth in last three years. It grew at an average annual rate of 8 percent between 2011-12 and 2013-14, but recorded an impressive growth of 32.9 percent between 2014-15 and 2016-17.

Capital Receipt, however, has shown a reverse trend. It grew by 8.7 percent in the first period (2011-12 to 2013-14) but declined by -4.4 percent in the second period (2014-15 to 2016-17)

The reason for the decline in the capital receipt in the second period is a decrease of 43.86 percent in estimated capital receipt this year (2016-17). This is mainly because of decrease in borrowing and other liabilities, which is an indicator of decreased dependence of the state on borrowed fund and is an indicator of improved fiscal health of the state.

Table 2.1: Trend of Revenue and Capital Receipts (yoy growth)

(Rs. Crore, growth rate in %)

	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	CAGR Between 2011-12 & 2013-14	CAGR Between 2011-12 & 2013-14
Total Receipts	26082.47	30502.17	30463.22	40041.50	54437.28	63502.69		
% Growth	17.40	16.95	-0.13	31.44	35.95	16.65	8.1	25.9
Revenue Receipts	22419.45	24769.56	26136.79	31564.56	40638.35	55756.42		
% Growth	19.37	10.48%	5.52%	20.77%	28.75%	37.20%	8.0	32.9
Capital Receipts	3663.02	5732.61	4326.43	8476.94	13798.93	7746.27		
% Growth	6.64	56.50%	-24.53%	95.93%	62.78%	-43.86%	8.7	-4.4

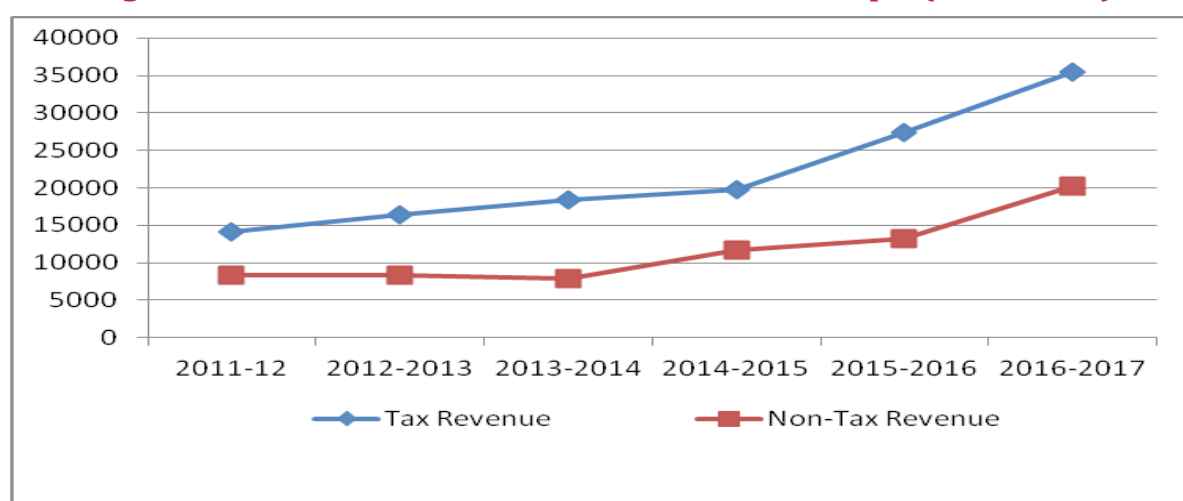
Source: Department of Planning-cum-Finance (Finance Division), GoJ

Revenue Receipts

Both the tax and non-tax revenue has increased, almost uniformly, between 2011-12 and 2016-17. Tax revenue, which constitutes more than 60 percent of the total revenue receipts of the state, has increased at a compound average annual rate (CAGR) of 20.26 percent and the non-tax revenue by 19.51 percent per annum in this period. They increased at a very modest rate between 2011-12 and 2013-14 but grew

at an accelerated rate thereafter. The tax revenue grew at a compound annual rate of 13.89 percent between 2011-12 and 2013-14 which increased to 33.83 percent between 2014-15 and 2016-17. The non-tax revenue in the year 2013-14 was Rs. 478 crore less than that of the year 2011-12, as a result its CAGR was - 2.92 percent between these two years. Between 2014-15 and 2016-17, it grew by a compound annual rate of 31.33 percent.

Figure 2.1: Growth in Tax and Non-Tax Revenue Receipts (In Rs. crore)



The year to year rate of growth of tax revenue decelerated from 18.98 percent in 2011-12 to 8.28 percent in 2014-15 and then accelerated to 38.37 percent the next year. This year it is expected to increase by 29.44 percent. The rate of growth of non tax revenue, which was 20 percent growth in the year 2011-12, also

made a sharp dip in the following two years to 0.75 percent and - 6.64 in the years 2013-14 and 2014-15, respectively. It increased by 50 percent in the year 2014-15 and 12.47 percent in the year 2015-16. This year it is expected to increase by 53.35 percent.

Table 2.2: Trend of Tax and Non-Tax Revenue Receipts (yoy growth)

(Rs. Crore, growth rate in %)

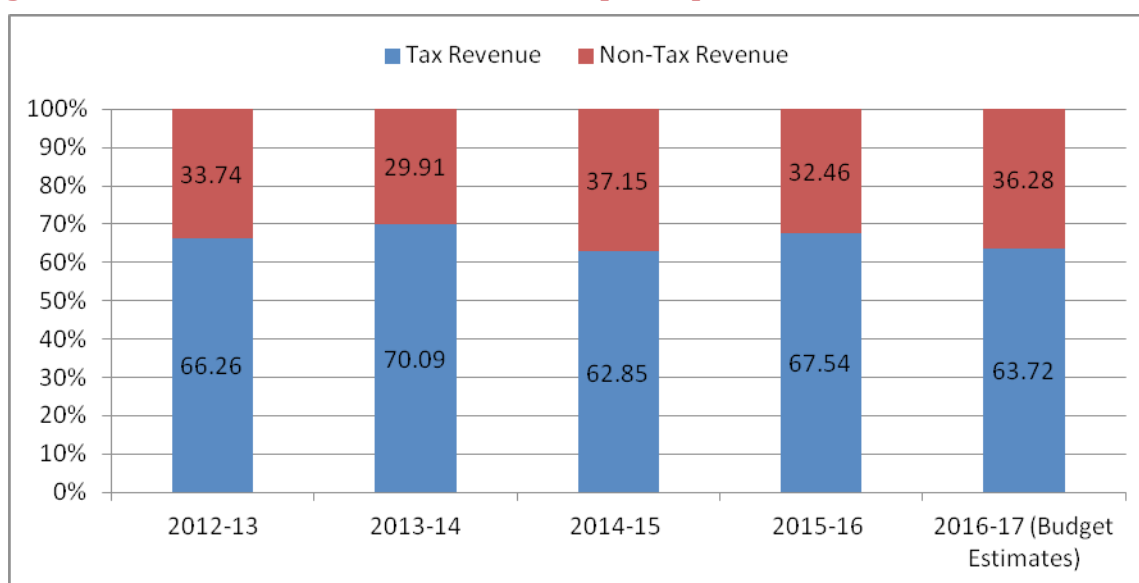
	2011-12	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017	CAGR Between 2011-12 & 2013-14	CAGR Between 2011-12 & 2013-14
Tax Revenue	14123.82	16411.7	18319.1	19836.8	27447.7	35528.7		
% Growth	18.98	16.20%	11.62%	8.28%	38.37%	29.44%	13.89	33.83
Non-Tax Revenue	8295.63	8357.84	7817.68	11727.74	13190.65	20227.76		
% Growth	20.05	0.75%	-6.64%	50.02%	12.47%	53.35%	- 2.92	31.33

Source: Department of Planning-cum-Finance (Finance Division), GoJ

Because of almost uniform rate of growth in tax and non-tax revenue, the composition of revenue receipt has remained almost the same between 2012-13 and 2015-16. The share of non-tax revenue is expected to increase from 32.46 percent of the revenue receipt of last year to 36.28 percent this year. Consequently, the share of non-tax revenue has decreased

this year in comparison to last year. This is mainly because of a larger expected increase in non-tax revenue than the tax revenue. As discussed above, in comparison to last year, non-tax revenue is expected to increase by 53.44 percent while the tax revenue is expected to increase by 29.44 percent this year.

Figure 2.2: Tax and Non-Tax Revenue Receipts as percent of Total Revenue Receipts



Tax Revenue

Almost half of the tax revenue is received by the State from the Centre as share from central taxes and another half is generated from its own taxes. The states share in central taxes after the implementation of the 14th Finance Commission has increased. The devolution to the states has increased by 68.32 percent in

2015-16 in comparison to 2014-15, from Rs. 9487 crore to Rs. 15,968 crore. As a result, while the state's share in central taxes constituted about 48 percent of the tax revenue of the state in the year 2014-15. This year, since a 48.5 percent of growth is expected in the states own taxes, the state's share of Central taxes is expected to decline to 52 percent this year.

Table 2.3 : Trend and Composition of Tax Revenue (In Rs. crore)

	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017
Tax Revenue	16411.72	18319.11	19836.82	27447.70	35528.66
% Growth	16.20%	11.62%	8.28%	38.37%	29.44%
(a) State's share of Central Taxes	8231.53	8939.32	9487.01	15968.75	18478.66
% Growth	14.81%	8.60%	6.13%	68.32%	15.72%
(b) State's Own Taxes	8180.19	9379.79	10349.81	11478.95	17050.00
% Growth	17.63%	14.66%	10.34%	10.91%	48.53%

Source: Department of Planning-cum-Finance (Finance Division), GoJ

There can be seen an increasing trend in the tax revenue collected by the state. Till 2014-15 both the state's own tax revenue and the state's share in central taxes increased at the same rate and in the same proportion. In

2015-16, however, the state's share in central taxes increased at a faster rate than state's own taxes, but the two are seen to be converging in the Budget Estimates of 2016-17.

Figure 2.3: Trend in Total Tax revenue

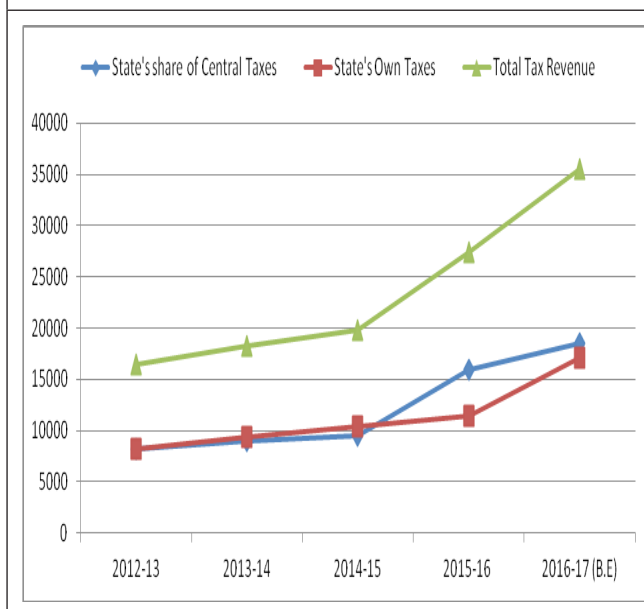
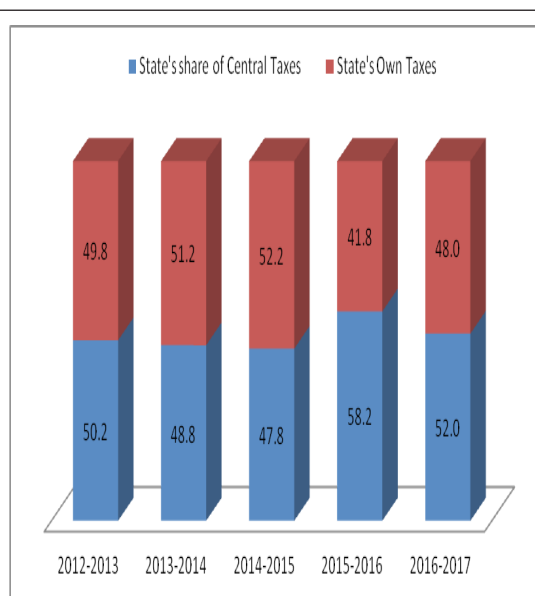


Figure 2.4: Composition of Tax and Non-Tax Revenue



State's Own Taxes

The state's own taxes comes from Taxes on Income and expenditure, Property and capital transactions and Commodities and services; of which taxes on commodities and services comprises of the highest share of more than

64 percent of the total tax revenue, followed by taxes on income and expenditure whose share is 30 percent followed by taxes on property and capital transactions which are only about 3 percent of the total tax revenue collections.

Table 2.4: Consolidated Fund of Jharkhand: Revenue Account- Receipts (in Rs. Lakh)

Tax Revenue					
Sl. No.	Major Head	2014-15 (Actuals)	2015-16 (Budget)	2015-16 (Revised)	2016-17 (Budget)
1	Taxes on Income and Expenditure	573588.6	698928.1	998589	1121100
2	Taxes on Property and Capital Transactions	62314.64	110871.5	101556.1	131742.8
3	Taxes on Commodities and services	1347778	1860306	1974335	2300023
4	Total tax Revenue	1983682	2670106	3074480	3552866

Source: Annual Financial statement, 2016-17, GoJ

In terms of revenue collection Sales tax is the most important tax of the state. It contributed

about 41 percent to the total tax revenue of the state and about 60 percent to the taxes on

commodities and services in the year 2014-15.

Non-Tax revenue

The Non-Tax revenue consists of States own non taxes and grants in aid from the Government of India. The state's own non-tax revenue has grown steadily between 2012-13 and 2015-16. This year (2016-17) it is expected to grow by about 44 percent from the previous year. The

grants in aid from GOI, which was Rs. 5257.41 crore in 2011-12 declined steadily till 2013-14 to become equal to Rs. 4064.97 crore. It increased by about 82 percent in the following year to become equal to Rs. 7392.68 crore. After the implementation of the 14th Finance Commission it again declined by - 0.74 percent in the year 2015-16. It is estimated to increase by 60.84 percent in 2016-17.

Table 2.5 : Trend and composition of Non-tax Revenue (In Rs. crore)

	2011-12	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017
Non-Tax Revenue	8295.63	8357.84	7817.68	11727.74	13190.65	20227.76
% Growth	20.05	0.75%	-6.64%	50.02%	12.47%	53.35%
(a) State's Own Non-Taxes	3038.22	3535.63	3752.71	4335.06	5853.01	8425.76
% Growth	8.40	16.37%	6.14%	15.52%	35.02%	43.96%
(b) Grants-in-Aid from GoI	5257.41	4822.20	4064.97	7392.68	7337.64	11802.00
% Growth	28.00	-8.28%	-15.70%	81.86%	-0.74%	60.84%

Source: Department of Planning-cum-Finance (Finance Division), GoJ

The states own non-tax revenue consists of General services, Economic services, Social services, other non tax revenue and other fiscal services. The Economic services constitute a major portion of the non-tax revenue collection, where the major non-tax revenue

collection from economic services is from non-ferrous mining and metallurgical industries. Roads and Bridges that come under economic services also constitute a substantial fraction of the revenue from Economic services.

Table 2.6: Consolidated Fund of Jharkhand: Revenue Account- Receipts (in Rs. Lakh)

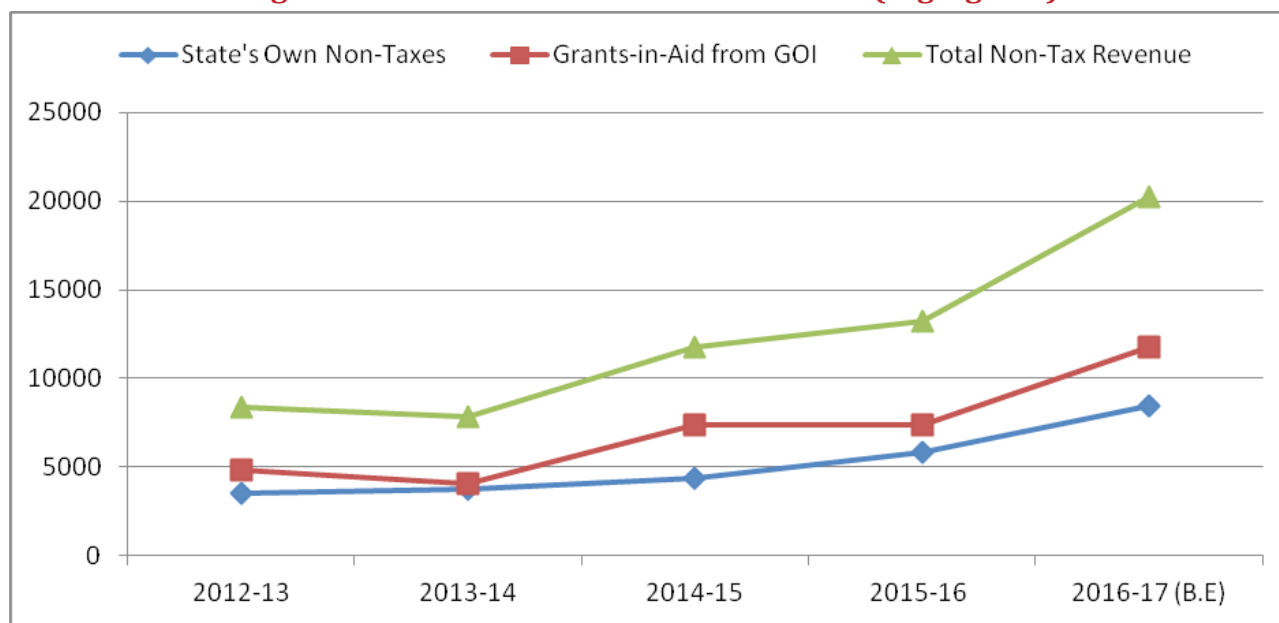
States own Non Tax Revenue					
Sl. No.	Major Head	2014-15 (Actuals)	2015-16 (Budget)	2015-16 (Revised)	2016-17 (Budget)
1	Other Fiscal Services	0	0.02	0.02	0.02
2	Interest Receipts, Dividends and Profits	14304.07	11750.47	17750	32500
3	General Services	10064.39	14961.14	13391.01	16000.02
4	Social Services	18201.74	16867.22	21550.11	25965
5	Economic Services	390936.2	586834.2	637857.5	768111.3
6	Other Non Tax Revenue	419202.3	618662.6	672798.6	810076.3
7	State's own Total Non Tax Revenue	433506.4	630413.1	690548.6	842576.3

Source: Annual Financial statement, 2016-17, GoJ

It is very clear from the figure below that grants in aid from GOI comprise a larger portion of the total non-tax revenue of the state. The Budget Estimates of 2015-16 showed a very

large increase in the grants in aid from the GOI, which is expected to reduce in the 2016-17 Budget Estimates.

Figure 2.5: Trend in Total Non-Tax revenue (segregated)



Capital Receipts

The borrowing and other liabilities constitute a major portion of the capital receipts. The

growth rate of borrowing and other liabilities jumped to 96 percent in 2014-15, but is estimated to have a negative growth in 2016-17.

Table 2.7: Trend and Composition of Capital Receipts

	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017
Capital Receipts	5732.61	4326.43	8476.94	13798.93	7746.27
% Growth	56.50%	-24.53%	95.93%	62.78%	-43.86%
(a) Recoveries of Loans	43.11	23.32	33.06	31.06	46.27
% Growth	84.07%	-45.90%	41.77%	-6.05%	48.97%
(b) Other Receipts	0.00	0.00	0.00	0.00	0.00
% Growth	0.00%	0.00%	0.00%	0.00%	0.00%
(c) Borrowing and Other Liabilities	5689.50	4303.11	8443.88	13767.87	7700.00
% Growth	56.32%	-24.37%	96.23%	63.05%	-44.07%

Source: Department of Planning-cum-Finance (Finance Division), GoJ

Of Capital receipts majorly consist of Public Debt, Loans and Advances and Inter-state settlements and transfer to contingency fund.

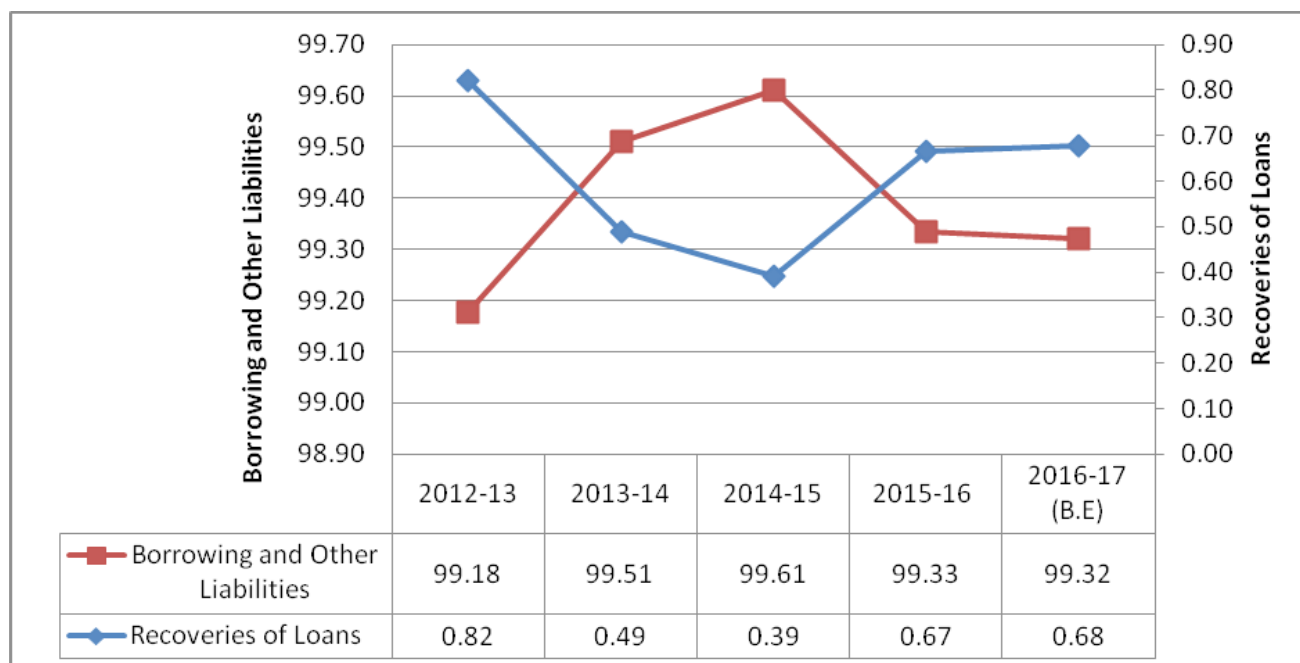
Public debt accounts for the majority fraction of the capital receipts of the government, followed by receipts from Loans and Advances.

Table 2.8: Consolidated Fund of Jharkhand: Capital Account- Receipts (in Lakh Rupe)

Sl. No.	Major Head	2014-15 (Actuals)	2015-16 (Budget)	2015-16 (Revised)	2016-17 (Budget)
1	Public Debt	669011.68	741600.00	1355237.00	770000.00
2	Loans and Advances	3305.76	4964.78	5067.37	4626.71
3	Inter State Settlement	0	0.01	0	0.01
4	Transfer to contingency fund	0	0.01	0	0.01
5	Total Receipt on Capital Account	672317.44	746564.80	1360304.37	774626.73

Source: Annual Financial statement, 2016-17; Department of Planning-cum-Finance (Finance Division), GoJ

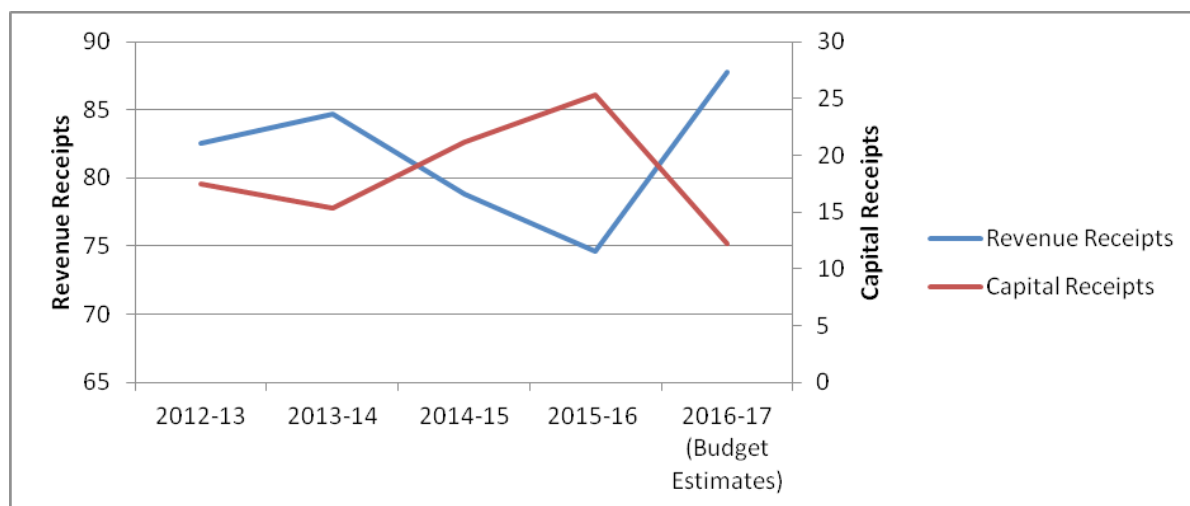
Figure 2.6: Trend in Capital Receipts (segregated)



The graph below shows a jump in the capital receipts in 2014-15 from 15.32 percent in 2013-14 to 21.17 percent. This jump of nearly

5.85 percent is mainly attributed to the deficit in the consolidated fund which has been included for the year 2014-15.

Figure 2.7: Revenue and Capital Receipts as percentage of Total Receipts



Source: Department of Planning-cum-Finance (Finance Division), GoJ

Table 2.9: Revenue and Capital Receipts as percentage of GSDP

	Revenue Receipts	Capital Receipts
2013-14	15.13	2.74
2014-15	15.98	4.29
2015-16 (Revised Estimates)	17.95	6.09
2016-17 (Budget Estimates)	21.43	2.98

The State's fiscal health depends largely on the terms of devolution of resources from the Central Government as recommended by the successive Finance Commissions from time to time. At the same time, the revenue and expenditure policy of the State Government also has substantial impact on the fiscal position of the State government, especially the expenditure policy.

Government of Jharkhand devises its fiscal policy and guiding principles in line with the Finance Commission's recommendation as well as instructions from NITI Aayog. The Twelfth Finance Commission recommended the enactment of the Fiscal Responsibility and Budget Management Act (FRBM Act) for the Union and the State Governments as a part of an effort to reform and to consolidate the respective financial conditions laid down

by it in the Twelfth Finance Commission. The Thirteenth Finance Commission reinforced this recommendation by offering incentives on compliance.

Even Jharkhand Government has also been implementing and updating its own FRBM Act so as to achieve and align with the successive Finance Commission's recommendation for the State.

The Fourteenth Finance Commission further stated that during their award period, fiscal deficit of all States will be anchored to an annual limit of 3 per cent of GSDP with flexibility of 0.50 with certain conditions. The salient features of the fiscal rules introduced by Fourteenth Finance Commission may be highlighted as given below –

Fiscal deficit of all States will be anchored

to an annual limit of 3 per cent of GSDP. The States will be eligible for flexibility of 0.25 per cent over and above this for any given year for which the borrowing limits are to be fixed if their debt-GSDP ratio is less than or equal to 25 per cent in the preceding year.

States will be further eligible for an additional borrowing limit of 0.25 per cent of GSDP in a given year for which the borrowing limits are to be fixed if the interest payments are less than or equal to 10 per cent of the revenue receipts in the preceding year.

The two options under these flexibility provisions can be availed of by a State either separately, if any of the above criteria is fulfilled, or simultaneously if both the above stated criteria are fulfilled. Thus, a State can have a maximum fiscal deficit-GSDP limit of 3.5 per cent in any given year.

The flexibility in availing the additional limit under either of the two options or both will be available to a State only if there is no revenue deficit in the year in which borrowing limits are to be fixed and the immediately preceding year. If a State is not able to fully utilise its sanctioned borrowing limit of 3 per cent of GSDP in any particular year during the first four years of the award period (2015-16 to 2018-19), it will have the option of availing this unutilised borrowing amount (calculated in rupees) only in the following year but within the award period of Fourteenth Finance Commission.

With the increased devolution under the Fourteenth Finance Commission which commences from 2015-16 onwards, details of which are discussed later, the state finance is expected to improve significantly, provided the State Government follows a cautious approach right from the beginning of the award period. The State Government needs to continue the various austerity measures it has put in place as well as tapping of additional

resources.

State's Share in Central Taxes and Post Devolution Revenue Deficit Grant

As per the recommendation of the Fourteenth Finance Commission, the share of States in the net proceeds of Union taxes was increased from 32 per cent to 42 per cent. Out of this, the share of Jharkhand in inter-se distribution of the State's share amongst the States is 3.139 per cent. Depending upon buoyancy of the Central taxes, actual receipt of the State in Central Taxes may be more or less than the projection of the Commission. Again, economic boom and recession as well as the fiscal policy of the Central Government play a vital role in determination of the actual volume of devolution.

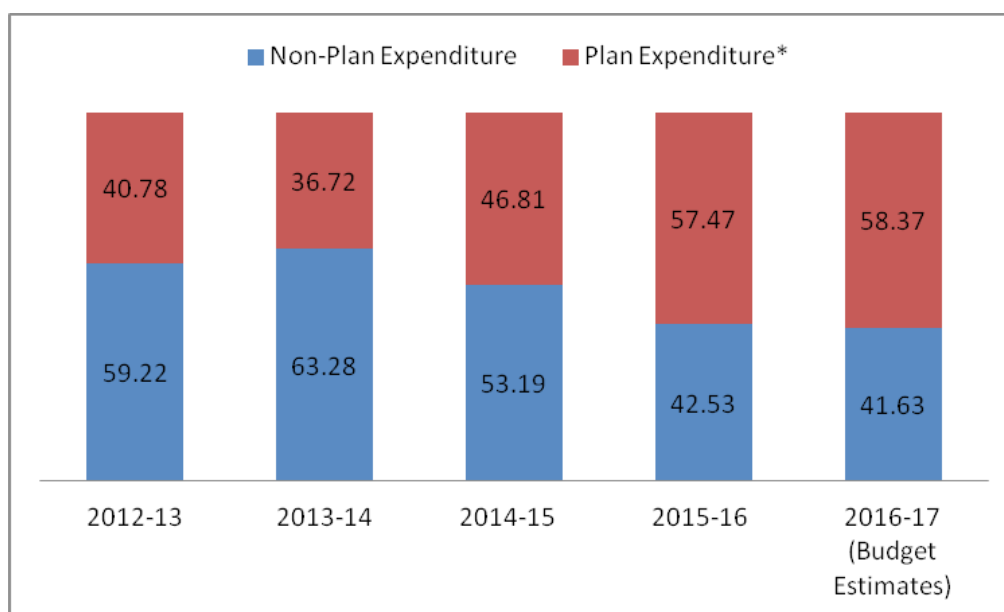
Expenditure

Improving the expenditure pattern is a way of achieving fiscal consolidation, which is very important for any state. The quality of expenditure of the state reflects its aims at achieving better quality of life and better infrastructural facilities which can promote growth in the GDP of the state. The growth in capital expenditure in the state in the year 2015-16 was 116 percent. This can be attributed to the high expenditure incurred because of the high level of internal debt of the state (the loan taken under UDAY scheme has been also included, which has increased the expenditure). The growth in the Total Expenditure (TE) of the government from 2015-16 to 2016-17 (BE) is estimated at 16.6 percent, from Rs. 54437 crore to Rs. 63502 crore respectively. The total expenditure consists of Plan and Non-Plan expenditure.

Bulging Non Plan Revenue Expenditure is the main issue and challenge of the State Government. The main reasons for increase in NPRE are implementation of Sixth Pay Commission, recommendation of salary and

pensions coupled with high cost of Power purchase, interest payment, big policy decisions involving huge expenditures and ever increasing cost of administration.

Figure 2.8: Plan and Non-Plan Expenditure



*Plan Expenditure for the year 2015-16 (RE) includes Rs. 6136 crore for loans under the Uday Scheme, which have not been included prior to this year.

Plan Expenditure

The Plan expenditure consists of revenue

account and capital account. The capital expenditure in the year 2015-16 is almost half of the total plan expenditure, which shows a greater amount of money spent on developmental activities and creation of infrastructure.

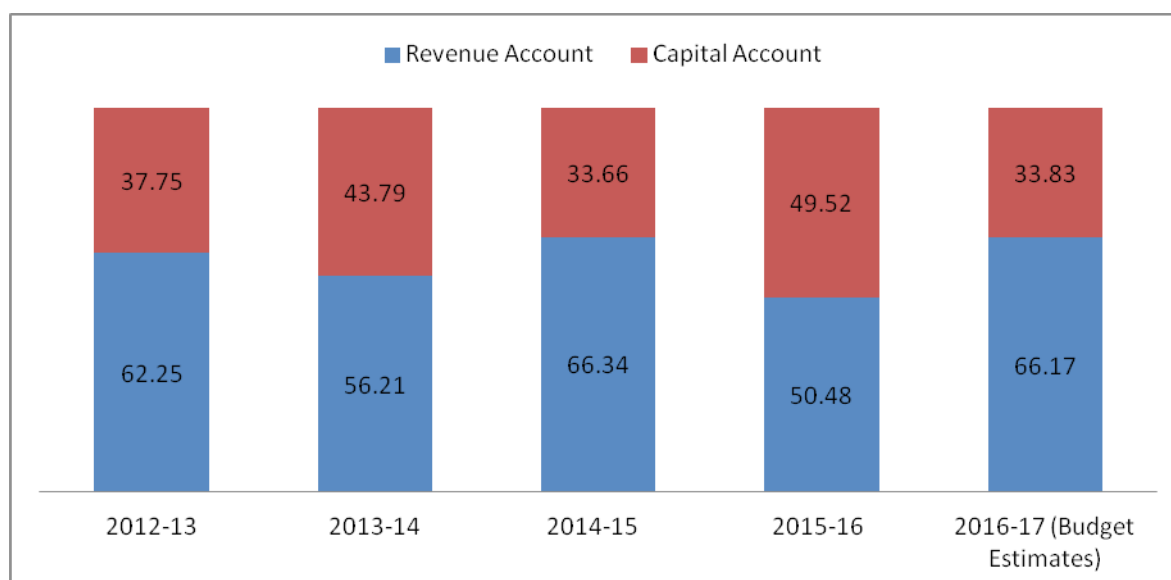
Table 2.10: Trend and Composition of Plan Expenditure

	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017
Plan Expenditure	12438.01	11186.16	18745.38	31287.08	37065.35
% Growth	13.65%	-10.06%	67.58%	66.91%	18.47%
(a) On Revenue Account	7743.26	6287.48	12435.92	15793.03	24526.19
% Growth	1.27%	-18.80%	97.79%	27.00%	55.30%
(b) of which, Grants for creation of Capital Assets	1174.38		3652.09		6494.51
% Growth	379.78%	-100.00%	0.00%	-100.00%	0.00%
(c) On Capital Account	4694.74	4898.68	6309.46	15494.05	12539.16
% Growth	42.38%	4.34%	28.80%	145.57%	-19.07%

Source: Department of Planning-cum-Finance (Finance Division), GoJ

The revenue account for the year 2016-17 (B.E) and the capital account is around 33 percent. is around 66 percent of the plan expenditure,

Figure 2.9: Details of revenue and capital account in Plan Expenditure 2012-13 to 2016-17 (BE)



Non-Plan Expenditure

The Non-Plan Expenditure also consists of Revenue and Capital expenditure. The non-plan revenue expenditure consists of interest payments, salary and pension. The non-plan capital expenditure consists of internal debt of the state, loans and advances from the GoI, capital expenditure and loans and advances. The expenditure incurred on Revenue account of non-plan expenditure is a larger proportion of non plan expenditure.

Table 2.11: Trend and Composition of Non Plan Expenditure

	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017
Non-Plan Expenditure	18064.16	19277.06	21296.12	23150.20	26437.34
% Growth	19.32%	6.71%	10.47%	8.71%	14.20%
On Revenue Account of Which	15656.61	17184.41	19358.98	20759.81	24235.73
% Growth	17.32%	9.76%	12.65%	7.24%	16.74%
(a) Interest Payments	2391.25	2614.44	2929.15	3320.08	4180.43
% Growth	5.48%	9.33%	12.04%	13.35%	25.91%
(b) Salary	6446.02	6934.16	7381.55	8177.92	10197.45
% Growth	4.81%	7.57%	6.45%	10.79%	24.69%
(c) Pension	2931.19	3484.31	3465.32	3990.01	4789.69

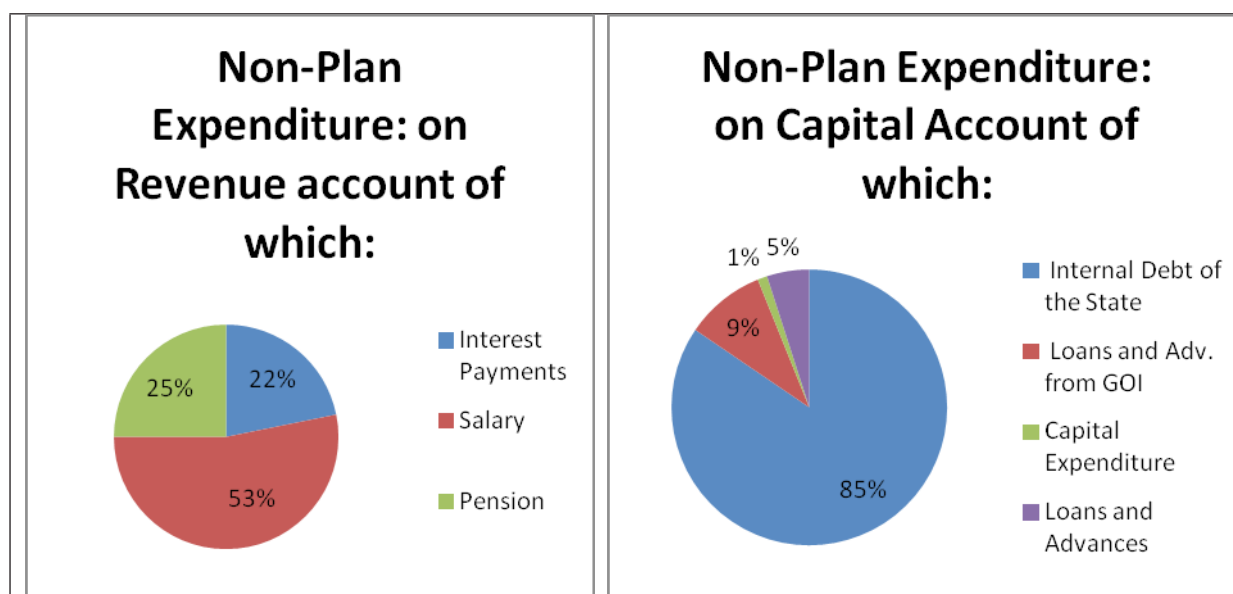
	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017
% Growth	27.63%	18.87%	-0.55%	15.14%	20.04%
On Capital Account of Which	2407.55	2092.65	1937.14	2390.40	2201.61
% Growth	34.24%	-13.08%	-7.43%	23.40%	-7.90%
(a) Internal Debt of the State	2044.54	1858.17	1721.71	2079.42	1860.38
% Growth	37.74%	-9.21%	-7.34%	20.78%	-10.53%
(b) Loans and Adv. from GOI	138.52	138.75	158.17	166.51	206.78
% Growth	-10.46%	0.17%	14.00%	5.27%	24.18%
(c) Capital Expenditure	67.38	15.81	22.82	72.23	25.05
% Growth	40.73%	-76.53%	44.30%	216.50%	-65.32%
(d) Loans and Advances	157.11	79.91	34.44	72.23	109.40
% Growth	47.37%	-29.14%	-56.90%	109.73%	51.46%

Source: Department of Planning-cum-Finance (Finance Division), GoJ

As can be seen from the figure below, a major part of the NPRE (on revenue account) goes to Salary payments (53 percent), followed by Pension payments (25 percent) and Interest Payments (22 percent). From the NPRE (on

capital account) the major portion is spent on the payments of Internal debt of the state (85 percent), followed by Loans and advances from GOI (9 percent), Loans and advances (5 percent) and capital expenditure (1 percent).

Figure 2.10: Details of revenue and capital account in Non-Plan Expenditure 2016-17 (BE)



Total Expenditure

The growth in Revenue Expenditure is estimated to be at 33.40 percent and growth

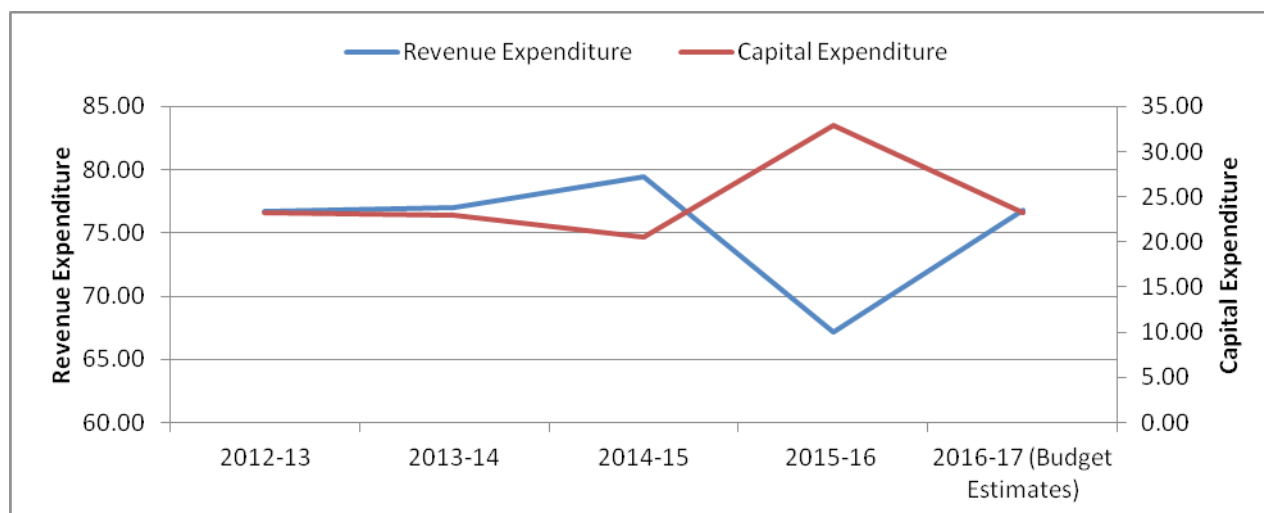
in Capital Expenditure is estimated to decline by 17.58 percent as according to the budget estimates for the year 2016-17.

Table 2.12: Growth in Revenue and Capital Expenditure (yoy)

	Revenue Expenditure	Capital Expenditure
2013-14	0.31	-1.56
2014-15	35.46	17.95
2015-16	14.96	116.87
2016-17 (Budget Estimates)	33.40	-17.58

Source: Department of Planning-cum-Finance (Finance Division), GoJ

Figure 2.11: Revenue and Capital Expenditure as percentage of Total Expenditure



Source: Department of Planning-cum-Finance (Finance Division), GoJ

The revenue expenditure broadly consists of Social services, economic services and general services. The largest part of the expenditure is incurred on social services which consist of education, health and family welfare, welfare of SC, ST and OBC's, social welfare and nutrition and labour and labour welfare. About 43.55 percent of the revenue expenditure is spent on these above mentioned social services. The expenditure of general services is about 29 percent and that of economic services is about 26 percent. The former consists of services like organs of state, fiscal services, administrative services, pensions and other

miscellaneous services. The latter consists of services like agriculture, rural development, SAP's (Special Area Programmes), irrigation and flood control, energy, industry and minerals and transport. About 0.1 percent of the revenue expenditure consists of grants in aid and contributions.

The major portion of the capital expenditure is on Economic services which constitute about 78 percent of the total Capital Expenditure. Capital expenditure on Transport and Rural Development is the highest, followed by agriculture, industry and irrigation. Capital expenditure on social services is the second

highest and occupies 15.66 percent of the total capital expenditure. The capital expenditure on General Services is 6.03 percent of the total capital expenditure. The total consolidated

fund of capital disbursements consists of capital expenditure on general services, economic services and social services; public debt and loans and advances.

Table 2.13: Consolidated Fund of Jharkhand: Revenue Account: Expenditure

(Rs. in Lakh)

Major Head	2014-15 (Actuals)	2015-16 (Budget)	2015-16 (Revised)	2016-17 (Non-Plan)	2016-17 (State-Plan)	2016-17 (CPS)	2016-17 (CSPS)	Total
General Services								
Organs of State	54363.87	43519.68	46126.75	43402.47	0	0	0	43402.47
Fiscal Services	26750.40	41051.03	41787.6	36251.25	3058	7474	0	46783.25
Interest Payment and Servicing of Debt.	292914.70	344694.02	344994.04	438042.51	0	0	0	438042.51
Administrative Services	341784.22	452532.89	423685.09	400291.29	33771	0	0	434062.29
Pensions and Miscellaneous General Services	346532.00	449261	457014	478969.3	0	0	0	478969.3
Total General Services	1062345.19	1331058.62	1313607.48	1396956.82	36829.00	7474.00	0.00	1441259.82
Social Services								
Education, Sports, Art and Culture	574452.95	859088.39	835785.17	471135.36	312400	255	165320	949110.36
Health and Family Welfare	135800.37	250338.49	240795.55	93422.83	92690.98	2918	52808.75	241840.56
Water Supply, Sanitation, Housing and Urban Development	173947.52	286978.2	240093.88	59339.73	197033	0	97367	353739.73
Information and Broadcasting	6595.45	9241.24	9653.24	5614.56	4850	0	0	10464.56
Welfare of Schedule Caste, Schedule Tribe & Other Backward Class	85976.88	113165.19	121051.88	17009.66	129743	10973.4	3625	161351.06
Labour and Labour Welfare	9125.48	28302.71	31062.54	6666.32	9353	5625	5	21649.32
Social Welfare and Nutrition	203436.64	324660.06	327103	67831.49	240470	170	74410	382881.49
Others	2198.31	2978.88	3063.78	3023.01	0	0	0	3023.01
Total Social Services	1191533.6	1874753.16	1808609.04	724043	986539.98	19941.40	393535.75	2124060.09
Economic Services								
Agriculture and Allied Activities	108997.05	180486.02	190920.93	55372.98	164406.2	1150	39104.84	260034.02
Rural Development	350131.02	557747.33	573065.82	154567.76	169910.34	0	375030.2	699508.3
Special Areas Programmes	0	0	0	0	0	0	0	0
Irrigation and Flood Control	33008.11	44652.84	40075.11	47041.9	1500	0	0	48541.9
Energy	234391.86	138959.27	223659.27	326.03	69792	0	0	70118.03
Industry and Minerals	23721.71	39325.54	43494.39	6231.86	37831	0	100	44162.86
Transport	83576.63	32591.75	37743.83	28780.08	13794.12	0	0	42574.2
General Economic Services	91778.32	134748.74	98129.74	10237.2	134265.86	381.68	1032.89	145917.63
Total Economic Services	925604.70	1128511.49	1207089.9	302557.81	591499.52	1531.68	415267.93	1310856.94

Major Head	2014-15 (Actuals)	2015-16 (Budget)	2015-16 (Revised)	2016-17 (Non-Plan)	2016-17 (State-Plan)	2016-17 (CPS)	2016-17 (CSPS)	Total
Grants. In Aid and Contributions	0	1.01	1.01	15.01	0	0	0	15.01
Total Expenditure on Revenue Accounts	3179483.49	4334324.28	4329306.62	2423572.60	1614868.50	28947.08	808803.68	4876191.86

Source: Annual Financial statement, 2016-17; Department of Planning-cum-Finance (Finance Division), GoJ

Table 2.14: Consolidated Fund of Jharkhand: Capital Account: Expenditure

(Rs. in lakh)

Major Head	2014-15 (Actuals)	2015-16 (Budget)	2015-16 (Revised)	2016-17 (Non-Plan)	2016-17 (State-Plan)	2016-17 (CPS)	2016-17 (CSPS)	Total
Capital Account of General Services	32633.23	52000.12	72859.97	2205.02	57431.63	0	6652.8	66289.45
Capital Account of Social Services								
Education, Sport, Art and Culture	8296.75	20233	17483	0	17780	5000	0	22780
Health and Family Welfare	26097.34	42903.04	47395.17	0	64510.27	0	0	64510.27
Water Supply, Sanitation, Housing and Urban Development	18890.18	35479	34398.39	300	34550	0	0	34850
Information and Broadcasting	45	65	65	0	1050	0	0	1050
Welfare of Schedule Caste, Schedule Tribe & Other Backward Class	17271.69	31589	33095.38	0	25381	4142	1251	30774
Social Welfare and Nutrition	16002.05	25400	13391.08	0	7022	0	7308	14330
Others	4347.37	6510	4383	0	2610	55	1175	3840
Total Capital Account of Social Services	90950.38	162179.04	150211.02	300	152903.27	9197	9734	172134.27
Capital Account of Economic Services								
Capital outlay of Agriculture and Allied Activities	9329.77	14943.94	15343.94	0	80493	0	1293	81786
Capital outlay of Rural Development	136022.17	129240	180595.63	0	175249.66	0	0	175249.66
Capital outlay of Irrigation and flood control	37894.27	200300	126986	0	163328	1000	18872	183200
Capital Outlay on Energy	0	0	0	0	0	0	0	0
Capital Outlay on Industry and minerals	116.36	700	700	0	1714	0	0	1714
Capital Outlay of Transport	245995.1	301735	330135	0	411205.88	0	0	411205.88
Capital Outlay on Sciences	0	0	0	0	0	0	0	0
Capital Outlay on General Economic Services	1352.92	6460.02	6660.02	0.02	7600	0	0	7600.02

Major Head	2014-15 (Actuals)	2015-16 (Budget)	2015-16 (Revised)	2016-17 (Non-Plan)	2016-17 (State-Plan)	2016-17 (CPS)	2016-17 (CSPS)	Total
Total Capital Account of Economic Services	430710.59	653378.96	660420.59	0.02	839590.54	1000	20165	860755.56
Total Capital Expenditure	554294.20	867558.12	883491.58	2505.04	1049925.44	10197.00	36551.80	1099179.28
Public Debt	187987.75	225852.83	225852.83	206716.36	0	0	0	206716.36
Loans and Advance	82377.87	121560.11	786660.11	10940	157241.2	0	0	168181.2
Total Consolidated Fund	4004143.31	5549295.34	6225311.14	2643734	2822035.14	39144.08	845355.5	6350268.7

Source: Annual Financial statement, 2016-17; Department of Planning-cum-Finance (Finance Division), GoJ

Utilisation of funds by departments

The outlay allotted to different departments and the expenditure incurred by each department is shown in the table below. It can be seen that the utilisation (percentage of expenditure) is highest in the transport department, where 91.65 percent of the funds have already been utilized, followed by the Road Construction department, which has already

utilised 77 percent of the funds allotted to it for the given financial year. Rural Development department, is the third in terms of utilisation of expenditure, where 75 percent of the funds have been utilised by Dec 2016. It can also be seen that the Rural Works department has over-utilisation of funds (112.95 percent), where it has already utilised Rs. 2597 crores as against Rs. 2300 crores allotted to it.

Table 2.15: Outlay and Expenditure for the Financial Year 2016-17 (as on 31.12.2016)

(in Rs Crore)

Sl. no.	Name of the Departments		Outlay	Exp.	% Exp.
1	2	3	4	5	6
1	Agriculture, Animal Husbandry and Cooperative	Agriculture	1638.26	409.99	25.03
		Animal Husbandry	196.36	27.73	14.12
		Dairy	312.00	94.33	30.23
		Fisheries	118.18	70.32	59.50
		Cooperative	150.00	151.31	100.87
		Sub -Total	2414.80	753.68	31.21
2	Building Construction	Building Construction	460.00	226.70	49.28
3	Commercial Taxes	Commercial Taxes	5.00	0.22	4.40
4	Drinking Water & Sanitation	Drinking Water	1250.00	758.60	60.69
5	Energy	Energy	2249.17	845.42	37.59
6	Excise & Prohibition	Excise & Prohibition	15.00	0.00	0.00
7	Food, Public Distribution & Consumer Affairs	Food & Civil Supplies	1350.00	490.52	36.33

Sl. no.	Name of the Departments		Outlay	Exp.	% Exp.
8	Forests,Environment & Climate Change	Forests and Environ.	389.38	104.29	26.78
9	Health, Medical Edu. and Family Welfare	Health, Medical Edu. and Family Welfare	2100.00	726.29	34.59
10	Higher and Technical Education	Science & Tech	145.00	141.38	97.50
		Higher Education	280.00	38.11	13.61
		Sub -Total	425.00	179.49	42.23
11	Home, Jail and Disaster Mgmt.	Home	186.00	23.73	12.76
		Disaster Mgmt.	0.10		
		Sub -Total	186.10	23.73	12.75
12	Industries, Mines & Geology	Industries	375.00	105.01	28.00
		Mines and Geology	21.45	2.80	13.05
		Sub -Total	396.45	107.81	27.19
13	Information Technology & e-governance	Information Technology	180.00	38.63	21.46
14	Information & Public Relation	Information & Public Relation	60.00	32.86	54.77
15	Labour Employment, Training and Skill Dev.	Labour & Employment	155.00	28.28	18.25
16	Personnel, Adm. Reforms and Rajbhasha	Personnel, administrative Reforms and Rajbhasha	10.00	0.22	2.20
17	Planning-cum-Finance	Planning & Dev.	336.40	82.51	24.53
18	Revenue, Registration and Land Reforms	Revenue and Land Reforms	57.71	22.69	39.32
19	Road Construction	Road Construction	4000.00	3093.07	77.33
20	Rural Development	Rural Development	4711.65	2674.11	56.76
		Rural Works	2300.00	2597.85	112.95
		Panchayati Raj	190.25	132.12	69.45
		Sub -Total	7201.90	5404.08	75.04
21	School Education & Literacy	Human Resource Dev.	4250.00	1943.85	45.74
22	Tourism, Arts Culture, Sports & Youth Affairs	Tourism	120.00	16.92	14.10
		Arts & Culture	100.00	8.39	8.39
		Sub -Total	220.00	25.31	11.50

Sl. no.	Name of the Departments		Outlay	Exp.	% Exp.
23	Transport	Transport	150.00	141.63	94.42
		Civil Aviation	100.00	87.50	87.50
		Sub -Total	250.00	229.13	91.65
24	Urban Development & Housing	Urban Development	1950.00	1135.03	58.21
		Housing	50.00	0.50	1.00
		Sub -Total	2000.00	1135.53	56.78
25	Water Resources	Water Resources	1837.00	858.89	46.76
26	Welfare	Welfare	1600.00	600.29	37.52
27	Women, Child Dev. & Social Security	Social Welfare	3275.00	1477.44	45.11
	Total		36673.91	19189.53	52.32

Source: Department of Planning cum Finance, GoJ

It can also be seen that the utilisation rate of funds has improved, and is highest at 97.36 percent in the year 2015-16. There was a 70 percent utilisation in the financial year 2014-15, which has drastically increased. The increase in the utilisation rate signifies that the advance budget planning and implementation

has led to the increase in the utilisation rate of the funds by the departments. This is a positive step towards the efficient use of the funds being allocated and utilised in time, and making the most of the funds provided for the betterment of the people.

Table 2.16: Plan Performance of the government (outlay and expenditure, in Rs Crore)

Financial Year	Outlay (BE)				Expenditure				% Expenditure
	State Plan	CSPS	CPS	Total Plan	State Plan	CSPS	CPS	Total Plan	
2001-02	2202.55	349.25	0.00	2551.80	1866.22	128.15	0.00	1994.37	78.16%
2002-03	2749.65	899.29	403.69	4052.64	1737.88	201.07	98.18	2037.13	50.27%
2003-04	2805.57	917.77	391.64	4114.98	1851.73	193.17	69.02	2113.92	51.37%
2004-05	4110.19	917.76	391.64	5419.60	3234.59	263.01	107.78	3605.38	66.52%
2005-06	4510.12	786.08	390.68	5686.88	4796.29	198.30	68.10	5062.69	89.02%
2006-07	6500.00	944.74	369.70	7814.45	3743.11	235.60	33.22	4011.93	51.34%
2007-08	6676.00	636.91	226.94	7539.85	5593.17	255.68	104.93	5953.78	78.96%
2008-09	8015.00	988.29	649.67	9652.96	6723.79	192.25	166.97	7083.01	73.38%
2009-10	8200.00	1110.88	244.67	9555.55	6201.19	413.59	117.79	6732.56	70.46%

Financial Year	Outlay (BE)				Expenditure				% Expenditure
	State Plan	CSPS	CPS	Total Plan	State Plan	CSPS	CPS	Total Plan	
2010-11	8600.00	1245.30	459.11	10304.41	7977.26	605.83	212.42	8795.51	85.36%
2011-12	15300.00	1294.21	430.73	17024.94	10100.58	685.18	157.91	10943.67	64.28%
2012-13	16300.00	1793.96	615.71	18709.67	11279.08	1021.89	137.03	12438.01	66.48%
2013-14	16800.00	1795.60	556.30	19151.90	9953.38	1007.70	225.08	11186.16	58.41%
2014-15	18270.00	7974.01	510.96	26754.97	15010.52	3516.02	218.84	18745.38	70.06%
2015-16*	22526.70	9048.89	561.26	32136.84	26424.40	4608.71	253.97	31287.08	97.36%

*Note: Rs. 5553.37 crore of loan under UDAY Scheme has been included in Financial Year 2015-16

Source: Department of Planning cum Finance, GoJ

Liabilities of the state

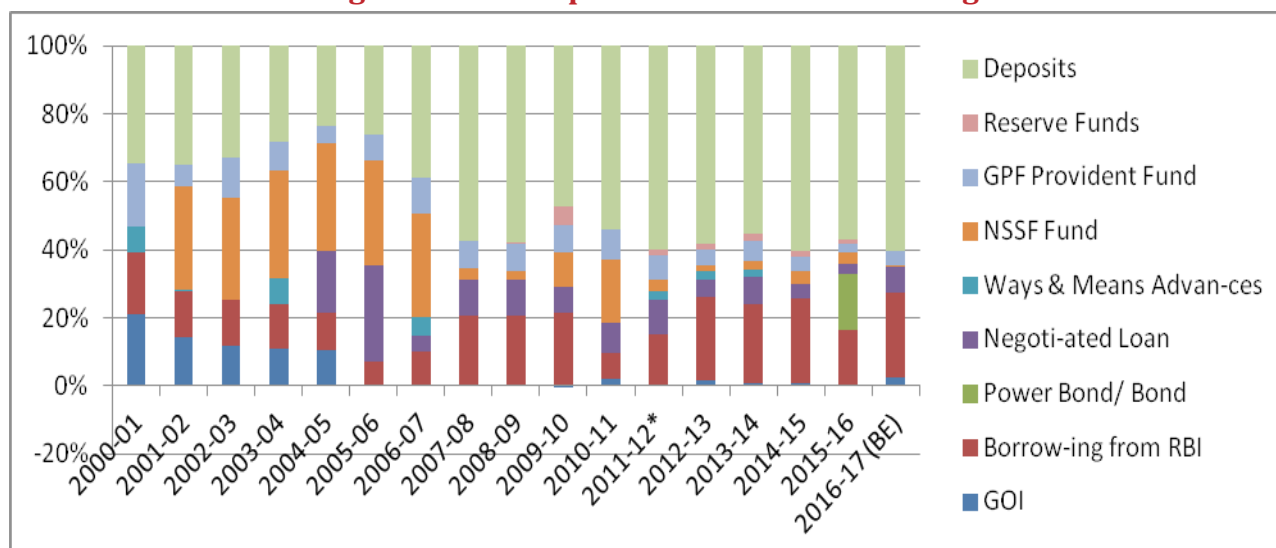
The outstanding liabilities of the state include borrowings from government of India and RBI, negotiated loans, ways & means advances, loans from National Small Saving Fund (NSSF), General Provident Fund (GPF), Reserve Funds, deposits and repayments. Year wise debt position of Jharkhand has been shown in the table below. The main sources of borrowing are deposits and Reserve Bank of India for the state. The other important sources of borrowing in the recent years are negotiated loans, GPF & provident funds and NSSF. The net borrowings, which is gross borrowings less repayments, has always been less than borrowing ceiling since 2010-11, except for the year 2015-16, where the net borrowing was Rs 12961 crores as opposed to the borrowing ceiling of Rs 6360 crore (this was because of the inclusion of the Loans taken under UDAY scheme worth Rs 5553.37 crores, which increased the net borrowing). If the UDAY loan was to be excluded, the net borrowing would be well within the ceiling limit.

The composition of Gross Borrowing has seen considerable changes over a period of

time. The use of Power Bonds/Bonds has been initiated from the financial year 2015-16, which has a significant share in the total gross borrowing of the state (16.41 percent of ten total gross borrowing for the year 2015-16). As a recent RBI document¹ regarding outstanding liabilities of state government indicates, a steady decline in net collections under NSSF combined with increasing repayment obligations of the states, that has resulted in a decline in fresh investments by NSSF in state government securities and this is witnessed in Jharkhand as well. Again ways and means advances, to which the state had taken recourse in 2000-01, had practically disappeared subsequently, but have made a reappearance since 2011-12. The share of GPF and Provident Funds in gross borrowings has declined over the reference period, while that of deposits has increased. Deposits continue to account for the largest share of gross borrowings in the state. The Jharkhand government initiated use of reserve funds since 2008-09.

¹ <http://www.rbi.org.in/scripts/PublicationsView.aspx?id=15555>

Figure 2.12: Composition of Gross Borrowing



Debt sustainability refers to the debt servicing capacity (ability to redeem the debt) of the state. Some ratios are quite useful in assessing the trend path of debt sustainability on which the state is moving. A low debt to GSDP ratio indicates an economy that produces and sells

goods and services sufficient to pay back its debts without incurring further debt. A level of 35 percent is sustainable for any economy. Jharkhand has been keeping well within those limits and it is around 24 percent in the last two years.

Table 2.17: Debt Sustainability Debt as a percentage of GSDP)

Year (Actual)	GSDP	% of Gross Borrowing of GSDP	% of Net Borrowing of GSDP	Total Debt / GSDP Ratio
2000-01	27616.38	2.45%	1.00%	22.59%
2001-02	32876.64	8.26%	4.76%	23.74%
2002-03	43835.51	7.81%	2.55%	20.36%
2003-04	52813.87	8.22%	3.12%	20.01%
2004-05	59757.72	8.36%	4.92%	22.61%
2005-06	60900.54	8.67%	6.32%	28.51%
2006-07	66934.75	6.21%	3.07%	29.01%
2007-08	83949.59	7.01%	2.62%	25.75%
2008-09	87793.93	8.21%	2.81%	27.43%
2009-10	100620.68	8.57%	3.06%	27.00%
2010-11	115535.14	5.69%	1.29%	24.80%
2011-12*	130505.32	6.56%	1.54%	23.50%
2012-13	162557.14	9.05%	2.59%	21.45%
2013-14	186219.75	6.90%	1.46%	20.19%
2014-15	197514.31	10.03%	3.03%	22.06%
2015-16	226404.91	14.95%	5.72%	24.97%
2016-17 (BE)	260185.41	8.34%	2.40%	24.13%

Source: Department of Planning cum Finance, GoJ

Table 2.18: Year Wise Debt Position of Jharkhand

(Rs. in crore)

Year (Actual)	GOI	Borrowing from RBI	Power Bond/ Bond	Negotiated Loan	Ways & Means Advances	NSSF Fund	GPF Provident Fund	Reserve Funds	Deposits	Gross Borrowing (2 to 10)	Repayment (-)	Net Borrowing	Borrowing Ceiling	Cumulative Debt
1	2	3	4	5	6	7	8	9	10	11 = (2 to 10)	12	13	14	15
15.11.2000 (Balance)												5961.94		5961.94
2000-01	143.20	122.61	0.00	0.00	52.05	0.00	125.79		233.44	677.09	400.85	276.24	828.49	6238.18
2001-02	388.93	370.28	0.00	0.00	11.92	826.18	169.59		947.92	2714.82	1148.63	1566.19	986.30	7804.37
2002-03	407.72	454.97	0.00	1.24	0.00	1025.31	411.16		1125.15	3425.55	2306.60	1118.95	1315.07	8923.32
2003-04	471.54	574.90	0.00	0.00	320.93	1375.89	367.96		1230.72	4341.94	2695.78	1646.16	1584.42	10569.48
2004-05	513.36	564.66	0.00	899.06	0.00	1593.02	254.61		1173.85	4998.56	2056.35	2942.21	1792.73	13511.69
2005-06	5.78	364.12	0.00	1496.91	0.00	1633.81	408.77		1373.16	5282.55	1434.17	3848.38	1827.02	17360.07
2006-07	16.85	400.52	0.00	192.87	229.75	1255.75	453.05		1608.04	4156.83	2099.53	2057.30	2008.04	19417.37
2007-08	13.99	1192.51	0.00	617.96	0.00	198.19	478.77		3379.33	5880.75	3683.54	2197.21	2518.49	21614.58
2008-09	2.58	1486.00	0.00	769.96	0.00	178.02	584.46	13.20	4175.32	7209.54	4740.14	2469.40	2633.82	24083.98
2009-10	-10.03	1843.98	0.00	672.38	0.00	863.11	686.66	489.35	4075.38	8620.83	5539.79	3081.04	3018.62	27165.02
2010-11	131.95	500.00	0.00	586.73	0.00	1227.83	571.73	0.31	3558.07	6576.62	5086.58	1490.04	3466.05	28655.06
2011-12*	32.53	1254.05	0.00	873.98	229.19	281.48	613.38	138.58	5138.27	8561.46	6552.75	2008.71	3915.16	30663.77
2012-13	238.65	3600.00	0.00	770.33	368.79	221.23	667.69	279.81	8571.31	14717.81	10512.59	4205.22	4876.71	34868.99
2013-14	106.15	2950.00	0.00	1031.56	315.58	299.62	760.20	293.19	7084.37	12840.66	10115.80	2724.86	5586.59	37593.84
2014-15	153.21	4950.00	0.00	814.23	0.00	772.68	842.56	307.85	11968.04	19808.57	13833.32	5975.25	6393.00	43569.09
2015-16	165.02	5350.00	5553.37	1044.71	0.00	1131.55	830.10	521.68	19246.91	33843.34	20881.94	12961.40	6360.00	56530.49
2016-17 (BE)	500.00	5452.00	0.00	1610.00	0.00	138.00	885.40	0.00	13111.16	21696.56	15440.12	6256.44	7993.00	62786.93
Total	3281.43	31430.60	5553.37	11381.91	1528.21	13021.67	9111.88	2043.97	88000.45	165353.48	108528.49	62786.93		

Note : * Rs. 5553.37 crore was taken under UDAY Scheme which is not to be reckoned against the normal permissible net borrowing ceiling for 2016-16.
Source: Department of Planning cum Finance, GoJ

Deficit position of the state

The Fiscal Deficit of Jharkhand has been in compliance with the FRBM target of 3.5 percent over the years, except for the year 2015-16, where it has exceeded the limit. This is because the borrowings under UDAY scheme are not to be reckoned against the normal permissible net borrowing ceiling of the state (which has been included in the fiscal deficit calculation, hence the high fiscal deficit is evident). The

participatory budget and early preparation of the budget has increased the level of spending by the government. However, the budget estimates of 2016-17 show a decline in the fiscal deficit to 2.16 percent of GSDP. The Revenue Deficit is in the negative which shows that there is a surplus in terms of Revenue. The primary and fiscal deficit had spiked in the year 2014-15, but the budget estimates show a decline in the deficit levels.

Figure 2.13: Revenue Deficit, Fiscal Deficit and Primary Deficit percentage of GSDP

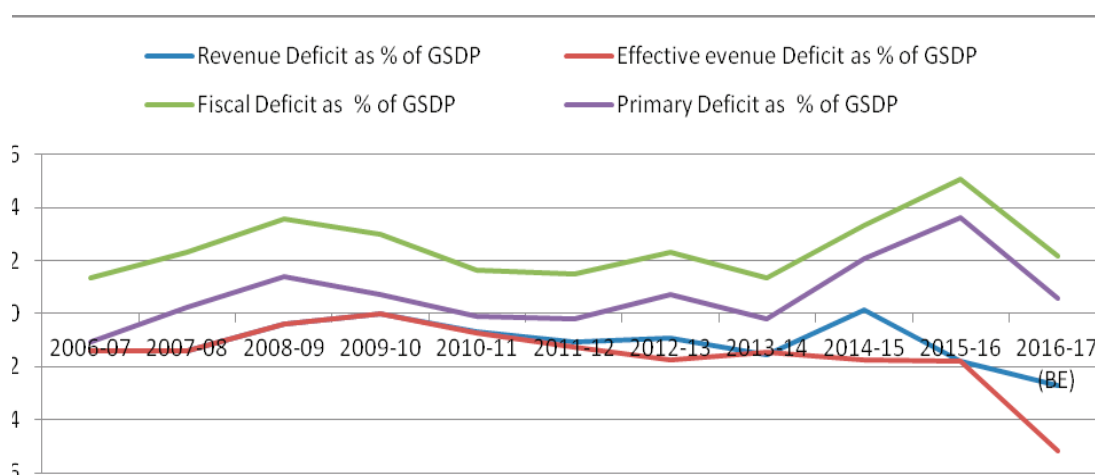


Table 2.19: Deficit position of Jharkhand (2006-07 to 2016-17)

(Rs. in crore)

	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017
Revenue Deficit	315.4129	26.939	-945.8839	-1194.38	-328.98	9.78	-836.39	-1427.867	-1369.68	-2664.9	230.34	-4085.5196	-6994.5
% of GSDP	0.53	0.04	-1.41	-1.42	-0.37	0.01	-0.72	-1.09	-0.93	-1.43	0.12	-1.80	-2.69
Effective Revenue Deficit	315.41	26.94	-945.88	-1194.38	-328.98	9.78	-836.39	-1672.64	-2544.06	-2664.90	-3421.75	-4085.52	-13489.01
% of GSDP	0.53	0.04	-1.41	-1.42	-0.37	0.01	-0.72	-1.28	-1.72	-1.43	-1.73	-1.80	-5.18
Fiscal Deficit	2218.06	5603.00	910.52	1942.61	3121.58	3011.01	2111.36	2000.58	3506.44	2306.19	6564.00	11521.94	5632.84
% of GSDP	3.71	9.20	1.36	2.31	3.56	2.99	1.83	1.53	2.37	1.24	3.32	5.09	2.16
Primary Deficit	1076.73	4183.46	-702.86	184.58	1234.70	703.56	-116.18	-266.50	1115.19	-308.25	3634.85	8201.86	1452.41
% of GSDP	1.80	6.87	-1.05	0.22	1.41	0.70	-0.10	-0.20	0.75	-0.17	1.84	3.62	0.56
GSDP	59757.72	60900.54	66934.75	83949.59	87793.93	100620.68	115535.14	130505.32	147840.95	186219.75	197514.31	226404.91	260185.41

Source: Department of Planning-cum-Finance (Finance Division), GoJ

*After excluding the loan amount of Rs. 5553.37 crore taken under UDAY scheme in the financial year 2015-16 which is not to be reckoned against the normal permissible net borrowing ceiling of the state, the fiscal deficit under FRBM is 2.64 percent .

Budget and the major fiscal indicators of the state- An analysis

The budget of the state for the year 2016-17 has complimented its economic condition very well. With the process of budget formulation which started early this year, the budget formation was also of participatory in nature. A whopping Rs. 63,502 crores is the budget for the state and out of the total budget outlay, Rs. 26,437.34 crore was non-plan and Rs. 37,065.35 crore was under plan head.

In a first, an Action Taken Report (ATR) on the previous budget has been presented in the state, and all major decisions have been taken up taking into consideration all suggestions that were invited from a varied genre of people in the state, from farmers, journalists, industrialists, and intellectuals alike.

In line with the central budget for the country, the Jharkhand budget also has its focus on agriculture and women. Implementing a gender budget and an agriculture budget within the general state budget has been taken up for the first time.

Realizing the importance the women play in the economy of any country or any state, widow pension schemes for women above 40 years has been initiated. Emphasising on women, the government has decided to give training to 2,000 women from the SC/ST and OBC categories for driving light three-wheelers and four-wheelers and to make loans easily available for them to buy these vehicles to run on their own. Working women's hostels are to be constructed in six cities. All the schemes, in which women beneficiaries are over 30 per cent have been brought together under the 'gender budget'. As part of women empowerment, such schemes in which 30 per cent or more have been earmarked for women, would be taken up as Gender Budget. Also, Rs. 13,515.73 crore has been earmarked for such schemes with 43.72 per cent funds underlined for women development.

In agriculture, rural development and allied sectors, the Jharkhand government has decided to set up 'single window system' in all blocks of the state, beginning with 100 in the first phase. Solar pumps, lift irrigation, organic farming etc will also be promoted. Further, the MLA's local area development fund has been increased by Rs 1 crore (From Rs 3 crore to Rs 4 crore, where this fund will be used by them only for irrigation projects. Also, the government will create awareness among farmers to use power tillers in place of tractors. The power tillers are known to be efficient and cost-effective tools as compared to tractors for farming. A 90 percent subsidy for the purchase of solar pumps has also been included in the agriculture budget this year. All in all, the total plan outlay for Agriculture Budget was 13.07 per cent of the total budget.

Climate change and deteriorating natural resource base of the state has put the focus of the state on investing in renewable energy like solar energy. Free LED solar study lamps for school students; grants to the poor and the needy to visit religious or other tourist destinations in the state or the country and multi-purpose examination halls to ensure regular studies were some of the other important announcements made during the budget this year.

The estimated budget would come from Recovery of Loans and Advances (0.08 per cent), state's share of Central Taxes (29.10 per cent), State Own Tax (26.85 per cent), State Own Non-taxes (13.27 per cent), Grants-in-Aid (18.59 per cent) and Borrowings (12.13 per cent).

The Budget earmarked for Pension was 7.54 per cent, for Interest Payment it was 6.90 per cent, for Public Debt Repayment the figures stood at 3.26 per cent, Medical and Public Health (4.82 per cent) and Public Works and transport (8 per cent).

The Budget earmarked for Education, Art, Culture and Sports was 15.30 per cent, General Services, Legislature and Other Services (10.99 per cent), Rural Development (13.78 per cent), Agriculture Allied Activities (9.04 per cent),

Mines and Industries (0.72 per cent), Social Security (9.76 per cent), Urban Development (3.53 per cent), Energy (6.32 per cent), Other Economic Services (2.42 per cent) and others (0.15 per cent).

Box 1 : GENDER BUDGET

Realizing the importance the women play in the economy of any country or any state, widow pension schemes for women above 40 years has been initiated. Emphasising on women, the government has decided to give training to 2,000 women from the SC/ST and OBC categories for driving light three-wheelers and four-wheelers and to make loans easily available for them to buy these vehicles to run on their own. The women are being promoted to form SHG's and make their contribution to the diary sector. Working women's hostels are to be constructed in six cities. All the schemes, in which women beneficiaries are over 30 per cent have been brought together under the 'gender budget'. The budget has also provisioned to make an open shelter in Deoghar for the trafficked children and women. 33 percent has been reserved for women candidates to join the police force. As part of women empowerment, such schemes in which 30 per cent or more have been earmarked for women, would be taken up as Gender Budget. Also, Rs. 13,515.73 crore has been earmarked for such schemes with 43.72 per cent funds underlined for women development.

Box 2 : AGRICULTURE BUDGET

In agriculture, rural development and allied sectors, the Jharkhand government has decided to set up 'single window system' in all blocks of the state, beginning with 100 in the first phase. Solar pumps, lift irrigation, organic farming etc will also be promoted. Further, the MLA's local area development fund has been increased by Rs 1 crore (From Rs 3 crore to Rs 4 crore, where this fund will be used by them only for irrigation projects. Also, the government will create awareness among farmers to use power tillers in place of tractors. The power tillers are known to be efficient and cost-effective tools as compared to tractors for farming. A 90 percent subsidy for the purchase of solar pumps has also been included in the agriculture budget this year. All in all, the total plan outlay for Agriculture Budget was 13.07 per cent of the total budget.

Quality of public expenditure²

The quality of expenditure is at centre-stage of the dynamics of subnational level fiscal consolidation in India. Empirical evaluation indicates that expenditure on public infrastructure, human capital, science

² Section taken from the "State Finances: A Study of Budgets Of 2015-16", Reserve Bank of India April 2016.

The quality of expenditure and its definitions are the ones used in the above mentioned RBI document.

and technology can be growth and welfare enhancing by improving capital and labour productivity. The quality of expenditure of most Indian states has modestly improved following the enactment of FRBM. States need to prioritize expenditure on physical and social infrastructure and economise on non-essential heads.

The states, including Jharkhand, have embarked upon corrective strategies to adjust key fiscal

parameters to levels that are sustainable in the context of the state of the economy. These efforts are typically driven by rules that limit deficits, debt, expenditure or a combination thereof. Fiscal adjustment strategies have been attempted in the form of revenue enhancement or expenditure compression or usually, a combination of both. The presence of nominal rigidities sets up trade-offs – a quantity-centric fiscal adjustment invariably involves compromises in terms of qualitative aspirations of fiscal authorities. In view of the committed nature of certain categories of expenditure, the imperative of achieving quantitative targets forces the curtailment of expenditures that are regarded as ‘productive’ since they provide positive externalities in terms of enhancing growth and efficiency.

Fiscal consolidation at the sub-national level in India has been undertaken under a rule based framework through the enactment of fiscal responsibility and budget management (FRBM) legislations. Resource constraints have forced changes in the structure of the committed expenditures of the government and subsidies, which have changed their structure in the wake of these legislations. In particular, it is imperative that states do not sacrifice growth inducing expenditures even as they put in place mechanisms for enhancing

expenditure efficiency within the overall framework of fiscal consolidation.

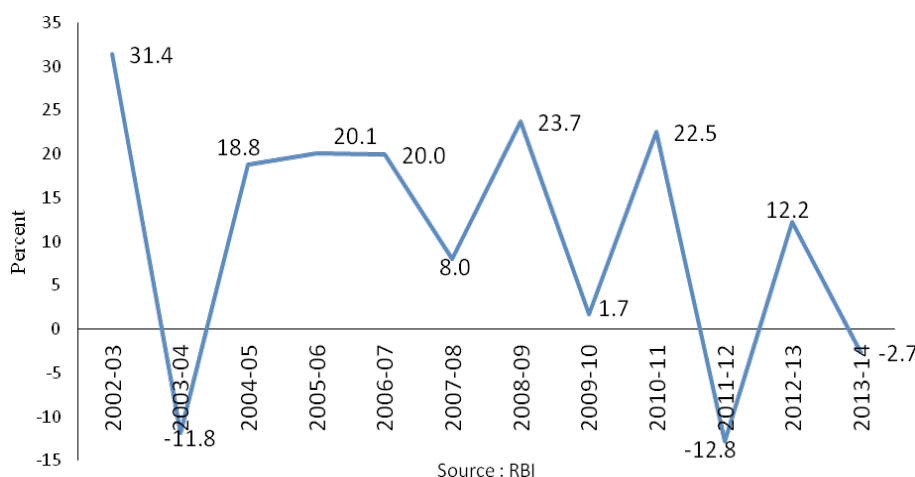
The study also focussed on the importance of the social sector spending in the states. The RBI study of 2015 shows that by enhancing the share of capital outlay and development expenditure in total spending, stimulates the GSDP growth³(the study used a dynamic panel model with data from NSC states). Spending on social infrastructure leads to growth enhancement, poverty reduction and also crowding in of private investment, thereby, enhancing the fiscal multipliers which in turn increases capital and labour productivity.

The announcement of the 7th pay commission will lead to the stress on the fiscal position of the states. They may be forced to cut back on the expenditure on social sector despite the fact that social infrastructure has a positive externality towards unemployment and poverty reduction and also prevents market failure.

The data from 2010-2011 to 2012-13 the social sector spending of the state has gone down by -1.1%. The growth in the social sector spending of Jharkhand is seen to be negative for the year 2013-14 (at -2.7 percent).

³ Gr_PCGSDP = f (GFD-GDP ratio; Debt-GSDP ratio; share of capital outlay and development expenditure in total spending)

Figure 2.14: Growth in Social Sector Expenditure in Jharkhand



When Jharkhand is compared with other states, it can be seen that in 2005-06, Jharkhand spent the highest (45.9 percent) among all states in

social sector expenditure to total expenditure, which has come down to the 11th position (39 percent) in the year 2013-14.

Figure 2.15: Comparative position amongst States in respect of share of social sector expenditure in total expenditure during 2005-06

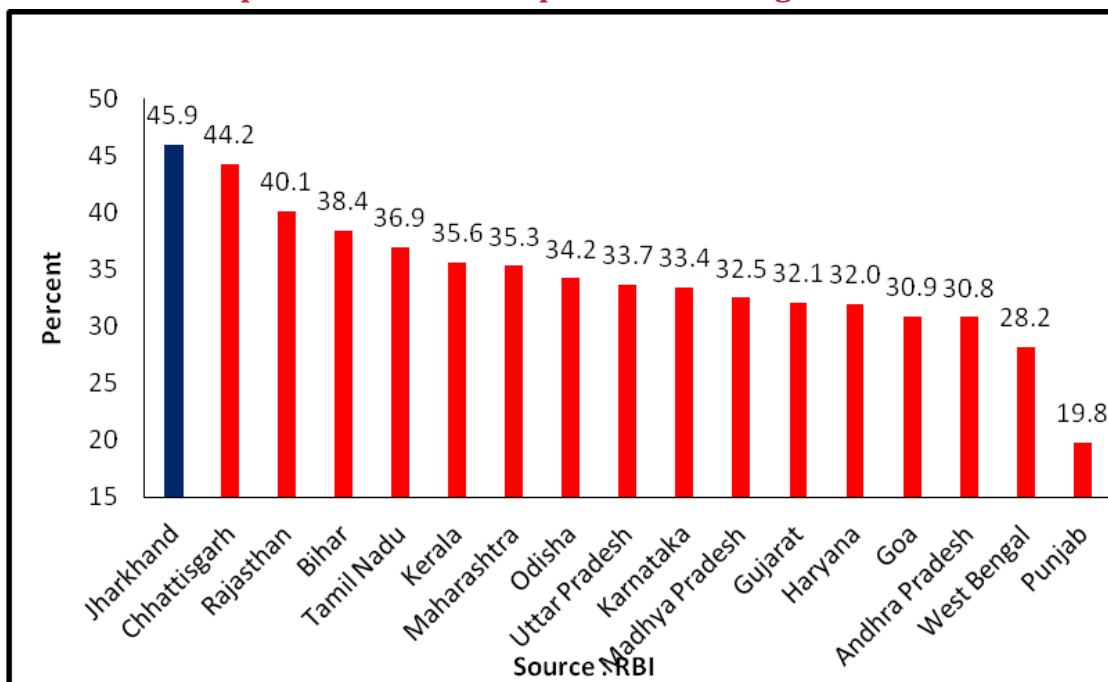


Figure 2.16: Comparative position amongst States in respect of share of social sector expenditure in total expenditure during 2013-14

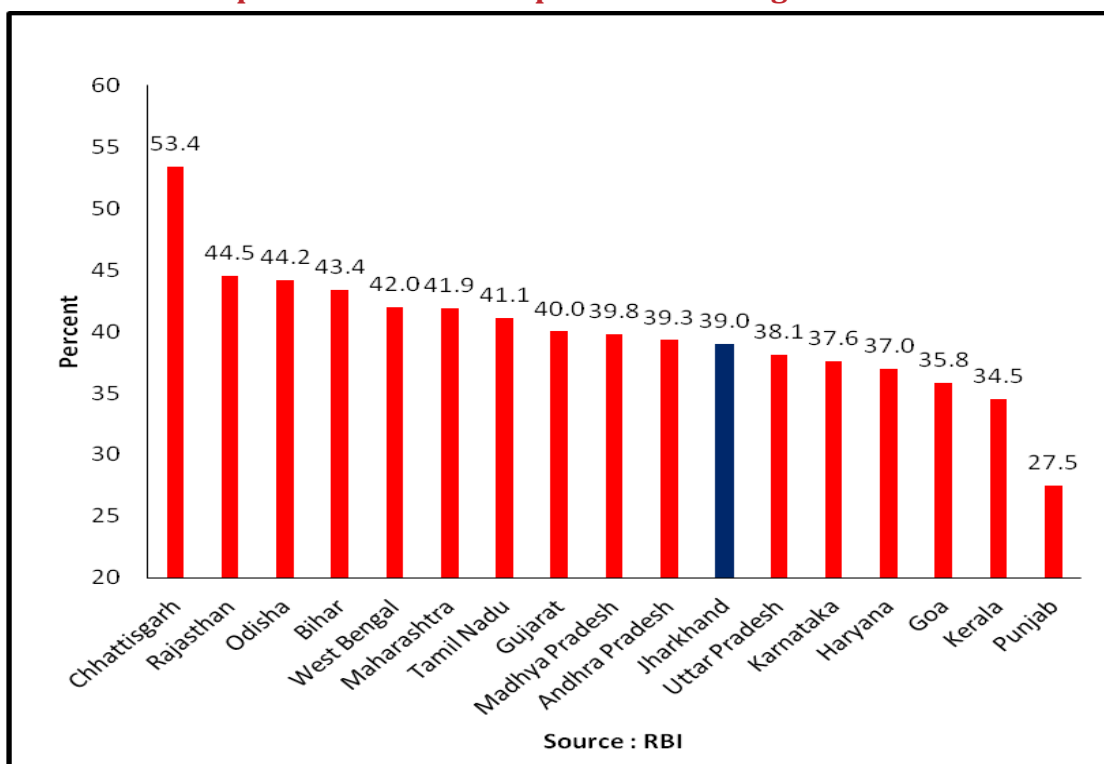


Table 2.20: Expenditure on Select Indicators as percentage of aggregate expenditure (2013-14)

	Social Sector		Physical Infrastructure		Committed Expenditure		
	Education	Health	Roads and Bridges	Energy	Int pay-ments	Pension	Admin. Exp
Group A							
Goa	16.4	5.8	4.7	16.9	11.4	7.2	5.8
Maharashtra	21.7	3.8	4.8	4.8	12	7.3	7.9
Haryana	16.2	3.5	5.6	12	12.6	8.9	5.9
Gujarat	15.9	4.6	5.8	5.8	13.5	8.4	0
Tamil Nadu	16.7	3.8	4.2	3.9	9.6	11.5	4.8
Mean	17.4	4.3	5	8.7	11.8	8.7	5.7
CV	12.6	19.4	12	57.6	11.1	13.5	23.3
Group B							
Kerala	18	5	4.6	0.3	12.5	15.1	5
Punjab	15.4	4.1	1.7	11	17.8	14.3	11.7
Karnataka	15.5	3.8	6.6	6	7.3	8.6	4.7
Andhra Pradesh	14.5	3.9	3.4	5.9	10	10.6	5.7
West Bengal	18.8	4.3	2.1	2	20.9	11.7	5.7
Mean	16.4	4.2	3.7	5	13.7	12	6.6
CV	10.2	9.9	48.5	73.2	36.4	20.3	39.6
Group C							
Rajasthan	17.1	4.2	7.4	12.4	10.1	8.7	4.6
Jharkhand	14.3	3.8	7.2	6	9.2	12.3	11.5
Chhattisgarh	18.3	3.6	4.3	1.3	3.5	7.1	7
Madhya Pradesh	16.1	3.6	7	9.7	7.5	6.9	5.6
Odisha	15.7	3.3	6.8	2.1	5.4	11	7.1
Uttar Pradesh	16.7	3.5	7.1	6.2	9	10.1	6.4
Bihar	19.5	2.9	6.3	7.6	7.1	12.3	6.7
Mean	16.8	3.6	21.2	6.5	7.4	9.8	7
CV	9.4	10.9		56.5	29.3	21.4	28.9
All NSC States							
Mean	16.9	4	5.1	6.7	10.5	10.1	6.5
CV	10.9	16	33.3	64.8	39.4	24	32.6

*Group 'A' represents the top five states in terms of their real per capita incomes (as in 2013-14) viz., Goa, Maharashtra, Haryana, Gujarat and Tamil Nadu while Group 'B' comprise the middle income states viz., Kerala, Punjab, Karnataka, Andhra Pradesh and West Bengal and group 'C' includes Rajasthan, Jharkhand, Chhattisgarh, Madhya Pradesh, Odisha, Uttar Pradesh and Bihar.
Source: "State Finances: A Study of Budgets Of 2015-16", RBI

At a disaggregated level, average social sector expenditure on education and health⁴ is higher among Group 'A' states than the remaining two groups, indicative of the impact of income levels on the quality of expenditure. In respect of physical infrastructure, expenditure on roads and bridges is highest for Group 'C' states, pointing to a greater focus on deepening basic developmental requirements. For Group 'B' states, however, committed expenditure is, on average, higher than other income groups which somewhat constrains the fiscal space for expenditure on social and physical infrastructure.

As noted above, states in lower income brackets need to improve social sector spending, given the correlation of around 0.5 between expenditure on health and education and the human development index (HDI) of NSC states. These adjustments would enhance labour productivity and enable states to reap

⁴ Data on health correspond to expenditure on medical and public health.

the benefits of the “demographic dividend”.

A State Wise Analysis

A state level analysis of the different parameters of Public Finance has been shown in the section below. The Non-Special Category states have been taken into consideration, which constitute about 18 states. Telangana was formed in 2014-15, hence the data for Telangana for the year 2005-06 is not available. The different parameters that have been analysed are the Fiscal deficits, Revenue deficits, Capital Expenditure, Social sector Expenditure, Own tax Revenue, Own Non-tax Revenue and Outstanding liabilities.

It can be seen that the Fiscal Deficits of Jharkhand were at the 11th position when compared to the 18 states in the year 2005-06, but has improved and gone up to the 2nd position. It can be analysed that the level of fiscal deficit that has been stipulated in the FRBM Act has been maintained.

**Table 2.21: State wise Rank for Fiscal Deficits of States
(ranks are based on actual numbers)**

NSC states	2005-06	2015-16 (BE)	NSC states	2005-06	2015-16 (BE)
Goa	4	1	Telangana	-	10
Jharkhand	11	2	Andhra Pradesh	14	11
Chhattisgarh	3	3	Kerala	9	12
Odisha	1	4	Karnataka	7	13
Punjab	6	5	Rajasthan	12	14
Bihar	8	6	Gujarat	13	15
West Bengal	15	7	Maharashtra	17	16
Haryana	2	8	Uttar Pradesh	16	17
Madhya Pradesh	10'	9	Tamil Nadu	5	18

The revenue deficit (excess of revenue expenditure over revenue receipts), show that

as compared to all the states, the position of Jharkhand has improved from the 14th in the

year 2005-06 to the 6th position in the year 2015-16. The position of Tamil Nadu has dropped from the 2nd position to the 14th position in the two years respectively, and that

of Uttar Pradesh has improved significantly from the 13th position to the 1st position. Bihar has also shown improvement from the 6th position to the 2nd position.

Table 2.22: State wise Rank for Revenue Deficits of States (ranks are based on actual numbers)

NSC states	2005-06	2015-16 (BE)	NSC states	2005-06	2015-16 (BE)
Uttar Pradesh	13	1	Telangana	-	10
Bihar	6	2	Goa	8	11
Gujarat	10	3	West Bengal	17	12
Madhya Pradesh	7	4	Maharashtra	16	13
Odisha	5	5	Tamil Nadu	2	14
Jharkhand	14	6	Punjab	12	15
Chhattisgarh	3	7	Andhra Pradesh	9	16
Karnataka	1	8	Kerala	15	17
Rajasthan	11	9	Haryana	4	18

In terms of Capital expenditure, it can be seen that the position of Jharkhand has deteriorated from the 11th position to the 14th

position from 2005-06 to 2015-16. Andhra Pradesh has slipped down 10 places from the 2nd to the 12th position.

Table 2.23: State wise Rank for Capital Expenditure of States (ranks are based on actual numbers)

NSC states	2005-06	2015-16 (BE)	NSC states	2005-06	2015-16 (BE)
Uttar Pradesh	3	1	Telangana	-	10
Maharashtra	1	2	Odisha	16	11
Gujarat	5	3	Andhra Pradesh	2	12
Tamil Nadu	8	4	Kerala	12	13
Bihar	10	5	Jharkhand	11	14
Madhya Pradesh	6	6	Chhattisgarh	13	15
Rajasthan	9	7	Haryana	15	16
West Bengal	4	8	Punjab	14	17

NSC states	2005-06	2015-16(BE)	NSC states	2005-06	2015-16 (BE)
Karnataka	7	9	Goa	17	18

In terms of Social Sector Expenditure, Jharkhand has not been among the top, rather it is at the lower rungs, if compared to other

states. In 2005-06 its position was 12th which has slipped down to the 16th position in the year 2015-16.

Table 2.24: State wise Rank for Social Sector Expenditure of States (ranks are based on actual numbers)

NSC states	2005-06	2015-16(BE)	NSC states	2005-06	2015-16(BE)
Uttar Pradesh	2	1	Andhra Pradesh	3	10
Maharashtra	1	2	Telangana	-	11
Tamil Nadu	4	3	Odisha	13	12
Rajasthan	8	4	Chhattisgarh	15	13
West Bengal	6	5	Kerala	11	14
Madhya Pradesh	9	6	Haryana	14	15
Gujarat	7	7	Jharkhand	12	16
Karnataka	5	8	Punjab	16	17
Bihar	10	9	Goa	17	18

The Own-Tax revenue of the state for non-special category of states, show that Jharkhand is among the lowest in terms of generating states own-tax revenue. Andhra Pradesh,

Maharashtra and Tamil Nadu are among the top three states in terms of collection of own tax revenue.

Table 2.25: State wise Rank for Own Tax Revenue of States (ranks are based on actual numbers)

NSC states	2005-06	2015-16(BE)	NSC states	2005-06	2015-16(BE)
Andhra Pradesh	3	1	Kerala	9	10
Maharashtra	1	2	Madhya Pradesh	10	11
Tamil Nadu	2	3	Haryana	11	12
Uttar Pradesh	4	4	Bihar	15	13

NSC states	2005-06	2015-16(BE)	NSC states	2005-06	2015-16(BE)
Karnataka	5	5	Punjab	12	14
Gujarat	6	6	Odisha	13	15
Rajasthan	8	7	Chhattisgarh	14	16
Telangana	-	8	Jharkhand	16	17
West Bengal	7	9	Goa	17	18

In terms of states own non-tax revenue, it can be seen that Jharkhand is at the 12th position for both the year 2005-06 and 2015-16 (B.E).

Telangana is at the first position for the year 2015-16.

**Table 2.26: State wise Rank for Own Non-Tax Revenue of States
(ranks are based on actual numbers)**

NSC states	2005-06	2015-16(BE)	NSC states	2005-06	2015-16(BE)
Telangana	-	1	Chhattisgarh	13	10
Uttar Pradesh	6	2	Haryana	9	11
Maharashtra	1	3	Jharkhand	12	12
Rajasthan	7	4	Andhra Pradesh	2	13
Gujarat	5	5	Karnataka	4	14
Madhya Pradesh	10	6	Punjab	3	15
Tamil Nadu	8	7	Bihar	17	16
Odisha	11	8	Goa	16	17
Kerala	15	9	West Bengal	14	18

Outstanding liabilities constitute of the states, total internal debt, loans from banks and FI's, loans and advances from centre, Provident Funds, Reserve Funds, Contingency Funds and Deposits and Advances. It can be seen that Jharkhand has the 3rd lowest amount of Outstanding Liabilities when compared to the

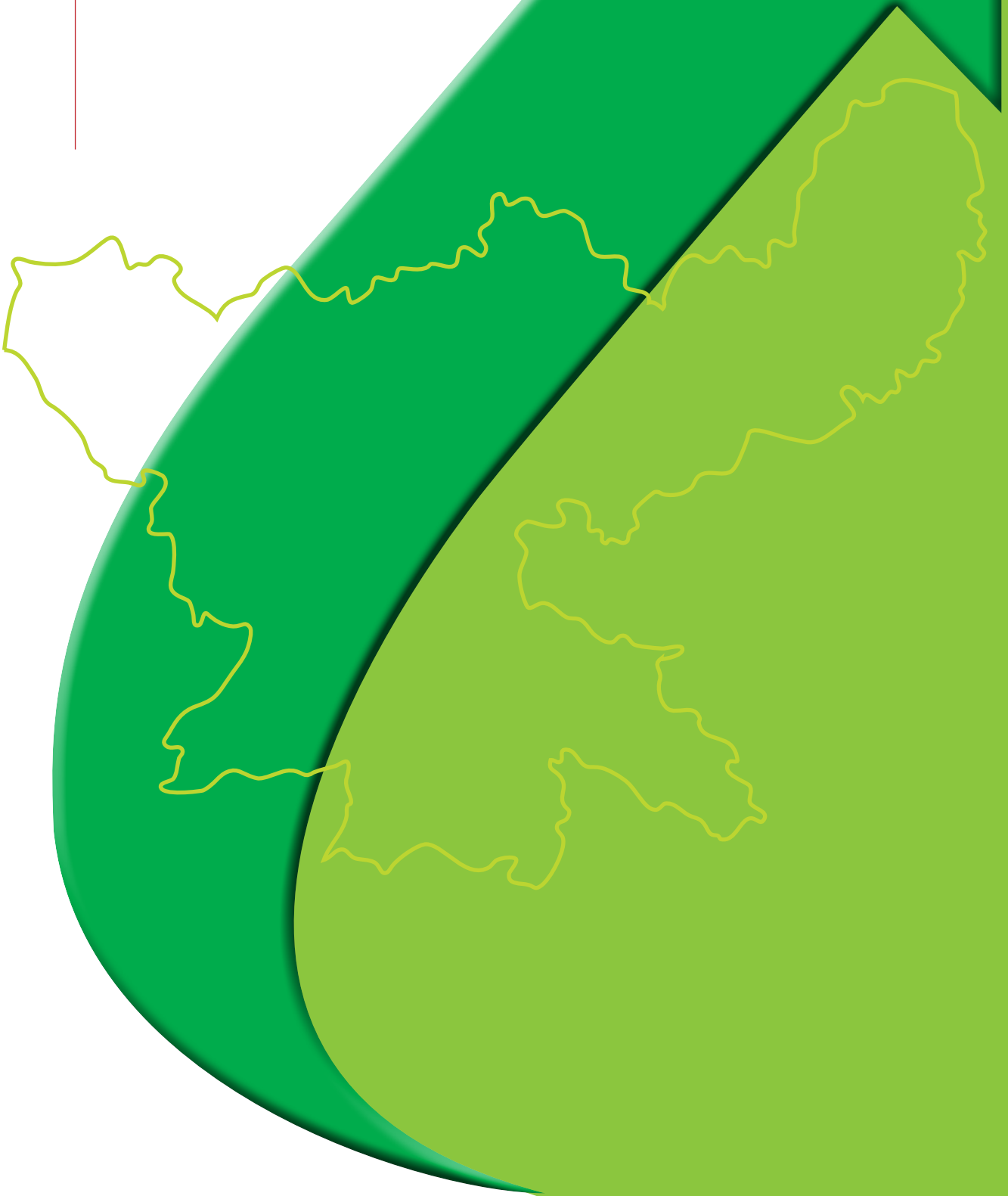
other NSC states. It can also be observed that the position of the states does not undergo a major change when we compare the figures of 2006 and 2016. Only the state of Karnataka has moved down 3 points from 2006 to 2016.

**Table 2.27: State wise Rank for Total Outstanding Liabilities of States
(ranks are based on actual numbers)**

NSC states	As on March 2006	As on March 2016	NSC states	As on March 2006	As on March 2016
Goa	1	1	Rajasthan	12	10
Chhattisgarh	2	2	Karnataka	8	11
Jharkhand	3	3	Gujarat	13	12
Orissa	5	4	Tamil Nadu	11	13
Haryana	4	5	Andhra Pradesh	14	14
Bihar	6	6	West Bengal	15	15
Madhya Pradesh	9	7	Uttar Pradesh	17	16
Punjab	10	8	Maharashtra	16	17
Kerala	7	9			

3

INSTITUTIONAL FINANCE



A robust financial infrastructure is both a requirement as well as an outcome of economic development. Financial institutions especially banks play an important role in the efficient allocation of resources and provide a boost to investment and employment. A sound and effective rural financial system is even more important for a state like Jharkhand where more than 70 percent of the people live in rural areas and where around 37 per cent of the people are below poverty line. Providing them access to the financial services would help them in smoothening their consumption and protect them from idiosyncratic risks. With the objective to bring more and more people within the institutional finance coverage, several initiatives have been taken by the state government. To enhance the financial safety nets of the poor and under-privileged the central government has also announced social security schemes like – Pradhan Mantri Jeevan Jyoti Yojana(PMJJBY), Pradhan Mantri Suraksha Beema Yojana(PMSBY) and Atal Pension Yojana(APY)Postal savings schemes and regional rural banks have expanded their reach to some extent. There has also been an increase in the banking network. The number of bank offices of all Scheduled Commercial Banks in Jharkhand has increased to 2953 in September 2016 from 2697 on September 2014.

This chapter assesses the performance of the institutional finance in the recent years in the state of Jharkhand.

Performance of the Banking Sector in Jharkhand

Deposit and Credit Situation of Banks

The deposit and credit which are the core functions of the banking business, here expanded gradually in Jharkhand (Table 3.1). There has been an increase in deposits during the past one year by about 15 per cent between September-end 2015 and September-end 2016 (i.e. from Rs.146956.73 crore as in the end of September 2015 to Rs.168852.39 crore as at September-end 2016). Total Credit-Deposit (CD) ratio (including RIDF) has increased marginally from 60.71 per cent to 61.16 per cent in the corresponding period. CD ratio of the scheduled commercial banks has declined marginally from 46.93 per cent as at September end 2015 to 46.11 per cent as at September- end 2016. For the private banks, the increase has been around 1 per cent. On the other hand, the CD ratio of RRBs has decreased from 41.53 per cent to 38.83 during the same period. The CD ratio of cooperative banks has also decreased from 23.08 per cent to 21.21 per cent over the same period (Table 3.2)

Table 3.1: Key Indicators of Banking in Jharkhand (as at September-end)

(in Rs. crore)

Sl No	Key Indicators	2014	2015	2016
1	Deposit	128163.93	146956.73	168852.39
2	Credit	61540.98	68449.93	77152.36
3	Credit as per place of utilization & RIDF	11238.65	20773.20	26120.12
4	Total Credit	72779.63	89223.13	103272.48
5	CD Ratio (%)	56.78	60.71	61.16
6	Priority Sector Advances (PSA)	31047.89	34853.71	42316.26
7	Share of PSA to Total Advances(%)	50.45	50.91	54.84
8	Agricultural Advances	10848.88	12198.61	13164.08

Sl No	Key Indicators	2014	2015	2016
9	Share of Agricultural Advances to Total Advances (%)	17.62	17.82	17.06
10	i. Micro & Small Enterprises Advance	11665.60	13476.32	19170.47
	ii. Share of Micro & Small Enterprises to Total Advances (%)	18.95	19.68	24.84
11	Advances to Weaker Section	10305.35	13644.32	14916.92
12	Share of Weaker Section Advances to Total Advances (%)	16.75	19.93	19.33
13	DRI Advances	27.88	34.23	48.40
14	Share of DRI Advances to Total Advances of Last March (%)	0.04	0.05	0.06
15	Advances to Women	11834.09	13958.90	12707.59
16	Share of advances to women in Total advances (ANBC) (%)	19.23	20.39	16.47
17	Advances to Minorities	4446.21	6184.68	5600.30
18	Share of Advances to Minorities under PSA (%)	14.32	17.74	13.23
19	N.P.A	3639.21	4253.88	4532.51
	Percentage to Gross-Credit	5.91	6.21	5.87
20	Branch Net-Work (in no.)- Rural	1373	1449	1493
	Semi-Urban	691	724	759
	Urban	633	673	701
	Total	2697	2846	2953
21	ATM installed in Jharkhand	2485	2665	3054

Source: SLBC, Jharkhand

According to the latest available data, CD ratio has declined marginally from 61.51 per cent as at March-end 2015 to 60.61 per cent as at March-end 2016 (Figure 3.1). The year 2013 and 2014 was taken very seriously by the SLBC due to downfall in CD ratio which went below 60 per cent. Due to various measures

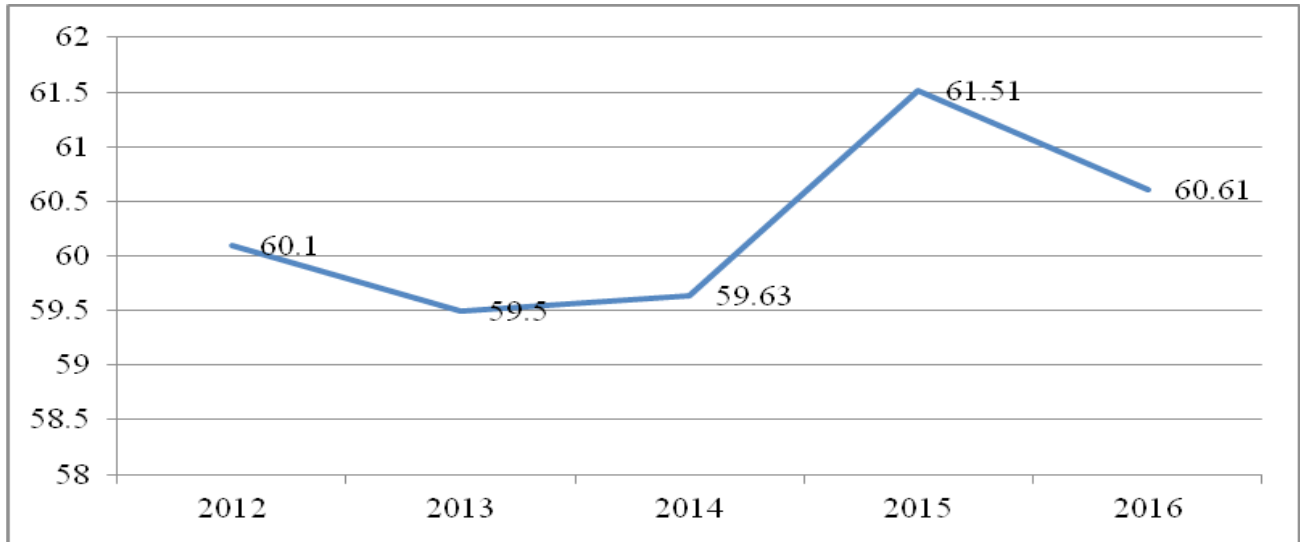
taken by government, an improvement has been seen from there on. Among the last five years, CD ratio reached its highest position on March 2015, to around 61.51 per cent. While the total CD-ratio of the banks in Jharkhand remains above 60%, yet enough scope for more credit flow remains. .

Table 3.2: Bank Category-wise trend in CD ratio in Jharkhand (%)

Sl. No	Banks	Sep-15	Sep-16
1	Commercial Banks	46.93	46.11
1.1	Public Sector Banks	44.80	43.85
1.2	Private Sector Banks	76.55	77.64
2	Regional Rural Banks	41.53	38.83
3	Cooperative Banks	23.08	21.21
4	Total	46.58	45.69

Source: SLBC, Jharkhand

Figure 3.1: Trend in CD Ratio in Jharkhand (as at March-end)



Source: SLBC, Jharkhand

Loans and Advances

The share of priority sector advances (PSA) to total advances increased from 50.91 as at end-September 2015 to 54.84 as at end-September 2016 mainly as a result of an increase in PSA by 21.41 per cent during the same period (from Rs.34853.71 crore as at end-September 2015). The share of agricultural advances to total advances has slightly decreased from 17.82 per cent to 17.06 per cent during the same period (Table 3.1). Advances to weaker section have increased whereas; advances to women have decreased during this period.

Recovery of Loans and Advances

The recovery position of bank advances in the State in case of priority sector advances has improved during the past two years as the recovery has increased from Rs.49,603.9 lakhs in 2014 to Rs 4,64,801.40 lakhs in 2015 and further to Rs.4,79,113.84 lakhs in 2016 (till Sept 2016). Recovery as a per cent of demand has marginally decreased from 48.66 per cent to 48.51 per cent in 2015. During 2016 (till September 2016) recovery as a per cent of demand was 36.85 per cent. The recovery positions of the Government sponsored schemes have remained very low as compared

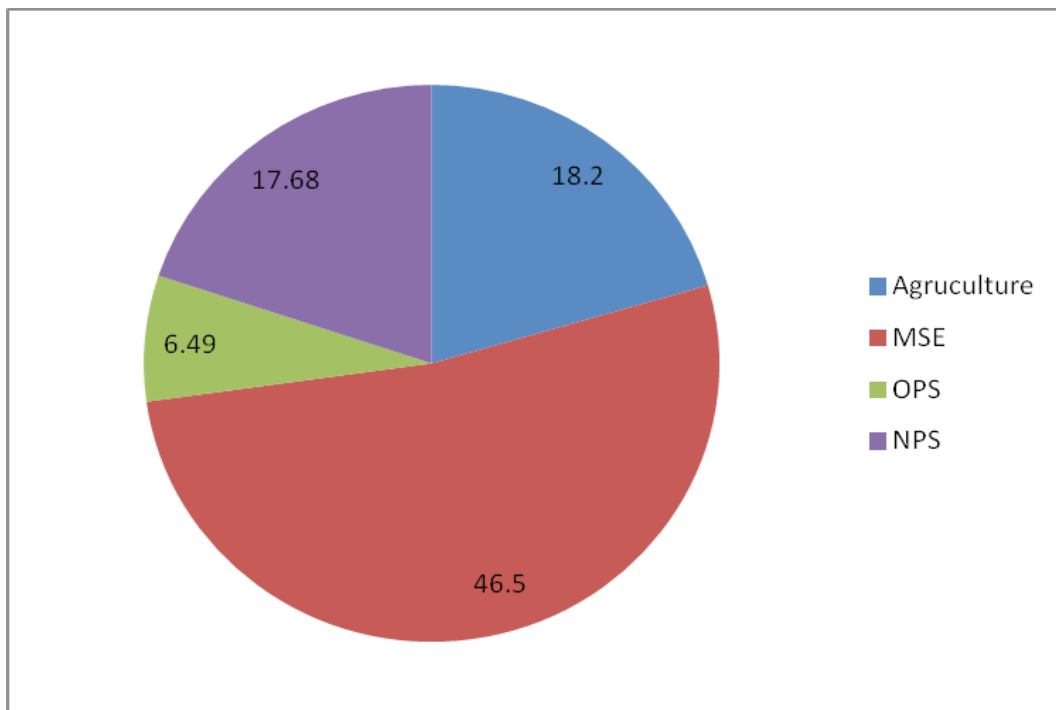
to priority sector advances. Measures need to be taken to improve the recovery position of bank advances in the State.

Non-Performing Assets (NPAs)

Non-performing Assets (NPAs), another indicator of the health of the banking sector, recorded an increase from Rs.4253.88 crore at September-end 2015 to Rs. 4532.51 crore as at September-end 2016. However, the ratio of NPA to the total advances declined marginally from 6.21 to 5.87 per cent during the same period. This indicates that the NPA situation has improved marginally, in relative terms, however, it still remains at an elevated level.

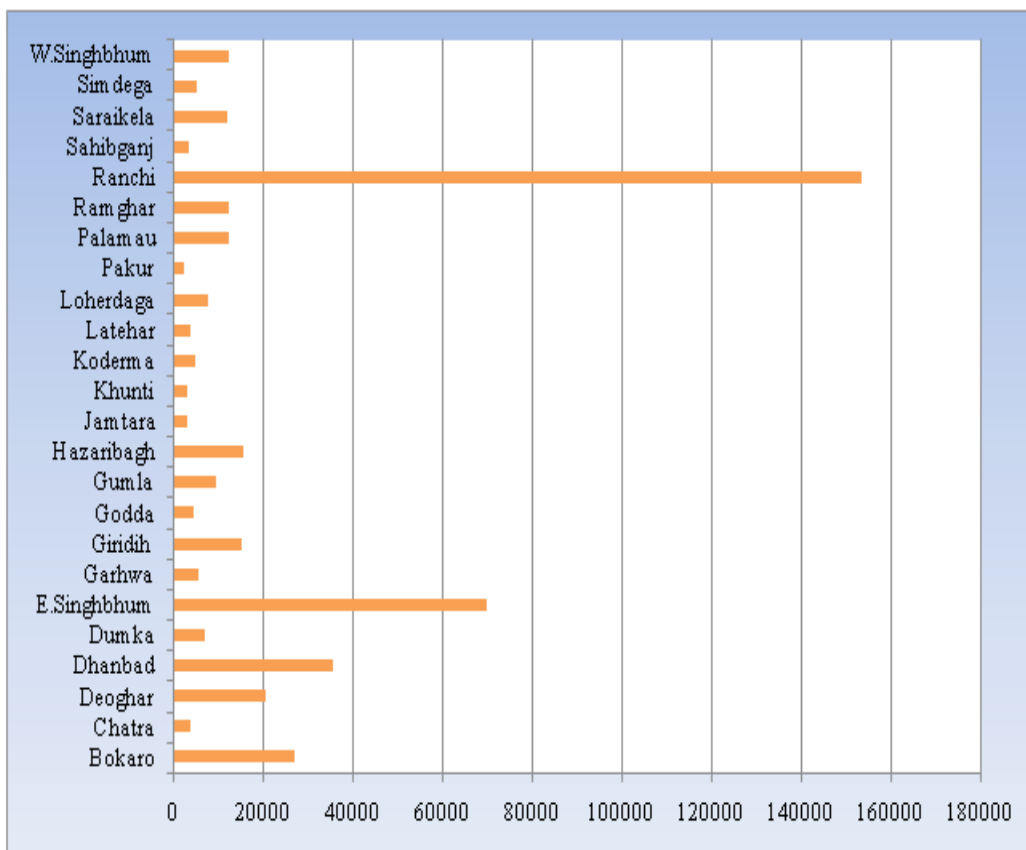
In the priority sector advances, the share of Micro and Small Enterprise (MSE) in total NPAs constituted around 46.50 per cent followed by the agricultural sector (18 per cent) advances to non-priority sector (NPS) around 17 per cent of the total NPAs (as at September-end 2016). (Figure 3.2a) District wise NPAs data shows that Ranchi has the highest amount of NPAs (Rs. 153469.11 lakhs), followed by East Singhbhum (Rs.69929.02 lakhs) and Dhanbad (Rs. 35839.47 lakhs) (Figure 3.2b).

Figure 3.2a: Position of Non-Performing Assets, Sector-wise Share of NPAs



Source: SLBC, Jharkhand

Figure 3.2b: District wise NPAs (Amount in Rs. Lakhs)



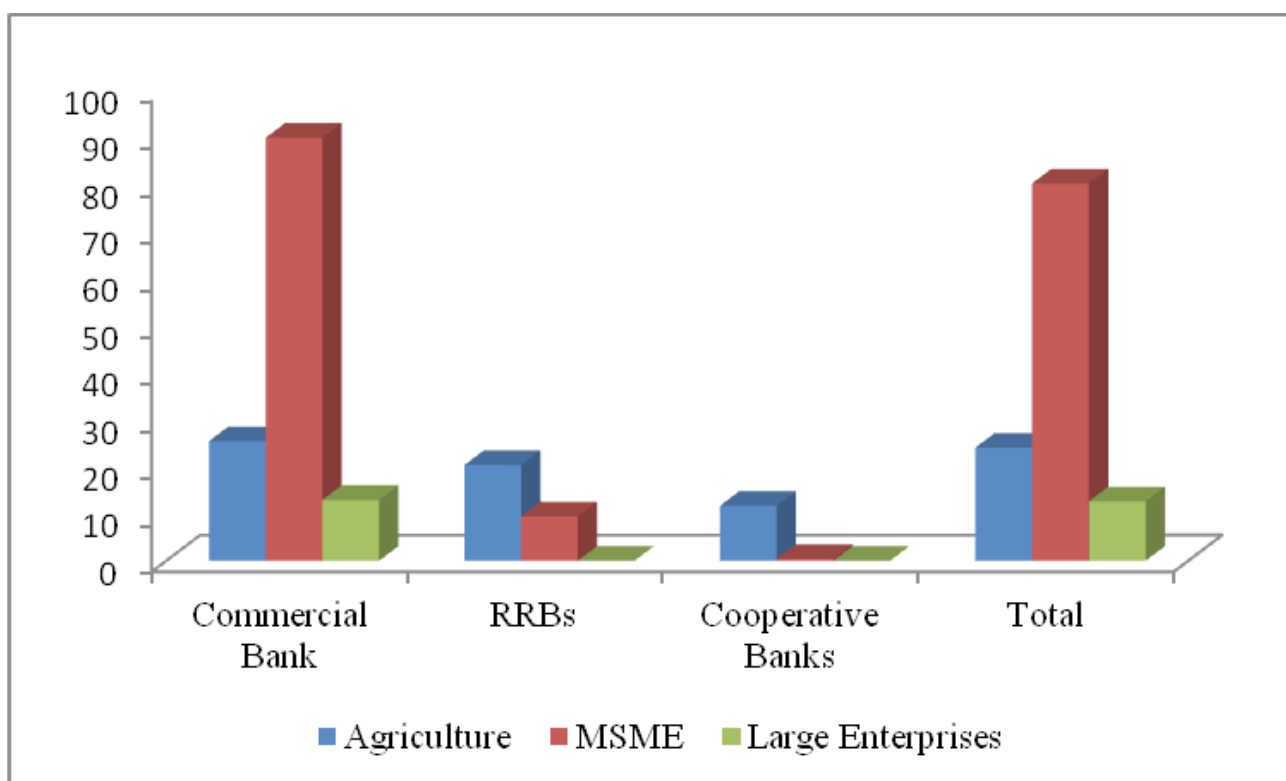
Source: SLBC, Jharkhand

Performance of Banks under Annual Credit Plan (ACP)

As per latest SLBC Report, Annual Credit Plan (ACP) of the banks in the financial year 2016-17 (till September 30,2016) shows that commercial banks has achieved only 25.4 per cent of the ACP target in agriculture as compared to 89.8 per cent in micro, small

and medium enterprises (MSME). RRBs and cooperative banks, in particular, have performed dismally in this regard. RRBs have achieved only 20.32 per cent and 9.3 per cent of its ACP target in agriculture and MSE respectively, while cooperative banks have achieved 11.6 per cent and 0.39 per cent of its ACP target for the two sectors respectively during the financial year 2016-17 (Figure 3.3)

Figure 3.3: Achievement under Annual Credit Plan (as on September 30, 2016)



Source: SLBC, Jharkhand

Low disbursement of loans by RRBs in agriculture and total priority sector advances is a cause of concern, as these segments are considered to be their thrust and focus area of operation. The cooperative banks have shown more inclination towards financing in the non-priority sector (NPS). The sanctioning credit to MSE and NPS by commercial banks has been found to be satisfactory, but there is further scope of gearing up credit in MSE sector. The non availability of current land records, stringent acts on land mortgage, limited

period availability of crop insurance and that too for selective crops only coupled with security environment and recovery climate are acting as a deterrent for disbursement in the agriculture sector. Digitization of land records is progressing well. As per the SLBC minutes (held for the quarter ended June 2016), 136 Circles out of 263 in the state have been digitized. The digitization of land records would lead to better utilization of land as collaterals and help in greater disbursement of credit to the agriculture sector.

Flow of Credit to Different Sectors

Agriculture

The share of Agricultural credit to the total credit was 17.62 per cent in 2014 which

increased to 17.82 per cent in 2015 and dropped down to 17.06 per cent in 2016. Agricultural credit of all banks in the state is Rs.13,164.08 crore which constitutes 17.06 per cent of the gross credit. This is very near to the national benchmark of 18 per cent.

Table 3.3: Progress in Kisan Credit Card Scheme in Jharkhand (Amount in Crores)

Type Of Banks	Disbursement During 2016-17		Outstanding In KCC Accounts		Out of Total K.C.C at the end of Reporting Quarter (Standard Asset)	
	A/C	Amt.	As Of 30.09.16		A/C	Amt
	A/C	Amt.	A/C	Amt	A/C	Amt
PSB	249406	670.40	12414987	4216.6	1012617	3568.29
Pvt.Banks	4251	32.85	10218	76.17	9846	65.82
Total	253657	703.85	1251716	4292.77	1022463	3634.11
RRB	90654	230.92	359480	1133.91	334232	1068.65
Co-op Banks	967	1.92	11551	29.39		
Total	345278	936.09	1622747	5456.07	1356695	4702.76

Source: 57th SLBC, Jharkhand

The total NPA in the agricultural sector is Rs.825.29 crores which is eighteen percent of the total NPA. NPA in KCC accounts is 91.27 percent of the total NPA in the agricultural sector whereas, total KCC credit is 41.44 percent of the total agricultural credit.

The table below shows us the bank wise issuance of KCC, issuance of Rupay Cards in KCC accounts, and total sanctioned amount in the KCC accounts. State bank of India has issued the highest number of Kisan Credit Cards among all the banks. While Bank of India has issued the highest number of Rupay KCCs, it is followed by State Bank of India. Bank of India has sanctioned the highest amount of Rs. 1,11,624.06 lakhs followed by State Bank of India which sanctioned an amount of Rs.3,23,228.00 lakhs (Table 3.4).

The least number of Kisan Credit Cards has been issued by Federal bank (112 cards), followed by 259 Kisan Credit Card by Andhra bank. ICICI Bank which is the leading private bank in the country has not issued Rupay Cards in the KCC accounts followed by Andhra Bank, Vijaya Bank. IDBI Bank has sanctioned only Rs.31.70 lakhs till 30th September, 2016 which is the lowest among all the banks followed by Corporation Bank with Rs.49.39 lakhs sanctioned till 30th September, 2016. Overall, the total KCC issued in the State is 1507682, the total sanctioned amount is Rs.5,78,786.63 and number of Rupay Cards issued is 7,70,251. Rupay card issuance in KCC accounts stand at only 51.08 % as against a target of 100 %.

**Table 3.4: Statement on Issue of Rupay Cards In KCC Account
 (As of: 30.09.2016, Beginning)**

S. no	Name Of The Bank	No Of KCC Issued	Total Sanctioned Amount in Lakhs	No of Rupay Cards Issued
1	Allahabad Bank	135534	29841.20	108428
2	Bank of India	354627	111624.06	211562
3	Bank Of Baroda	13728	3907.12	7389
4	Canara Bank	9776	4595.00	5109
5	Central Bank of India	41628	18634.82	28524
6	Corporation Bank	900	49.39	469
7	Federal Bank	112	216.76	2686
8	Indian Overseas Bank	2947	799.68	2947
9	Jharkhand Gramin Bank	120698	35225.31	52323
10	Oriental Bank Of Commerce	1564	691.52	915
11	State Bank of India	460576	323228.00	206712
12	Syndicate Bank	5452	1698.00	2560
13	Uco Bank	13278	4181.00	7967
14	Union Bank of India	39397	11249.39	23792
15	United Bank	36722	9145.06	1850
16	Vananchal Gramin Bank	216313	878.00	78634
17	Vijaya bank	331	198.21	268
18	Corporation Bank	451	121.00	317
19	Dena Bank	1498	3126.00	568
20	HDFC Bank LTD	4150	2785.85	4150
21	ICICI Bank	432	174.52	0
22	IDBI Bank	6723	31.70	3118
23	Punjab National Bank	40586	16276.00	19803
24	Andhra Bank	259	109.04	160
	Total	1507682	578786.63	770251

Source: 57th SLBC, Jharkhand

Micro and Small Enterprise (MSE) and Medium Enterprises

Share of micro sector credit in total MSE was 55.40 per cent as on September 30, 2016, against a benchmark of 60 per cent as per Guidelines of the Reserve Bank of India. The financing to MSE shows that the credit

outstanding position has increased from Rs. 15092.47 crore as at September-end 2015 to Rs. 21111.7 crore as at September-end 2016 (Table 3.5). The credit outstanding position of the medium enterprises has improved from Rs.161618.2 lakhs to Rs.194121.91 lakhs over the same period.

Table 3.5: Financing to Micro & Small Enterprises (MSE) (Priority Sector)

SI No	Particular		Outstanding Position as at the end of		
			Sept. 2015	Sep-16	
1	Micro Enterprises		Accounts	2.59	3.88
			Amount	7125.11	10620.15
	a.	Manufacturing Sector	Accounts	0.43	0.51
			Amount	1644.85	2065.18
	b.	Service Sector	Accounts	2.16	3.37
			Amount	5480.26	8554.97
2	Small Enterprises		Accounts	0.91	0.91
			Amount	6351.19	8550.33
	a.	Manufacturing Sector	Accounts	0.23	0.25
			Amount	2795.29	3017.98
	b.	Service Sector	Accounts	0.68	0.66
			Amount	3555.9	5532.35
3	Total Micro and Small Enterprises (MSE Sector)		Accounts	3.5	4.79
			Amount	13476.3	19170.48
4	Medium Enterprises				
a.	Manufacturing Sector		Accounts	0.03	0.03
			Amount	1014.57	1201.78
b.	Service Sector		Accounts	0.27	0.28
			Amount	601.6	739.44
c.	Total of Medium Enterprises		Accounts	0.3	0.31
			Amount	1616.17	1941.22
Total MSME			Accounts	3.8	5.1
(Priority Sector Advances)			Amount	15092.47	21111.7
5	a.	Share of Credit to Micro Enterprises in total credit to MSE sector	Percent share of amounts (Stipulation: 60%)	52.87%	55.40%
	b.	Share to credit to MSE sector in NBC/ANBC	Percent share of amount	19.68%	24.84%

Source: SLBC, Jharkhand,

Note: No. of accounts in Lakhs, Amount in Crores NBC: Net Bank Credit ANBC: Adjusted Net Bank Credit

Table 3.6: Credit Flow to Medium Enterprises (Amount in Lakhs)

Particular		Outstanding position as at the end of	
		Sep-15	Sep-16
Manufacturing Sector	Accounts	3102	3354
	Amount	101457.5	120178.46
Service Sector	Accounts	27230	28026
	Amount	60160.7	73943.45
Total of Medium Enterprise	Accounts	30332	31380
	Amount	161618.2	194121.91

Source: SLBC, Jharkhand

Since Jharkhand is resource rich and has a large labour force, the MSME sector of the state has a huge potential to develop. The State is rich in mineral resources like copper, coal, aluminum, iron etc. The proper ancillary sector to these industries needs to be developed. This segment should be further exploited for growth of MSME in the State. Export lines of credit have mostly been taken from Authorised Dealer (AD) bank branches in foreign exchange located at Kolkata, Mumbai etc, export credit off-take from local bank branches remains abysmal. Adequate infrastructural support (viz. establishment of DGFT office to give local IEC number to exporters, EXIM bank or ECGC offices etc.) needs to be provided for MSMEs for them to avail export finance from local ADs. Sick MSME units which are considered viable needs handholding support in the form of rehabilitation and revival support from banks as also from Govt. Cluster financing based on

Ganguly Committee recommendations of about 90 clusters identified by Govt/UNIDO may also lead to better credit flow to MSME sector.

Collateral Free Loan Up to Rs.1.00 Crore in MSME

Lack of sufficient collateral is seen as a major roadblock for the micro/small enterprises units (MSEs) in obtaining credit from the banking system . Keeping this in view, the Government of India and SIDBI had set up "Credit Guarantee Fund Trust for Micro and Small Enterprises" (CGTMSE). On the basis of CGTMSE guidelines, MSE loans up to Rs. 2 crores (earlier it was Rs. 1 crore, has been enhanced to Rs 2 crores from January 9, 2017) are eligible for a credit guarantee cover and cover is extended to those entrepreneurs who have viable Projects/ proposals but lacks adequate collateral security to offer.

Table 3.7: Coverage under CGTMSE (Collateral Free Loans Up to Rs 1.00 Crore in MSME)

(A/C in 000, Amt in Crore)

MSE up to Rs. 1.00 Crore						Coverage under CGTMSE					
Manufacturing		Service		Total		Manufacturing		Service		Total	
A/C	Amt	A/C	Amt	A/C	A/C	A/C	Amt	A/C	Amt	A/C	Amt
62	4508	334	11247	396	157755	19	1448	73	3018	92	4466

Source: 57th SLBC, Jharkhand

In the state of Jharkhand, there are approximately 3,96,000 MSE loan accounts within the limit of Rs. 1 Crore. 92000 credit account which accounts to twenty three percent of the total have been covered under CGTMSE scheme. The total participation of MSE micro credit is 55.40 percent which is 4.6 percent less than the 60 percent benchmark set by the Reserve Bank of India

Pradhan Mantri Mudra Yojana (PMMY)

Pradhan Mantri Mudra Yojana was announced in the Union Budget for FY 2016 by Government

of India for development and refinancing activities relating to micro units. Under PMMY, Micro Units Development and Refinance Agency (MUDRA), a new institution has been set up to provide refinance facility to the non corporate small business sector.

With a financial strength of 20,000 crores, the MUDRA aims to provide financing support to 5.77 crore (Ministry of Finance, Government of India) small businesses that are currently engaged in a wide spectrum of economic activities like retail, manufacturing, trading etc.

Table 3.8: Product offered under PMMY

S no	Loan Category	Loan Amount and Description
1	Shishu	This is targeted towards startups and sanctioned loan amount will be up to Rs. 50,000. The idea is to provide enough financial support to cover the expenses for business set up
2	Kishore	This is targeted towards already existing businesses that lack exposure. The sanctioned loan amount will be between Rs.50000 and Rs 500000. This scheme will help businesses to gain exposure by expanding their supply segment, which will in turn help to reach out to more customers
3	Tarun	This is for those businesses which have grown to a certain level and have enough exposure but need help to take business to a new level. The sanctioned loan amount will be between Rs.500000 and Rs 1000000

Source: www.mudra.org.in

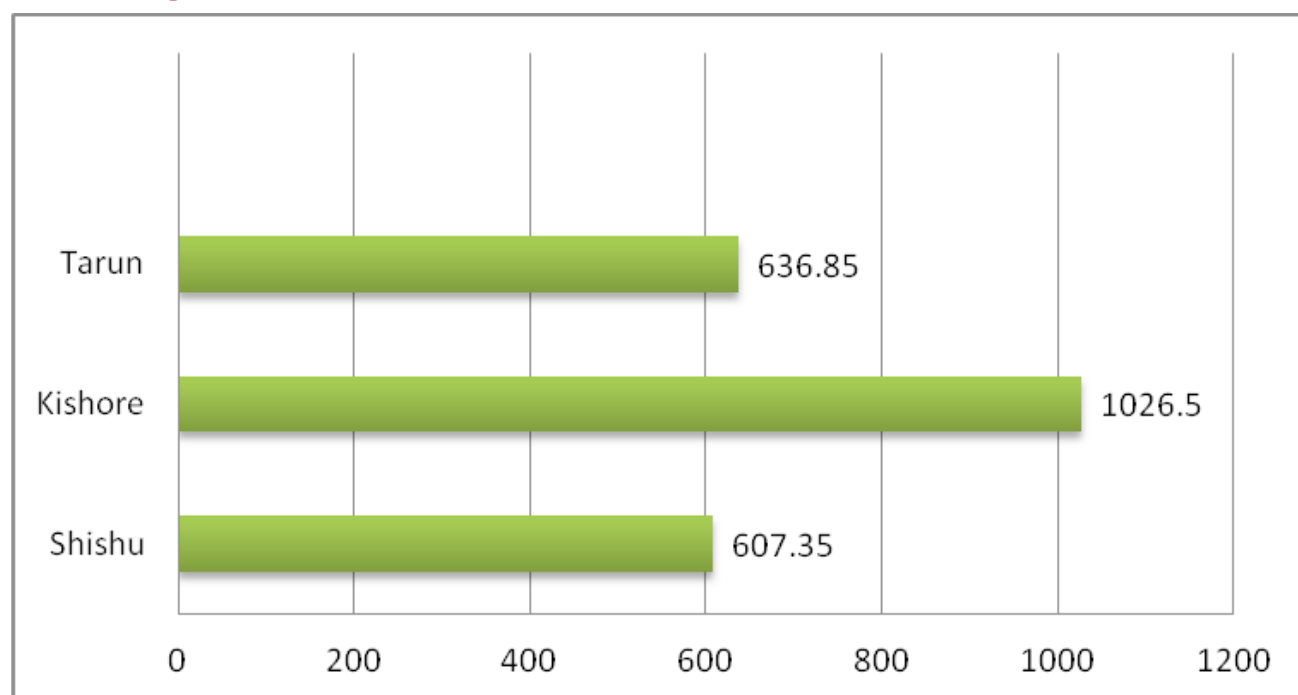
Table 3.9: Achievements of Jharkhand under PMMY (8.04.15 to 30.9.16)

(Amt in Crores)

Shishu		Kishore		Tarun		Total	
No	AMT	No	Amt	No	Amt	No	Amt
461860	607.35	47192	1026.5	9298	636.85	518350	2270.69

Source: 57th SLBC, Jharkhand

Figure 3.4: Achievements of Jharkhand under PMMY-Amount Disbursed



Source: 57th SLBC, Jharkhand

Stand Up India Loan Programme

The Stand Up India scheme primarily aims in promoting the entrepreneurship among SCs, STs and women by providing finances to them from Rs. 10 Lakhs to Rs. 100 Lakhs, for establishing their new businesses. The scheme is supposed to benefit the maximum number

of people who are entrepreneurs from the SCs and STs. Banks have overall extended credit to 39 SC/ST beneficiaries and 152 Women Beneficiaries till 30th September 2016 under this programme. In the special SLBC held on October 17, 2016 concerns have been raised on low achievement by banks.

Table 3.10: Jharkhand’s achievement in Stand up India Loan Programme till 30th September

SC/ST Beneficiaries	Loan Amt	Women Beneficiaries	Loan Amt (in Lakhs)	Loan Amt (in Lakhs)
39	628.21	152	3001.59	3629.80

Source: 57th SLBC, Jharkhand

National Rural Livelihood Mission

National Rural Livelihood Mission (NRLM) is an initiative launched by Ministry of Rural Development (MoRD), Government of India in June 2011. The Aajeevika Skill Development Programme (ASDP) is a sub-mission under NRLM. It has evolved out of the need to:

Cater to the occupational aspirations of the rural youth who are poor and to diversify the income of the rural poor ASDP gives the young people from poor communities an opportunity to upgrade their skills and enter the skilled work force in the growing sectors of the economy. The training and placement schemes run in partnership with public, private, non government and community organizations. Strong relationships are being built with industry associations and employers. The target is to skill and place 50 lakhs youth in the formal sector by 2017.

National Rural Livelihood Mission – Jharkhand’s Achievement

Jharkhand State Livelihood Promotion Society (JSLPS) was formed as an autonomous society in the year 2009 within the Rural Development Department, Government of

Jharkhand. The society is created to serve as a special purpose vehicle for the smooth implementation of poverty reduction schemes and programmes in the state. Jharkhand State Livelihood Promotion Society (JSLPS) has been designated by the State Government to implement the National Rural Livelihood Mission (NRLM) in Jharkhand in September 2011. JSLPS initiated implementation of NRLM in the financial year 2012.

As per the data provided by the 57th SLBC the total number of blocks covered under NRLM as on March 2016 was 80. The total number of villages covered till March 2016 was 3603 which increased by 994 villages during the AFY 16-17. The total number of SHGs supported by JSLPS which was 27493 as on march 2016 increased by 4119 in AFY 2016-17. There are a total number of 8637 SHG credit linked with Banks. There has been an increment of 3875 SHG accounts linked with banks during AFY 2016-17 making the cumulative achievement till 30th September, 2016 of around 12512. The total amount of credit availed from bank under the NRLM from the date of inception till 30th September, 2016 was around Rs.6506.24 Lakhs.

Table 3.11: National Rural Livelihood Mission – Jharkhand’s Achievement

Indicators	Status as on March'16	Achievement in AFY-16-17	Cumulative achievement till date since inception
No of Blocks	80	0	80
No of Villages	3603	994	4597
Total No. of SHGs Supported by SRLM	27493	4119	31612
Total families supported by SRLM	347725	113150	460875
No of SHG receiving R.F	19580	4808	24388
Amt. of RF disbursed Rs. In Lakhss	2927.00	720.30	3647.30
No of SHG receiving CIF	15728	2067	17795
Amt of CIF disbursed Rs. In Lakhss	9547.59	1367.10	10914.69
No of SHG credit linked with Banks	8637	3875	12512
Amt. of Credit availed from Banks (Rs. in Lakhs)	4418.50	2015.00	6506.24

Source: 57th SLBC, Jharkhand

Pradhan Mantri Fasal Bima Yojana (PMFBY)

PMFBY is a national scheme on crop insurance launched by the Government of India with the dual intention to help farmers in sustaining their livelihood and to increase the yield of the crops. This new crop insurance scheme (earlier known as National Agriculture Insurance scheme) will have a rebated premium rate on the principal sum insured. The scheme covers kharif, rabi crops as well as annual commercial and horticultural crops.

Pradhan Mantri Fasal Bima Yojana Status in Jharkhand

Jharkhand government has appointed Agricultural Insurance Company (AIC) as the nodal insurance company for the current financial year 2016-17. According to information provided by banks to 57th SLBC, Jharkhand, a total sum of Rs.11.02 crore as

premium amount has been debited from the account of 174796 farmers for the kharif crops during current financial year.

Performance of Microfinance in Jharkhand

Self Help Group (SHGs)

Self Help Groups (SHGs) are voluntarily formed by informal groups of 10-20 members in which the members are encouraged to save on a regular basis. They use the pooled resources to meet the credit needs of the group members. Intra region SHG penetration data in respect of NABARD-supported SHGs show that SHG penetration of Jharkhand is not sufficient. Savings amount of the SHGs increased from Rs.8492.52 lakhs as at March-end 2015 to Rs.9558.45 lakhs as at end March 2016 (Table 3.12).

Table 3.12: Progress under Microfinance – Savings of NABARD-supported SHGs with Bank-wise/Agency-wise position as on 31 March 2015

Amount Rs. Lakhs

	Commercial Bank		Regional Rural Bank		Cooperative Bank		Total	
	No. of SHGs	Savings Amount	No. of SHGs	Savings Amount	No. of SHGs	Savings Amount	No. of SHGs	Savings Amount
Bihar	154216	20640.83	124392	15365.54	0	0.00	278608	36006.37
Jharkhand	62490	6731.85	36769	2820.41	67	6.19	99326	9558.45
Odisha	218514	23599.70	184452	18638.31	83720	6349.71	486686	48587.772
West Bengal	259085	37912.68	207401	49864.62	364525	65761.45	831011	153538.75
Total India	1132281	2518497.23	470399	916492.88	229643	293699.98	1832323	3728690.09

Source: NABARD

The share of NPA in loans to SHGs in Jharkhand has improved in 2015-16. NPA as per cent of outstanding loans has decreased from 25.57 per cent as at March-end 2015 to 14.84 per cent as at March-end 2016. The national average of NPA as per cent of outstanding loans, on the

other hand, registered a decline from 7.04 per cent to 6.45 per cent during the same period (Table 3.13). For eastern region as a whole NPA as per cent of outstanding loans, registered an increase from 11.10 per cent to 12.65 per cent over the same period.

Table 3.13: Progress under Microfinance – Non-Performing Assets against Bank Loans for NABARD-supported SHGs

(Amount in Rs.Lakhs)

	As on March 31, 2016			As on March 31, 2015		
	Loan Amount Outstanding against SHGs	Amount of Gross NPAs against SHGs	NPA as % age to Loan Outstanding	Loan Amount Outstanding against SHGs	Amount of Gross NPAs against SHGs	NPA as %age to Loan Outstanding
Bihar	46389.44	9317.36	20.09	52460.18	6340.82	12.09
Jharkhand	289771.44	4474.19	15.44	31122.59	3867.26	12.43
Odisha	71759.41	19436.54	27.09	77603.88	16861.92	21.73
West Bengal	103353.62	9580.48	9.27	80817.43	10315.53	12.76
Total India	250529.38	42815.21	17.09	2420	37391.84	15.45

Source: NABARD

Joint Liability Groups

A Joint Liability Group (JLG) is an informal group comprising preferably of 4 to 10 individuals but can be up to 20 members, coming together for the purposes of availing bank loan either singly or through the group mechanism against mutual guarantee. These groups are basically engaged in similar economic activities like crop production.

Unlike in the case of SHGs, JLGs are intended basically as credit groups for tenant farmers and small farmers who do not have proper title of their farm land. Regular savings by the Group is purely voluntary and their credit needs are to be met through loans from financial institutions and such loans could be individual loans or group loans. Financing of JLGs was introduced as a pilot project in

2004-05 by NABARD in 8 states with the support of 13 RRBs. The number of JLGs has remained very low in Jharkhand as compared with the whole Eastern Region and all India. The cumulative number of JLGs promoted has

increased from 3816 as at March-end 2015 to 6850 as at March-end, 2016 (Table 3.9). The cumulative loan disbursed by them has increased from Rs.2,38,180.12 lakhs to Rs. 385688.29 lakhs during this period.

Table 3.14: Bank Loan Disbursed and Outstanding – Joint Liability Groups as on March 2015

(Amount Rs. Lakhs)

	Cumulative No. of JLGs promoted as on 31.03.2015	Cumulative loan disbursed as on 31.03.2015	Cumulative No. of JLGs promoted as on 31.03.2016	Cumulative loan disbursed as on 31.03.2016
Bihar	126352	118669.22	158943	165389.74
Jharkhand	3816	4103.76	6850	8470.54
Odisha	100361	63235.52	177207	130405.52
West Bengal	70847	51581.33	122897	80693.83
Total	1179367	1116256.81	1751722	1733695.46

Source: NABARD

Financial Inclusion

To realize the full potential of Jharkhand's growing economy, we must ensure that every citizen have access to the tools they need to protect their money, increase their capital and grow their businesses and livelihoods. At its core, the state government believes that financial inclusion is about promoting Jharkhand's economic growth by providing

a range of financial services to those who currently have limited or no access to them.

The Government of India rolled out Direct Benefits Transfer (DBT) scheme from 01st January, 2013. The DBT scheme is being successfully implemented in the State with the help of various schemes such as Pradhan Mantri Jan Dhan Yojana.

Box 3.1: Jharkhand has become the first state in the country to implement Direct Benefit Transfer (DBT) in Kerosene Scheme.

The scheme is being implemented in four identified districts of the state from 1st of October 2017. These districts are Chatra, Hazaribagh, Khunti and Jamtara.

About Direct Benefit Transfer in Kerosene (DBTK) scheme:

Under the DBTK scheme, PDS kerosene will be sold at non-subsidized price and the subsidy will be directly transferred to consumers in their bank accounts. This initiative was launched by Union Petroleum and Natural Gas Ministry on the lines of a similar DBT programme for LPG subsidy. It aims at rationalizing subsidy based on the approach to cut subsidy leakages but not the subsidy itself. It will give priority to eliminate subsidized kerosene from the supply chain of supply for the better targeting of beneficiaries. It also seeks to eliminate pilferage and black-marketing and cut down the adulteration of the kerosene, a cheap cooking and lighting fuel with diesel.

Pradhan Mantri Jan Dhan Yojana

PMJDY is a national mission on Financial Inclusion encompassing an integrated approach to bring about comprehensive financial inclusion of all the households in the country. The plan envisages universal access to banking facilities, with at least one basic banking account for every household; financial literacy, access to credit, insurance and pension facility.

Pradhan Mantri Jan Dhan Yojana Status in Jharkhand

The total (Bank Saving and Bank Deposit) no of account opened under PMJDY till 30th September, 2016 was 87,07,622. The number of accounts opened in the rural areas was much more than that in the urban sector. In the urban areas a total of 20,12,586 accounts were opened, whereas in rural area around 83,07,622 accounts were opened. Total number of Rupay debit card issued under PMJDY was 61,63,115 but only 47,32,532 Rupay cards were distributed, while 14,30,583 were still pending to be distributed and till date only 30,17,833 cards have been activated.

Table: 3.15: Pradhan Mantri Jan Dhan Yojana Status in Jharkhand

BSBD accounts opened till 30.09.2016			Rupay Card issue under PMJDY	Seeding done in PMJDY
Rural	Urban	Total	6163115	6394193
6295036	2012586	8307622		

Source: 57th SLBC, Jharkhand

Branch Expansion

According to direction given by the Reserve Bank of India, it is mandatory for banks to open their brick and mortar branches in all the villages with a population of more than 5000 but not having a branch of a scheduled commercial bank. In Jharkhand, a total of 259 villages have been identified for this purpose in which 122 villages had bank brick and mortar branches, the rest 137 villages have been allocated to different banks to open their branches. In the 55th SLBC, a decision was taken to open bank branches in 31 villages by 30th June 2016 and in the remaining 106 villages branches were to be opened till 31st march, 2017. As on September 2016 only 20 villages could be covered by opening a brick and mortar branches. Branch expansion has been facing tough challenges in terms of availability of buildings in the villages, adverse law and order situation, poor road and electric power supply and poor telecom connectivity.

Resolution of these issues to pave the path for opening branches in the remaining villages before 31st march 2017 is under active consideration of the government.

Financial Literacy Centres

The RBI came out with the concept of Financial Literacy and Credit Counseling centers in 2009 after a surge in the number of distressed borrowers with personal and agricultural loans. It compelled the Reserve Bank of India (RBI) to come out with the concept of credit counseling institutions and 135 credit counseling centers were set up by banks in various states.

In Jharkhand, FLCs have been set-up in all the 24 districts under the aegis of Lead banks of the respective district. While all the FLCs supported by SBI and Allahabad Banks have Advisors appointed, only 10 FLCs out of 15 FLCs mandated for Bank of India have appointed Advisors. Remaining 5 FLCs are manned by

the respective Lead District Managers. (Table 3.16) Apart from this, Jharkhand Gramin Bank has opened sixteen Centers and Vananchal Gramin Bank has opened nine Centers.

Table 3.16: FLCs running under State authority

Name Of Bank	Bank Financial Literacy Centers	Count
Bank Of India	Ranchi,Gumla,Lohardaga, Singhbhum (E) and (W), Giridih, Dhanbad, Koderma, Hazaribagh, Ramgarh	10
State Bank of India	Deoghar, Pakur, Sahibganj, Jamtara, Gadhwa, Latehar, Palamu	7
Allahabad Bank	Dumka and Godda	2

Source: 57th SLBC, Jharkhand

Table 3.17: No of FLC camp organized between July-September, 2016

Camp Organized in July-September,2016	
Camp Organized by F.L.C	940
Camp Organized by Gramin banks	1808
Total	2748

Source: 57th SLBC, Jharkhand

Spreading Financial Awareness

To ensure that people are aware about Panchayat Banks, the government held camps and fairs where citizens were mobilized and encouraged to open bank accounts. The mobilization was undertaken at the block level, among Gram Panchayat members and the (Village Level Entrepreneurs) VLEs. The details about the services and the uses of Panchayat banking facilities were explained with clarity. Even the Block Development Officers (BDOs) mobilized MGNREGA workers to open accounts for receiving payments, and this contributed to a large scale dissemination.

Additionally, the issuance of certain documents such as birth and death certificates from the block level was stopped and was devolved to the Panchayat level.

The VLEs also disseminated information about the Panchayat Banks in their communities as they gain a direct benefit in doing so. The Panchayat Banks are regularly monitored. The transaction details are updated daily on an online reporting system. For grievance redressal, the citizens can contact the Statutory Central Auditors (SCAs) and the banks which then take follow-up action.

Table 3.18: Performance detail of Panchayat Banks functioning under SBI and BoI across Jharkhand as of January 2014

Total no. of Accounts Created	1,41,964
Total Payments	Rs.12,66,74,176
Total Receipt	Rs.5,38,73,491
Total Transaction	Rs. 17,66,43,769

Source: United Telecoms e-Services Pvt. Ltd 2014

The Panchayat Banks are an innovative effort to enhance the accessibility to financial services in the rural areas. Given the stress on livelihoods through the National Rural Livelihood Mission and employment guarantee through MGNREGS, the provision of banking facilities at the doorstep is only a logical step. Though there are some gaps and this initiative is in its nascent stage, it has

served the much needed financial services in the rural areas. The plans are underway to synchronize transaction details of Panchayat Banks with governmental servers which will help in getting real time updates. Efforts are underway to further improve this banking model, and the goal of one bank per Panchayat is yet to be achieved.

Box 3.2: Jharkhand is Now Home to Its First Two Cashless Panchayats

Dugda Paschimi and Dugda Dakshin are all set to be declared as the first cashless panchayats in Jharkhand. The district administration is expected to formally announce these two panchayat as the first ones to go cashless in the state on Monday, reported *The Telegraph*.

Speaking to the publication, Bokaro Deputy Commissioner RM Ray said that according to Niti Aayog guidelines, a place could be declared cashless if every household had a bank account and smartphone with digital payment apps. Apart from this, 95 percent payments related to different government schemes must be made through Aadhaar-linked bank accounts. Both Dugda Paschimi and Dugda Dakshin, with a population of over 5,000 each, match the requirements, the official said.

All the necessary verifications of the cashless system in the panchayats have been conducted at three levels; by villagers, by magistrates, and through an independent audit. The administration has distributed a total of 14 point-of-sale (PoS) machines of the State Bank of India in both places.

Courtesy: The Telegraph, 19th December, 2016

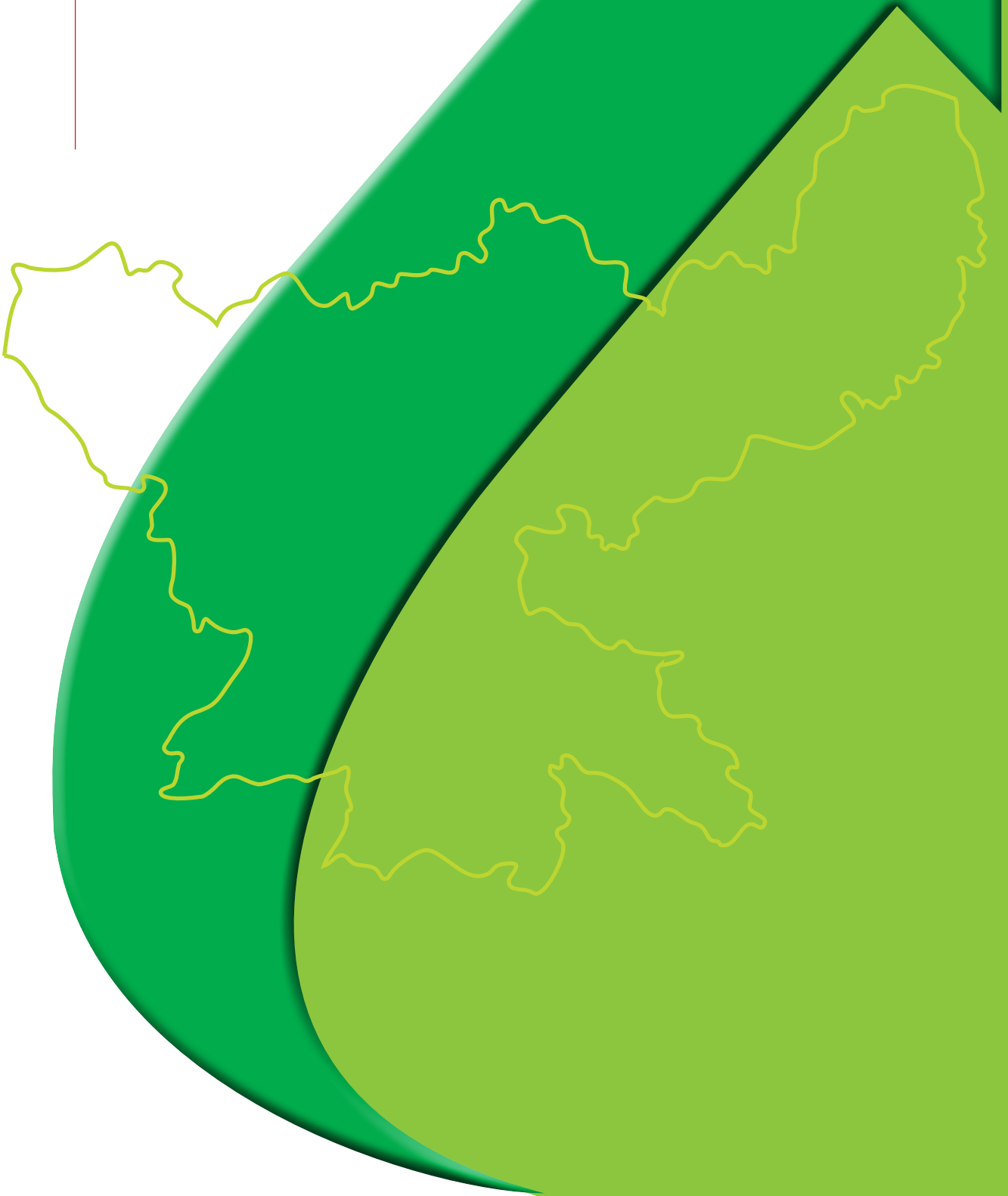
Challenges and Outlook

Overall, the financial inclusion in the state has improved satisfactorily. Despite various issues, the banks in Jharkhand have been gradually extending their services to the unbanked areas through new branches and business correspondents. Going forward, Jharkhand as a state along with the Centre government, banks

and other financial institutions is bringing financially excluded people under the network of banking services. This will help in the efficient flow of government benefits to them and would improve their financial activity by improved saving and investment behavior.

4

RURAL DEVELOPMENT AND PANCHAYATI RAJ



The department of Rural Development has successfully presented a bottom up approach of development, by making the governance reach the grass root level. The main idea behind this approach is to create a planning and development framework at the gram-panchayat level and aggregate it to get a holistic development vision for the state. With the robust implementation of an innovative program like “Hamari Yojana Hamara Vikas” the government made an effort to transfer the power of assessing the developmental needs of rural Jharkhand in the hands of people. This initiative aimed to improve the socio-economic conditions of the rural community, uplift the people living below the poverty line by providing wage employment, self employment through income generating activities and also by creating permanent assets for strengthening the rural infrastructure. Most of the programmes implemented by the Department were targeted for poverty alleviation, reduction of unemployment or to give additional employment to enhance livelihood security of the people living in the rural areas.

Apart from the implementation of various central and state programs, this year the department made an effort to make people aware of their rights, about the different types of governmental programs offered and tried to strengthen the grievance redressal mechanism. For this, meetings and assemblies with the department officio at different levels viz. District, zila panchayat, Gram Panchayat and Gram Sabha were conducted. The convergence of three departments viz. the Rural Development Department, the Panchayati Raj department and Rural Works Department also successfully showed unidirectional implementation of various schemes complimenting each other.

Gram Uday se Bharat Uday Abhiyan (Development of villages leading to development of the country)

With the onset of the financial year 2016-17, the government has shown that the path of development of the country and the states will be built around the development of the rural regions. The central government started a participatory flagship campaign- ‘Gram Uday Se Bharat Uday Abhiyan’, a village self-governance campaign on the 125th birth anniversary of Babasaheb Ambedkar.

The aim of the campaign is to generate nationwide efforts to increase social harmony across villages, strengthen panchayati raj, promote rural development and foster farmers’ welfare and the livelihood of the poor. From 14th April to 16th April 2016, a ‘Social Harmony Programme’ was conducted in all the Gram Panchayats. Subsequently, from 17th April to 20th April, 2016, ‘Village Farmer Assemblies’ were organized in the Gram Panchayats. The aim of this programme was to promote agriculture by providing information about schemes regarding agriculture such as the Fasal Bima Yojna, Social Health Card etc. Preceding the main events, gram sabha meetings were held from 21st-24th April, 2016 across the state. The topics of discussions in these Gram Sabhas included:-

Gram Panchayat Development Plans for local economic development

Optimum utilization of funds available with the Panchayati Raj Institutions

Provision of Clean drinking water and sanitation

Role of women in village and rural development

Social inclusion including the welfare of Scheduled Castes, Scheduled Tribes, persons with disabilities and other marginalized groups.

Rural Governance

The government of Jharkhand through its recent policies illustrated its confidence in decentralized governance, more specifically in nurturing the Panchayati Raj Institutions (PRIs). The 73rd and 74th Amendments to the Constitution in the Indian Democratic Republic saw the dawn of powerful local governments all over the country. From its formation, Jharkhand too, has seen two elections to the three-tiers of PRIs. As a result many departments have devolved the powers to the Panchayats. The department of Rural Development also vested the implementation of its flagship programs like NRLM, MGNREGA and PMKSY through this channel.

Hamari Yojana Hamara Vikas- Transforming Panchayats through Democratic Decentralisation

In 2015- 16, Yojana Banao Abhiyan for the first time gave opportunity to the Gram Panchayats for preparing the holistic development plan for the panchayats. The recommendation of the 14th Finance Commission for Gram Panchayats also became a driving force for the preparation of the plans. Last year, Jharkhand was the first state to prepare Gram Panchayat Development Plan(GPDP) based on convergence. Two major resource envelopes were converged namely: 14th Finance commission and MGNREGA. One of the major outcomes of Yojana Banao Abhiyan was that it made the panchayats responsive towards their own needs and urged them to take up a systematic planning for development.

This year, to make the planning process more need based, an attempt was made for the active participation and involvement of the standing committees and Panchayat volunteers. The facilitation team i.e. Planning Panchayat Team consisted of Panchayat volunteers and ward members. The standing Committee of Gram Sabhas was involved in the situation analysis of the respective villages.

Three pronged strategies were adopted this year in GPDP planning. The first strategy was stock taking exercise in the Gram Panchayats which focussed on reviewing the availability of funds, schemes taken up in 2015-16 and current situation analysis of the panchayati works. The second strategy adopted this year was visioning exercise for the panchayats which focussed on all developmental issues. Efforts were made to incorporate the relevant Sustainable Development Goals in the planning process and the role of panchayats was discussed in this perspective. During this visioning exercise, the panchayats prepared 15 years vision plan, 7 years strategy and 3 years development plan. The outcome of the visioning exercise resulted in three types of plan names i.e. schemes under 14th Finance Commission, low cost and no cost schemes and schemes under different divisions and departments.

To make GPDP a success in the state, a massive media campaign was launched at the state level followed by mid media activities in the districts, block and panchayat level. The role of training of diverse group of stakeholders was also a vital activity and the backbone of GPDP. The actual process of GPDP was percolated downline to the panchayat team by the State Resource Group.

The last and the most important feature of the GPDP process was the monitoring of activities. GPDP planning process this year involved all the departments, by referring the schemes selected by the Gram Sabha to the concerned departments for further suggestions. Hence, it was felt imperative by the department to involve the heads of all departments specifically those which have devolved powers to panchayats. All Principal Secretaries/ Secretaries and other officials were directed to observe the working of respective schemes in gram sabhas of panchayats. All MPs and MLAs were also given charge of observing

gram sabhas and to actively participate in them. The other group of stakeholders which provided support in monitoring of GPDP were the NGOs and women collectives of these NGOs. Separate monitoring and observation formats were prepared for the diverse group of stakeholders. The purpose of GPDP is to make the panchayats more effective in strengthening the local governance through an active participation of women, vulnerable families, youth, SCs and STs and make them a part of the decision making process.

Rural Housing

Housing is a basic need for every citizen which not only provides social security to human beings, but also improves their social status. Thus, houselessness is considered to be a grave deprivation. Sensing the importance of housing in the socio-economic development of the citizens, the government is committed to provide housing facilities for all till the year 2022. To meet the growing demand of housing, Jharkhand has been pro-active in its housing policies. Among others, housing for the poor and down-trodden assumes greater importance especially in the rural areas. Presently, there are two important schemes i.e. Pradhan Mantri Gramin Awas Yojana and Bhimrao Ambedkar Awas Yojana, which intend to provide financial assistance for the construction and up-gradation of houses to the below poverty line households and the vulnerable sections residing in the rural areas of the state .

Pradhan Mantri Gramin Awas Yojna

In 2015-16, under the flagship program- Indira Awas Yojna, an annual target of constructing 41,901 houses was proposed for the state, out of which the construction of 41,823 new houses were sanctioned. In 2016-17, this program was restructured and named Pradhan Mantri Gramin Awas Yojna. Under this program, the state witnessed an increase in both- the scale of the program in terms of the physical target and increase in the allocated amount of money for building each unit of housing. Unlike Indira Awas Yojna, now the beneficiary for the scheme is selected according to the Socio-Economic Caste census. For building a single unit of house, Rs 1,20,000 is being provided in level land areas, while in hard to reach areas including the Naxal affected areas, Rs 1,30,000 per housing unit is being provided. For the year 2016-17, the central government proposed a plan for building 1,64,121 houses across all the districts of the state. Special focus has been given to the districts like Garwah, Palamu, Sahebganj and Dumka. Till December 2016, a sanction of 8,283 housing units has been already registered.

In addition to this, the state government tried to converge MGNREGS with the above said program to generate unskilled employment for the local rural population in course of building houses. The government is also planning to create a pool of about 8,000 masons, trained purposely by the government for the successful completion of the program.

Table 4.1: District wise Physical Progress for IAY during 2016-17

S No.	District	Annual Target	Registered in MIS				
			ST	SC	Minority	Others	Total
1	Bokaro	7654	16	69	66	100	185
2	Chatra	10139	11	71	6	40	122
3	Deoghar	4502	34	35	40	134	203

S No.	District	Annual Target	Registered in MIS				
			ST	SC	Minority	Others	Total
4	Dhanbad	5584	24	20	6	73	117
5	Dumka	11225	10	8	1	2	20
6	East Singhbhum	9142	231	14	1	107	352
7	Garhwa	14258	31	134	189	195	360
8	Giridih	6632	42	19	29	109	170
9	Godda	7775	192	108	124	250	550
10	Gumla	5690	191	4	10	48	243
11	Hazaribagh	4964	44	89	42	267	400
12	Jamtara	5155	119	19	8	64	202
13	Khunti	8052	515	35	22	248	798
14	Koderma	2011	0	1	4	14	15
15	Latehar	4696	461	258	60	237	956
16	Lohardaga	2315	67	5	39	48	120
17	Pakur	9215	81	2	44	60	143
18	Palamu	13003	23	127	85	133	283
19	Ramgarh	2331	132	57	57	478	667
20	Ranchi	6462	118	25	32	133	276
21	Sahebganj	12336	118	4	56	101	223
22	SaraikelaKhar-sawan	4753	135	46	10	413	594
23	Simdega	2864	156	34	2	69	259
24	West Singhbhum	3363	655	52	0	318	1025
	Total	164121	3406	1236	933	3641	8283

Source: Department of Rural Development, Government of Jharkhand

Bhimrao Ambedkar Awas Yojana

Owing to the fact that the women headed families with a low level of income face increased vulnerabilities in finance, social life and residence, Jharkhand government launched Bhimrao Ambedkar Awas Yojana for women in different circumstances, including widow, divorced or deserted women, female victims of atrocities and those whose

husbands are missing for at least 3years. The scheme was launched on the occasion of the 125th anniversary of Dr. B. R. Ambedkar by the Chief Minister of the state. The scheme aims at building 11,000 houses for widows in 2016-17 with the budgetary allocation of Rs. 80 crore. In the first phase the eligibility of the beneficiary is being considered under two categories:

Houseless widow headed household, where

the age of the head of the household is above 30 yrs.

Those households headed by a widow whose age is above 30 yrs and is living in a one room Kuchha house.

The beneficiaries of this scheme are being

selected on the basis of Socio-Economic Caste Census (SECC) 2011 data. It has 2 unit assistance, one for plain areas and another for hilly areas. The plain area will get an amount of Rs 75,000 and the hilly areas will get Rs 70,000 to build houses.

Table 4.2: Details of BAAV

Awav Yojana attributes	Information
Name of Scheme	Bhimrao Ambedkar Awav Yojana
Total number of units	11,000
Total budget allocation	Rs. 80 crore
Fund allocation for building a house in hilly area	Rs. 75,000 per unit
Fund allocation for building a house in plain area	Rs. 70,000 per unit
Mode of fund allocation	Direct bank transfer
Number of installments in which the total allocation being made	3 installments

Source: Department of Rural Development, Government of Jharkhand

Rural Infrastructure

Rural connectivity has been an important aspect of rural development in the past decade. It has also been observed that the areas with better infrastructure facilities in terms of road and communication have been more connected and receptive to the needful policy changes of the country. For a state like Jharkhand, where most part of the rural region resides in forest areas or difficult terrain, a sustainable and equitable development model heavily depends on strong rural infrastructure. The rural road density in Jharkhand is 516 km per 1000 square km, while the national average stands at 806.6 km per 1000 square km. To narrow down this gap, the rural development department through its rural work division carries out a number of programs both central and state sponsored which strengthens the status quo of the rural connectivity in Jharkhand.

Apart from the on-going construction of roads

with an approx. length of 8500 Kms, in the coming financial years, the department has already planned to build roads with an approx. length of 16000 kms which will raise the average road density to 716 km per 1000sq. km.

Pradhan Mantri Gram Sadak Yojna

The primary objective of the PMGSY is to provide connectivity by way of all-weather roads (with necessary culverts and cross-drainage structures, which are operable throughout the year), to the eligible unconnected habitations in the rural areas. In the first phase habitation with a population of 1000 and more and a population of 500 and more were to be connected. In the second phase, realising the presence of the sparse population in the hilly and forest areas, special provisions were made to connect habitations with 250 plus population. The program was

initially funded by the central government, but from 2015-16, the total expense is borne by both the central and the state government in a ratio of 60:40 respectively. For the unbiased selection of habitations, a block level core network was formed which decides upon the sanction based on the execution capacity and

past performances. In the state, Jharkhand state Rural Road Development Authority (JSRRDA) has been assigned to look into the successful implementation of the program. The following table shows the cumulative physical progress of the program in Jharkhand.

Table 4.3: Cumulative Physical progress of PMGSY in Jharkhand

Particulars	Habitation				New Construction Length (in Km)
	1000+	500+	250+	Total	
Net Target	1977	3723	5409	11109	21787
Sanctions Upto Phase XIV	1881	3331	3869	9081	21865
Completed upto October 2016	1685	2271	2011	5967	13607
Balance to be completed from sanctioned Projects	196	1060	1858	3114	8258
Baanced to be sanctioned by GOI	96	392	1540	2028	2900

Source: Department of Rural Development, Government of Jharkhand

In addition to this, from the current financial year, a special sanction of connecting 113 naxal affected blocks with all-weather roads have been given where the population can be below 250 people. JSRRDA is also experimenting with new techniques like cell filled concrete, Cool mixed Tar and usage of waste Plastic which are considered to be environment friendly techniques.

State sponsored construction of rural roads

In addition to the PMGSY, the state tries to build rural roads to connect the habitations which don't fall under the eligibility condition. In the year 2015-16, the state has dedicated Rs 1635 crore to build 889 roads with a length of 2871 kms.

Mukhya Mantri Gram Setu Yojna

To connect the uneven land areas and two banks of water bodies which were erstwhile not connected with roads, rural bridges are being

constructed to narrow down the distances under Mukhya Mantri Gram Setu Yojna. In the present financial year, constructions of 284 such bridges are in progress. Out of this, 187 bridges are being constructed in the Tribal sub Plan Areas and 97 bridges are being built in Other Sub Plan areas.

Rural Employment and Livelihood

It has been observed that to attain sustainable development in the rural areas of the state, the cycle of poverty and depreciated means of livelihood have to be overpowered by the economic drivers. Thus, the current paradigm of development rides on the idea that, an environment has to be created where people can earn their livelihood recursively. With this vision, both the central and the state government have started many employment generation programs especially for the poor and marginalised populace. The Jharkhand State Livelihood Promotion Society (JSLPS), an autonomous society under the aegis of

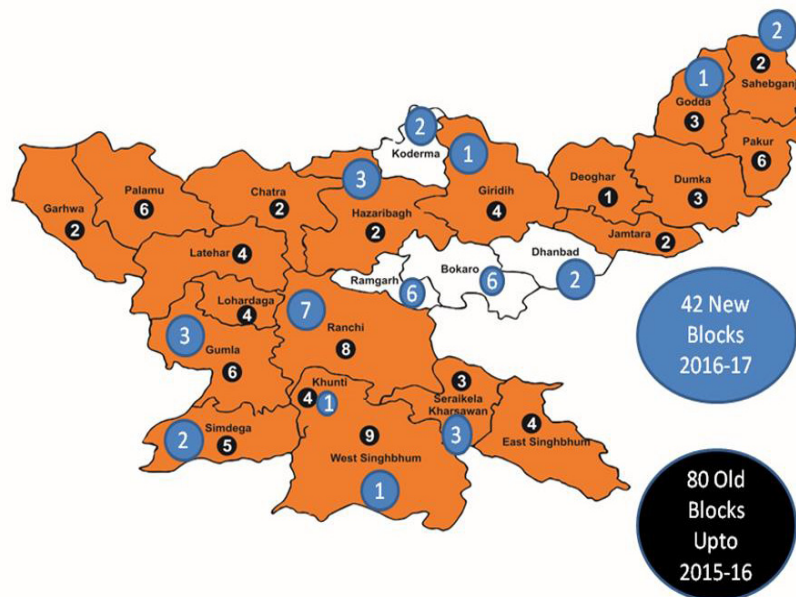
Rural Development Department has been designated by the State cabinet as “State Rural Livelihood Mission (SRLM)” for successful implementation of the various rural employment generation and employment support programs in Jharkhand.

Central Sponsor Scheme (CSS)

NRLM: National Rural Livelihood Mission is a flagship programme of MoRD, Gov. of India towards the reduction of rural poverty across the nation. The fund for the implementation of the program is shared between the Centre and the State in the ratio of 60:40. The mission identifies the fact that poverty is a result of the lack of resources and hence tries to build institutional support structure to induce social mobilization which will bring out the innate capabilities of the rural people. The

government of Jharkhand is implementing the mission in the state since May, 2012 through Jharkhand State Livelihood Promotion Society (JSLPS) in a phase wise manner. For the year 2016-17, 42 new blocks were targeted to be intervened. Till October, the components of NRLM were implemented in 93 intensive blocks spread across all the 24 districts of the state. Other than the above 93 blocks, NRLM has its interventions through DRDA which are categorised as non-intensive blocks. JSLPS also made an effort to develop additional 105 blocks as intensive blocks by using its own internal community resources either from the existing resource blocks or with the women SHG federations under the Home Grown Model (HGM) or partnership model. It is envisaged that by the end of 2020-21, outreach of SRLM would spread to all the villages of the state supporting a total of around 2.91 lakh SHGs.

Figure 4.1: Details of blocks under NRLM



Source: Progress Report NRLM (October 2016)

NRLM is trying to improve the wellbeing of the disadvantaged communities through the (i) the process of universal social mobilisation, (ii) Financial Inclusion, (iii) Livelihood Promotion and (iv) Skill Development. The formation

of women self-help groups and their higher level federation is central to the creation of institutions of the poor for the planning and implementation of their livelihood activities.

Table 4.4: Physical progress under NRLM in 2016-17

S.N.	Indicators	Status as on March, 2016	Annual Target (2016-17)	Achievement (2016-17)	Cumulative achievement
1	Financial Inclusion				
1.1	No. of SHGs with bank account	22719	15302	10499	33218
1.2	No. of SHGs that have received the Revolving Fund (Revolving Fund)	19580	17426	7447	27027
1.3	Amount of Revolving Fund disbursed	2927	2614	1116.15	4043.15
1.4	No. of SHGs that have received Community Investment Fund	15728	10503	4689	20417
1.5	Amount of Community Investment Fund disbursed	9547.59	5251	2720.1	12267.69
1.6	Total amount of RF/CIF disbursed (Rs. In lakh)	12474.59	7865	4141.75	16616.34
1.7	No. of SHGs credit linked to the Banks	7886	6400	5249	13135
1.8	Estimated amount of credit limit leveraged from Banks (Rs. Lakh)	3943	3200	2624.5	6567.5
1.9	Total amount of saving generated by SHGs (in Rs. Lakh)	NA			5621.59
1.1	Cumulative amount of inter loaning generated by SHGs (in Rs. Lakh)	NA			24731.9
2	Livelihood (Includes Coverage in Non-Intensive Blocks)				
2.1	No. of farmers registered for SRI (cumulative figure)	1,11,366	2,00,000	1,76,203	1,76,203
2.2	Area Covered under SRI (In Acre)	31,313.40	52000	25,114	56,427
2.3	No. of farmers practicing CMSA	877	4860	2236	3113
2.4	No. of farmers with goat interventions	8427	55,000	34325	42752
2.5	No. of Livelihood Community Cadres developed – AKM & APS	1595	2500	1652	3247
3	Livelihood Non-Farm (Includes Coverage in Non-Intensive Blocks)				
3.1	No. of Micro Enterprise consultants Developed	112	225	0	266
3.2	No. of Micro Enterprise support	1349	2344	0	1744

Source: Progress Report NRLM (October 2016)

Components of NRLM:

NRLP: National Rural Livelihoods Project (NRLP) is a component of NRLM which is carried out in some selected intensive blocks. This component of the mission is funded by the World Bank through a soft loan with a maturity of 25 years. NRLP is aimed at professionalizing the overall program management of NRLM in the intensive blocks. It also makes investments

in developing a wider base of implementing partnerships with the private sector, civil society, and other developmental institutions for bringing in new ideas, innovations, services, and delivery mechanisms. Till now, a total of 4,948 villages have been canvassed under NRLP, in which a total of 41,051 SHGs are actively working.

Table 4.5: Physical progress under NRLP in 2016-17

S. N.	Indicators	Status as on March, 2016	Annual Target (2016-17)	Achievement (2016-17)	Cumulative achievement
1	Total No of Districts	20	4	4	24
	Total No. of blocks entered	80	42	13	93
2	Number of villages entered	3603	2829	1345	4948
3	Total Number of SHGs supported by SRLM	27493	18503	13558	41051
4	Total no of families supported by SRLM	347725	222029	164774	512499
5	No. of Village Organisations formed	1489	1654	791	2280
6	No. of Cluster Level Federation Formed	31	96	14	45

Source: Progress Report NRLM (October 2016)

DDU-GKY: Deen Dayal Upadhyaya Grameen Kaushal Yojana is a placement linked skill development programme under NRLM. To enhance the employability of the rural dropouts, who couldn't complete their formal education for any reason, DDUGKY tries to give them a platform to impart market based skills, so that they are absorbed in the labour market either through wage employment or entrepreneurship. The courses are based on the standard operating procedures of NRLM and are spread over three wings i.e. Operations, Finance and Comprehensive. The program also gives the youth an opportunity to pursue their career as a master trainer in the program training centres. The program is governed and monitored through the Central Technical Support Agency-NIRD&PR and a concurrent monitoring process is being followed. The placement of trainees is tracked for a 12 month period and documented too. The funds for the program are routed through the Central Technical Support Agency. For the successful implementation of DDU-GKY a sum

of Rs. 66,300 lakhs has been allotted over a 3 years' time period starting from the Fiscal Year 2016-17.

(DDU-GKY) also has a sub-component called "Roshini" exclusively for districts like West Singhbhum, Chatra, Garhwa, Latehar, Gumla and Palamau. The program focuses on the youth in the target group of 15-40 years age group with certain exceptions for specified target group like youths from Primitive Tribal Groups, transgender, youths rescued from trafficking etc. The program gives an option of four time- bound training courses of 3 month, 6 month, 9 month and 12 month duration. The program gives impetus to on-the-job training of trainees for facilitating trade based skill and placement.

Through this program and other skill generation programs conducted by the Government, till now, a total of 12,582 youths have been imparted training in the various courses since its implementation, out of which 3,374 youths have already been successfully

placed. In addition to this about 14,489 youths are currently enrolled under this program in

the different training centres spread across the state.

Table 4.6: Physical progress under DDUGKY in 2016-17

S. N.	Indicators	Status as on March, 2016	Achievement (2016-17)	Cumulative achievement
1	Total no. of trained candidates	6470	6112	12582
2	No of Candidates (Youth) Under Training	1306	14489	N.A.
3	Total no of candidates placed (completed 3 months)	1482	1892	3374

Source: Progress Report NRLM (October 2016)

MKSP: Mahila Kisan Sashakti karan Pariyojna is a sub component under NRLM, which identifies women worker as an integral part of the agricultural sector. Over a time, the government observed a paradox in this sector. Although, the women workforce plays a central role at the farms, they are generally not able to access extension services and production assets like seed, water, credit, subsidy etc. As most of them are not recognized as farmers, they are not considered as beneficiaries of the various government programs or services. Thus, to negate the above said adversity, the government started MKSP in 2010-11 to give technical and physical support to the women farm sector workers. The project intended to provide multilevel support with the following inputs:

1) Improved Agriculture: System of Rice Intensification, Integrated Pest Management, Advanced irrigation mechanism, Diversified Agriculture Production System, and Crop Intensity

- 2) Food Security
- 3) Ensuring entitlement under social security programmes
- 4) Support in Drudgery Reduction input
- 5) Encouragement for Vegetable cultivation – Cost reduction practice.

Under the ambit of this program, 8 project proposals covering 27,630 households of 22 blocks in the 10 districts of Jharkhand have been sanctioned since its inception. The program also witnessed its gradual transition in the implementation pattern from Project Implementation Agency (PIA) to Annual Action plan Mode (AAP) to achieve robust short term results. Under MKSP AAP – 2015-16, the project was approved to reach out to 60,000 farmers in three years. In the first year of the project 22,451 farmers were targeted across four districts and four blocks. A total budget of Rs. 1,667 lakhs was proposed in the year 2016-17 for the successful implementation of the program.

Table 4.7: Physical progress under MKSP in 2016-17

S. N.	Indicators	Status as on March, 2016	Annual Target (2016-17)	Achievement (2016-17)	Cumulative achievement
1	MKSP-PIA				
1.1	No. of villages covered under MKSP	708	0	0	708
1.2	No. of farmers under MKSP interventions	22395	5235	0	22395

S. N.	Indicators	Status as on March, 2016	Annual Target (2016-17)	Achievement (2016-17)	Cumulative achievement
1.3	No. of farmers taken for Lac Cultivation	8365	2664	0	8365
1.4	No. of farmers covered under agriculture and livestock interventions	9541	2571	0	9541
2	MKSP-AAP				
2.1	No. of village covered under MKSP	0	400	335	335
2.2	No. of farmers under MKSP interventions	0	20000	22451	22451
2.3	No. of farmers taken for lac Cultivation	0	15400	11033	11033
2.4	No. of farmers covered under agriculture and livestock interventions	0	20000	16358	16358

Source: Progress Report NRLM (October 2016)

Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA)

In Jharkhand, the problem of employment insecurity is very serious because of the lack of capital resources in the rural areas resulting in a mass of agricultural labourers and marginal farmers in need of additional employment opportunities. The MGNREGS seeks to enhance the livelihood security of the households in the rural areas by guaranteeing at least 100 days of wage employment in a year to every household whose adult members volunteer to do unskilled manual work. Simultaneously, the scheme is designed to create community assets for the benefit of the rural society. This is expected to decrease distress migration and have multiplier effect on the rural economy. The MGNREGS has become a powerful instrument for inclusive growth in the rural areas through its impact on livelihood security and social protection.

Progress of MGNREGA in Jharkhand

With the universalization of the scheme,

MGNREGA works have been undertaken in almost all the gram panchayats across the state. This is evident by the fact that the number of panchayats where no works have been undertaken is decreasing over the years. In the current financial year, 14.2 lakh households have been provided with employment, generating about 512 lakh mandays. In this period a total of 20.13 lakh individuals worked under the program. As observed in the table given below, people from the vulnerable groups benefited out of this program. Out of the total mandays, 32.54 percent employment was provided to Schedule tribe communities, whereas, 12.55 percent and 35.3 percent employment were provided to Schedule caste and women respectively. Up till now, a total of 18,651 households have been provided with 100 days of employment in 2016-17. The year also witnessed a rise in the average wage rate provided under the program. Compared to the average wage rate of Rs 121.85 in the year 2011-12, the average wage rate received by the workers rose to Rs. 166.98.

Table 4.8: Comparative Physical Progress of MGNREGA in Jharkhand

Total No. of Districts	24
Total No. of Blocks	263
Total No. of GPs	4,414

I Job Card					
Total No. of JobCards issued[In Lakhs]	39.61				
Total No. of Workers[In Lakhs]	78.96				
Total No. of Active Job Cards[In Lakhs]	20.16				
Total No. of Active Workers[In Lakhs]	26.59				
(i)SC worker against active workers[%]	11.89				
(ii)ST worker against active workers[%]	36.75				
II Progress	FY 2016-2017	FY 2015-2016	FY 2014-2015	FY 2013-2014	FY 2012-2013
Approved Labour Budget[In Lakhs]	700	646.05	486.14	638.33	758.19
Person days Generated so far[In Lakhs]	512.09	585.68	453.42	436.22	566.4
SC person days % as of total person days	12.55	12.07	13.56	12.87	12.8
ST person days % as of total person days	32.54	38.95	35.55	37.09	40.37
Women Person days out of Total (%)	35.3	32.75	32.05	31.89	32.72
Total No of HHs completed 100 Days of Wage Employment	18,651	1,74,285	82,423	68,861	86,634
Average days of employment provided per Household	36.04	52.01	40.81	38.3	39.93
Average Wage rate per day per person(Rs.)	166.98	161.97	157.96	137.97	121.85
Total Households Worked[In Lakhs]	14.21	11.26	11.11	11.39	14.18
Total Individuals Worked[In Lakhs]	20.13	15.68	15.73	17.06	22.78
No. of Differently abled persons worked	6314	5719	5458	4964	6360
III Works					
Number of GPs with NIL exp	127	141	190	182	155
Total No. of Works Taken up (New+Spill Over)[In Lakhs]	3.65	2.64	2.18	2.04	2.43
Number of Ongoing Works[In Lakhs]	1.77	1.92	1.55	1.38	1.5
Number of Completed Works	1,88,064	71,837	62,802	65,508	93,074
% of NRM Works(Public + Individual)	73.48	59.13	37.13	42.98	49.42
% of Category B Works	19.18	28.68	27.89	24.69	20.32
% of Expenditure on Agriculture & Agriculture Allied Works	85.44	67.85	61.84	63.54	74.53
IV Financial Progress					
Total centre Release	146826.5	96989.31	72433.41	62208.28	80916.84
Total Availability	163793.3	103566.7	89151.42	98790.74	95083.48
Total Exp (Rs. In Lakhs.)	1,22,750.09	1,33,157.44	1,02,593.6	91,174.56	1,15,236.2

Wages (Rs. In Lakhs)	85,951.95	88,297.91	70,174.17	58,001.35	68,853.42
Material and skilled Wages(Rs. In Lakhs)	32,372.35	38,930.26	26,788.98	27,682.31	40,215.17
Material(%)	27.36	30.6	27.63	32.31	36.87
Total Admin. Expenditure (Rs. In Lakhs.)	4,425.80	5,929.27	5,630.45	5,490.90	6,167.61
Admin Exp(%)	3.61	4.45	5.49	6.02	5.35
% payments generated within 15 days	75.24	71.48	67.87	94.88	99.58

Source: nrega.nic.in

Outcome and impact achieved through the Yojna Banao Abhiyan

The *Yojana Banao Abhiyan* was anchored by the Department of Rural Development, in which village-level plans were prepared by people with the support of their Gram Panchayats, community-based organizations and civil society in approximately 30,000 villages across 4,402 Gram Panchayats in the state. The Abhiyan was an outcome of the merger of two programmes of Government of India – Mission Antyodaya (Intensive Participatory Planning Exercise (IPPE-II)) of the Ministry of Rural Development and Gram Panchayat Development Planning (GPDP) of the Ministry of Panchayati Raj.

The Abhiyan gave an opportunity to the Gram Panchayats of the state elected in December 2015 to lead the planning exercise with the support of women collectives (self-help groups, village organisations, clusters, and federations) and other community-based organisations.

Outcome and impact

Improvement in the quality of planning

As a result of this program, more than ten lakh MGNREGA schemes were planned out of which 1.8 lakh schemes are for water harvesting and conservation. A large number of the planned schemes were for enhancing the livelihoods of vulnerable families. This is a big departure from the previous years in which the planned

schemes primarily comprised of kuchcha roads, large ponds and irrigation wells. More than six lakh schemes have been selected for strengthening basic services related to drinking water, sanitation etc through funds devolved to the gram Panchayats as per the recommendations of the 14th Finance Commission. About 50,000 schemes for renovation of traditional water bodies have been selected for implementation through the irrigation and soil conservation departments.

Large-scale capacity-building programmes and focus on standardising dissemination of information helped in ensuring the improvement in the quality of planning as per the objectives of the Abhiyan across the state.

Increase in the demand for work

Large-scale awareness generation, community mobilisation and sensitisation of government officials and functionaries helped in capturing the demand for MGNREGA work more accurately. As a result, the recorded demand for MGNREGA work in 2016-17 was almost double of that in 2015-16. Almost 55 per cent of the rural households together demanded for more than 14.5 crore person-days of work in 2016-17. Intensive monitoring by the department helped in ensuring that the demand for work expressed by people was not under-reported by the local administration. As a result of the rigorous labour budgeting exercise during the Abhiyan, the government of India has approved a labour budget of seven

crore person-days for 2016-17 for Jharkhand.

Strengthening local democracy

As stated earlier, locked Gram Panchayat offices are a common sight across Jharkhand. The activities of the Abhiyan have helped in unlocking Panchayat Bhavans and have given an opportunity to the newly elected Gram Panchayat representatives of the state to set development priorities for their Gram Panchayats for the coming years. The campaign has also helped in deepening democracy by enhancing the participation of women and vulnerable families in local governance,

especially in Gram Sabhas.

Creation of skilled cadre of grassroots planners

The capacity building programmes organised in the Abhiyan have helped in building the skills of at least 15,000 community-based planners in the functioning of local democracy, techniques of participatory planning and principles of integrated natural resource management. These skills will enable the planners to support the Gram Panchayats in planning and implementation of developmental programmes in future as well.

Table 4.9: District wise Physical progress after the implementation of Yojna Banao Abhiyan

S. No	District	% of Person-Days Generated against last year performance	Average days per HH	Work Completion Rate	% of SC/ST HH provided employment against registered SC/ST	% of wage paid with-in 15 days
1	Hazaribagh	233.3	39.94	74	35	81.77
2	Garhwa	186.56	38.94	72	48	65.65
3	Ramgarh	159.96	39.2	82	24	88
4	Deoghar	159.7	42.72	83	39	82.43
5	Giridih	149.18	41.96	80	45	70.33
6	Pakur	145.27	38.56	84	38	62.11
7	Khunti	143.23	31.23	70	33	86.01
8	Godda	142.58	40.88	82	29	71.38
9	East Singhbhum	141.13	29.01	78	30	71.2
10	Palamu	130.64	29.97	80	38	76.55
11	Koderma	127.36	40.38	83	38	69.69
12	Saraikela Kharsawan	124.9	35.26	78	35	83.68
13	Simdega	124.27	33.93	79	37	69.47
14	Chatra	122.8	43.95	76	40	68.92
15	West Singhbhum	119.22	27.57	83	27	82.72
16	Jamtara	118.14	37.09	77	41	83.19
17	Dhanbad	118.11	30.05	67	32	87.53
18	Lohardaga	104.95	31.59	84	41	91.48

S. No	District	% of Person-Days Generated against last year performance	Average days per HH	Work Completion Rate	% of SC/ST HH provided employment against registered SC/ST	% of wage paid with-in 15 days
19	Sahebganj	104.15	31.47	89	56	54.66
20	Ranchi	102.65	32.06	82	28	84.43
21	Latehar	100.16	41.04	80	51	68.3
22	Gumla	99.38	30.53	79	31	60.66
23	Bokaro	98.86	37.69	78	26	87.96
24	Dumka	90.9	36.08	72	39	75.38

Source: nrega.nic.in

Assets completed under MGNREGA

Apart from generating employment, the program also aims at creating valuable rural assets which can provide recursive livelihood opportunities for the rural populace. In the current financial year, a total of 1,88,064 assets have been already completed, while, the construction of 1,77,144 assets are in the on-going process. In addition to this, a total of 1,53,360 works have also been approved this year. It can be observed from the table below that the demand for creating assets relating to natural resource management is the highest. Under this category a total of 120088 assets have been created, while works on 109167 assets are underway. Assets like the

construction of wells and dobhas were high on demand, while the construction of traditional water bodies like ponds were also demanded by the villagers. Assets pertaining to rural infrastructure like roads and rural sanitation were also commonly demanded. Under this category a total of 43,440 assets have been created, while works on 22,225 assets are underway. Other than this, some assets are created with the help of convergence system with other on-going rural programs like NRLP and PMGAY which particularly benefit the vulnerable sections. Under this category, works like increasing agricultural productivity, livestock rearing and rural housing were taken up.

Table 4.10: Category wise details of Asset Creation under MGNREGA in 2016-17

S No.	Work Category Name	Work Sub Category Name	Completed Works	On-going Works	Approved Works
1	Public Works Relating To Natural Resources Management	Water Conservation	87801	72858	30242
2		Watershed management	9351	9320	4227
3		Irrigation	5484	19905	38185
4		Traditional water bodies	5063	1580	2278
5		Afforestation	1200	424	578
6		Land development	11189	5080	5103
		Sub Total		120088	109167

S No.	Work Category Name	Work Sub Category Name	Completed Works	On-going Works	Approved Works
7	Individual Assets For Vulnerable sections(Only For Households In Paragraph 5)	Improving the productivity of lands	18161	20946	4175
8		Improving livelihood development of fallow/waste lands	163	568	89
9		Construction of house	956	9867	35190
11		Promotion of livestock	5238	14117	3184
12		Promotion of fisheries	12	15	3
		Sub Total	24530	45513	42641
13		Common Infrastructure For NRLM Compliant Self Help Groups	Agriculture productivity	6	239
14	Common work-sheds for livelihood activities of self-help groups		0	0	0
	Sub Total		6	239	92
15	Rural Infrastructure	Rural sanitation	12824	11511	18334
16		Road connectivity/Internal roads/Streets	24518	2019	4944
17		Play fields	33	9	9
18		Disaster preparedness/ Restoration	169	121	83
19		Construction of building	344	642	3264
20		Food Grain storage structures	0	0	0
21		Production of building material required for construction	600	3273	976
22		Maintenance	1038	3509	680
23		Any other works	3914	1141	1724
		Sub Total	43440	22225	30014
	Grand Total		188064	177144	153360

Source: nrega.nic.in

For achieving better implementation and improved outcome of works undertaken in the program, the department of rural development is trying to adapt new practices and policies that can increase the involvement of villagers both in the planning and monitoring of the program. Some of the good practices that have been tried in this financial year are listed below:-

Shifting of post office accounts to bank

accounts and DBT- Timely payment to workers is the main focus of MGNREGA in the state. Steps have been taken to overcome the problem of delay in payment to the MGNREGA workers. Presently 96% of active workers have bank accounts and 62% of workers are ready for APB.

Expediting Aadhaar Seeding Process: As of now, there are 22.01 lakh active workers, out of which 21.52 lakh (98%) have been seeded

in MIS. Against the Aadhaar numbers seeded in MIS, 3.61 lakhs have been converted to Aadhaar Based Payment. The consent of the beneficiaries will be sought before seeding.

SHG Women mate- This is a concrete step for the empowerment of women in Jharkhand. It has been decided that, in first phase, 100% SHG women mate will be engaged in CFT blocks and 50% SHG mates in non-CFT blocks.

GeoMGNREGA- Under GeoMGNREGA, the process of Geo tagging of the created assets has started. A total of 54000 assets have been geo tagged. It is expected that GeoMGNREGA will bring accountability and transparency in the implementation of MGNREGA.

NREGA Sahayata Kendra- NREGA Sahayata Kendra has been conceived as a bridge between the local administration and MGNREGA workers. It has helped workers secure their entitlements including prompt grievance redressal. Presently in Jharkhand, 37 such kendras are functional. All Cluster Facilitation blocks have been directed to establish NREGA Sahayata Kendra.

Simplification of sanctioning process: A number of steps have been taken up for simplification of the sanctioning process for the execution of works like the sanctioning process and related formats have been simplified and made uniform across the state, the certification by revenue officials has been

forgone for individual water conservation works up to Rs 1.5 lakhs and other individual works up to Rs 1 lakh and model estimates have been prepared by the state for most of the water harvesting, water conservation and livelihood related works, to ensure speedy technical sanction.

Increased role of Gram Panchayats and PRI representatives: Initiatives have been taken to increase the role of local governance like ward members have been given the responsibility of verifying attendance and muster rolls and the Gram Panchayat executive committee has been given the responsibility of a monthly review of MGNREGA at the GP level.

Convergence Programme with Various Departments and Ministries

The works undertaken under NREGA have a lot of overlap with the works undertaken by other departments/ministries. This opens up the possibilities for pooling of resources under the two to ensure greater harmony, synergy, and quality of livelihoods and assets created. This also allows each to overcome the resource constraints (human, physical and financial) faced by individual departments and their functionaries. Hence the government has embarked on a mission to foster convergence between NREGA and other government departments. The details of the convergence programmes are given below:

Table 4.11: Details of Convergence Program

Convergence Programmes	Progress
Convergence with Department of Agriculture, Animal Husbandry and Cooperative	Key decisions
	The Mahila Swablamban Yojana (Bakra Vikaas) which provides 4 does and 2 bucks to each beneficiary will be converged with MGNREGA sheds.

Convergence Programmes	Progress
	All the units of Bakra Prajanan Ikai Yojana which provides 20 does and 2 bucks to each beneficiary will be converted to units of 4 does and 2 bucks, for convergence with MGNREGA sheds.
	In Laghu Sukar Prajanan Ikai Yojana which provides 4 boars and 2 sows and has been proposed for convergence with MGNREGA, the Department of Animal Husbandry will explore the possibilities of increasing the existing subsidy of 50%/unit to 100%/unit.
	Low input layer bird (Poultry) scheme which provides 100 chicks to each beneficiary will be converged with MGNREGA sheds.
	Based on inputs from Department of Rural Development, district-wise targets of aforementioned schemes will be communicated by the Department of Agriculture.
	DoA and JSLPS to work together to develop short-duration phased training module for pashusakhis.
	The duck chick distribution scheme will be targeted to SHG members of 80 NRLM intensive blocks in 2016-17.
	Formation of state, district and block level convergence committee
Convergence with Department of Labour, Training and Skill Development	Key decisions
	All workers who have worked for at least fifty days in MGNREGS in 2015-16 will be registered with building and other construction workers cess board. Department of Rural Development will provide the list of all such workers (along with the details required for registration) to the Department of Labour. Department of Rural Development will also pay the registration fee for all the workers directly to the Department of Labour
	From now on, all workers who complete 100 days of work in MGNREGA will be provided incentives like cycle, sewing machine etc. by the Department of Labour. For 2016-17, one lakh such workers who completed 100 days in 2015-16 or earlier will be given the incentives
Convergence with Department of Welfare	Activities
	A major component of Jharkhand Tribal Employment and Livelihood Project (implemented by Jharkhand Tribal Development Society) is convergence with MGNREGA. Hence, the planning process of Gram Sabha Resource Management and Livelihood Plans (prepared in all the villages under the project) will be synchronised with the annual planning cycle of MGNREGA.

Convergence Programmes	Progress
	Partner NGOs that are implementing the project will provide technical support and community-mobilisation support during the annual planning exercise, implementation and monitoring of MGNREGA.
	For promoting goatery with a large number of beneficiaries in the project villages, goats will be provided through the project while goat sheds will be constructed under MGNREGS.
	Department of Welfare will explore the possibilities of converging land-and-water schemes (INRM), livestock rearing schemes, agriculture promotion schemes etc that are under Tribal Sub-Plan and Article 275 grants with MGNREGA. MGNREGS can be used for creation of assets like wells, ponds, dobhas, sheds etc. in such schemes
Convergence with JSLPS.	To establish convergence model in GOAL targeted districts in Jharkhand
	Establishing fly-ash brick making plant in Jharkhand with convergence of JSLPS and MGNREGA.
Convergence with IWMP	Activities
	To involve IWMP functionaries in MGNREGA processes.

Establishment of Planning Cell

A Planning Cell comprising of professionals was established in the Department of Rural Development, Government of Jharkhand with support of Tata Trusts, to provide thematic and monitoring support to the department for MGNREGA. The cell has been funded by Tata Trusts, and is nested within the Rural Development Department. The convergence of professional expertise of the Planning Cell with the administrative anchorage of the Department has been of help in grounding MGNREGA the across the state in its true spirit.

The cell acts as an in-house think tank, helping the department with policy inputs pertaining to MGNREGA. The planning cell, through its widely experienced pool of human resource, provides thematic support on a host of areas viz. Integrated Natural Resource Management, Livelihoods, Plantations, engineering, social policy, participatory planning, local self-government, etc. The cell provides technical expertise to the department at the state level.

Significant outcome/impact achieved through the planning cell

The planning cell steered the Yojana Banao Abhiyan for planning of works under MGNREGA and fourteenth finance commission funds.

The cell played a key role in streamlining of MGNREGA processes in the state. Based upon policy inputs from the cell, several MGNREGA processes in the state were reformed, which led to significant impact on field.

The planning cell also acts as a group that leads innovation in the department. The unique plantation model in Jharkhand has been designed by the group. The members of the cell also handhold the administrative machinery throughout the process.

The cell has been at the forefront of capacity building measures in the state, enabling regular training of stakeholders on various facets related to MGNREGA.

Convergence initiatives with other departments are being worked out by the planning cell.

Mechanism of MGNREGA convergence with agriculture, animal husbandry, labour departments have been chalked out.

Monitoring support: The cell has been providing monitoring support for MGNREGA in the state. Through development of checklists, data analysis and field visits, the cell has been playing an important role in bolstering the MGNREGA monitoring mechanism at the state level.

Streamlining of MGNREGA processes

A series of very progressive decisions have been taken by the department to streamline the MGNREGA process, facilitate greater decentralisation and empower PRIs. These measures include:

Simplification of sanctioning process:

The Deputy development commissioner cum CEO zila parishad was made the DPC for MGNREGA in Jharkhand w.e.f April 2016 onwards.

The sanctioning power has been delegated to blocks and the Block Development Officer can accord administrative sanction to projects under MGNREGA upto rs 10 lakh.

The sanctioning process and related formats have been simplified and made uniform across the state.

Certification by revenue officials has been forgone for individual water conservation works up to Rs 1.5 lakhs and other individual works up to Rs 1 lakh. For sanctioning of such works, self-declaration by the beneficiary and verification by ward members (and traditional head in PESA areas) are sufficient.

Model estimates have been prepared by the state for most of the water harvesting, water conservation and livelihood related works, to ensure speedy technical sanction.

A state wide seasonality calendar for projects has been notified by the state.

Increased role of Gram Panchayats and PRI representatives:

PRI functionaries have been given additional responsibilities in the implementation and monitoring of MGNREGA

Ward members have been given the responsibility of verifying attendance and muster rolls.

The Gram Panchayat executive committee has been given the responsibility of a monthly review of MGNREGA at the GP level. The department has issued a circular, instructing block administration to facilitate this GP level review, by making MGNREGA data from MIS available to the GP representatives, according to a pre-defined reporting format.

The role of Panchayat Samiti and Zila Parishad members in monitoring of MGNREGA at block and district levels, has been clearly defined by a circular on the same. Checklists and reporting formats, with important MGNREGA parameters have been shared to facilitate the monitoring process.

Significant outcome/impact achieved through the intervention

Due to faster sanctioning the works per village in the state reached an all-time high of almost 3 ongoing works/ village.

Increased the reach of MGNREGA, with works running in all villages.

The person days generated during April-October in 2016, was the highest in last three years.

These initiatives have led to increased involvement of PRIs in MGNREGA, reflected also by increase in grievances flagged by PRI representatives to the state grievance redressal cell.

Case study – Mango Plantation (pilot phase)

Location: 9 blocks in the districts of Gumla, Khunti, Latehar and Pakur

A model of block mango plantation has been piloted under MGNREGA in 2016-17 in 400 acres in nine blocks of four districts in the state. The basic objective of the pilot is to establish the model of mango plantation in the state as an alternative option for strengthening rural livelihoods by treating mostly un-bunded barren uplands under MGNREGA. It aims to

establish processes related to community-based monitoring of the schemes and also to streamline processes related to procurement of materials from different vendors etc.

Model estimates and detailed standard operating procedure (SOP) on planning and implementation of mango plantation were prepared by the Department to ensure the standardisation of processes and outcomes across the blocks.

Details of the pilot are given below:

Table 4.12: District wise Physical progress of Mango Plantation

Name of District	Name of Block	Total number of Gram Panchayats	Total number of villages	Total number of beneficiaries	Total area (acres)
Gumla	Basia	4	5	82	57.73
	Bharno	2	2	61	67.51
	Palkot	4	4	46	42.63
	Raidih	11	41	321	177.39
Khunti	Torpa	5	6	49	26.62
Latehar	Barwadih	1	1	5	5
	Manika	2	2	11	10
Pakur	Maheshpur	2	2	5	4.47
	Pakuria	3	3	5	6.44
Total		32	64	580	393.32

Feedback from beneficiaries

So far the feedbacks from the existing beneficiaries of this year pilot mango plantation and from the community who are aspiring for new year implementation is very encouraging for the department. They shared that if all kind of financial and technical support related to mango plantation would have been given by the MGNREGA for 3 years, then it would definitely transform the life of farmers. It would also help them to earn while working on their own land for the whole year round as mango plantations have some tasks to be done almost in every month.

State Sponsor Scheme

I-HIMDI (funded by JICA): To realise the potential and efficiency of Horticulture and vegetation in Jharkhand, a dedicated project known as Horticulture intensification by Micro Drip Irrigation (I-HIMDI) was started by the state government. This project is technically and financially supported by Japan International Development Agency. The project in its first phase is targeting 30,000 small and marginal farmers across 30 selected blocks of the state. Apart from providing guidance about using improved seeds and efficient drip irrigation mechanism, the scheme will be

providing loans to the farmers through Self Help Groups to buy micro drip sprinklers of 1000 sqm model. Through this the government is expecting to increase the production of off season vegetables which will in turn increase the income of the marginal farmers.

Sanjivani Project: The government realised that to reap the full potential of NRLM in Jharkhand, the women from poor families have to be informed, empowered and connected to the self-help group movement. Thus, the govt. of Jharkhand piloted Sanjivani project through the Jharkhand State Livelihood Promotion Society in the year 2012. The main objective of the project was to (i) ensure universal coverage of families under SHG fold and their higher level federation, (ii) capacity building of SHGs in the programme villages with the help of Community Resource Person, (iii) to ensure sustainable livelihood as well as to increase their reach for their entitlements and their participation in the decision making process, and (iv) supporting SHGs to undertake livelihood activities of their choice to enhance their current income. On the whole, Sanjivni project intended to prepare a strong base, over which the NRLM could smoothly operate.

In the year 2015-16 Sanjivani had been given mandate to work in 30 blocks of 13 districts. Till March 2016, before NRLM took over 17 intervened blocks as intensive blocks, Sanjivani had formed and strengthened around 15,438 SHGs in 28 blocks canvassing about 1,86,271 rural women. In addition to this, through Sanjivani, a total of 74,396 people have been connected to various Government insurance schemes. In the current Fiscal Year, GoJ has given Sanjivani a mandate to work in 30 new Blocks in the state where it is expected that the project will help in the formation of about 12,000 SHGs across 500 gram panchayats. Apart from this, the activities under Sanjivni played a major role in the formation of Cluster Facilitation Team (CFT) for MGNREGA

implementation in 13 Blocks of 7 Districts in the state. The active involvement of SHGs in the planning and monitoring works of MGNREGA, will bring out an efficient and purposive use of resources under the program.

Yuva Kaushal Vikas Yojana: Skill is the important tool for increasing productivity and the need of efficient workers is the essence of enhancing the production in any activity or field. Keeping these points in consideration the state government envisaged to start the youth skill development programme. Under this programme, the skills of the youths working in the unorganised and semi-organised sector will be upgraded as per market need and demand. The government expects that upgrading skills will create a space for enhancing the employment and livelihood avenues for the youth of this state. The scheme is conducted on a pilot based implementation in selected backward blocks of the state and with time the government has planned to expand the scope of the program in most of the blocks.

Other Initiatives by Government

Aadarsh Gram Yojna

Considering the potential of the state to grow and achieve the development indicators at par with any developed states, the Rural Development Department (RDD), Government of Jharkhand initiated a Model Village Project (Aadarsh Gram Yojana) which aims at enhancing the quality of life of the rural households by adopting an integrated developmental approach in collaboration with all lining departments of the State Government as well as partner agencies. In the initial phase, 100 villages have been chosen which will be transformed into model villages. Although, the program is in its nascent stage, an outcome of rapid development can be witnessed in the intervened villages.

In each of the village, an Aadarsh Gram Vikas Samiti has been created as a referral body for

planning and execution of the components. In these villages, based on a baseline survey conducted by the department, a list of priorities has been selected which are independent for each of the pilot villages. On the basis of the priority list, uptill October 2016, each village has been provided with ambulance facility for emergency patients. The Vikas samitis have received modern office equipment like LCD projector, broadband web connect etc. As a first line of intervention, it was made mandatory that each household should be connected with NRLM SHGs. Till now, in 21 selected villages, 157 big scale self-help groups have been specially formed to absorb all the women in the village. In addition to this, in 68 selected villages the construction work of Panchayat Bhawan and in 54 villages the construction work of village cultural centres have already been finished. With the goal of universal safe drinking water, in 16 selected villages, all the households have been connected with pipe water through NRDW program.

Mukhya Mantri Smart Gram Yojna

MMSGY was initiated in the year 2016-17 to bridge the differences of development in the urban and rural areas of the state by creating urban like infrastructure, so that the urban services, amenities and opportunities can be easily reached at the door step of the rural households. The program targets to strengthen almost all the sectors like rural governance, sustainable energy, rural industry and market, production system, skill development, education and healthcare through technology led innovations like ICT, smart grid, digitized marketing and web connect.

For this purpose, in the first phase, three Gram panchayats namely Bundu in Bokaro district, Ginjo Thakur in Ranchi District and Kantasholi in East Singhbhum district have been taken up. Under this, a technical baseline survey has been conducted to explore the sectors, scopes

and opportunities that can be more receptive in the absorption of modern technological tools. In addition to this, institutions have been marked which can provide technical support for the realisation of the objectives enlisted under the program.

MLA Scheme for holistic development in Rural Areas

In 2015-16, two schemes namely Sansad Aadarsh Gram Yojna and Mukhya Mantri Vikas Yojna were implemented for the holistic development of at least one village in each constituency. In 2016-17, these above mentioned schemes were converged into one scheme and was named MLA scheme. Previously, each Member of the Legislative Assembly (MLA) spent Rs. 3 crore on each village of his/her own constituency, whereas, in the new form under the MLA scheme, each MLA has been assigned with Rs. 4 Crore. The increased amount is now being spent on irrigation, Drinking water and upliftment of people living in slums by providing them with basic amenities. In addition to this, the money assigned is spent on the following :-

Building public chekdams for irrigation in personal farm fields

Building centralised public canals, which can be used for irrigation in personal fields. These were intended to help those marginal farmers who are not equipped with good irrigation facilities.

Construction and maintenance of public ponds

Construction of permanent banks around pond or river front

Mukhya Mantri Panchayat Protsahan Yojna

The state in the quest of strengthening the social empowerment component in the rural areas of Jharkhand, started awarding the panchayats which perform well on the

stipulated parameters of the state government. Under this encouragement program, the panchayats should practise good sanitation habits and take stern steps against social evils like alcohol addiction, witch hunting etc. In the year 2015-16, 85 such panchayats were given an award of RS. 1 lakh. In 2016-17 too, a sum of 100 lakh has been assigned to award the eligible panchayats.

State Institute for Rural Development

The State Institute of Rural Development (SIRD) aims at carrying out research and formulate operational policies to bring about development in all the spheres of technology for strengthening the qualitative and

quantitative aspects of the rural community.

The main objective of SIRD is to impart training to the various official and non-official functionaries , directly or indirectly involved in the process of rural development so as to equip them with the following :-

1. An understanding of the sociological and behavioural perspectives for the better understanding of the problems of rural population .
2. Imparting skills for efficient designing, implementing, monitoring and evaluating rural development programmes.
3. Equip the rural community with Community Mobilization Techniques.

Table 4.13: Details of Training conducted in SIRD

Year	No. of Training programme conducted	No. of participants
2007-08	12	1492
2008-09	22	963
2009-10	27	1334
2010-2011	20	723
2011-2012	66	2370
2012-2013	127	4148
2013-2014	125	4120
2014-2015	137	3835

Source: Department of Rural Development, Government of Jharkhand

Table 4.14: Details of Training conducted in SIRD in the year 2016-17

Month	No of Trainings Conducted	No. of Participants
April	15	315
May	14	270
June	8	150
July	14	485
August	12	518
September	12	459
Total	75	2197

Source: Department of Rural Development, Government of Jharkhand

New Initiatives and Future Plans

Rural Self Employment Training Institute(R-SETI)

Apart from employment generation, the state government on the guidelines of the central government tried to encourage skills which will nurture young entrepreneurs from the rural regions of the state. Jharkhand like other states of the country is making an effort to build dedicated infrastructure in each district of the state to impart training and skill upgradation of the rural youth geared towards the development entrepreneurship. In this perspective, the state government planned to establish Rural Self Employment Training Institute, which will be managed by nationalised banks with active co-operation from the Government of India and State Governments. Presently the State Bank of India is managing operations of two R-SETIs in the Ranchi district.

It is planned that in state R-SETIs

i.	Rural BPL youth will be identified and trained for self-employment.
ii.	The trainings offered will be demand driven.
iii.	Area in which training will be provided to the trainee will be decided after the assessment of the candidate's aptitude.
iv.	Hand holding support will be provided for assured credit linkage with banks.
v.	Escort services will be provided for at least two years to ensure sustainability of micro enterprise trainees.
vi.	The trainees will be provided intensive short-term residential self-employment training programme with free food and accommodation

Shyama Prasad Mukherjee Rurban Mission (SPMRM)

The Shyama Prasad Mukherjee Mission

is a scheme launched by the Government of India in 2016. The mission targets at bridging the rural urban divide by providing economic, technological and other related urban amenities and services. The program will identify the rural areas in a cluster based manner so that a rural- urban chain of linkage can be created.

SPMRM is a predecessor of the Provision of Urban Amenities to Rural Areas (PURA) 2003, which aimed at provisioning of the urban amenities and livelihood opportunities in rural areas to bridge the rural urban gap in terms of employment and services. SPMRM will emphasize on enveloping compact area around a potential growth centre in a Panchayat (or group of Panchayats) through Public Private Partnership (PPP). It will include

Simultaneous delivery of different urban based schemes

Deployment of funds for operations and maintenance of assets along with capital investment for the creation of assets

Synergy in operations of schemes – leading to optimal use of resources

Standards for service delivery in rural areas at par to those set for urban areas

Identification and Ranking Clusters in the state

For Jharkhand a total of 17 clusters (10 Tribal & 7 Non-Tribal) with one cluster in each district was identified by the state and a proposal was submitted to MoRD, GoI for the approval. The Rurban clusters would be developed by provisioning of training linked to economic activities, developing skills and local entrepreneurship and by providing necessary infrastructural amenities.

Given below is the list of such 17 clusters :-

Table 4.15: Details of clusters proposed for intervention under SPMRM

Sl. No	Name of Cluster	Sub-district	District	Total Weighted Score	Cluster Type	Approval Status
1	Dharambahal	Ghatshila	PurbiSinghbhum	86.80	Tribal	Phase-I
2	Karaundi	Gumla	Gumla	80.76		Phase-II
3	Dudhbila	Noamundi	PaschimSinghbhum	75.21		Phase-II
4	Mangra	Barwadih	Latahar	73.18		
5	Birhu	Kunti	Khunti	60.61		Phase-II
6	Behrabank	Dumka	Dumka	56.63		
7	Barambe	Mandar	Ranchi	56.11		
8	Ilami	Pakaur	Pakur	54.91		
9	Aidega	Kilebira	Simdega	39.60		
10	Kharsawan	Kharsawan	Saraikele-Kharsawan	37.16		
11	Bhandaridh	Giridih	Giridih	70.62	Non-Tribal	Phase-I
12	Palani	Balipur	Dhanbad	67.26		Phase-I
13	Siyaljori	Chandankiyari	Bokaro	63.53		Phase-II
14	Gouriya Karma	Barhi	Hazaribhag	61.34		Phase-II
15	Saradhu	Tandwa	Chatra	49.77		
16	Bicha	Pataratu	Ramgarh	49.57		
17	Shivpur	Satagawan	Koderma	42.03		

Source: Department of Rural Development, Government of Jharkhand

The clusters are selected after a detailed ranking based on stipulated parameters and respective weights illustrated in the table below.

Table 4.16: Criteria of selection of Clusters under SPMRM

Sl. No.	Cluster Type	Parameter	Weightage (%)
1	Tribal	Decadal growth in population	35%
2		Decadal increase in literacy rate	35%
3		Decadal growth in proportional Non-Farm work force participation	30%
Total			100%
4	Non-Tribal	Decadal growth in population	20%
5		Rise in land values(Agriculture, residential and commercial)	20%
6		Decadal growth in proportional Non-Farm Work Force participation	20%
7		Percentage enrollment of girls in secondary schools	20%
8		Percentage of active workers under MGNREGA with Aadhaar No. and bank account	10%
9		Performance in Swatch Bharat Mission (Grameen)	10%
Total			100%

Source: Department of Rural Development, Government of Jharkhand

For the first phase 8 clusters were approved for the intervention. After the approval, the department prepared an Integrated Cluster Action Plan (ICAP) for each cluster detailing intervention required for the development of cluster. This will be followed by the preparation of Detailed Project Report (DPR) for each intervention identified under ICAP. ICPAs will be prepared with respect to the following 14 components defined in the Mission

1. Skill Development Training linked to Economic Activity
2. Agri Services & Processing
3. Digital Amenities & Literacy
4. 24*7 Piped Water Supply
5. Sanitation
6. Solid and Liquid Waste Management
7. Access to Village Street with Drains
8. Village Street Lights
9. Health
10. Up gradation of primary, Secondary and higher secondary schools
11. Inter-village road connectivity
12. Citizen service Centres
13. Public Transport
14. LPG Gas Connection

Apart from the 14 components defined in the Mission, many innovative projects are included in the ICAP like Floriculture – Rose and Marigold, Bamboo and Wood Craft making, Coaching & Skill Development Centre, Computer Education in Middle Schools, Health Profiling and Monitoring, Improving Adolescent Health, Integrated Waste Management Unit, Promotion of Dairy Farming and Milk Cooling Plant, Multi-Purpose Community Hall, Solar water system for Public utilities, Integrated Farming and farm School and Solar Cold Room.

Immediate actionable Points

The state listed some of the projects that have to be started in 2016-17 under phase 1. These are building a Model school, Solid and Liquid waste management, Skill development Institute in the Palani cluster of Dhanbad District, Goshala Griha, Mushroom Processing units, Model Aaganwadi Centers, Sinage Board in Bhandaridih cluster of Giridih District and Heritage Village Tourism Centre, Computer education in middle school, Medical delivery and referral services, GP level Sports and Gym Facility in the Dharambahal cluster of East Singhbhum District.

Water shed development project funded by Rural Infrastructure Development Fund (RIDF)

The state has witnessed recurring drought like situation in the past three years. Thus the state has planned to build 29 projects of water and land conservation under the rural infrastructural development fund in the next financial year. It has been planned that 90 percent of the total expense will be covered under loan from NABARD and the rest will be borne by the state government.

Departmental Computerization program-

The department of Rural Development in their annual plan have always prioritised digitization of its procedures for the easy monitoring and accessibility. For the year 2017-18, the department has prepared a plan to computerize all the official procedures including feedback mechanism system in the state, district and block offices spending Rs 1.5 Crore. The program will include Maintenance & Extension of Wi-fi, Correction of IP phones & installation of new IP phones, Creation of Project Management Units, Development & Maintenance of Website and Recruitment Portal, Connecting block offices through VSAT network. As the success all the ITT initiatives depends mainly on internet connectivity,

it is important to provide uninterrupted connectivity at the block level. Under MNREGA scheme, the Govt. of India has provided VSAT connectivity in 56 blocks plus DoIT, GOJ is providing VSAT for 122 blocks and for the rest connectivity will be made through wi-fi or other modes. In the first phase, 50 such blocks is planned to be provided with connectivity in this financial year.

JOHAR- Jharkhand Opportunity for Harnessing Rural Growth (JOHAR) is a dedicated livelihood project of the government of Jharkhand for ensuring sustainable livelihood opportunities for the rural producers. JOHAR builds on the existing organisational and social capital of SHGs and their federations under DAY-NRLM and mobilize the rural communities around intensive livelihood intervention. In the first Phase 15 districts are planned to be intervened where NRLP has already been implemented. The project intends to improve access to finance for the producers, involve direct market interface, provide skill development program and favourable policy formulation.

In the first phase, the program is concentrating on trade sectors like Fishery production; High value Agricultural production; Livestock trading including Pig Rearing, Goat Rearing,

Poultry, Broilers, Layers etc; Johar Irrigation coverage; Farm Mechanisation intermediaries; dairy farming and trade of Non-timber Forest produce.

For the smooth market linkage between the producers and buyers a Business Development Cell has also been established which is facilitating in ratifying and assisting business plans, Formalising private sector partnership through MoUs, disseminating market information and leveraging Institutional finance and schematic assistance to the producers.

Conclusion

The department of rural development under its various schemes and program is working towards the upgradation of the rural populace of the state. The unique characteristics of most of the departmental program are that they are managed and monitored by the beneficiaries of the program themselves. Thus, the impact of the programs on the life and livelihood of the people is visible. If the department can implement its program in a similar way, and strengthen its grievance redressal component, it can be expected that rural Jharkhand can be the engine of growth for the state.

For the first phase 8 clusters were approved for the intervention. After the approval, the department prepared an Integrated Cluster Action Plan (ICAP) for each cluster detailing intervention required for the development of cluster. This will be followed by the preparation of Detailed Project Report (DPR) for each intervention identified under ICAP. ICPAs will be prepared with respect to the following 14 components defined in the Mission

1. Skill Development Training linked to Economic Activity
2. Agri Services & Processing
3. Digital Amenities & Literacy
4. 24*7 Piped Water Supply
5. Sanitation
6. Solid and Liquid Waste Management
7. Access to Village Street with Drains
8. Village Street Lights
9. Health
10. Up gradation of primary, Secondary and higher secondary schools
11. Inter-village road connectivity
12. Citizen service Centres
13. Public Transport
14. LPG Gas Connection

Apart from the 14 components defined in the Mission, many innovative projects are included in the ICAP like Floriculture – Rose and Marigold, Bamboo and Wood Craft making, Coaching & Skill Development Centre, Computer Education in Middle Schools, Health Profiling and Monitoring, Improving Adolescent Health, Integrated Waste Management Unit, Promotion of Dairy Farming and Milk Cooling Plant, Multi- Purpose Community Hall, Solar water system for Public utilities, Integrated Farming and farm School and Solar Cold Room.

Immediate actionable Points

The state listed some of the projects that have to be started in 2016-17 under phase 1. These are building a Model school, Solid and Liquid waste management, Skill development Institute in the Palani cluster of Dhanbad District, Goshala Griha, Mushroom Processing units, Model Aaganwadi Centers, Sinage Board in Bhandaridih cluster of Giridih District and Heritage Village Tourism Centre, Computer education in middle school, Medical delivery and referral services, GP level Sports and Gym Facility in the Dharambahal cluster of East Singhbhum District.

Water shed development project funded by Rural Infrastructure Development Fund (RIDF)

The state has witnessed recurring drought like situation in the past three years. Thus the state has planned to build 29 projects of water and land conservation under the rural infrastructural development fund in the next financial year. It has been planned that 90 percent of the total expense will be covered under loan from NABARD and the rest will be borne by the state government.

Departmental Computerization program-

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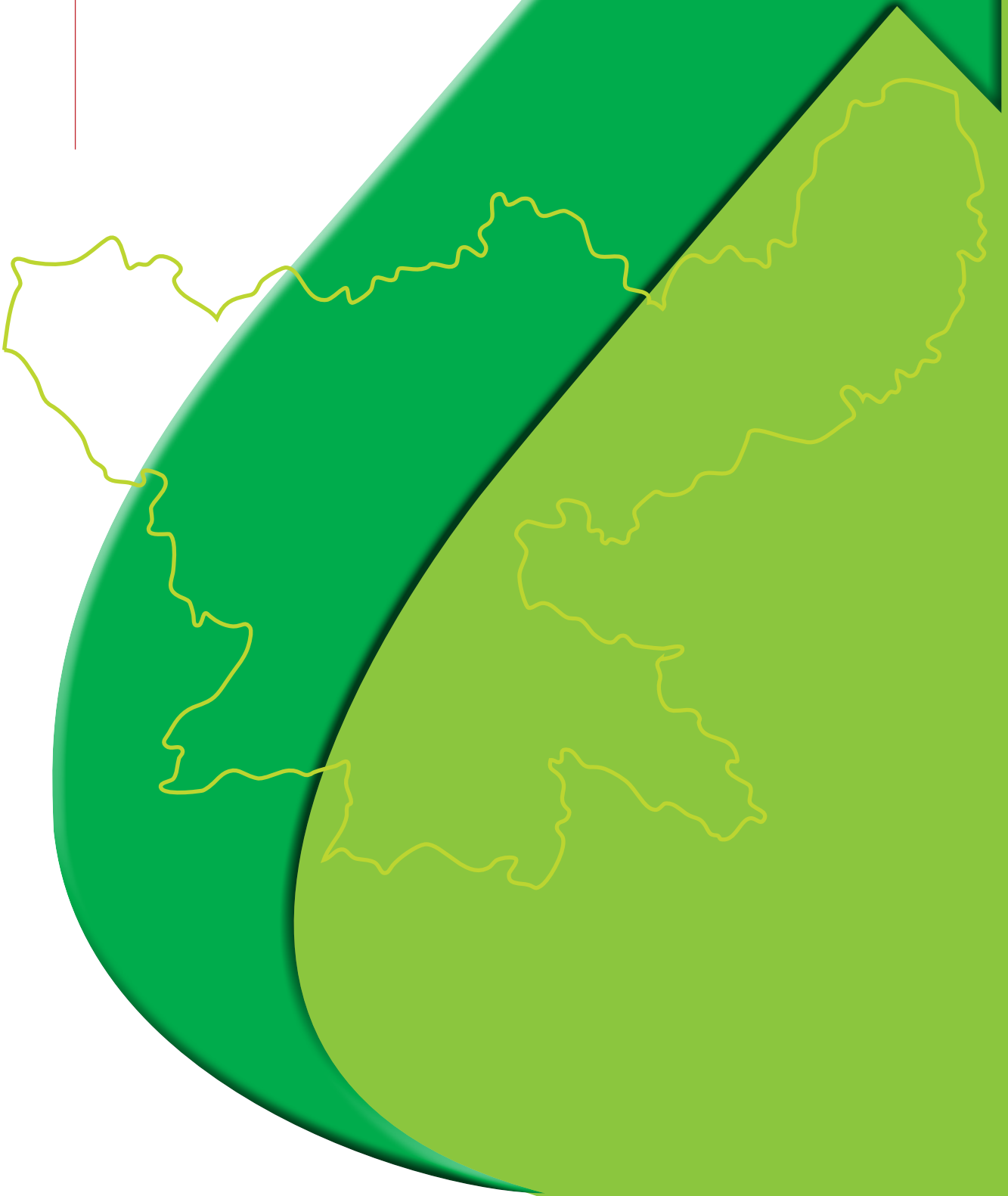
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5

URBAN DEVELOPMENT



Urban areas are considered to be 'engines of growth' and 'shrines of social change' as they are harbingers of economic prosperity and herald an overall socio-spatial development. The degree of urbanization is a pointer to the relative number of people residing in urban areas. It also exhibits the level of development of a given region as urbanization and economic development is expected to occur in synchronization.¹ The proportion of Jharkhand's total population residing in urban areas is 24.05 percent according to Census of India 2011 which stands quite a few notches lower to the national average of 31.14 percent. With three-fourths of its population being predominantly rural and decadal growth rates of urban population during 2001-2011 Census being as high as 32.36 per cent, Jharkhand faces the prospects of the ever-increasing urban population in the decades to come. Such prospects of growing urban population are bound to be accompanied by urban challenges

¹ Berry, J.L. Brian (1962): "Some Relations of Urbanization and Basic Patterns of Economic Development", in Forrest R Pitts (ed.), *Urban Systems and Economic Development*, Oregon, pp. 15.

of overpopulation, congestion, pollution, strain in the provision of basic amenities and growth of slums unless it is spatially well distributed.

Spatial Pattern of Urbanization and Urban Growth in Jharkhand:

The patterns of urbanization in Jharkhand depict high intra-state disparity wherein the district-wise levels of urbanization range from as high as 58 percent in Dhanbad to 5 per cent in Godda during 2011 Census (Table 5.1). The six highly urbanised districts of Dhanbad (58.13%), Purbi Singhbhum (55.56%), Bokaro (47.70%), Ramgarh (44.13%), Ranchi (43.14%) and Saraikela-Kharsawan (24.29%) form a distinct and continuous belt where most of Jharkhand's urban population has been concentrated (Fig. 5.1). This belt stands in stark contrast to the districts of Godda (4.90%), Dumka (6.82%) and Pakur (7.50%) to the east and Garhwa (5.27%), Chatra (6.04%), Gumla (6.35%), Latehar (7.13%) and Simdega (7.16%) to the west which have extremely low levels of urbanisation in Jharkhand (Fig. 5.1).

Table 5.1: District-wise Urban Population of Jharkhand, 2011 and 2001 Censuses

Sl. No.	Districts	Total Population	Urban Population	Percentage of Urban to Total Population	
		2011	2011	2011	2001
1	Dhanbad	2684487	1560394	58.13	52.37
2	Purbi Singhbhum	2293919	1274591	55.56	55.03
3	Bokaro	2062330	983644	47.7	45.26
4	Ramgarh	949443	418955	44.13	40.13
5	Ranchi	2914253	1257335	43.14	40.36
6	Saraikela-Kharsawan	1065056	258746	24.29	18.83
7	Kodarma	716259	141246	19.72	17.37
8	Deoghar	1492073	258361	17.32	13.72
9	Hazaribagh	1734495	275307	15.87	13.37
10	Pashchimi Singhbhum	1502338	218034	14.51	15.49
11	Sahibganj	1150567	159666	13.88	10.58
12	Lohardaga	461790	57411	12.43	12.67
13	Palamu	1939869	226003	11.65	6.43
14	Jamtara	791042	75746	9.58	8.54
15	Giridih	2445474	208024	8.51	6.43

Sl. No.	Districts	Total Population	Urban Population	Percentage of Urban to Total Population	
		2011	2011	2011	2001
16	Khunti	531885	44982	8.46	6.73
17	Pakur	900422	67512	7.5	5.13
18	Simdega	599578	42944	7.16	6.61
19	Latehar	726978	51858	7.13	4.69
20	Dumka	1321442	90178	6.82	5.34
21	Gumla	1025213	65081	6.35	4.78
22	Chatra	1042886	62954	6.04	5.31
23	Garhwa	1322784	69670	5.27	4.12
24	Godda	1313551	64419	4.9	3.53
Jharkhand		8784739	7933061	24.05	22.24

Source: Primary Census Abstract, Jharkhand, Census of India, 2011

Figure 5.1: District-wise Levels of Urbanization in Jharkhand, 2001 and 2011 Censuses

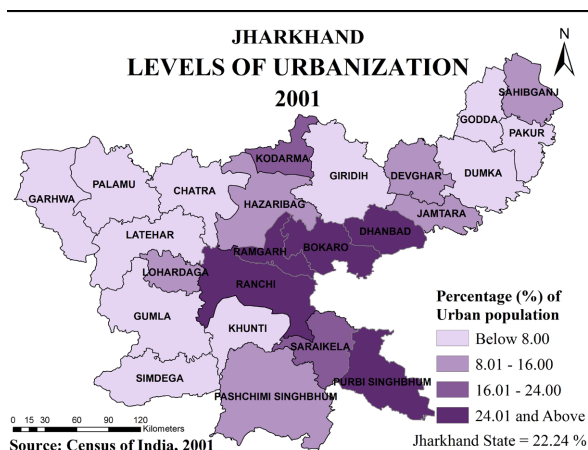
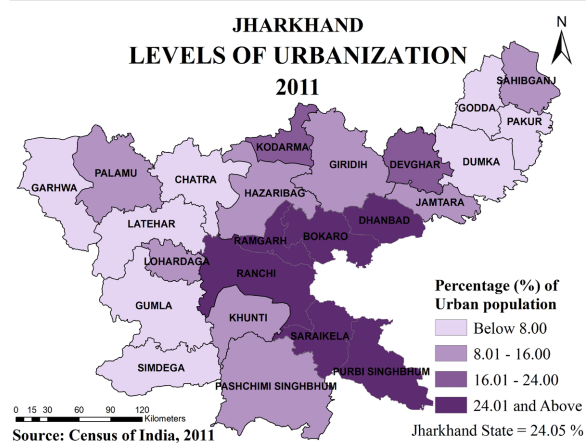
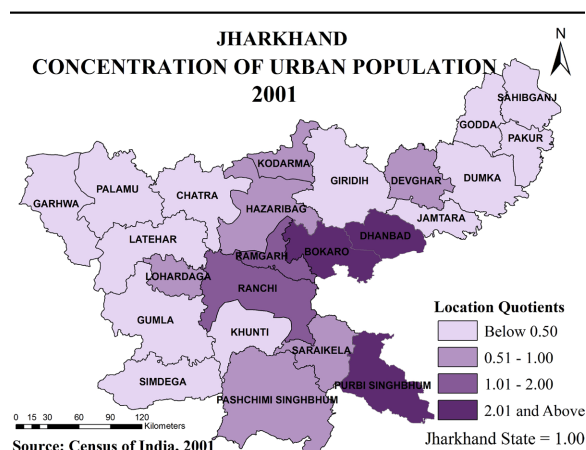
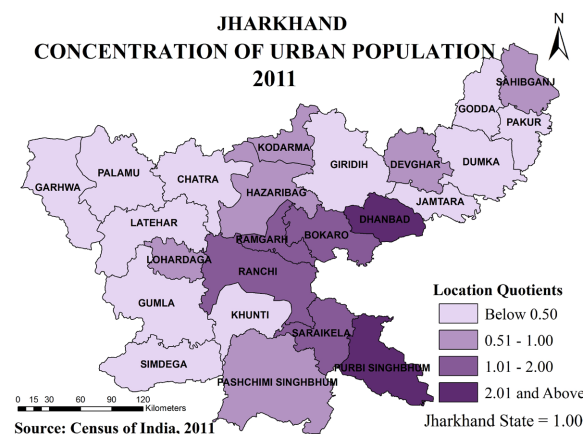


Figure 5.2: District-wise Concentration of Urban Population in Jharkhand, 2001 & 2011



Source: Computed from Primary Census Abstract, Jharkhand, Census of India, 2011



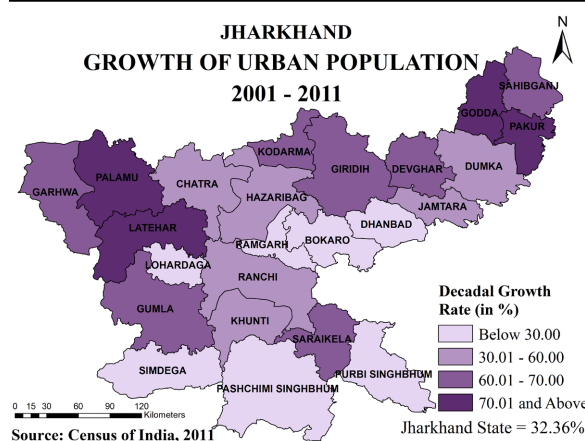
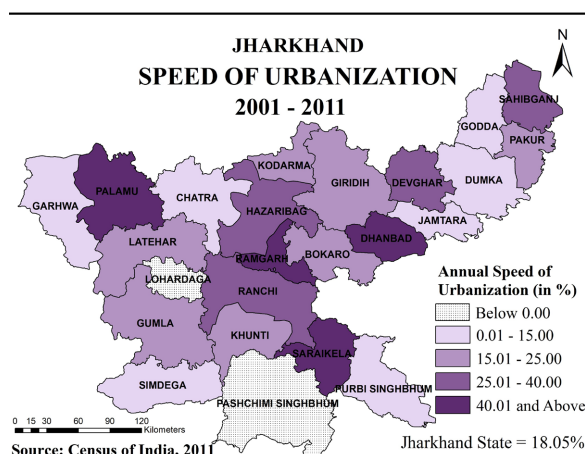
Source: Computed from Primary Census Abstract, Jharkhand, Census of India, 2011

The concentration of urban population depicts the relative number of people who reside in the urban areas in a district as compared to the state of Jharkhand. The location quotients illustrate that the districts of Dhanbad and Purbi Singhbhum have the highest concentration of urban population in Jharkhand followed by Bokaro, Ramgarh, Ranchi and Saraikela-Kharsawan (Fig. 5.2). Such skewed and polarized spatial pattern of urbanization is highly detrimental to the urban as well as the overall regional development of Jharkhand. The highest annual speed of urbanization during 2001-2011 Census has been recorded in the four districts of Dhanbad, Saraikela-Kharsawan, Palamu and Ramgarh (Fig. 5.3). Such high tempo of urbanization can be as the resultant of geographical expansion of urban population either through the emergence of new towns or through spillover of urban population from the existing major cities. While Palamu district recorded a massive decadal urban growth rate of about 129% during 2001-2011 Census, the other districts like Latehar (97.18%), Pakur (87.38%) and Godda (74.07%) also have registered very high urban growth rates (Fig. 5.3).

It's interesting to note that what actually is happening in most parts of Jharkhand is not "Urbanization" but "Urban Growth". Districts with extremely low levels of urbanization and scanty changes in the share of the urban population over the decades have recorded enormous absolute urban growth. Such rapid population increase in less developed urban areas will not only hamper the economic mobility, but will also retard the institutional and social changes which are characteristic of an urban centre. Such urban centres can neither become sectors of economic growth nor bring about economic diffusion. The rise of these deprived urban areas is indicative of a "Pseudo or Dysfunctional Urbanization" wherein urban growth is not to be equated with

urbanization. The marked absence of sectoral diversification along with redistribution of population from rural to urban areas raises questions regarding the possibilities of economic growth.²

Figure 5.3: District-wise Speed of Urbanization and Growth of Urban Population in Jharkhand, 2001 - 2011



Source: Computed from Primary Census Abstract, Jharkhand, Census of India, 2011

In 2011 Census, Jharkhand recorded 228 centres which were designated as urban including census towns and cities as compared to 152 urban centres in 2001 Census (Table. 5.2). The distribution of the urban population in Jharkhand by town-size depicts a "top heavy" or "Mega cephalic" urban structure wherein most of the urban population is concentrated in the big Cities. More than half

2 Mc Gee, T.G. (1971): *The Urbanization process in the Third World: Explorations in search of a theory*, Bell & Sons Ltd., London, pp. 25

of the urban population of Jharkhand (54.6%) reside in its ten major Class-I cities which have population of 1, 00,000 and above. The share of urban population in these cities has increased by 32.6 percent during 2001-2011 Census. Contrarily, the share of urban population in the large towns i.e. the Tier-II towns with a

population of 50,000 to 99,999 have declined considerably (-51.7%). According to 2011 Census, only 11.1 percent of Jharkhand's urban population resides in these large towns, which have also decreased in numbers (18 in 2001 to 12 in 2011 Census), as compared to 23.1 percent a decade ago (Tables 5.2 and 5.3).

Table 5.2: Distribution of Urban Population in Jharkhand by Town-Size,

2001 and 2011 Census

Size Class of Towns		Number of Towns		Urban Population	
		2001	2011	2001	2011
Class I	(1,00,000 & above)	7	10	2465317	4328014
Class II	(50,000 - 99,999)	18	12	1381825	882716
Class III	(20,000 - 49,999)	37	39	1227809	1282052
Class IV	(10,000 - 19,999)	35	48	541085	674280
Class V	(5,000 - 9,999)	45	90	336624	634552
Class VI	(Less than 5,000)	10	29	41081	131447
All classes		152	228	5993741	7933061

Source: Computed from Town Directory, Jharkhand, Census of India, 2011

The proportion of urban population has also declined in the Medium towns i.e. Class-III and Class-IV towns. The Small towns (Class-V and Class-VI towns), however, have doubled in numbers and due to the emergence of these new small towns, their share of the urban population has also increased noticeably (Tables 5.2 and 5.3). These Small towns are more or less overgrown villages with little or no characteristics of a truly.

The trend of distribution of urban population by town-size in Jharkhand over the century (1901 to 2011 Censuses) depicts a continuous rise of the Cities (Class-I towns) and Large Towns (Class-II towns). The Cities and Large Towns have increased their share of the urban population by leaps and bounds while the Medium towns are persistently declining ever since 1961 Census and small towns have suffered from utter stagnation (Fig. 5.4).

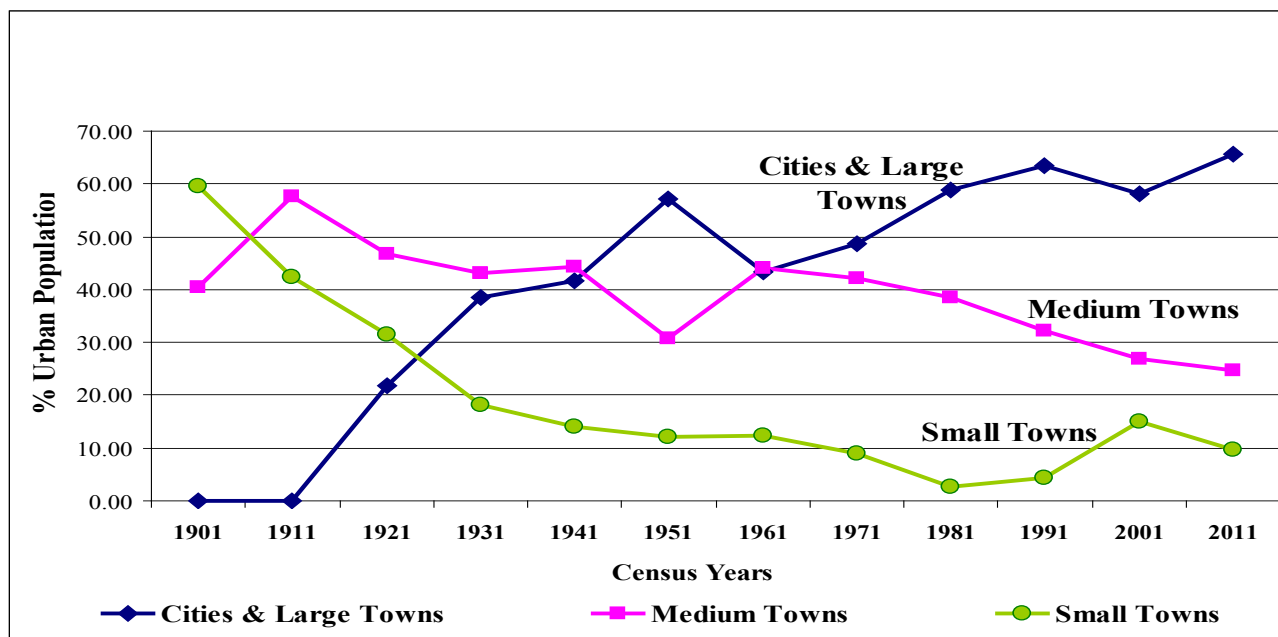
Table 5.3: Share and Growth of Urban Population in Towns by Size class,

2001 and 2011 Census

Size Class of Towns		Share of Urban Population (in %)		Change in share of Urban Population (in %)	Decadal Growth Rate of Urban Population (in %)
		2001	2011	2001 - 11	2001 - 11
Class I	(1,00,000 & above)	41.1	54.6	32.6	75.6
Class II	(50,000 - 99,999)	23.1	11.1	-51.7	-36.1
Class III	(20,000 - 49,999)	20.5	16.2	-21.1	4.4
Class IV	(10,000 - 19,999)	9	8.5	-5.8	24.6
Class V	(5,000 - 9,999)	5.6	8	42.4	88.5
Class VI	(Less than 5,000)	0.7	1.7	141.8	220
All classes		100	100	0	32.4

Source: Computed from Town Directory, Jharkhand, Census of India, 2011

Figure 5.4: Share of Urban Population in Large, Medium and Small Towns of Jharkhand, 1901 - 2011 Census



Source: Computed from Town Directory, Jharkhand, Census of India, 2011

The share of urban population in Class-I cities has increased from 41.1% during 2001 Census to 54.56% in 2011 Census. Deoghar, Chas, and Giridih emerged as the new Class-I cities during 2011 adding up to the already existing list of seven other cities. While Ranchi and Jamshedpur were the two major cities during 2001 Census together comprising of 24.35% of Jharkhand’s urban population, in 2011 Census Dhanbad and Ranchi emerged as the major cities with a whopping share of about 28.18 % of Jharkhand’s urban population

(Table 5.4). Dhanbad and Ranchi also emerged as the two million plus cities in 2011 Census, thus becoming Jharkhand’s maiden entry into the country’s list of million plus cities as there were no million plus cities in the state till 2001 Census. Dhanbad registered a massive 483% decadal growth in its urban population followed distantly by Deoghar (106.5%). Dhanbad and Deoghar along with Adityapur (46.2%), Chas (45.7%) and Mango (34.7%) recorded higher decadal growth rates than the state’s average (32.36%).

Table 5.4: Share and Growth of Urban Population in Class - I cities of Jharkhand, 2001 and 2011 Censuses

City Name	City Population		Share of Urban Population (%)		Decadal Growth Rate of Urban Population (%)
	2001	2011	2001	2011	2001 - 11
Dhanbad (M Corp.)	199258	1162472	3.32	14.65	483.40 ¹
Ranchi (M Corp.)	847093	1073427	14.13	13.53	26.72

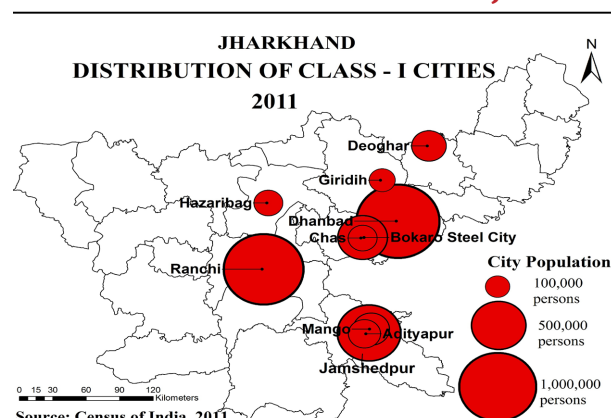
1 “There are only 8 Sub-districts in District Dhanbad of Jharkhand as per Census 2011. Earlier there were 9 Sub-Districts in Census 2001, but the constituents of Sub-District Jharia-Cum-Jorapokhar-Cum- Sindri was merged into Sub-district Dhanbad as per Census 2011. Due to this change in administrative sub-divisions, the entire Sub-District Jharia-

Cum-Jorapokhar-Cum- Sindri now forms a part of Dhanbad Municipal corporation as per Census 2011. This accounts for the exceptional rise in absolute population of the City which also gets reflected in its decadal growth rate.”

City Name	City Population		Share of Urban Population (%)		Decadal Growth Rate of Urban Population (%)
	2001	2011	2001	2011	2001 - 11
Jamshedpur (NAC+ OG)	612534	677350	10.22	8.54	10.58
Bokaro Steel City (CT)	393805	414820	6.57	5.23	5.34
Mango (NAC)	166125	223805	2.77	2.82	34.72
Deoghar (M Corp.)*	98388	203123	1.64	2.56	106.45
Adityapur (NP)	119233	174355	1.99	2.20	46.23
Hazaribag (NP)	127269	142489	2.12	1.80	11.96
Chas (NP)*	97221	141640	1.62	1.79	45.69
Giridih (NP)*	98989	114533	1.65	1.44	15.70
All Class - I cities	2465317	4328014	41.13	54.56	75.56
Jharkhand (Urban)	5993741	7933061	100.00	100.00	32.36

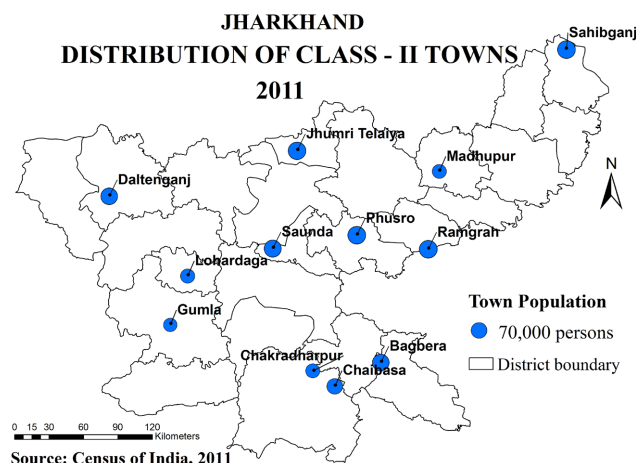
Source: Computed from Town Directory, Jharkhand, Census of India, 2011
Note: * Class - II towns of 2001 became Class - I cities in 2011 Census

Figure 5.5: Location and size of Class - I Cities of Jharkhand, 2011 Census



Source: Town Directory, Jharkhand, Census of India, 2011

Figure 5.6: Location and size of Large Towns (Class - II) of Jharkhand, 2011 Census



Source: Town Directory, Jharkhand, Census of India, 2011

The spatial distribution of the Class-I cities illustrates (Fig. 5.5) heavy concentration of city population in mainly two areas. Dhanbad, Bokaro Steel City, and Chas together form a major urban core along with Jamshedpur, Mango, and Adityapur constituting the other one. Such restricted spatial spread of urban

population into compact urban areas is a major cause of urban problems like congestion, lack of housing and other amenities and ultimately leading to the growth of slums and squatters. This is the reason why 72.38 percent of Jharkhand's slum population resides in the Class-I cities alone (Table 5.6).

Table 5.5: Share and Growth of Urban Population in Class - II Towns of Jharkhand, 2001 and 2011 Census

Town Name	Town Population		Share of Urban Population (%)		Decadal Growth Rate of Urban Population (%)
	2001	2011	2001	2011	2001 - 11
Phusro (NP)	83474	89178	1.39	1.12	6.83
Ramgarh Cantt. (CB)	73434	88781	1.23	1.12	20.9
Sahibganj (NP)	80154	88214	1.34	1.11	10.06
Jhumri Tilaiya (NP)	69503	87867	1.16	1.11	26.42
Saunda (CT)	85075	81915	1.42	1.03	-3.71
Daltonganj (NP)	71422	78396	1.19	0.99	9.76
Bagbera (CT)	67121	78356	1.12	0.99	16.74
Chaibasa (NP)	63648	69565	1.06	0.88	9.3
Lohardaga (NP)*	46196	57411	0.77	0.72	24.28
Chakardharpur (NP)	55228	56531	0.92	0.71	2.36
Madhupur (NP)*	47326	55238	0.79	0.7	16.72
Gumla (NP)*	39761	51264	0.66	0.65	28.93
All Class - II Towns	782342	882716	13.05	11.13	12.83
Jharkhand (Urban)	5993741	7933061	100	100	32.36

Source: Computed from Town Directory, Jharkhand, Census of India, 2011

Note: * Class - III towns of 2001 became Class - II towns in 2011 Census

While Lohardaga, Madhupur, and Gumla emerged as the new Class-II towns, Phusro and Ramgarh Cantonment became the major Class-II towns during 2011 Census. Gumla registered the maximum of 29 percent decadal growth in its urban population followed closely by Jhumri Tilaiya (26.4%). The spatial distribution and sizes of the Class-II towns are relatively quite balanced and well-spread (Fig. 5.6).

The share of urban population in the large

towns i.e. the Class-II towns has decreased from 13.05 percent during 2001 Census to 11.13 percent in 2011 Census. The share of the urban population has declined in all the Class-II towns simultaneously during the decade. The pull factors of the big cities like better employment opportunities, availability of basic amenities and physical and social infrastructure development has resulted in a shift of the urban population from large and medium towns to the Class-I cities. Such

a shift has visibly disturbing effects on the distribution of the urban population which in its stride has, on one hand, led to decline and stagnation of large and medium towns and on the other has resulted in exploding growth of Class-I cities. Such imbalance in spatial growth of the urban population along with substantial rural-urban migration has its perceptible impacts on growing slum population in Jharkhand.

Slum Population in Jharkhand:

A major negative fall-out of exploding growths

of urban population spatially constricted in few urban centres is the numerous upsurges of the urban poor living in squalid and overcrowded urban areas set apart as slums. The total slum population of Jharkhand stood at 3, 72,999 and total slum households at 72554 during 2011 Census. About 72.38 percent of the total slum population of Jharkhand resides in the Class-I cities alone (Table 5.6). Ranchi city has the highest share of slum population (19.92%) followed by Jamshedpur (11.27%). Bokaro Steel City is the only Class-I city which does not have any recorded slum population in the 2011 Census.

Table 5.6: Distribution of Slum Population in Jharkhand, 2011 Census

Town Name	Population of Town	Town Class	Slum Households	Slum Population	Share of Slum Population
Ranchi (M Corp.)	1073427	I	14426	74287	19.92
Jamshedpur (NAC+OG)	677350	I	8829	42026	11.27
Giridih (NP)	114533	I	5940	34867	9.35
Mango (NAC)	223805	I	5969	30508	8.18
Adityapur (NP)	174355	I	6457	29574	7.93
Deoghar (M Corp.)	203123	I	4303	23442	6.28
Daltonganj (NP)	78396	II	2704	15152	4.06
Dhanbad (M Corp.)	1162472	I	2852	14275	3.83
Chaibasa (NP)	69565	II	2400	11906	3.19
Hazaribag (NP)	142489	I	2050	11333	3.04
Lohardaga (NP)	57411	II	1961	10308	2.76
Chas (NP)	141640	I	1790	9657	2.59
Jharkhand (Urban)	7933061		72544	372999	100
All Class - I cities	4328014		52616	269969	72.38

Source: Computed from Town Directory, Jharkhand, Census of India, 2011

Access to Basic Amenities in the Slums of Jharkhand: Provision of basic amenities like clean and safe drinking water, improved drainage and sanitation facility, electricity connection and other social infrastructure to the slum population poses as the major challenge for the urban administration. Despite living in the big cities and towns, the slum population is deprived of the most basic necessities of living a decent life.

Electricity connection for domestic use: About 20 per cent of Jharkhand's slum households are deprived of electricity connection. Slum dwellers of medium and large towns are worse affected than those in cities. The slum dwellers in Medium sized towns of Simdega (76.96%), Bundu (66.47%), Hussainabad (65.53%) etc have over 60 per cent households without electricity connection. Among the large towns, Chaibasa (38.96%), Chakradharpur (36.56%) and

Daltonganj (26.52%) have higher proportions of slum households living without electricity.

Drainage and Sanitation facility: Dhanbad, Chas, and Hazaribagh are the Class-I cities where only open drainage system is available in their slum areas. About 43 per cent of Jharkhand’s slum households is devoid of any form of private toilets. The slum dwellers in Medium sized towns of Hussainabad (83.13%), Khunti (80.16%), Simdega (76.96%) etc have huge proportions of households without private toilets. Among the large towns, Phusro (63.68%) and Chaibasa (61.21%) have higher proportions of slum households without private toilets. Jamshedpur (57.53%) and Adityapur (56.84%) are the worst performers among the Class-I cities in this category.

A total of 117 private community toilets has been provided in the slum areas of Jharkhand. Among such slum areas where private

community toilets have been provided, an average of 266 slum households with no private toilets of their own is dependent on each community toilet. Among the Class-I cities, the worst scenarios are witnessed in Chas where 42.29% of the slum households do not have private toilet facility and no provision of community toilets exist. Mango (1) and Adityapur (3) are the two Class-I cities where least number of community toilets are provided. This coupled with huge shares of slum households with no private toilets (56.84% in Adityapur and 35.72% in Mango), leaves about 2132 slum households in Mango and 1223 slum households in Adityapur either being dependent on each community toilet or go for open defecation. Such is the level of strain on public amenities provided. Under such circumstances, open defecation remains the only option for such slum households.

Table 5.7: Availability of Basic amenities in the Slum areas of Jharkhand, 2011

Town Name	Drainage System	Households with no private Toilets (%)	No. of Households dependent on each Community Toilet	No. of Households dependent on each Tap point/ Public Hydrant	Households with No electricity Connection (in %)
Ranchi (M Corp.)	Both Open and Closed	38.65	310	3	18.15
Jamshedpur (NAC+OG)	Both Open and Closed	57.53	423	2	22.22
Giridih (NP)	Both Open and Closed	30.52	259	3	12.73
Mango (NAC)	Both Open and Closed	35.72	2132	21	22.7
Adityapur (NP)	Both Open and Closed	56.84	1223	5	14.33
Deoghar (M Corp.)	Both Open and Closed	48.55	522	43	13.55
Daltonganj (NP)	Open	32.4	219	16	26.52
Dhanbad (M Corp.)	Open	23.88	19	2	5.19
Chaibasa (NP)	Both Open and Closed	61.21	210	8	38.96
Hazaribag (NP)	Open	7.22	N.A.	2	4
Lohardaga (NP)	Both Open and Closed	11.83	77	8	4.18
Chas (NP)	Open	42.29	N.A.	8	9.83
Jharkhand (slums)		42.93	266	4	19.92

Source: Computed from Town Directory, Jharkhand, Census of India, 2011

Safe Drinking Water supply: Public tap points or public hydrants are installed for protected water supply to slum areas. Jharkhand slums

have an average of 4 households dependent on each tap point or public hydrant. Dhanbad, Jamshedpur, Hazaribagh, Ranchi, and Giridih

fare better than the State average with either 2 or 3 slum households dependent on each tap point. While Deoghar has the worst water supply facility among the cities with 43 slum households dependent on each tap point, Mihijam a medium sized town is worst overall with 510 slum households depending on a single tap point.

Availability of Urban infrastructure by Cities and Towns of Jharkhand:

The fundamental characteristics of a liveable and sustainable *urbanism* are the availability of physical and social infrastructure and accessibility to basic services. With incessant growth of urban population in the major cities of Jharkhand, providing per capita access to basic urban amenities becomes a herculean task. While improving the urban infrastructure in the Class-I cities is vital to maintain their liveability, strengthening the provision of basic services in other large and medium towns as it becomes indispensable to curb further population flow into the major cities. Thus, in order to maintain a sustainable urban structure with equitable distribution of

urban population across towns, it is necessary to develop infrastructure in the other large towns i.e. the Class-II towns as well.

Electricity connection for domestic use: Universal electrification and access to domestic electricity connection has become all the more significant in the ever-digitalizing world. With the concepts of smart and digital cities entering the urban arena, electricity connection for domestic use is one of the most fundamental provisions that an urbanite can ask for. Despite this, about 14 per cent of Jharkhand's urban households do not have electricity connection. The condition is only slightly better in the Class-I cities with about 10 percent of the households being devoid of domestic electricity connection. The Tier-II towns are worse off with 16 per cent households with no electricity (Tables 5.8 and 5.9). Among the Class-I cities Bokaro Steel City (18.7%) and Adityapur (14.8%) have more than average households without electricity connection (Table 5.8). Ranchi (12.2%), Giridih (12.0%) and Deoghar (10.7%) are the other Class-I cities which need improvement in the provision of domestic electricity connections.

Table 5.8: Availability of Electricity connection for domestic use and its shortage in Jharkhand by Class - I Cities, 2011 Census

City Name	Number of Households	Domestic Connection	Connection Shortage	Households with No electricity Connection (in %)
Dhanbad (M Corp.)	220783	205097	15686	7.1
Ranchi (M Corp.)	207636	182262	25374	12.2
Jamshedpur (NAC + OG)	139529	128994	10535	7.6
Bokaro Steel City (CT)	82473	67083	15390	18.7
Mango (NAC)	43005	39476	3529	8.2
Deoghar (M Corp.)	36768	32849	3919	10.7
Adityapur (NP)	37206	31710	5496	14.8
Hazaribag (NP)	25794	23825	1969	7.6
Chas (NP)	25540	23119	2421	9.5
Giridih (NP)	19740	17381	2359	12
All Class - I cities	838474	751796	86678	10.3
Jharkhand (Urban)	1525412	1315525	209887	13.8

Source: Computed from Town Directory, Jharkhand, Census of India, 2011

Table 5.9: Availability of Electricity connection for domestic use and its shortage in Jharkhand by Class - II Towns, 2011 Census

Town Name	Number of Households	Electricity –Domestic Connection	Connection Shortage	Households with No electricity Connection (in %)
Phusro (NP)	16571	15798	773	4.7
Ramgarh Cantt. (CB)	16592	14550	2042	12.3
Sahibganj (NP)	17076	13130	3946	23.1
Jhumri Tilaiya (NP)	15306	12904	2402	15.7
Saunda (CT)	15748	14872	876	5.6
Daltonganj (NP)	13821	11424	2397	17.3
Bagbera (CT)	16296	14426	1870	11.5
Chaibasa (NP)	13751	11135	2616	19
Lohardaga (NP)	11102	8760	2342	21.1
Chakardharpur (NP)	11472	8713	2759	24
Madhupur (NP)	9796	7409	2387	24.4
Gumla (NP)	9724	7747	1977	20.3
All Class - II Towns	167255	140868	26387	15.8
Jharkhand (Urban)	1525412	1315525	209887	13.8

Source: Computed from Town Directory, Jharkhand, Census of India, 2011

Among the Class-II towns, two-thirds of them have below average performance regarding electricity connections. Only Phusro (4.7%), Saunda (5.6%), Bagbera (11.5%) and Ramgarh Cantonment (12.3%) have lower proportions of households without electricity connections (Table 5.9). The provision for domestic electricity in Phusro and Saunda towns is much better than the Class-I cities. Only if such provisions are replicated in the other large towns, it can become a major factor in reversing the persistent flow of urban population towards the big cities.

Pucca Roads and Street lighting facility:

Roads are integral to providing physical connectivity in an urban sphere. Higher road density indicates higher connectivity within the urban centre. Jharkhand has an average urban road density of 3.05 kilometers of pucca road per square kilometer of the urban area. The Class-I cities have a higher urban road density of 4.7 km/sq. km area while Class-II

towns also have above average road density of 3.43 km/sq. km urban area. The mining-industrial cities of Dhanbad (28.45 km/sq. km) followed by Jamshedpur (11.54 km/sq. km) have the highest urban road densities among the major cities of Jharkhand. Ranchi, despite being the administrative capital city, has extremely low urban road density of mere 1.98 km/sq. km area. Deoghar (0.74 km/sq. km), Hazaribagh (2.24 km/sq. km), Bokaro Steel City (2.55 km/sq. km) and Adityapur (2.55 km/sq. km) too have below average urban road densities among the major cities (Table 5.10).

Among the Class-II towns, Sahibganj (29.41 km/sq. km) and Saunda (26.55 km/sq. km) have very high urban road density which is even higher than what most cities of Jharkhand have. But on the other end of the spectrum, Lohardaga (0.80 km/sq. km), Phusro (1.42 km/sq. km), Ramgarh Cantonment (2.28 km/sq. km) and Chakradharpur (2.67 km/sq. km)

have poor road densities.

The availability of facilities of street lighting is gauged here through a number of streetlights per kilometer of pucca road. The average number of streetlights per km pucca road in urban Jharkhand stands at 10.7. While the Class-I cities have better street lighting facility with 15.09 streetlights per km pucca road, Class-II towns have only 7.73 streetlights for the same stretch. Giridih (45.48 lights per km

pucca road) and Deoghar (41.84 lights per km pucca road) have extremely good street lighting facility. Adityapur (4.58 lights per km pucca road) and Dhanbad (4.96 lights per km pucca road) on the other hand have very low street light densities. Such inverse picture of more street lights in less developed towns may be due to lesser stretches of pucca roads like the case in Deoghar and vice versa case of Dhanbad where due to large stretches of pucca road streetlight densities are lower.

Table 5.10: Urban Road Density and Street lighting facility in Jharkhand

by Class - I Cities, 2011 Census

City Name	Density of Pucca Roads (km per sq. km)	Number of Streetlights per km Pucca Road
Dhanbad (M Corp.)	28.45	4.96
Ranchi (M Corp.)	1.98	29.19
Jamshedpur (NAC + OG)	11.54	13.13
Bokaro Steel City (CT)	2.55	24.78
Mango (NAC)	8.53	12.35
Deoghar (M Corp.)	0.74	41.84
Adityapur (NP)	2.55	4.58
Hazaribag (NP)	2.24	23.81
Chas (NP)	3.89	22.89
Giridih (NP)	3.18	45.48
All Class - I cities	4.7	15.09
Jharkhand (Urban)	3.05	10.70

Source: Computed from Town Directory, Jharkhand, Census of India, 2011

Table 5.11: Urban Road Density and Street lighting facility in Jharkhand

by Class - II Towns, 2011 Census

Town Name	Road Density (km per sq. km)	Number of Streetlights per km Pucca Road
Phusro (NP)	1.42	10.98
Ramgarh Cantt. (CB)	2.28	11.55
Sahibganj (NP)	29.41	4.80
Jhumri Tilaiya (NP)	3.13	2.91
Saunda (CT)	26.55	2.00
Daltonganj (NP)	5.89	23.08
Bagbera (CT)	9.82	4.55
Chaibasa (NP)	4.35	9.25
Lohardaga (NP)	0.80	0.36

Chakardharpur (NP)	2.67	16.46
Madhupur (NP)	6.18	3.37
Gumla (NP)	3.23	25.45
All Class - II Towns	3.43	7.73
Jharkhand (Urban)	3.05	10.70

Source: Computed from Town Directory, Jharkhand, Census of India, 2011

Health Infrastructure: Availability of health infrastructure is a strong indicator of urban development. Availability and accessibility have been gauged here through a number of hospitals in the urban centre and number of hospital beds and doctors available per 1000 population of the town. There are 259 Allopathic hospitals in the urban areas of Jharkhand out of which 78 are located in Class-I cities while 31 exist in the Class-II towns. Jamshedpur with 27 allopathic hospitals tops the chart followed by Dhanbad and Ranchi which have 14 each and Bokaro Steel City with 8 allopathic hospitals. Among the class-II towns, Ramgarh Cantonment has the maximum of 5 allopathic hospitals.

Table 5.12: Availability of Health Infrastructure in Jharkhand

by Class - I Cities, 2011 Census

City Name	No. of Allopathic Hospitals	No. of hospital beds per 1000 population	No. of Doctors per 1000 population
Dhanbad (M Corp.)	14	1.09	0.22
Ranchi (M Corp.)	14	1.12	1.40
Jamshedpur (NAC + OG)	27	1.48	0.11
Bokaro Steel City (CT)	8	2.89	0.60
Mango (NAC)	1	0.89	0.00
Deoghar (M Corp.)	3	0.93	0.09
Adityapur (NP)	3	0.43	0.11
Hazaribag (NP)	5	1.46	0.42
Chas (NP)	1	0.21	0.04
Giridih (NP)	2	0.76	0.25
All Class - I cities	78	1.26	0.51
Jharkhand (Urban)	259	1.52	0.39

Source: Computed from Town Directory, Jharkhand, Census of India, 2011

The ratio of a number of hospital beds to the respective population is a better measure to understand the per capita accessibility aspect. The urban areas of Jharkhand have an average ratio of 1.52 hospital beds per 1000 urban population. Despite a high number of hospitals in the Class-I cities, the ratio of hospital beds to population is lower in the Class-I cities (1.26) as compared to the Class-II towns (1.64). This illustrates the strain on health amenities in the big cities due to extreme population pressure

and with high growth rates of urban population in these major cities the strain is only going to increase in the decades to come. Bokaro Steel city has the best ratio of 2.89 hospital beds per 1000 population among the Class-I cities which is surpassed by Ramgarh Cantonment, a Class-II town, with a ratio of 4.51 hospital beds. Chakradharpur (2.65) and Saunda (2.44) also have higher ratios of hospital beds which are due to less population pressure in these large towns.

Table 5.13: Availability of Health Infrastructure in Jharkhand

by Class - II Towns, 2011 Census

Town Name	No. of Allopathic Hospitals	No. of hospital beds per 1000 population	No. of Doctors per 1000 population
Phusro (NP)	1	0.06	0.17
Ramgarh Cantt. (CB)	5	4.51	0.60
Sahibganj (NP)	1	1.13	0.15
Jhumri Tilaiya (NP)	1	0.53	0.06
Saunda (CT)	4	2.44	0.01
Daltonganj (NP)	4	1.40	0.19
Bagbera (CT)	1	0.51	0.03
Chaibasa (NP)	2	2.01	0.26
Lohardaga (NP)	3	2.18	0.14
Chakardharpur (NP)	4	2.65	0.11
Madhupur (NP)	3	0.58	0.20
Gumla (NP)	2	1.95	0.27
All Class - II Towns	31	1.64	0.18
Jharkhand (Urban)	259	1.52	0.39

Source: Computed from Town Directory, Jharkhand, Census of India, 2011

The ratio of a number of doctors available to the respective population is again a good measure to understand the per capita access to medical advice. The urban areas of Jharkhand have an average ratio of 0.39 doctors per 1000 urban population. Although the Class-II towns had a higher ratio of hospital beds as compared to the Class-I cities, the ratio of a number of doctors per 1000 urban population is lower in the Class-II towns (0.18) as compared to the Class-I cities (0.51). This makes the tier-II towns less desirable for availing health amenities than the big cities. This may also become a push factor for cityward migration of urban population from the other towns. Ranchi has the best ratio of 1.40 doctors available for every 1000 population followed by Bokaro Steel City and Ramgarh Cantonment with ratios of 0.60 each.

Educational Infrastructure: Amartya Sen's "Capability Approach"³ underlines the

significance of augmenting the capability of the masses so that they can ring in the development and are also empowered enough to harvest the benefits of economic development. Education is one of the key aspects which enhances the capability of the people. Availability of educational institutions in the vicinity works as an incentive for the populace. Jharkhand has 1669 government primary schools located in its urban areas out of which 724 are situated in the Class-I cities alone and only 209 exist in the tier-II towns. There are 1264 government middle schools in the urban areas of Jharkhand, almost half of which (603) are located in the big cities and 145 of them being situated in the large towns. Jamshedpur has the highest number of primary schools (266) as well as government middle schools (342), followed by Dhanbad with 201 primary and 127 middle schools and Ranchi with 145 primary and 45 middle schools. Among the Class-II towns, Sahibganj has the maximum 34 primary and 20 middle schools.

³ Sen, Amartya (1989): "Development as capability expansion", *Journal of Development Planning*, Vol. 19, No. 1, pp. 41-58

Table 5.14: Availability of Educational Infrastructure in Jharkhand

by Class - I Cities, 2011 Census

City Name	Govt. Primary School	Govt. Middle School	Govt. Secondary School	Govt. Senior Secondary School	Govt. Degree College-Art, Science & Commerce
Dhanbad (M Corp.)	201	127	34	2	4
Ranchi (M Corp.)	145	45	14	5	5
Jamshedpur (NAC + OG)	266	342	44	2	3
Bokaro Steel City (CT)	29	30	28	11	2
Mango (NAC)	7	13	3	3	2
Deoghar (M Corp.)	11	1	1	7	1
Adityapur (NP)	9	9	2	1	0
Hazaribag (NP)	20	14	8	2	3
Chas (NP)	16	10	3	2	2
Giridih (NP)	20	12	5	1	2
All Class - I cities	724	603	142	36	24
Jharkhand (Urban)	1669	1264	414	169	86

Source: Computed from Town Directory, Jharkhand, Census of India, 2011

Table 5.15: Availability of Educational Infrastructure in Jharkhand

by Class - II Towns, 2011 Census

Town Name	Govt. Primary School	Govt. Middle School	Govt. Secondary School	Govt. Senior Secondary School	Govt. Degree College-Art, Science & Commerce
Phusro (NP)	21	11	2	1	1
Ramgarh Cantt. (CB)	19	9	5	2	1
Sahibganj (NP)	34	20	5	1	1
Jhumri Tilaiya (NP)	8	12	2	1	1
Saunda (CT)	15	14	5	0	2
Daltonganj (NP)	6	6	3	1	3
Bagbera (CT)	17	5	1	0	0
Chaibasa (NP)	23	21	8	6	0
Lohardaga (NP)	10	13	4	2	1
Chakardharpur (NP)	26	14	6	5	1
Madhupur (NP)	25	13	5	2	1
Gumla (NP)	5	7	3	1	1
All Class - II Towns	209	145	49	22	13
Jharkhand (Urban)	1669	1264	414	169	86

Source: Computed from Town Directory, Jharkhand, Census of India, 2011

Jamshedpur has the highest number of secondary schools (44) as well followed by Dhanbad (34) and Bokaro Steel City (28).

The Steel city of Bokaro, however, has the maximum number of senior secondary schools (11) while capital city of Ranchi has the most

number of degree colleges (5) among the Class-I cities (Table 5.14). Among the Class-II towns Chaibasa has the highest number of secondary schools (8) and senior secondary schools (6) as well, while Daltonganj has the maximum number of degree colleges (3). The scenario may look very different if the number of educational institutions is matched with the enormous target group of children of school and college going age in these urban areas given the huge population base especially in the Class-I cities. The existing educational infrastructure may not be adequate to cater to the increasing needs of the ever growing urban population in these cities.

Flagship Schemes of Urban Development:

1. Smart Cities Mission:

Smart city mission is mooted by Government of India with the purpose to create 100 smart cities in the country in upcoming years. Smart City should have state-of-the-art physical and social infrastructure, good governance especially e-Governance and ease of doing business for creating employment opportunities. In a smart city, the economic developmental activity is proposed to be sustainable and rationally incremental by virtue of being driven by market factors. Ranchi city has been selected in the list of 98 cities of India by MoUD in Fast Track round of Smart City Challenge. For successful and timely execution of this important project a Special Purpose Vehicle (SPV) named "Ranchi Smart City Corporation Limited" has been constituted with the approval of Cabinet under the chairmanship of Principal Secretary,

UD&HD and its first board meeting had been organised on 05.11.2016 in which decisions like Selection of Project Management Consultant, Recruitment of Key Managerial Posts (KMPs) has been taken. Government of Jharkhand proposed and committed for the Greenfield project at HEC area which consist of 441 acres of land where all basic amenities, security, skill development, health, transportation etc. will be provided using innovative and modern technology. Ranchi Smart City Corporation Limited is authorized to take appropriate steps towards the development of Smart City in Ranchi. Apart from the 441 acres of land for this project, additional 251 acres of land is being purchased from HEC. A sum of around Rs 92.57 crore has been allocated as first instalment.

2. Major Transport Project

With an objective to improve the urban transportation and connectivity network within the city of Ranchi, various traffic and transportation studies have been conducted recently, the findings of which spell out the need for development and improvement of major junctions and over bridges, strengthening of public transport, requirement of a mass rapid transit system on the main corridors of Ranchi etc.

2.1 Development of Five Major Roads:-

Five major roads have been identified in the state capital for its comprehensive development. Detail Project Report (DPR) for the development of the said roads has been prepared by M/s Mecon Limited, Ranchi.

Table 5.16: Development of five Major Roads

Name of Road	Length (in km)
Airport to Birsa Chowk	2.55
Rajbhawan to Birsa Chowk	8.85
Kantatoli to Rajbhawan (via Circular Road)	2.88
Rajbhawan to Booty More	7.40
Rajbhawan to Hinoo Chowk via Main Road	7.08
Total	28.76

Source: Urban Development and Housing Department, Government of Jharkhand

Present Status -

- M/s Mecon Limited has submitted DPR for all five roads which has been technically approved
- Proposal of road no.3 i.e Kantatoli to Rajbhawan (via Circular Road) has got Cabinet's approval
- The other four roads are in process of getting cabinet's approval for their development.

2.2 Development of Two Flyovers

Detail project Report (DPR) of two flyovers at Ratu road and Kantatoli chowk in Ranchi has got cabinet's approval. At present, tendering activity is in process to construct flyovers. For Kantatoli flyover, a total of Rs 30 crore has been allocated for land acquisition and revised installation during the financial year 2016-17. For development of flyover from Raj Bhawan to Harmu River a total sum of Rs.36 crore has been allocated to Nagar Nigam as first instalment for land acquisition/lease.

2.3 Metro Rail

Metro Rail project has been taken up by the Government of Jharkhand as most suitable option for Mass Rapid Transit System (MRTS) in Ranchi. M/s IDFC has prepared Detail Project Report (DPR) for the said project which is in process to get cabinet's approval. Once cabinet approval is obtained, the proposal will be sent to Ministry of Urban Development, New Delhi for its approval.

2.4 Multi Level Car Parking

For Multi level car parking, Detail Project Report (DPR) has been prepared by M/s IDFC for land available in Hinoo, Shivpuri (near Vodafone tower). Land acquisition process is in progress to develop multilevel car parking at this location. A total of Rs.2.65 crore has been allocated to Ranchi Nagar Nigam for the same. For Multi level parking at Sadhu Ground, Kokar an amount of Rs.12.42 crore has been allocated for acquisition of 1.34 acre of land during financial year 2016-17.

2.5 Other Transport Projects are

- Bus Terminals
- Transport Nagar
- Ring Road/Bypass road/Major Road Construction or Renovation
- Renovation and development of bus stand in different ULBs

3. Atal Mission for Rejuvenation and Urban Transformation (AMRUT):

AMRUT has been launched on 25th June, 2015 with the aim to provide basic amenities and services to urban households and to inclusively improve the quality of life. Cities with a population of more than 1 Lakh have been covered under this mission. The objectives are to ensure assured supply and access to tap water and a sewerage facility for every household, beautification, and gentrification of cities by creating, maintaining and upgrading

green spaces, parks, recreation centres etc and to trim down pollution levels by improving public transport facilities and promoting non-motorized and pedestrian friendly transport. Ministry of Urban Development has identified 7 cities of Jharkhand to be covered under this mission. The selection has been done based on data from Census 2011. The seven cities are Ranchi, Dhanbad, Deoghar, Chas, Adityapur, Hazaribagh and Giridih which are all Class-I cities.

4. Swachh Bharat Mission (Urban):

The Government of India had launched the Swachh Bharat Mission (SBM) on 2nd October, 2014, with target of cleanliness to be achieved by 2019. All 4,041 statutory towns as per Census 2011 have been included in this mission. The objectives of this mission are to eliminate open defecation, convert unsanitary toilets to pour flush toilets, eradicate manual scavenging, collection and scientific management of solid waste and creating awareness about sanitation practices.

Table 5.17: Status of Implementation of various components under Swachh Bharat Mission in Jharkhand (up to October 2016)

Status of Toilets:	
1. Individual Household Toilets	
Application Received (Numbers)	198788
Work commenced	67812
Completed (Numbers)	47968
2. Community Toilets (Number of Seat)	
Work Commenced	415
Completed	296
3. Public Toilets (Number of Seat)	
Work Commenced	950
Completed	5
Status of Municipal Solid Waste Management:	
Ward with 100% door to door collection (Nos.)	243
Total Wards (Nos.)	828
Percentage of Wards with 100% door to door collection	29.35 %
Total Waste Generation (MT/D)	3750
Total waste processing (%)	15

Source: Swachh Bharat: A Monthly Newsletter, Vol.2, Issue 10, October 2016.

5. National Urban Livelihoods Mission (NULM): National Urban Livelihoods Mission was launched by the Ministry of Housing and Urban Poverty Alleviation (MHUPA), Government of India on 23rd September, 2013 by replacing the existing Swarna Jayanti Shahari Rozgar Yojana (SJSRY). The primary target population group of NULM is the urban poor including the urban homeless. The NULM

is meant to focus on organizing urban poor in their strong grassroots level institutions, generating skill development opportunities linked to market-oriented employment and promoting self-employment by ensuring easy access to credit. The Mission also aims to provide shelter to the urban homeless along with basic services in a phased manner. The Mission is also directed towards tackling

livelihood concerns of the urban street vendors. The target is to cover all districts headquarter towns (irrespective of the population) and all

the other towns with a population of 1 lakh or more as per Census 2011 under the 12th Five Year Plan.

Table 5.18: Targets as per Annual Action Plan (AAP) of NULM in Jharkhand, (during 2016-17)

Targets of Annual Action Plan of NULM	
Number of persons to be Skill Trained (EST&P)	92700
Persons to be assisted for Individual and Group Enterprises (SEP)	2000
Number of Self-Help Groups (SHGs) formed	2500
Number of SHGs to be given Revolving Fund (RF)	2000
Number of SHGs to be disbursed loans under SHG Bank Linkage Programme	1000

Source: Ministry of Housing and Urban Poverty Alleviation, Government of India

6. Pradhan Mantri Awas Yojana (PMAY) – 2015-22: Central Government has launched a comprehensive mission “Housing for All by 2022” on 25 June 2015. It seeks to address the housing needs of urban poor including slum dweller through “insitu” Slum Redevelopment, affordable housing through Credit linked subsidy and in Partnership, provision of subsidy for beneficiary-based individual house construction. To implement this program in Jharkhand, the Urban Development & Housing Department (UD&HD) has selected all the 41 Urban Local Bodies (ULBs) and have made a Memorandum of Agreement (MoA) through the Ministry of Housing and Urban Poverty Alleviation and Jharkhand State. Under the PMAY programme, the Government of India has already approved Detail Project Report (DPR) for 14 towns during December 2015,

which includes all the ten Class-I cities Ranchi, Dhanbad, Jamshedpur Urban Agglomeration (which includes Jamshedpur, Adityapur, Mango and Jugsalai), Chas (including Bokaro), Giridih, Hazaribagh and Deoghar and among the Class-II towns Phusro, Ramgarh Urban Agglomeration, Medininagar, Gumla and Lohardaga. The two medium sized towns included are Dumka and Chirkunda. For the financial year 2015-16, construction of 16,416 dwelling units was approved.

7. Rajiv Awas Yojana (RAY): Although RAY was discontinued by the Government of India in May, 2015, the programme are operational in 3 cities of Jharkhand. Under this programme, construction of 3931 dwelling units for the slum dwellers is under progress, out of which 1,565 dwelling units are to be constructed in Ranchi, 1,983 in Dhanbad and 383 in Chas.

Table 5.19: Status of Implementation of Rajiv Awas Yojana in Jharkhand (as on 03.01.2017)

Cities	Total Allotted	Work in progress	Completed	Not Started
Ranchi M.Corp.	1,565 Houses	1251 Houses	55 Houses	259 Houses
Dhanbad M.Corp.	1,983 Houses	1078 Houses Phase-I = 612 Houses Phase-II = 466 Houses	905 Houses (till January 3, 2017)	-
Chas M.Corp.	383 Houses	161 Houses	8 Houses	214 Houses

Source: Ministry of Housing and Urban Poverty Alleviation, Government of India (http://mhupa.gov.in/writereaddata/Ray_City_Wise.pdf; Accessed on 13.01.2017)

8. Basic Services for Urban Poor (BSUP):

BSUP is a centrally assisted housing scheme under Ministry of Housing and Poverty Alleviation for the construction of Houses and infrastructures. It is operational in two cities of Jharkhand namely Ranchi and Dhanbad. Under this programme, construction of 2490 dwelling units has been allotted together in Ranchi and Dhanbad out of which 1825 dwelling units has been constructed till December 2015.

9. Integrated Housing and Slum Development Programme (IHSDP):

IHSDP is a centrally assisted housing scheme under Ministry of Housing and Poverty Alleviation for the construction of houses and infrastructures in class – II towns and smaller towns . It is operational in ten cities of Jharkhand i.e. Chaibasa, Chatra, Medninar, Giridih, Gumla, Hazaribagh, Lohardaga, Mihijam, Phusro and Sariekhela. Under this programme, construction of 7593 dwelling units has been allotted for these cities, out of which 4618 dwelling units has been constructed till December 2015.

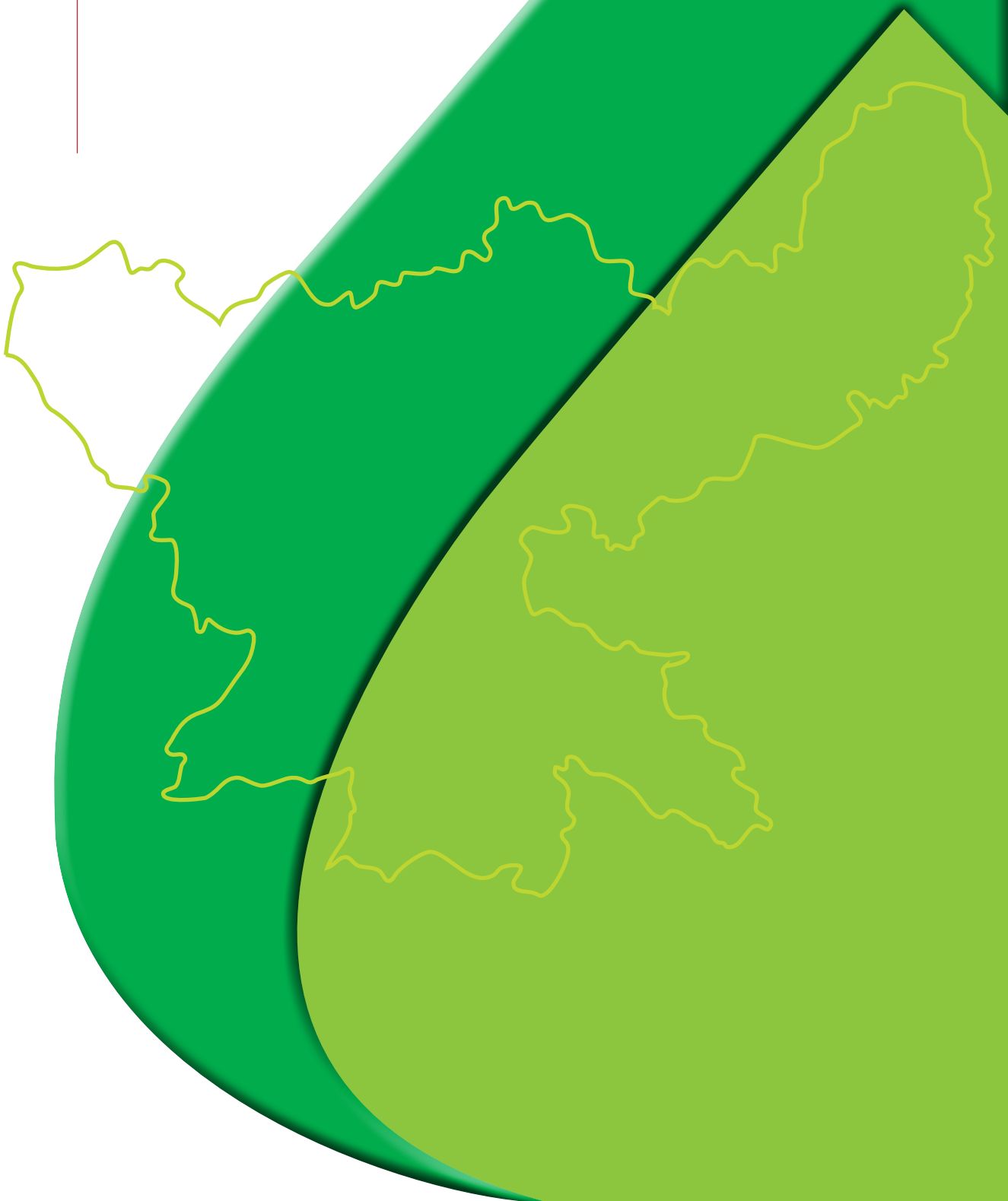
The way forward:

With just one-fourth of its population living in urban areas, Jharkhand has tremendous scope for urbanization in the near future. But, the concentration of the urban population in

few urban enclaves can be detrimental to the liveability and sustainability of those urban areas. Spatially-balanced urbanization and sustainable urban growth shall be the crucial elements to usher an overall socio-spatial economic development of the state as a whole. Development of urban infrastructure and basic services in large and medium towns as well while widening their provision and access in the big cities shall impart inclusiveness to the urban development process. This may go a long way in curbing the incessant growth of the big cities and luring the aspiring urban populace to the other large and medium towns, thus achieving a balanced urban structure. A reduced population strain on land, housing and other amenities in the cities can restrict the growth of slum population as well. Increasing the per capita access to basic facilities in the existing slum areas remains a priority task for the urban administration. Effective implementation with a wider reach of the urban welfare schemes, ensuring their timely social auditing and fixing accountability and transparency in the functioning of the urban local bodies remain vital in achieving the urban development. The Urban local bodies should explore new sources of revenue generation to finance the development of urban infrastructure and implementation of the urban welfare schemes.

6

AGRICULTURE



Agriculture is one of the pre eminent sectors of Jharkhand's rural economy. It is important as it brings in price stability, food security, income and livelihood for the majority of the population. The Department of Agriculture implements various schemes for the overall welfare of the farming community and ensures timely supply of essential inputs i.e. seeds, fertilizers, plant protection chemicals and farm equipments along with effective transfer of technology through demonstrations to achieve maximum output from the available natural resources viz. soil, water etc. This in turn leads to improvement in the economic status of the farming community and food grains need of the people. Agriculture serves to be the largest employment generating activity.

Agriculture and Allied Sector

Agriculture and Allied sector has recorded an impressive average annual growth of above 5 percent between 2011-12 and 2015-16. This sector includes crop production, livestock, forestry and logging, and fisheries. But the overall performance of this sector has mainly been dependent on crop production, the value of output of which constitutes more than 60 percent of the value of output of this sector. This crop production has grown at an average annual rate of 7.18 percent per annum between 2011-12 and 2015-16. As a result, despite not so good performance of livestock and forestry and logging sub-sectors, the overall performance of Agriculture and Allied sector has remained good.

The crop production in Jharkhand is mainly rain-fed; as a result, its production has fluctuated from year to year, depending on the weather condition in the State. In comparison to previous year, its production declined by 4.5 percent in the 2013-14 and increased by 16 percent in the year 2015-16. But, on the whole it has shown an increasing trend. This has been because of both improvement in

productivity and change in composition of crops in favour of high valued crops.

Fishing, despite the absence of perennial sources of water and recurrent drought in the State, has made rapid progress; it has grown at an average annual rate of about 6 percent in the last 5 years. Its contribution to the economy, however, is insignificant. Its share in the GSDP of the State is only 0.4 percent and 2.6 percent to the value of output of Agriculture and Allied sector. Because of relatively better performance of fishing in the State, its contribution to the value of the output of this sector has improved from 2.5 percent in the year 2011-12 to 2.6 percent in the year 2015-16.

Livestock and forestry and logging sub-sectors have made very slow progress in the last five years. They grew at an average annual rate of 1.25 percent and 2.5 percent per annum, respectively. Their contribution to total GSDP or to the value of output of Agriculture and Allied sector, however, is so low, that they do not affect the growth of GSDP or growth of the output of the Agriculture and Allied sector. In the year 2015-16, the output of this sector constituted 1.9 of the GSDP and 14.41 percent of the value of the Agriculture and Allied sector.

Table 6.1: Production and growth rate (%) of Agriculture and Allied sector (at 2011-12 prices)

(In lakh Rupees)

	2015-16(A)	CAGR (11-12 to 15-16)
Crop production	1771414	
Growth rate	16.1	7.18
Livestock	502000	
Growth rate	5.6	1.25
Forestry & logging	394614	
Growth rate	7.5	2.50
Fishing	71243	
Growth rate	9.0	6.06
Agri. & Allied Sectors	2739271	
Growth rate	12.6	5.23

Source: Directorate of Statistics, GoJ

Table 6.2: Share of the sub-sectors of Agriculture and Allied Sector in the total value of output of Agriculture and Allied Sector (%)

	2011-12	2015-16(A)
Crop Production	60.09	64.67
Livestock	21.38	18.33
Forestry & logging	16.01	14.41
Fishing	2.52	2.60
Agri. & Allied Sectors	100.00	100.00

Source: Directorate of Statistics, GoJ

Land Use Pattern

As per the Annual Plan (2016-17), Government of Jharkhand, the total geographical area of the State is 79.71 lakhs hectares. Of this total area, the net sown area is 25.75 lakhs hectares, accounting to be 28.08 percent of the total geographical area. Around 29.20 percent of the area is covered by forest and 7.20 percent area accounts for barren land. 8.60 percent of the land is under Non-Agricultural use, 2.48 percent land is under permanent pastures and other grazing lands, and 3.44 percent of land

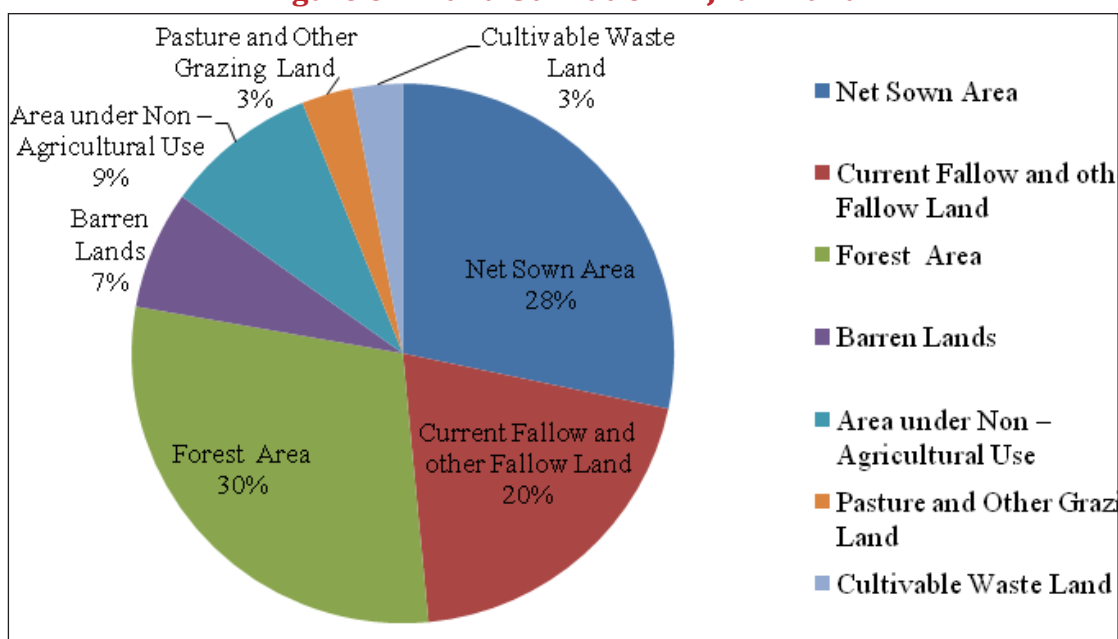
is under cultivable waste land. About 19.58 percent of the total area falls under current fallow and other fallow land. Current fallow land accounts for about 11.12 percent of the total geographical area and other fallow land accounts for 8.46 percent (Table 6.3).

Table 6.3: Details of Land Utilization present in Jharkhand

	Area in Lakhs Hectare	Area in %
Total Geographical Area	79.71	100
Total Cultivable Area	38.00	47.67
Net Sown Area	25.75	28.08
Current Fallow Land	8.87	11.12
Other Fallow Land	6.75	8.46
Forest Area	23.28	29.20
Barren Lands	5.74	7.20
Area under Non – Agricultural Use	6.86	8.60
Pasture and Other Grazing Land	1.97	2.48
Cultivable Waste Land	2.74	3.44
Irrigated land	3.007	12.73
Cropping Intensity		116

Source: Annual Plan(2016-17),Government of Jharkhand

Figure 6.1: Land Utilization in Jharkhand



Source: Annual Plan(2016-17), Government of Jharkhand

Cropping Pattern

Crop Production During 2014-15 and 2015-16

Production of Food-grains has decreased by 20 percent between 2014 and 2015. For rice

and pulses, the decrease has been around 38 percent and 17 percent during the same year (i.e. from 4324.4 thousand tons to 2669 thousand tons).The production of wheat and coarse cereal has also declined by 8.91 percent and 18.9 percent over the same period.

Table 6.4: Production of Food-grains (Production in Thousand Tons)

Year	Rice	Wheat	Coarse cereals	Pulses	Food-grains	Oilseeds	Sugarcane
2012-13	3164.9	319.5	463.8	686.2	4557.5	197.2	461.9
2013-14	2810.6	370.4	526.1	578.6	4285.7	182.9	462.8
2014-15	4324.4	330.8	487.7	597.1	4734.9	174.5	469.8
2015-16	2669.8	287.3	395.173	495.13	3767.804	183.43	463.82

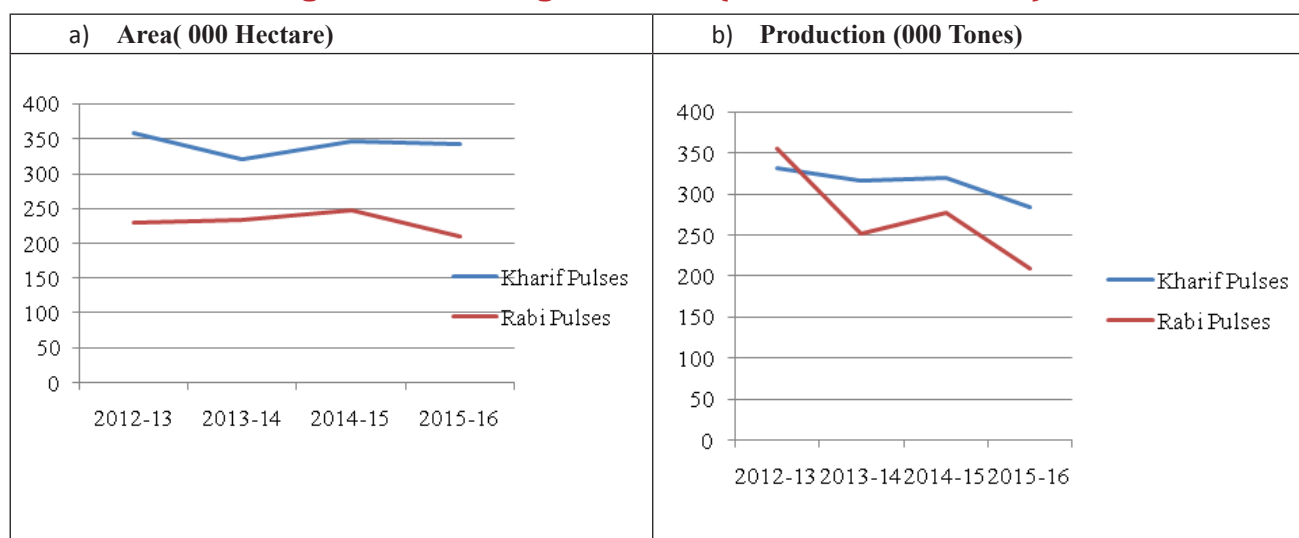
Source: Directorate of Agriculture, Government of Jharkhand

Area and Production of Pulses

The area under Kharif pulses has decreased from 586.965 thousand hectare in the year 2012-13 to 553.194 thousand hectare in the year 2015-16. The area under Rabi pulses has also decreased from 228.825 thousand hectare to 210.142 thousand hectare in 2015-16 (Figure 6.2a). For the year 2014-15, the area under Rabi pulses in the State was 246.974 thousand hectare which was the highest among the years. The area under Kharif pulses

was the highest in the year 2012-13. As per the estimates for 2015-16, total production of Kharif pulses in the State was 285.01 thousand tons which has decreased from the previous year. Production of Rabi pulses has also decreased from 355.42 thousand tons in the year 2012-13 to 210.156 thousand tons in the year 2015-16. However, 2014-15 has noticed the highest production of Rabi pulses from the past three years which was 276.986 thousand tons. (Figure 6.2b)

Figure 6.2: Coverage of Pulses (Area and Production)



Source: Directorate of Agriculture, Government of Jharkhand

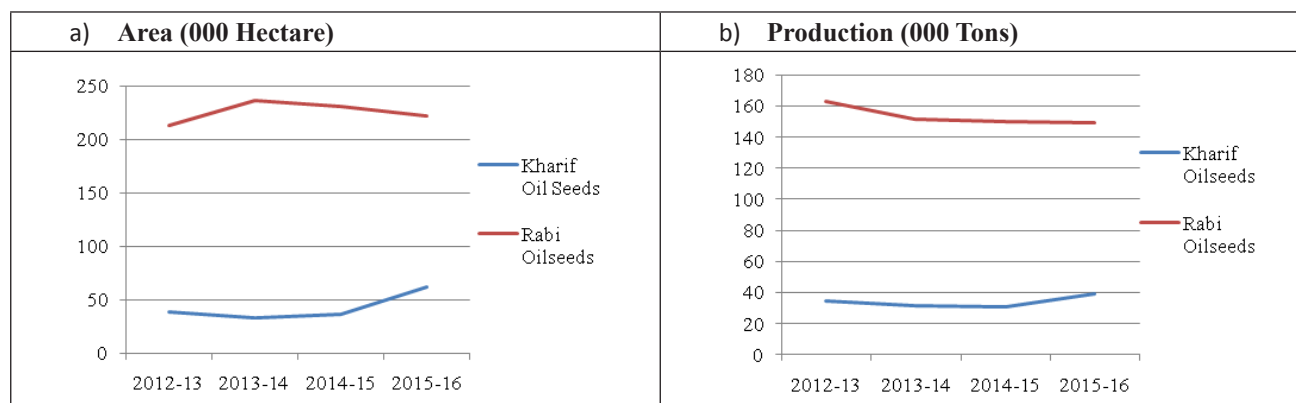
Area and Production of Oilseeds

From the past four years (from 2012-13 to 2015-16), the area under Kharif oilseeds was highest in the 2015-16. The area coverage has increased by 70.43 percent in the year 2015-16. Currently, the area under Kharif oil seed is 61.77 thousand hectare. However, there has been a decrease in the area under Rabi oil

seeds. In the year 2015-16, area under Rabi oil seeds was 221.41 thousand hectare which was 5 percent lower than the previous year (Figure 6.3a)

Production of Kharif Oilseeds has increased steadily, whereas production of Rabi Oilseeds has decreased steadily (Figure 6.3b).

Figure 6.3: Coverage of Oilseeds (Area and Production)



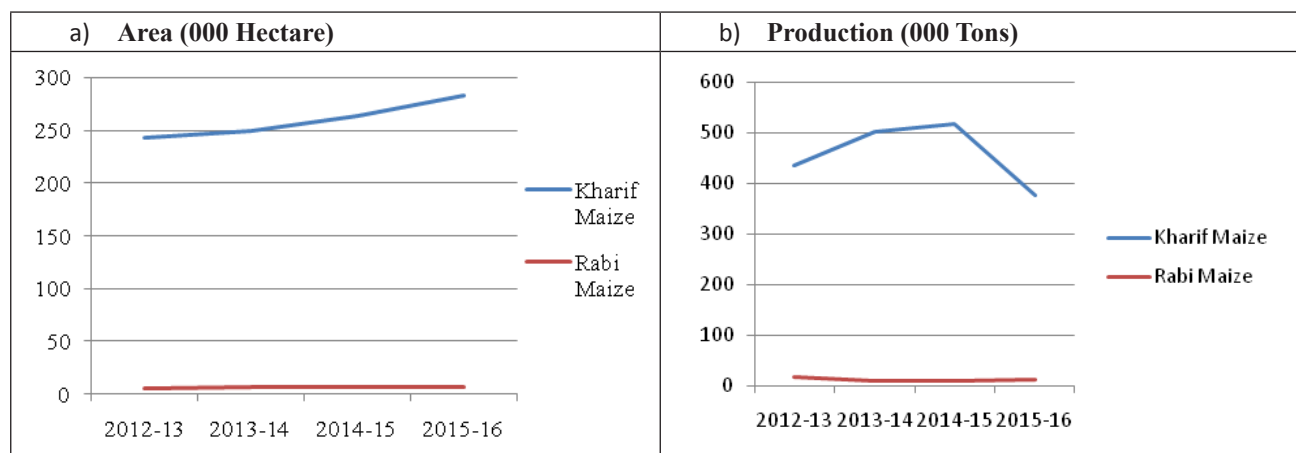
Source: Directorate of Agriculture, Government of Jharkhand

Area and Productivity of Maize

Area under Kharif maize was the highest in the year 2015-16, since the area coverage has increased by 7.5 percent over the previous year. In 2015-16, area under Kharif maize was 283.54 thousand hectares and the area under Rabi maize showed a steady decline. In the year 2015-16, area under Rabi maize was 6.121

thousand hectare (figure 6.4a). Production under Kharif maize decreased from 518.727 thousand tons in 2014 to 375.406 thousand tons in 2015-16. In case of Rabi maize the production remained almost constant. The production of Rabi maize from the year 2014 was 10.15 thousand tons which remained almost constant the next year. (figure 6.4b).

Figure 6.4: Coverage of Maize (Area and Production)



Source: Directorate of Agriculture, Government of Jharkhand

Kharif Seed Distribution

There is a wide gap between the Kharif seed required and the Kharif seed distributed (Table 6.3). Almost every crop has a huge amount of deficit. Paddy (C) has the highest seeds deficit of 129240.17 Q. It is followed

by Paddy (H) with 71,949.50 Q of seed deficit and then Maize with 61908.8 Q of seed deficit. Urad, Moong and Jowar showed a seed deficit of 7309.72, 1470 and 1,611 Q respectively. Overall there is a huge deficit of Kharif seed distribution in the State.

Table 6.5: Kharif Seed Distribution 2016-17

Name Of Crop	Distributed Quantity (Q)	Requirement (Q)	Deficit (Q)
Paddy (c)	88559.83	217800	129240.17
Paddy (H)	3050.50	75000(NSC)	71949.50
Maize	891.20	62800	61908.8
Urad	478.28	7788	7309.72
Moong	180	1650	1470
Jowar	310	1921	1611
Total	93469.81	366959	273489.19

Source: Directorate of Agriculture, Government of Jharkhand

Fertilizers

Following the trend, it can be observed that there is a continuous pattern of shortage of supply of fertilizers. The plausible explanation for the gap could be the shortfall in the supply of fertilizers. However, there has been some exceptional years (Kharif year 2014-15 and 2015-16, Rabi year 2011-12) where supply has

exceeded the requirement and consumption which was less than the requirement. Looking at the figure (Figure 6.5(a), 6.5(b)) it can be observed that there is a distinct pattern in the requirement and consumption of both Kharif and Rabi crops, whereas the supply of total fertilizers was variable for both Kharif and Rabi crops.

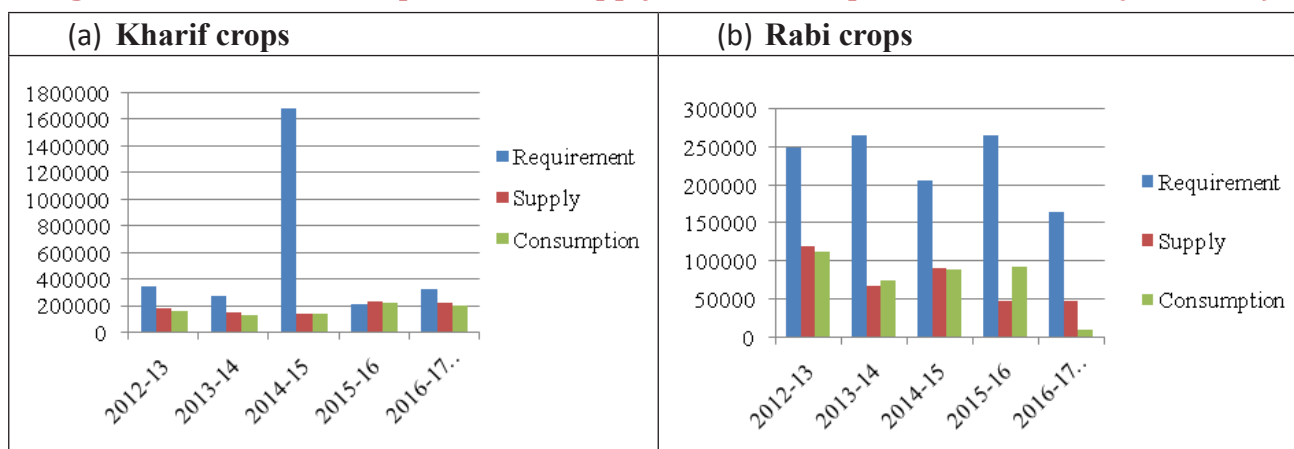
Table: 6.6: Trends in Total fertilizer requirement and consumption in tons during 2009-2016

(Unit-tons)

Year	Kharif			Rabi		
	Requirement	Supply	Consumption	Requirement	Supply	Consumption
2009-10	250000	175013	169672	140000	138555	148503
2010-11	261000	211782	156025	160000	85786	85798
2011-12	298000	197168	196744	229000	684894	88557
2012-13	350000	186056	165131	249000	120080	112758
2013-14	280000	153554	135092	265000	68176	74997
2014-15	151760	2302272	146397	206000	91352	89701
2015-16	215000	240354	223247	266000	47653	93088
2016-17 Upto 31-10-2016	330000	227707	200695	165500	47653	11019

Source: Directorate of Agriculture, Government of Jharkhand

Figure 6.5: Trends in Requirement, Supply and Consumption of Fertilizer (Unit-tons)



Source: Directorate of Agriculture, Government of Jharkhand

Rainfall Pattern 2015-2016

Rainfall

Due to deficit in rainfall in the month of September and October in the year 2015, the State was declared drought hit for the financial year 2015-16. However the State managed to recover well in the next year. The South west

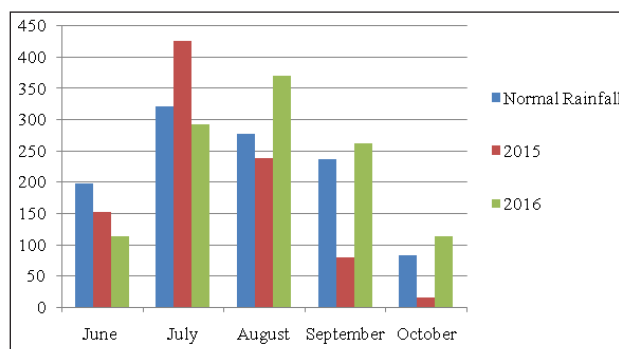
monsoons stayed for a longer time than usual leading to excess of rainfall as seen in the table below. According to the data released by IMD and the department of Agriculture, GOJ, the State surpassed the level of normal rainfall by getting 133 percent and 110.87 percent (Table 6.7) surplus rainfall during the latter part of the Kharif crop season for the month of August and September respectively

Table 6.7: Trends in rainfall in June-September (Rainfall mm)

Month	Normal Rainfall	Actual Rainfall (2016)	% of Actual Rainfall (2016)	Actual (2015)	% of Actual Rainfall (2015)
June	196.60	113.30	57.62	151.40	77.00
July	319.40	292.00	91.42	424.30	133.00
August	276.20	369.40	133.00	238.30	86.00
September	235.50	261.10	110.87	79.80	34.00
October	81.90			15.50	18.90

Source: Directorate of Agriculture, Government of Jharkhand

Figure 6.6: Trends in rainfall in June-September (Rainfall mm)



Source: Directorate of Agriculture, Government of Jharkhand

Irrigation

In the absence of sufficient irrigation facilities, agriculture in Jharkhand remains primarily dependent on monsoon for its irrigational requirements. As per the Water Resource Department the availability of water resource in State is only 287810 lakhs m³, out of which 237890 lakh m³ is from surface water and the remaining 49920 lakh m³ is from ground water. The total utilization of surface and ground water for irrigation purposes in the State so far is only 47360 lakh m³ out of which 39640 lakh m³ is from surface water and 7720 lakh m³ is from ground water.

Majority of major & medium irrigation schemes, through which irrigation is being provided to the farmers who are more than 35 years old. The major hurdle which the State government is facing is the lack of maintenance of the projects. Due to the lack of maintenance, more than half of the irrigation potential of

the major and medium irrigation projects constructed long back has been lost. As per the Water Resource Department data, out of 2.18 lakh hectare of irrigation schemes, nearly 1.36 lakh hectare has been lost due to poor maintenance and upkeep. The Department of Water Resources therefore, intends to lay more emphasis upon Restoration, Extention, Re-strengthening and Modernization of the completed irrigation projects, so that lost irrigation potential can be revived without the hassel of land acquisition and forest clearance. To solve the water problem, the State Government has approved various irrigation projects. A total of 102 major and medium irrigation schemes have been completed till date.

During the year 2016-17, around 56742 ha. lost irrigation potential has been restored by modernization and lining of 30 canals of medium irrigation schemes. The details of these schemes are as under :-

Table 6.8: Medium irrigation schemes which has been restored by modernization and lining of canals

Sl.No	Name of Scheme	District/Block benefited	Restoration of lost irrigation potential (in ha.)
1	Sunder Reservoir Scheme	Godda/Boarijore	5635
2	Dhankuti Nala Augmentation	Garhwa/Chiniya	525
3	Kita Weir Scheme	Ranchi/Silli	540
4	Kokaro Main Canal Lining	Ranchi/Sonahatu	1815
5	Main Canal, Barand & Agradih Branch canal of Kanchi Irr. Scheme	Ranchi/Ichagar, Tamar, Sonahatu, Itki	5000
6	Lining of Khudadih branch canal & Sonahatu distribution of Kokaro Irrigation Scheme	Ranchi/Sonahatu	1142
7	Malay Reservoir Scheme	Palamu/Satbarwa	4850
8	Bhaura Bandh Barrage Scheme	Sahebganj, Godda/	240
9	Sonepur Reservoir Scheme	Godda/ Mehrama	1000
10	Paras Reservoir Scheme	Gumla/Bharno	1091
11	Dahuaajore weir Scheme	Deoghar/Sakhan	1012
12	Darua weir Scheme	Deoghar	1630
13	Baudha Reservoir Scheme	Hazaribagh/Bishnugarh	200

Sl.No	Name of Scheme	District/Block benefited	Restoration of lost irrigation potential (in ha.)
14	Larba Reservoir Scheme	Simdega	125
15	Anjanwa Reservoir Scheme	Chatra/Itkhor	1500
16	Piri Irrigation Scheme	Palamu/Lesliganj	620
17	Chako Irrigation Scheme	Palamu/Panki	1200
18	Tajna Barrage Scheme	Khunti	1150
19	Latratu Reservoir Scheme	Ranchi/Karra	8550
20	Lotia Reservoir Scheme	Hazaribagh/Padma	1360
21	Hiru Reservoir Scheme	Chatra	770
22	Nandani Reservoir Scheme	Lohardaga/Bhandra	4848
23	Usari Weir Scheme	Giridih/Jamua	450
24	Golai Weir Scheme	Chatra/Hunterganj	990
25	Dulki Reservoir Scheme	Chatra/Hunterganj	420
26	Lining work of main canal of Jugra	Ramgarh/Barkakhana	75
27	Lining work of main canal of Lapasia	Ramgarh/Gola	240
28	Lining work of main canal of Chikra	Garhwa/Chiniya	1004
29	Lining work of Mayurakshi Left Bank Canal	Dumka/Raneshwar	7000
30	Lining work of main canals of Ghaghra Reservoir Schemes	Hazaribagh/Keredari	1760
		Total :-	56742

Source: Department of Water Resources, Government of Jharkhand

To restore the irrigation potential of 50,846 ha. a total of 21 medium irrigation schemes has been accorded during the year 2016-17 for Rs.859.34 cr. The detail of these schemes are as under :-

Table 6.9: Medium irrigation schemes approved for restoration by modernization and lining of canals

Sl. No	Name of Scheme	District	Amount of Adm.Approval (in cr)	Irrigation Potential to be restore (in ha.)
1	Sadawah Irrigation Scheme	Palamu	12.35	1165
2	Butunduba Reservoir Scheme	Palamu	12.54	775
3	Sonare irrigation Scheme	Palamu	1.04	2420
4	Jinjoi Irrigation Scheme	Palamu	42.95	1200
5	Murahir Reservoir Scheme	E.Singhbhum	11.49	728
6	Pagla Weir Scheme	Pakur	4.00	856
7	Gowai Barrage Scheme	Bokaro	130.54	4636
8	Buxa Reservoir Scheme	Chatra	59.42	3000
9	Harna Weir Scheme	Godda	9.64	1165
10	Triveni Weir Scheme	Godda	60.66	7000
11	Khudia Weir Scheme	Dhanbad	85.15	3951

Sl. No	Name of Scheme	District	Amount of Adm. Approval (in cr)	Irrigation Potential to be restore (in ha.)
12	Dhansinghtoli Res. Scheme	Gumla	29.12	1295
13	Katri Reservoir Scheme	Gumla	91.77	3880
14	Tapkara Reservoir Scheme	Gumla	19.74	1565
15	Roro Irrigation Scheme	West	66.70	5700
16	Suryodi Reservoir Scheme	Pakur	10.43	580
17	Diggalpahari Reservoir	Dumka	11.08	720
18	Aradih Irrigation Scheme	Ranchi	7.54	550
19	Anraj Reservoir Scheme	Garhwa	95.30	3550
20	Danro Reservoir Scheme	Garhwa	40.29	4220
21	Palna Reservoir Scheme	Saraikele-Kharsawan	57.59	1890
		Total :-	859.34	50846

Source: Department of Water Resources, Government of Jharkhand

The Water Resource Department has enlisted forty-nine new irrigation Scheme. Out of these 19 the DPR of 6 E.R.M Schemes has been prepared with an estimated cost of Rs. 286.04 cr which is being examined , after which the process of Administrative Approval will be

initiated (Table 6.17). The DPR of E.R.M of remaining 13 medium irrigation schemes is being prepared through the consultants and the DPR of 30 schemes is being prepared by the Water Resource Department itself.

Table 6.10: DPR of 6 Irrigation Schemes

Sl.No	Name of Scheme	District	Estimated Cost (in cr.)	Irrigation Potential to be restore (in ha.)
1	Raisa Irrigation Scheme	Ranchi	6.60	430
2	Malay Reservoir Scheme	Palamu	205.31	4570
3	Pandarwa Reservoir Scheme	Garhwa	10.22	690
4	Vijay Irrigation Scheme	West Singhbhum	29.82	750
5	Jenasi Irrigation Scheme	West Singhbhum	18.66	1400
6	Barhi Irrigation Scheme	Koderma	15.4	720
		Total:-	286.04	8560

Source: Department of Water Resources, Government of Jharkhand

Fisheries

More than 50 percent of the population in the State consumes and sells fish products. With an estimated annual demand of 1.40 lakh tones of fish, the State is producing 1,06,430 metric tons of fish annually with rest of the demand catered through fishes from Andhra

Pradesh and West Bengal. Thus fisheries are an important economic activity in the State for additional employment and income generation. Employment generation activities through fisheries include harvesting, net and boat making, seed production, transportation and marketing of fish in whole sale and retail markets.

Vision for 2016-2021

Table 6.11: Action Plan for Fish Production (Metric Tons)

Source	Target				
	2016-17	2017-18	2018-19	2019-20	2020-21
Pond Aquaculture	101000	110000	122000	135000	140000
Reservoirs/Check Dam	27000	29000	31000	35000	40000
Cage aquaculture	12000	21000	27000	30000	50000
Total Fish Prod	140000	160000	180000	200000	230000

Source: Annual Plan 2016-17, Government of Jharkhand

The target set by the fisheries department is to increase the size of Pond Aquaculture from 88000 in the year 2015-16 to 1,22,000 in the year 2018-19 and further to 1,40,000 in the year 2020-21 i.e. a total increase of 59.09 percent from 2015-16 to 2020-2021. Target for Reservoirs/Dams is set to reach around 40,000 by the end of 2020-2021 from 23,000 in 2015-16 which is an increase of 773.91 percent increase. Target for Cage Aquaculture is to increase from current 2800 cages in the year 2015-16 to 12000 cages in the year 2020-21 which will be an increase of about 328 percent. Total Fish production is targeted to reach around 2,30,000 metric tons in the

year 2020-21 from current 1,20,000 (2015-16) which is approximately an increase of 91 percent.

The State is focusing on upgrading the skill of people involved in fisheries sector. Training on Fish Farming for livelihood, which was around 8885 has been proposed to increase upto 10000. Training on Reservoir Fisheries which was 141 has been proposed to increase upto 400. One of the important activities required for improvement in the fisheries sector is fish seed growth in which the State has shown tremendous progress, from 4219 in 2015-16 to the proposed 4500.

Table 6.12: Skill up gradation for livelihood (2016-17)

S. No.	Name of the Programme	2015-16 (till Dec, 15)	2016-17 (Proposed)
1	Skill Development for fish seed growing	4219	4500
2	Training on Fish Farming for livelihood	8885	10000
3	Training on Reservoir Fisheries	141	400
4	Fish culture in wells – Training to koop beneficiaries	54	100
5	Soil- Water testing and tech expert	34	200
Total		13,333	16850

Source: Annual Plan 2016-17, Government of Jharkhand

Table 6.13: Growth rate in Fish Production and Fish Seed Production

Year	Fish Production (in M.T)	Percent Growth Rate	Fish Seed Production (in Lakhs)	Percent Growth Rate
2013-14	104820	8.53	10645.00	12.7
2014-15	106430	1.53	10833.00	1.7
2015-16	115995	8.9	16117.61	48.78
2016-17	79495 (target 1,40,000)		41227.96 (target 42500)	

Source: Directorate of Fisheries, Government of Jharkhand

Crop Insurance

In a state like Jharkhand, where still the farm sector is predominantly monsoon dependent, government is trying to encourage crop insurance practice as a short term safety measure.

Pradhan Mantri Fasal Bima Yojna

PMJDY is a national scheme on crop insurance launched by the Government of India with the dual intention to help farmers in sustaining their livelihood and to increase the yield of the crops. This new crop insurance scheme earlier known as National Agriculture Insurance scheme, will have a rebated premium rate on the principal sum insured. The scheme covers both Kharif and Rabi crops as well as annual commercial and horticulture crops. Jharkhand Government has appointed Agricultural Insurance Company (AIC) as the nodal insurance company for the current financial year 2016-17. In 2016-17, a total sum of Rs 11.02 crore as premium amount has been debited from the account of 174796 farmers for the Kharif crops.

State Plan Schemes:

Continuing Schemes

Fisheries Research Scheme

The objective of this scheme is to help fish farmers in enhancing fish production and undertake water and soil analysis to examine

and analyze the causes of low productivity of the ponds. In addition to this, demonstration of integrated fish culture, pugnacious culture, experimental works and extension services to propagation of ornamental fish culture has been done. Ornamental fish breeding units would be established in private sector and special assistance will be provided for this.

National Fisheries Development Board Scheme

The National Fisheries Development Board provides assistance for fisheries development programmes. Under this programme stocking of fingerlings is done in reservoirs and special training is concluded for the members of Fisheries Co-operative Societies especially registered for these reservoirs. In addition, assistance for freshwater aquaculture and marketing of fish will be provided to the farmers.

Fisheries Extension Schemes

This scheme has been merged with Survey, monitoring, evaluation and DPR scheme. This is a scheme for extension programme such as “Gram Gosthis” workshops, demonstration programmes etc.

New Schemes

1. Cage Aquaculture

The objective of this scheme is to develop cage culture and intensive production of fish. Nearly

2800 new cage will be floated in different reservoirs and expected annual production of fish will be around 8400 MT.

2. Ved Vyas Aawas Yojna

The main objective of this new scheme is to develop model pucca fishermen houses for the fishers who dwell in slum, mud house or kaccha plus makan. Under this scheme it has been proposed to construct of 3076 pucca houses (Rs. 75,000/-each)

Horticulture

Fruits and Vegetables

Area and Production of Different Varieties of Fruits

In Jharkhand, Mango has the highest area coverage among fruits followed by Jackfruit, Banana, Guava and Lemon (Table 6.14). Whereas Pomegranate has the least area coverage followed by Ber, Bel, Aonia, Litchi and other fruits.

Production wise consideration shows that Jackfruit is the highest produced fruit followed by Papaya, Guava, Litchi, and Bel. The least produced fruits in the State are pomegranate and ber. An interesting observation is that bel requires the least area of around 654.03 hectare and its production is one of the highest at around 35475.11 tons.

Table 6.14: Area and Production of Different Varieties of Fruits (2015-16)

Fruits	Area (Hectare)	Production (Tons)
Aonia	2482.43	3480.04
Beal	654.03	35475.11
Banana	10236.27	30889.78
Ber	475	2827
Guava	8070.26	79758.66
Jackfruit	11631.58	107284.94
Litchi	3451.33	40009.4
Mango	44317.92	390131.07
Papaya	1615.55	106226.6
Pomegranate	5.01	7.53
Other Fruits	1780	99535
Limes & Lemon	4767.36	47652.43
Total	89486.74	943277.56

Source: Department of Agriculture Cooperation & Farmers Welfare

Area and Production of Different Varieties of Vegetables

Tomato has the highest area coverage among vegetables followed by Potato, Cabbage and Brinjal in Jharkhand (Table 6.15). Capsicum has the least area coverage followed by Pumpkin, Carrot, Cucumber, Radish etc. Overall total

area coverage in the State for vegetable is approximately around 2,05,550.12 hectare and production is 27,80,763 Tons. Production wise observation shows that Potato is the highest produced vegetable followed by Cabbage, Onion, Tomato, and Cauliflower. The least produced vegetables in the State are Capsicum, Bitter Gourd, and Bottle Gourd.

Table 6.15: Area and Production of Different Varieties of vegetables (2015-16)

Vegetables	Area (Hectare)	Production (Tons)
Beans	10375.80	154553.86
Bitter gourd	1376.36	11773.38
Bottle gourd	3209.37	13535.49
Brinjal	20195.63	216874.19
Cabbage	22816.34	292424.76
Capsicum	276.00	3720.00
Carrot	892.00	15195.60
Cauliflower	19414.44	246656.75
Green Chili	1185.00	143242.84
Cucumber	821.03	6998.46
Pumpkin	325.00	19405.00
Okra	3155.26	63423.54
Onion	15557.08	263452.12
Pea	13548.25	192051.79
Potato	44738.29	624169.58
Radish	1011.57	11326.35

Vegetables	Area (Hectare)	Production (Tons)
Tomato	169779.39	229598.69
Others Vegetable	19002.60	272360.60
Total	205550.12	2780763.00

Source: Department of Agriculture Cooperation & Farmers Welfare

Milk, Egg, Meat, Wool Production

The production of milk, meat, egg and wool in the State has shown marginal increase during the period 2014-15 and 2015-16 (Table 6.16). During this period, the production of milk in Jharkhand increased from 1733.73 tons to 1812.38 thousand tons. The production of egg has increased from 4663.17 lakh to 4832.84 lakh. The production of meat and wool has increased from 47.86 thousand tons to 50.71 thousand tons and 160.76 thousand kg to 165.82 thousand kg respectively.

Table 6.16: Milk, Egg, Meat, Wool Production

Item	Unit	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Milk	Thousand MT	1466.35	1463.00	1555.64	1580.98	1679.00	1699.83	1733.73	1812.38
Egg	Lakh No	3994.77	3930.00	4153.16	4294.48	4238.90	4444.99	4663.17	4832.84
Meat	Thousand Tons	44.17	46.76	43.76	45.94	44.52	45.47	47.86	50.71
Wool	Thousand Kg	149.00	136.00	149.33	201.68	159.00	156.13	160.76	165.82

Source: Department of animal husbandry and fisheries, Government of Jharkhand

Livestock

The population of Cattle, Buffalo, and Goat in the State has shown a marginal increase as compared to the previous Census. Cattle Population of the State constituted around 4.57 percent share to the country. Buffaloes, Horses and Ponies population constituted negligible share to the country. Goat constituted 4.87 percent share to the country (Table 6.17). Mules and Poultry constitutes around 2 percent share to the country. The highest share in livestock in the country is that of Donkey with 95 percent share to the country.

Table: 6.17: 19th Livestock Census – Detailed Statistical Data

State	Livestock	% Share to Country
Jharkhand	Cattle Population	4.57
	Buffalo Population	Negligible
	Sheep Population	Negligible
	Goat Population	4.87
	Pig Population	9.35
	Horses & Ponies Population	Negligible
	Mules Population	1.98
	Donkey Population	95.00
	Poultry Population	1.86

Source: Department of animal husbandry and fisheries, Government of Jharkhand

The table below (Table 6.18) reveals that maximum number of the livestock, Poultry, Bovines resides in rural areas both in India as well as in Jharkhand. The State has 3.52 percent of the total Livestock population of the

country. 1.85 percent of the total Poultry of the country belongs to Jharkhand. Bovines males constitutes around 6 percent share to the country whereas, Bovines Female constitutes 2.22 percent share to the country.

Table: 6.18: Detailed Statistical Data (19th Livestock Census 2012)

	Jharkhand		Country		% Share to Country
Total Livestock	R	17570555	R	491685846	3.57
	U	482191	U	20371455	2.36
	T	18052746	T	512057301	3.52
Total Poultry	R	13168223	R	697895256	1.88
	U	391305	U	31314064	1.24
	T	13559528	T	729209320	1.85
Bovines - Male	R	5054766	R	82122436	0.15
	U	53150	U	2064764	2.57
	T	5107916	T	84187200	6.06
Bovines - Female	R	4606219	R	206077139	2.23
	U	201890	U	9716814	2.07
	T	4808109	T	215793953	2.22
Total Bovine	R	9660985	R	288199575	3.35
	U	255040	U	11781578	2.16
	T	9916025	T	299981153	3.3

Source: Department of animal husbandry and fisheries, Government of Jharkhand

Note: R=Rural, U=Urban, T=Total

Schemes and Initiative for Agriculture

1. Soil Health Card

Soil Health Card Scheme is launched by the Government of India in February 2015. Under the scheme, the government plans to issue soil cards to farmers which will carry crop-wise recommendations of nutrients and fertilizers required for the individual farms to improve productivity through judicious use of inputs. An amount of Rs.568 crore was allocated by the government for this scheme.

Performance of Soil Health Card Scheme in State:

As of January 2017, 44,454 Soil Health Cards (SHC) have been printed in State. Till now, almost around 3,37,636 farmers were covered under this scheme. Table 6.19 represents District wise progress of the scheme. Farmers from districts like Ranchi, West Singhbhum and Chatra were very responsive to this scheme where a total of 21,017 sample soils were entered covering 96,453 farmers. In these districts a total of 6670 Soil Health Card were printed and distributed.

Table 6.19 : Jharkhand state district wise portal entry status as on 16-01-2017

Sl No	State Name/District Name	Samples Entered	No. of Farmers Covered	Samples Tested	SHCs Printed
1	Bokaro	2835	12483	1278	6336
2	Chatra	4262	22103	1104	3485
3	Deoghar	3127	6191	0	0
4	Dhanbad	1993	7488	971	6043
5	Dumka	1049	9686	445	4398
6	East Singhbhum	3364	17318	11	165
7	Garhwa	2647	7694	0	0
8	Giridih	4360	16875	1612	7213
9	Godda	2398	11405	881	5845
10	Gumla	2155	12094	295	1204
11	Hazaribagh	1898	9530	0	0
12	Jamtara	2697	5457	1102	1718
13	Khunti	3866	21724	56	283
14	Koderma	1642	10153	35	243
15	Latehar	2281	8298	657	2544
16	Lohardaga	1092	6867	52	337
17	Pakur	2682	4914	52	270
18	Palamu	3808	12017	0	0
19	Ramgarh	2545	13378	0	0
20	Ranchi	12386	46546	594	2234
21	Sahebganj	1001	11515	15	114
22	Saraikela Kharsawan	3292	19633	527	643
23	Simdega	3848	16463	587	428
24	West Singhbhum	4369	27804	333	951
	Total	75597	337636	10607	44454

Source: <http://soilhealth.dac.gov.in/>

2. Attract Rural Youth in Agriculture (Arya) Scheme

The State Government of Jharkhand is planning to launch a new scheme called “ARYA” to attract rural youth in agriculture. The objective of the ARYA scheme will be to promote the green revolution in the state. Under the ARYA scheme, the state government will attract rural youth in agriculture by making them skilled and make the state self-dependent in agriculture.

The objectives of ARYA scheme is to:-

- Identify barren land in their respective

villages under the guidance of Agriculture-Science Center and promote farmers to grow pulse on them.

- Encourage farmers to carry out intensive cultivation throughout the year
- To inspire farmers to use fertilizers as Soil Health Card.
- To propagate the use of neem coated urea in their respective areas.
- To inspire farmers for Prime Minister Crop Insurance Scheme.
- To promote farmers for agriculture of Rabi.

- To appeal to farmers not to graze their cattle in open in the season of Rabi.
- To promote seed treatment.
- To grow advanced seed and promote it among the farmers.
- To register farmers on Farmer Portal.
- To provide farmers new technology by telephoning Kisan Call Center.
- To constitute farmer group in their respective areas.

3. Single Window Centre Establishment Scheme

The State falls under the agro-climatic zone VII, that is, Eastern Plateau and Hilly region. This agro-climatic zone has been further divided into three subzones, namely, IV-Central and North-Eastern Plateau, V-Western Plateau and VI-South-Eastern Plateau. The Central and North Eastern Plateau has 50 percent of the net cultivated area and 13 percent of the area under forests, whereas the Western and Southern Eastern Plateau together have the rest 50 percent of the net cultivated area and a larger forest cover (33 and 24 percent respectively). In the above backdrop location specific expert advice and essential inputs for farming is the need of the hour. Krishi Vigyan Kendra is working as a vital link between the latest practice/research and farmers. However need of a knowledge-cum-coordination centre for agricultural inputs and implementation is strongly felt.

To provide expert advisory, latest practice/research in farming, location/area based cropping pattern, coordination for agricultural inputs & implements, crop loan, crop insurance etc., a single window centre for agriculture has been proposed at each of the 260 blocks and 24 districts headquarter of the State. In the first phase during 2016-17 single window centers will be established in 100 block headquarters

& 24 district headquarters.

Single Window Centers will provide the following facilities:-

- Soil Health Card – sample collection and report
- Kisan Credit Card – application and sanction
- Crop Insurance
- Seed, fertilizer, pesticides information regarding use/availability
- Agricultural Implements – use and availability
- Agricultural Implements – use and availability.
- Details of various ongoing schemes.
- Expert advice of KVK scientists.
- Weather forecast
- Crop Advisory
- License of Agricultural inputs i.e. seed, fertilizer, and pesticides – applications.
- Conversion of Fallow Land into Cropped Area

Each cluster will be provided with following facilities under the scheme:-

- Rs. 2500/hectares incentive (for ploughing, bunding) to farmers
- Rs.1500/hectares incentive (for seed fertilizer & pesticide etc) to farmers
- Expert advice and close monitoring of scientists of KVK. Scientist will be paid honorarium of Rs. 100/hq
- In order to motivate the farmers services of selected NGO's/ Krishak Mitra will be taken. NGO/Krishak Mitra will be paid Rs 200/hq.
- Incentive to farmers of cluster will be paid

in their respective accounts i.e. DBT. This scheme will cover all 24 districts of the State with target area of 100000 ha.

4. Double Cropping Rice Fallow Scheme

This scheme will be implemented in cluster of 50 hectares. Beneficiaries will be selected by Gram Sabha. Each cluster will be provided with following facilities under the scheme:-

- Zero Seed Drill on 100 percent subsidy
- Rs. 1800/hectares incentive to be paid (for seed & fertilizer etc) to farmers of cluster in their respective accounts i.e. DBT.
- Expert advice of scientists of KVK Scientists will be paid an honorarium of Rs 50/ha
- Services of 2 watchers to protect crop from grazing. Remuneration of watchers will be borne under MGNREGA.
- In order to motivate the farmers services of selected NGO's will be taken. NGO's will be paid Rs 100/ha.

This scheme will cover all 24 districts of the State with target area of 100000 ha.

5. DOBHA: - Rain Water Harvesting Structure

The State receives an average annual rainfall of 1300 mm and only 20 percent of the rain water is utilized. This gives opportunity for better water use through water conservation technologies. Proposal is to construct water harvesting structure popularly known as Dobha in all 32,615 villages of Jharkhand. In the first phase 1,00,000 dobhas will be constructed on raiyati land of farmers. Size of dobha will be according to size of farm land. Work will be done through tender at district level. After completion of work, dobhas will be handed over to concerned farmers. Small and marginal farmers will get subsidy of 90 percent

whereas other farmers will get subsidy of 50 percent. It is proposed to take RIDF Loan from NABARD for the scheme.

6. National Horticulture Mission

Horticulture or Bagwani is an important sector of Agriculture and more than 70 percent of population in the State depends on it for their livelihood. It includes fruits, vegetables, flowers, spices, medicinal plants, mushrooms, honey etc. which have great nutrition value and provides necessary vitamins, minerals to remain healthy. These are also important as they give good yield, ready market and more compared to other crops. This has begun in 17 districts of the State.

7. Pradhan Mantri Krishi Sinchayi Yojana

Pradhan Mantri Krishi Sinchayi Yojna (PMKSY) has been launched by the GOI during the year 2015-16. The objective of this scheme is to increase the total irrigated area by providing irrigation facilities to the rainfed areas of the State. PMKSY has following 4 major programmes

- Accelerated Irrigation Benefit Programme
- PMKSY – Har-Khet-Ko-Pani
- PMKSY – Watershed Development

8. Rashtriya Krishi Vikas Yojana (RKVY) (Stream-I & Stream-II)

This is a very comprehensive scheme to support the agriculture and allied sector on the basis of initiatives taken by the State. Under RKVY schemes will be sanctioned by SLSC headed by Chief Secretary where presence of Govt. of India nominee is also mandatory.

Box 6.1: Indian Institute of Agricultural Biotechnology (IIAB)

The Indian Institute of Agricultural Biotechnology (IIAB) at Ranchi (Jharkhand) will be established as a deemed University. Its foundation stone was laid in August 2014. The mandate of the Institute would be to undertake multi-disciplinary basic research to develop crops for traits such as increased yield, or increased tolerance to biotic and abiotic stress; to develop the highly trained manpower required for fundamental research in agricultural biotechnology; to provide its research output to breeders and developers in agricultural universities to develop the germ plasm, vaccines etc.

Courtesy : icar.org.in

Agriculture Extension

It is now widely accepted that for the well-being of the residents of the State, a sound policy on agriculture development is essential. To meet the requirement of capacity building, a large number of training activities are needed in technical as well as in human resource management in Agriculture. SAMETI is a State level institution which is autonomous with greater flexibility in structure and functioning. It is responsible for organizing need based training programmes for the project implementation in different line departments and farming community. This can be achieved through linkages with other technical and management institutions in the State to support the desired training input. 'SAMETI' has to function with the technical guidance of the National Institute of Agricultural Extension Management.

SAMETI came into existence in Jharkhand (January 2003) under the able guidance of the Commissioner and Secretary (Agriculture), Jharkhand and Director of Agriculture as the State Nodal Officer.

Till now it has developed close linkage with KV, ZRS, State Agriculture University, NGOs, management institutes, MANAGE, XISS, RK Mission, SRI, HARP, ILRI, and Institute of Sericulture. It uses appropriate faculty resource for providing training and consultancy services to ATMA and non-ATMA district functionaries in the State.

Major works and achievement of Sameti, Jharkhand :-

1. The institute has conducted 15 training/workshop/exposure visit programmes within a year for PDs, DPDs of ATMA, KVK/ ZRS scientists, line department officials, BTT members, NGOs and farmers' groups and farmers' organization. This has ushered attitudinal changes, better working pattern and helped in developing linkages. Field functionaries are now encouraged to work effectively as a team and cooperate with each other at their respective workplaces. This is helping to perform jobs through process planning and time management.
2. For creating new ideas, SAMETI has organized brainstorming sessions with participation of scientists, farmer leaders and block/district level officers of various departments.
3. ATMA, Dumka, ATMA, West Singhbhum and ATMA, Hazaribagh has been rewarded as 1st, 2nd & 3rd respectively for their activities in Jharkhand.
4. From 26-28 Feb, 2009 150 farmers from 22 ATMA districts have been awarded under the Support to State Extension Programme for Extension Reforms during Pathari Agro-Tech Mela at BAU, Ranchi

Agricultural Produce Market Committee (APMC)

Agricultural Produce Market Committee (APMC) is a statutory market committee

constituted by different State Governments in respect of trade in certain notified agricultural, horticultural and livestock products under the Agricultural Produce Market Committee Act. Jharkhand State Agricultural Marketing Board (JSAMB) was established on 14th March, 2001 as per the provision under section 33A of Jharkhand Agricultural Produce Markets Act 2000. The main function of this committee is to provide marketing facilities to different stakeholders and remunerative price to growers through agricultural produce market committees (APMCs) in the State of Jharkhand.

HAAT BAZARS play an important role in the Marketing of Agricultural Produce in Jharkhand. People from various nearby villages gather at these Haats to meet their daily requirements. These Haats have also become the center of various other social and cultural activities of people in the State. For this the Government has introduced Samekit Vikas Yojna under which the development of all 603 Haats of the State takes place. This

Yojna also includes the construction of 4-6 Covered and Open platforms, Internal Road of sufficient length, a Community Hall, a unit of toilets and at least one tube-well in each HAAT. Eighty such schemes in 65 HAATs have been taken up for implementation in the first phase of the YOJNA.

Total number of Rural Marts assisted by NABARD at India Level was 557 as on 31st March, 2012 whereas in Jharkhand, the number of rural marts assisted by NABARD was six (Table 6.20).

Table 6.20: Number of Rural Marts Assisted by National Bank of Agriculture and Rural Development (NABARD) in Jharkhand. (As on 31.03.2012)

State	No of Rural Marts
Jharkhand	6
India	557

Source: Lok Sabha Unstarred Question No, dated on 11.05.2012

Box No 6.2: Agriculture Market of Jharkhand Now Goes Digital

The trade of agricultural produce in Jharkhand went digital on Thursday after Prime Minister Narendra Modi introduced a digital trading platform - National Agriculture Market - for farmers of eight States including Jharkhand. On this national platform, now farmers can enlist their produce to attract wholesale buyers and increase their income. Prime Minister inaugurated the national agriculture market (e-platform) at a function in Madhya Pradesh's Mhow, to which Krishi Bazaar Samiti, Pandra (Ranchi) was also connected.

Two crops 'mahua' and 'tamarind' from Jharkhand have been listed in the e-mandi among the 25 crops including wheat, maize, pulses, oilseeds, potatoes, onions and spices from eight States.

With the introduction of e-platform (e-mandi) the farmers will be benefitted, as they now can sell their produce at market rate avoiding the middlemen and traders who suppressed prices of commodity through a consensus among traders.

Courtesy: Times of India, Apr 14, 2016

Outlook and Challenges

Role of Agriculture in the economy of Jharkhand is manifold. The Department of Agriculture has taken up several initiatives to improve the agriculture sector in the State. To improve the living standard of farmers it is important that the business environment between rural

and urban market in the State is improved through betterment of infrastructure facilities. Also the State should focus on improving the productivity by encouraging the use of high quality seeds, improving irrigation facilities and educating the farmers about new skills and use of technology.

7

FOOD AND PUBLIC DISTRIBUTION SYSTEM



Food security is a major concern for the state of Jharkhand. In order to ensure it NFSA is being implemented in the state since October 2015. It covers 80 percent of the total population of Jharkhand - 86.4 percent of the rural population and 60.2 percent of the urban population.

The Government has also taken steps to strengthen the public distribution system (PDS). To overcome the problems of irregularity in distribution of food grains and the problems related to defaulters, an initiative has been taken to computerise the public distribution system in the State. As a result, it has become easier to get updated information on daily transaction and distribution among beneficiaries on department's website.

Further, the commission of PDS shop holders has been increased from 26 paisa per kg to 47 paisa per kg. This has been done to properly cover the cost of grain handling and grain distribution and to overcome the mal-practices prevalent in PDS.

In order to improve the distribution of food grains from PDS, handheld devices are being used since 14th August 2016.

The government of Jharkhand is also making attempts to strengthen the food storage capacity by increasing the number of godowns and expanding the capacity of the existing ones.

In the backdrop of the above facts, this chapter attempts to explain the present scenario of food security and public distribution system prevailing in the State and the initiatives taken for the progress of the same.

National Food Security Act (NFSA)

In August 2013, the National Food Security Act was passed with a motive of creating a positive impact on the health and nutrition of people, especially of vulnerable groups. National Food Security Act aims in fulfilling three

entitlements: Firstly, making food available at subsidized rates to beneficiaries from PH (Priority Household), Patra Grihast Yojna, Annapurna Yojna and AAY (Antyodaya Anna Yojna). Secondly, making available food grains for midday meal for children at schools and anganwadis and thirdly, to provide pregnant women and lactating mothers maternity benefits of not less than Rs. 6000 per child.

The State Government is responsible for identifying the "eligible" households while implementing this act. Jharkhand government has used socio-economic and caste census to identify the households that meet the eligibility criteria.

Public Distribution System in Jharkhand

Public Distribution System in Jharkhand is responsible for distributing subsidized food and non-food items to the poor. Major commodities distributed includes staple food grains, such as wheat, rice, sugar, salt and kerosene oil. The Central Government allocates food grain to the state under various schemes of the TPDS (Targeted Public Distribution System) at the Central Issue Price fixed by the Central Government.

In the financial year 2016-17, food grains, salt, sugar and kerosene oil were distributed amongst 9,17,900 Antyodaya Anna families (AAY) and 42,52,408 eligible persons from priority households. Centre is directly involved in the allotment of food grains and kerosene oil to the beneficiaries at an issue price given to the state for distribution. Under Targeted Public Distribution System (TPDS) the Central Government has to allot 1.30 lakh tons of food grains per month and 22,136 kilolitres of kerosene oil per month to the state. The Allotment of sugar for AAY families from the month of August to December in 2016 was approximately 4,09,232 tons and the expenditure incurred on it was Rs.

1,76,97,85,071. Total expenditure incurred on salt from the month of April to December in 2016 was Rs. 47,00,82,828.

PUBLIC DISTRIBUTION SHOPS (PDS) IN JHARKHAND

At present the PDS shops in the state are being operated by PDS shop owners and Women Self Help Groups. The state government had decided that from 2009 onwards all new PDS shops license would be given to the Women Self Help Groups. In case of death of the license holder the license would be transferred to the person who is dependent on her. In the financial year 2015-16, the dependent of the daughter

of the widow was also included in it. The state government has planned to computerise the Fair Shops for better management, efficiency, monitoring, grievances redressal and for minimising the pilferages.

The table below (Table 7.1) presents district wise total number of PDS shops in the state. There are a total of 23,236 PDS shops in Jharkhand. Ranchi district has the highest number of PDS shops with 1847 shops. It is followed by 1701 shops in Giridh district and 1582 shops in Bokaro district. In Lohardaga district there are 357 shops which are the lowest among the districts. Digital weighing machines have been installed in 20,370 PDS shops.

Table 7.1: Total PDS Shops in Jharkhand

Districts	Number of PDS Shops/ Women SHGs	Districts	Number of PDS Shops/ Women SHGs
Bokaro	1582	Koderma	538
Chatra	778	Latehar	628
Deoghar	1064	Lohardaga	357
Dhanbad	1479	Pakur	674
Dumka	1059	Palamu	1523
East Singhbhum	1168	Ranchi	1847
Garhwa	887	Sahebganj	879
Giridh	1701	Saraikeela Kharsawan	729
Godda	993	Simdega	519
Gumla	797	West Singhbhum	1163
Hazaribagh	1234	Khunti	421
Jamtara	606	Ramgarh	610
Total		23236	

Source: Department of Public Distribution and Consumer Affairs, Government of Jharkhand

TOTAL NUMBER OF GODOWNS AND STORAGE CAPACITY

There are a total of 474 godowns in Jharkhand. However, this is not enough to meet the need. Hence, 158 godowns are still under construction to meet upto the capacity requirement. 2,40,750 tons is the total storage capacity of the 474 godowns in state presently.

The table below (Table 7.2) presents district

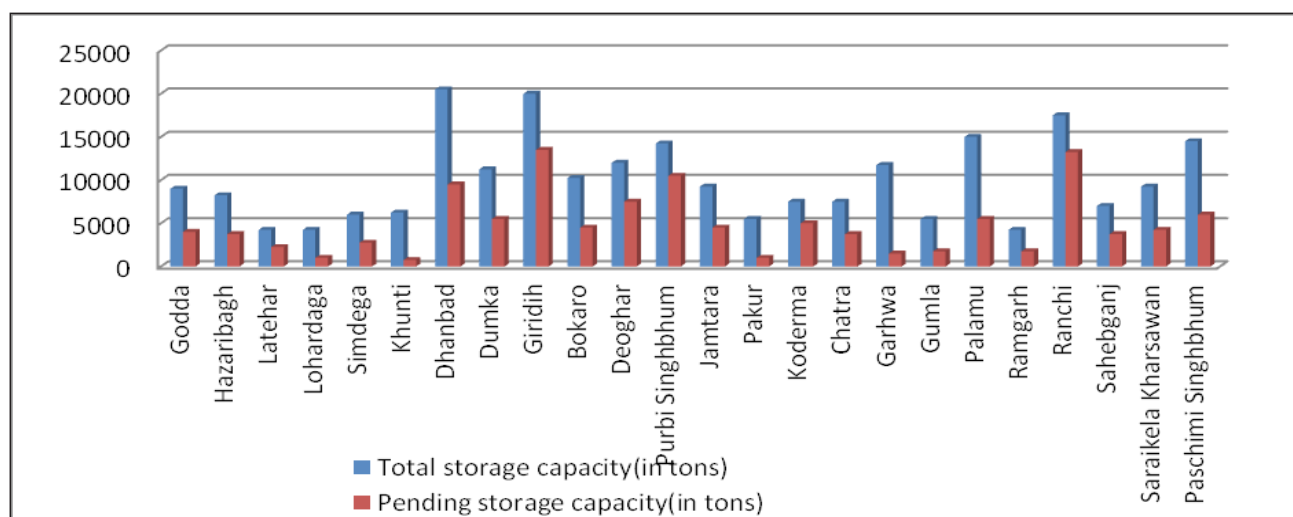
wise total number of godowns and their storage capacity. In Ranchi district there are 36 godowns whereas in Giridh, Palamu and West Singhbhum have 31 godowns each. With 28 godowns, Dhanbad district has a total storage capacity of 20,500 tons, which is the largest in the state. It is followed by Giridh district with 31 godowns with a total storage capacity of 20,000 tons.

Table 7.2: District wise Total number of Godowns and their Storage Capacity in Jharkhand

Name of districts	Total no. of allocated godowns	Total storage capacity (in tons)	No. of made/transmitted godowns	Made /transmitted storage capacity(in tons)	No. of pending godowns	Pending storage capacity (in tons)
Godda	19	9000	13	5000	6	4000
Hazaribagh	22	8250	14	4500	8	3750
Latehar	12	4250	8	2000	4	2250
Lohardaga	10	4250	7	3250	3	1000
Simdega	14	6000	10	3250	4	2750
Khunti	12	6250	10	5500	2	750
Dhanbad	28	20500	19	11000	9	9500
Dumka	21	11250	15	5750	6	5500
Giridih	31	20000	19	6500	12	13500
Bokaro	18	10250	13	5750	5	4500
Deoghar	19	12000	12	4500	7	7500
East Singhbhum	26	14250	9	3750	17	10500
Jamtara	15	9250	11	4750	4	4500
Pakur	12	5500	11	4500	1	1000
Koderma	12	7500	7	2500	5	5000
Chatra	16	7500	12	3750	4	3750
Garhwa	28	11750	25	10250	3	1500
Gumla	16	5500	12	3750	4	1750
Palamu	31	15000	24	9500	7	5500
Ramgarh	9	4250	7	2500	2	1750
Ranchi	36	17500	17	4250	19	13250
Sahebganj	16	7000	10	3250	6	3750
Saraikela Kharsawan	20	9250	11	5000	9	4250
West Singhbhum	31	14500	20	8500	11	6000
Total	474	240750	316	123250	158	117500

Source: Department of Food, Public Distribution and Consumer Affairs, Government of Jharkhand

Figure 7.1: District wise Storage Capacity of the Godowns in Jharkhand



Source: Department of Food, Public Distribution and Consumer Affairs, Government of Jharkhand

Achievements of the department in 2015-16

The following points highlight the achievements of the department of food, public distribution system and consumer affairs:

- Food grains were distributed to 0.54 lakh persons under Annapurna
- Yojna
- Food grains were distributed to 9.179 lakh families under Antyodaya
- Anna Yojna (AAY)
- Under Mukhyamantri Khadhyan Sahayata Yojna food grains were distributed to 14.761 lakh BPL families
- Food grains were distributed to Add. 11.15833 lakh Rural BPL families
- Free-Flow Refined Iodised Salts were distributed at subsidized rate to 51.70159 lakh BPL families
- Food grains (wheat and rice) were distributed to 42.52408 lakh (PH) priority households families
- 0.98 lakh poor persons have been benefited through Mukhya Mantri Dal-Bhat Yojna
- Printing and distribution of ration cards had been completed for 51.70159 lakh families 26 new godowns were constructed by the department

Challenges faced during the Financial Year 2016-17

The following challenges were faced by the department in the financial year 2016-17:

- Computerisation of the PDS operations and use of technology for improving the efficiency and monitoring mechanism.
- Enhancing storage capacity

- Capacity building of the institutions
- Accountability and proper vigilance administrations
- To address inclusion and exclusion errors and to ensure that the benefits reach the intended sections of the population

DISTRICT WISE DISTRIBUTION OF RATION CARD

To improve the system of distribution of ration cards, the department has divided it into three colours. For AAY families yellow ration card, for priority households beneficiaries pink ration cards and for APL families white ration cards. The department has taken the initiative of linking the ration cards of the people with their Aadhar number. This has been done for bringing transparency in the system.

Priority Households are the households identified by the state government. 5 kg of food grains per person per month has to be provided at subsidized prices to persons belonging to priority households by the government.

In Antodaya Anna Yojna, those 5 percent families from BPL group have been included who sleep at night without two square meal a day. It is a Central Government sponsored scheme, in which the state government provides food grains to these families at subsidized rate. At present 3 kg of food grain per household per month is been allotted.

Table below (Table 7.3) shows district wise distribution of ration cards among Priority Household, AAY families and UID members seeded and verified. A total of 58,40,806 heads have ration card in state. Allotment of ration card has been done through UID number. The table 7.3 also shows the UID seeded and verified persons in state having ration card. A total of 1,01,38,310 persons UID is seeded and 1,19,12,771 persons UID is verified.

Table 7.3: District wise Distribution of Ration Card as on 23.11.2016

District name	Priority Household		AAY		Total		UID		
	Head	Member	Head	Member	Head	Member	Seeded	Member Verified	Duplicate Count
Garhwa	225775	1055726	31110	128942	256885	1184668	523162	606822	34614
Chatra	132826	718109	38810	171162	171636	889271	144898	552733	20475
Koderma	87526	455278	17036	79258	104562	534536	306869	270812	7170
Giridh	340298	1743208	69010	355531	409308	2098739	675179	705387	34589
Deoghar	213456	1122605	15585	70152	229041	1192757	362953	481302	13261
Godda	214210	981052	28483	108778	242693	1089830	422656	303339	12171
Sahibganj	156868	784271	40625	167146	197493	951417	205614	582834	13508
Pakur	147703	699368	19802	78040	167505	777408	112898	530450	11068
Dhanbad	388120	1759357	34227	111954	422347	1871311	756674	433326	47730
Bokaro	277278	1246603	21921	101180	299199	1347783	647518	322351	20029
Lohardaga	73135	372211	14119	57479	87254	429690	260294	342283	8387
East Singhbhum	356861	1465797	58868	196324	415729	1662121	804957	923140	46657
Palamu	362339	1640053	47183	184147	409522	1824200	927678	692013	43018
Latehar	121541	607825	14378	73837	135919	681662	363518	372855	4490
Hazaribagh	264527	1194449	56295	263772	3208222	1458221	558718	830152	44956
Ramgarh	106758	497763	21316	94275	128074	592038	208299	206188	17070
Dumka	1988711	905453	49370	192974	248241	1098427	452530	392525	42154
Jamtara	133600	632480	18339	80877	151939	713357	162383	552475	24365
Ranchi	358717	1543287	105591	446412	464308	1989699	477465	1035621	88818
Khunti	71020	335112	33514	119386	104534	454498	120070	273172	6567
Gumla	131648	656067	32932	170257	164580	826324	409230	346337	2405
Simdega	104129	482796	17406	76889	121535	559685	303222	370736	1764
West Singhbhum	269286	925643	96661	332041	365947	1257684	686538	348620	41015
Saraikela-Kharsawan	187253	746723	34480	136590	221733	883313	244987	437298	16920
GRAND TOTAL	4923745	22571236	917061	3797403	5840806	26368639	10138310	11912771	603201

Source: Department of Food, Public Distribution and Consumer Affairs, Government of Jharkhand

Box 7.1: Mobile Kitchens

The Food, Public Distribution and Consumer Affairs Department of Jharkhand has launched mobile vans that will provide dal-bhaat-sabji for only Rs. 5 to below poverty line (BPL) residents. It is a part of Mukhya Mantri Dal Bhat Yojana. The state runs at least 375 dal-bhaat centres that provide rice, dal and soyabean for Rs. 5/- to around 60,000 BPL residents across Jharkhand.

The proposed mobile vans, 'mobile kitchens' will serve the same purpose and will ensure that the beneficiaries don't have to travel long distances for their meals. The main objective is to feed workers travelling for work from rural areas of the state at low rates. These vans will go around public places such as bus stands and market areas and each van is said to feed around 300 people in a day.

Eight mobile dal-bhaat kitchens are to be launched by the end of 2016; two each in Ranchi, Jamshedpur, Dhanbad and one each in Palamu and Dumka. They will be run by NGOs, SHGs and under CSR activities. Estimated expense on each van is rupees 500 per day.

Source: Courtesy Hindustan Times, 18th October, 2016

ALLOTMENT OF RICE AND WHEAT UNDER NFSA TO JHARKHAND FOR THE MONTH OF AUGUST AND OCTOBER, 2016

Jharkhand has received 142784.480 tons and 144959.470 tons of food grains in the month of August and October, 2016 respectively. The table (Table 7.4) depicts the allotment of food grains (wheat and rice respectively) to priority

households and AAY families. Total amount of rice received in the month of October 2016 was 128548.549 tons. Similarly total amount of wheat received in the month of October 2016 is 16410.921 tons. Generally the distribution of rice and wheat is done in the ratio of 60:40. However, changes can be made on the basis of dietary habits of the residents of a particular state.

Table 7.4: Allotment of Rice and Wheat under NFSA to Jharkhand for the month of August and October, 2016

Allocation by category	Monthly Quantity (in tons)					
	Rice		Wheat		Total	
	August	October	August	October	August	October
AAY	28409.120	28463.405	3626.800	3633.730	32035.920	32097.135
Priority Household	98210.670	100085.144	12537.890	12777.191	110748.560	112862.335
Total	126619.790	128548.549	16164.690	16410.921	142784.480	144959.470

Source: Department of Food, Public Distribution and Consumer Affairs, Government of Jharkhand

DISTRICT WISE ALLOTMENT UNDER AAY AND PRIORITY HOUSEHOLDS

Total number of AAY families are 9,17,061 and 3209.135 tons of food grains is allotted to them. Out of which 28463.405 tons of rice and 3633.730 tons of wheat have been distributed in Jharkhand in the month of October 2016.

Similarly, for 2,25,72,289 Priority Households; 112861.445 tons of food grains have been allotted. Out of which 100085.144 tons of rice and 12776.301 tons of wheat have been distributed in the month of October 2016. The tables below (Table 7.5 and Table 7.6) show district wise distribution of rice and wheat among AAY families and Priority Households in Jharkhand.

Table 7.5: District wise Allotment under AAY- October, 2016

District name	Number of AAY families	Monthly Allotment (in Tons)		
		Rice	Wheat	Total
Garhwa	31110	965.581	123.269	1088.850
Chatra	38810	1204.571	153.779	1358.350
Koderma	17036	528.757	67.503	596.260
Giridh	69010	2141.907	273.443	2415.350
Deoghar	15585	483.722	61.753	545.475
Godda	28483	884.045	112.860	996.905
Sahibganj	40625	1260.904	160.971	1421.875
Pakur	19802	614.607	78.463	693.070
Dhanbad	34227	1062.325	135.620	1197.945

District name	Number of AAY families	Monthly Allotment (in Tons)		
		Rice	Wheat	Total
Bokaro	21921	680.376	86.859	767.235
Lohardaga	14119	438.220	55.945	494.165
East Singhbhum	58868	1827.123	233.256	2060.380
Palamu	47183	1464.449	186.956	1651.405
Latehar	14378	446.259	56.971	503.230
Hazaribagh	56295	1747.264	223.061	1970.325
Ramgarh	21316	661.598	84.462	746.060
Dumka	49370	1532.328	195.622	1727.950
Jamtara	18339	569.199	72.666	6410.865
Ranchi	105591	3277.295	418.390	3695.685
Khunti	33514	1040.195	132.795	1172.990
Gumla	32932	1022.131	130.489	1152.620
Simdega	17406	540.241	68.969	609.210
West Singhbhum	96661	3000.129	383.006	3383.135
Saraikela-Kharsawan	34480	1070.178	136.622	1206.800
Total	917061	28463.405	3633.730	3209.135

Source: Department of Food, Public Distribution and Consumer Affairs, Government of Jharkhand

Table 7.6: District wise Allotment under Priority Household- October, 2016

District	Number of Priority Households	Monthly Allotment (in Tons)		
		Rice	Wheat	Total
Garhwa	1055727	4681.075	597.56	5278.635
Chatra	718109	3184.083	406.462	3590.545
Koderma	455278	2018.695	257.695	2276.39
Giridh	1743220	7729.408	986.692	8716.1
Deoghar	1122608	4977.625	635.415	5613.04
Godda	981071	4350.052	555.303	4905.355
Sahibganj	784271	3477.444	443.911	3921.355
Pakur	699368	3100.986	395.854	3496.84
Dhanbad	1759935	7803.522	996.153	8799.675
Bokaro	1246609	5527.443	705.602	6233.045
Lohardaga	372219	1650.413	210.682	1861.095
East Singhbhum	1465799	6499.328	829.667	7328.995
Palamu	1640055	7271.976	928.299	8200.275
Latehar	607827	2695.095	344.04	3039.135
Hazaribagh	1194595	5296.814	676.161	5972.975
Ramgarh	497763	2207.073	271.742	2488.815
Dumka	905453	4014.763	512.502	4527.265
Jamtara	632493	2804.463	358.002	3162.465
Ranchi	1543443	6843.6	873.615	7717.215
Khunti	335115	1485.894	189.681	1675.575
Gumla	656067	2908.99	371.345	3280.335
Simdega	482796	2140.709	273.271	2413.98
West Singhbhum	925664	4104.378	523.942	4628.32
Saraikela-Kharsawan	746804	3311.316	422.704	3734.02
Total	22572289	100085.1	12776.3	112861.4

Source: Department of Food, Public Distribution and Consumer Affairs, Government of Jharkhand

Box 7.2: Rice Day and Kerosene Oil Day

In order to bring transparency in the Public Distribution System, the Government of Jharkhand has taken an initiative by celebrating Rice Day on every 15th day of the month and Kerosene Day on every 25th day of the month. On these two days, food grains and kerosene oil are distributed to the targeted beneficiaries in large scale.

Source: Department of Food, Public Distribution and Consumer Affairs', Yearly Magazine, Government of Jharkhand

for Rs. 1 per kilogram. According to the NFSA, Rs. 3 per kg rice is been provided from centre. But with an additional subsidy, the state is making it available at the rate of Rs. 1 per kg. As a result an additional amount of Rs. 529.00 crore has been allocated for this scheme.

Table 7.7 and Table 7.8 present social category wise distribution of food grains in two phases in different districts of Jharkhand. Table 7.7 covers only 11 districts of the state where majority of the population are general or schedule caste. Among general category people, 2476948.70 quintals of rice and 316193.20 quintals of wheat were distributed in the month of October, 2016 whereas among schedule caste people, 780663.71 quintals of rice and 99655.09 quintals of wheat were distributed in October, 2016. In the same manner, table 7.8 shows the distribution of food grains among schedule tribe in 15 districts of Jharkhand.

GOVERNMENT INITIATIVES

Patra Grihast Yojna

Patra Grihast Yojna was started from 1st October 2015 under the National Food Security Act (NFSA). Through this scheme, 42,52,408 families, per beneficiary get 5 kg rice/ wheat

Table 7.7: Social Category wise Distribution of Rice and Wheat in 2 phases (May and October, 2016)

District	General (OSP)				Schedule Caste			
	May		October		May		October	
	Rice (in quintal)	Wheat (in quintal)	Rice (in quintal)	Wheat (in quintal)	Rice (in quintal)	Wheat (in quintal)	Rice (in quintal)	Wheat (in quintal)
Godda	125926.43	16076.17	173578.73	22158.07	38954.18	4973.02	54707.19	6983.61
Garhwa	194192.28	24791.22	204025.29	26044.71	60071.90	7668.97	64302.95	8208.55
Deoghar	218421.06	27884.34	227086.35	28988.55	67566.71	8625.79	71571.14	9136.36
Dahnbad	315242.79	40244.91	356007.77	45445.93	97517.68	12449.42	112203.53	14323.27
Hazaribagh	206864.42	26408.98	241648.26	30847.44	63991.71	8169.39	76160.57	9722.23
Ramgarh	89227.97	11391.13	100689.90	12853.50	27602.12	3523.78	31734.46	4051.04
Koderma	85620.51	10930.59	92095.78	11756.42	26486.10	3382.30	29025.92	3705.28
Chatra	138871.25	17728.75	145262.34	18543.36	12958.57	5484.23	45782.65	5844.35
Palamu	298919.03	38160.97	331757.79	42350.31	92468.03	11804.77	1045660.77	13347.63
Bokaro	217673.76	27788.94	252169.83	32190.57	67335.53	8596.27	79476.75	10145.55
Giridh	300705.47	38389.03	352626.68	45014.32	930200.59	11875.31	111137.78	14187.22
Total	2191664.96	179795.04	2476948.70	316193.20	677973.13	86552.24	780663.71	99655.09

Source: Department of Food, Public Distribution and Consumer Affairs, Government of Jharkhand

Table 7.8: District wise Distribution of Food Grains among Schedule Tribe in the Month of May and October, 2016

Schedule Tribe (ST)				
District	May		October	
	Rice (in quintal)	Wheat (in quintal)	Rice (in quintal)	Wheat (in quintal)
Ranchi	349269.17	44588.83	410615.99	52416.91
Khunti	85214.27	10878.73	89153.65	11380.85
Lohardaga	94795.32	12101.88	99024.76	12640.94
Gumla	166827.20	21297.70	174539.39	22280.71
Simdega	112725.68	14390.92	128442.55	16396.25
West Singhbhum	142618.11	18207.09	246262.70	31436.50
East Singhbhum	264996.14	33830.26	389959.66	49780.04
Saraikela	140348.82	17917.38	198678.97	25362.23
Jamtara	165098.23	21076.97	168267.79	21480.11
Dumka	233230.54	29774.96	240885.79	30750.11
Pakur	180350.92	23024.18	186059.15	23751.25
Sahebganj	192523.97	24578.23	208646.65	26634.65
Latehar	156309.17	19954.93	161705.67	20642.43
Godda	47108.75	6014.05	32717.21	4176.49
Garhwa	14125.76	1803.34	1253.29	1600.31
Total	2345542.02	299439.48	2747496.24	350729.76

Source: Department of Food, Public Distribution and Consumer Affairs, Government of Jharkhand

Grain Procurement Scheme (Dhan Adhiprapti Yojna)

Dhan Adhiprapti Yojna is a Central Government scheme. It has a broad objective of ensuring minimum support prices (MSP) to the farmers and making available food grains to the weaker sections at affordable prices. It also ensures effective market intervention thereby keeping the price under check and also adding to the overall food security of the country. To facilitate procurement of food grains, FCI and various State Agencies in consultation with the State Government has established large number of purchase centres at various mandis and key points. The number of centres and their locations are decided by the State Government, based on various parameters, so as to maximize the MSP operations. State

Government, state agencies and FCI ensure that the farmers are not compelled to sell their produce below support price.

Jharkhand State Food Corporation is the nodal agency for food grains procurement. Almost in all districts of the State, grain procurement centres have been opened. The table below (Table 7.9) depicts district wise grain procurement centres in the State. There are a total of 370 grain procurement centres in Jharkhand. Deoghar has 60 centres, which is the highest in the state. It is followed by 39 in Ranchi and 31 in Purbi Singhbhum. So the districts which have better connectivity have more centres. In Dumka there are 30 centres and in Gumla and Godda there are 20 centres each.

Table 7.9: District wise Grain Procurement Centres in Jharkhand

District	Number of Centres	District	Number of Centres
Ranchi	39	Hazaribagh	15
Khunti	16	Ramgarh	6
Lohardaga	11	Bokaro	9
Gumla	20	Dhanbad	8
Simdega	14	Giridh	9
Paschimi Singhbhum	18	Jamtara	5
Saraikela Kharswana	12	Dumka	30
Latehar	2	Pakur	8
Palamu	5	Sahebganj	9
Garhwa	5	Godda	20
Koderma	6	Deoghar	60
Chatra	12	Purbi Singhbhum	31
Total		370	

Source: Department of Food, Public Distribution and Consumer Affairs, Government of Jharkhand

Initiatives to Improve Public Distribution System in Jharkhand

The department has taken an initiative for delivering food grains at the doorstep of the beneficiaries. The food grains delivered through door-step-delivery system are supplied from JSFC godowns to Fair Price Shops (FPS) from where they are distributed to target population under TPDS.

For systematic and proper functioning of PDS in all the districts of Jharkhand, following regulations have been framed by the department:

- The PDS shops should remain open from 8:00 a.m. to 12:00 p.m. in the morning and from 4:00 p.m. to 7:00 p.m. in the evening. They should clearly mention the names of the grains available and other products on the information board.
- It must be ensured that the BPL families can purchase the ration in instalments as per their convenience.
- It must be ensured that the ration cards are with the ration-card-holders and not with sellers.
- The license of the PDS shops to be cancelled if they go against the norms.

Box 7.3: Direct Benefit Transfer (DBT) in Kerosene Oil

Jharkhand has become the first state to implement Direct Cash Transfer (DBT) in kerosene oil. Under the DBT in kerosene oil scheme, PDS kerosene will be sold at non-subsidised price and the subsidy will be directly transferred in the consumer's bank account. This initiative was launched by Union Petroleum and Natural Gas Ministry on the lines of a similar DBT programme for LPG subsidy. It will give priority to eliminate subsidized Kerosene from supply chain for better targeting of beneficiaries. The scheme is being implemented in four districts – Chatra, Hazaribag, Khunti and Jamtara.

Source: Courtesy Hindustan Times, 5th October 2016

ACTIVITIES OF THE DEPARTMENT DURING 2016-17

Continuing Schemes

- **Antyodaya Anna Yojna**

Antyodaya Anna Yojana (AAY) is a Government of India sponsored scheme to provide highly subsidised food to millions of the poorest families. A total of 9,17,900 Antyodaya families are there

in Jharkhand. They will be getting 35 kilogram rice/wheat per month for Rs. 1 per kg. For this, an amount of Rs. 154.00 crore had been prescribed.

- **Annapurna Yojna**

Annapurna Yojna is a centrally sponsored scheme. Under this scheme the old and destitute who are not getting the National Old Age Pension (NOAPS) but have its eligibility, are being provided 10 kg food-grain (6 kg wheat plus 4 kg rice) per month free of cost as Food Security. Through this scheme, the state has planned to benefit 54939 old persons in the current year. For satisfying the eligibility criteria, the old person's age should be 65 years or more and should belong to a BPL family. Thus, for this scheme an amount of Rs. 4.41 crore has been prescribed.

- **Distribution of Subsidised Kerosene Oil**

Under this scheme, 270668.17 kilolitre of kerosene oil has been allotted for 51,70,159 households and the distribution is done at a subsidized rate. In order to prevent the leakages existing in this distribution, it has been proposed to transfer the allotted amount directly into the beneficiaries' account through ePoS. On the basis of this each eligible beneficiary will be given Rs. 3 per unit encouragement amount. It will be implemented in six districts namely Chatra, Giridh, East Singhbhum, Khunti, Hazaribagh and Jamtara.

- **Godown Construction/ Renovation Yojna**

Under this scheme, 186 godowns have been constructed under the 11th Five Year Plan. It has been proposed to construct new godowns at district and block headquarters as per the requirement. To strengthen the food storage capacity and for their maintenance, an amount of Rs.18.3074 crore has been allotted for this scheme.

- **Mudra Yojna**

Mudra Yojna aims to provide ration cards to all the beneficiaries under different schemes of this department. It also aims to complete the issue of white ration cards for all the remaining families in the current financial year. An amount of Rs. 1.50 crore has been prescribed for it.

- **Schemes to Distribute Double Fortified Free-Flow Refined Iodinated Salt to Anthodya/Patra Grihast Families**

The families covered under this scheme through NFSA, will get 1kilogram double fortified free-flow refined iodinated salt per family for Rs. 1 per kilogram. The firm responsible for producing this type of salt will be selected through reverse auction by NCDEX. An amount of Rs. 55.44 crore has been planned for this expenditure.

- **Mukhayamantri Dal-Bhaat Yojna**

Under this scheme, people get 200 grams of dal-bhaat for Rs. 5. Currently 375 centres are working for this in the state. They provide vegetables, soyabean and channa with it. The centre operator gets free vegetables, soyabean and chana and is charged Rs.1per kilogram for rice. Rs. 25 crore budget has been proposed for this in the current financial year.

Out of the 375 centres under this scheme, 12 are working as night centres. It has been proposed to convert the dal- bhaat centres into ideal (adarsh) centres but only the ones which are on government lands. 1 dal bhaat centre each in Ranchi, Hazaribagh, Dhanbad, Palamu and Deoghar, and 2 dal bhaat centres in Jamshedpur are under the process of being converted into 'adarsh' centres. It has been proposed to introduce mobile kitchens under this scheme so that the poor people get food at their nearest vicinity.

- **Construction of Jharkhand State Food and Civil Supplies Corporation Headquarters Building**

Jharkhand State Food and Civil Supply Corporation does not have their own building for office. It is essential to construct building for JSFC head quarter office. Hence an amount of Rs. 4.00 crore has been proposed for this purpose.

- **National Food Security Act Compliant Redressal**

After the introduction of the Food Safety Act-2013 in the year 2015-16 an appropriate mechanism was said to be developed for its monitoring and redressing. For this purpose, call centres, help-line numbers and state food commission are to be established. An amount of Rs. 2.00 crore has been provisioned for this purpose.

New Schemes

- **Sugar Distribution Plan to Antyodaya and Patra Grihast Families**

Through this scheme, the families covered under NFS Act will get 1 kilogram/2 kilogram sugar per family per month at subsidized rate. For this scheme, an amount of Rs. 255.00 crore has been proposed.

- **Pradhan Mantri Ujjwala Yojna**

Jharkhand is the first state in the country to begin this scheme. This scheme was launched by the Prime Minister of India on 2nd October 2015 in Dumka. Under this scheme, the households and BPL families covered through NFS Act will get free LPG connection with regulator and pipe, it has been planned to provide free LPG connection to 6.6 lakh families in the current financial year. An amount of Rs. 15.00 crore has been proposed for this scheme. For the financial year 2017-18, the department is planning to provide 7.6

lakh families with free LPG connection.

- **Scheme for Distribution of Dhoti-Saree and Other Necessary Clothing**

In the year 2014-15 1 dhoti/lungi and 1 saree was given at subsidized rate to 35,09,833 BPL families under this scheme. Since this scheme showed a positive impact, so for the year 2016-17 a proposal has been presented for its reinstallation.

- **Computerisation Scheme**

To improve the PDS facility and to maintain transparency, the department of food, public distribution and consumer affairs has planned to computerise the system. In the year 2014-15, the distribution in the PDS shops in all blocks of Ranchi and Govindpur in Dhanbad was done through UID based biometric hand held device.

This procedure was successful, so in all PDS shops through tax on HHD, tender on BOO model has been passed. In various PDS shops of Ranchi district a pilot study is being conducted on money transferring through Supply Chain Management and Electronic method. A fast application of this method in the state has been proposed.

20,370 e-pause machines have been installed in different PDS shops of the state till date. A study is been conducted by JPAL in Rest Control Block, after which e-pause will be installed there.

- **Digital Weighing Machine**

The weighing machine with a voice information system not only tells the customer the weight of the grocery, but also the amount to be paid on the basis of biometric information of the ration card holder. After every transaction, the machine sends details to central server in the department which is stored in the PDS data centre, which makes it an end-to-end computerised network.

Setting up of digital weighing machines has started in 245 godowns and are aiming to complete the installation of all these machines by January 2017. For keeping an eye on the collection and distribution of food supply, the JSFC managers will be provided with a tablet. Tender is under process for 2970 digital weighing machines. These weighing machines will be installed in the PDS shops in Ranchi, Jamshedpur and Dhanbad. Thus for the year, 2016-17 an amount of 40.00 crore has been sanctioned.

- **Price Stabilisation Fund**

In the financial year 2016-17, to stop any uncontrolled rise in price of necessary consumer goods, a fund of Rs. 20.00 crore has been allocated.

- **Chana/dal Yojna**

Under this scheme, all the eligible households and AAY families will get 1 kilogram chana/dal per month at subsidised rate. In this financial year 2016-17, an amount of Rs. 150.00 crore has been planned.

- **E-ration Card**

In the year 2016-17, the government has made a provision for E-ration card. Application can be made online and ration card can be downloaded.

- **Consumer Welfare Fund**

A corpus fund of Rs. 10 crore will be maintained comprising of state contribution of Rs. 2.5 crore and Central share of Rs. 7.5 crore. This fund will be kept in a separate bank account. The interest accruing on this fund shall be used for consumer welfare activities. This will be a onetime expenditure on the part of state government.

In 8 districts, registrars (retired persons) will be recruited. R.O will be recruited for different consumer forums. Biometric system is most likely to be started in these consumer forums.

- **Dakiya Scheme**

This scheme has been started for primitive tribe group. Under this scheme, grains and other food necessities will be provided at the door step to all those primitive tribe groups who can't reach the PDS shops.

- **Godown Mazdoor Insurance Scheme**

The state government has planned for providing insurance to all the labours who are involved in collecting and distributing the grain sacks in various PDS shops. The state government will be paying for the insurance of these labours in Pradhan Mantri Suraksha Bima Yojna.

- **Weights and Measures Department**

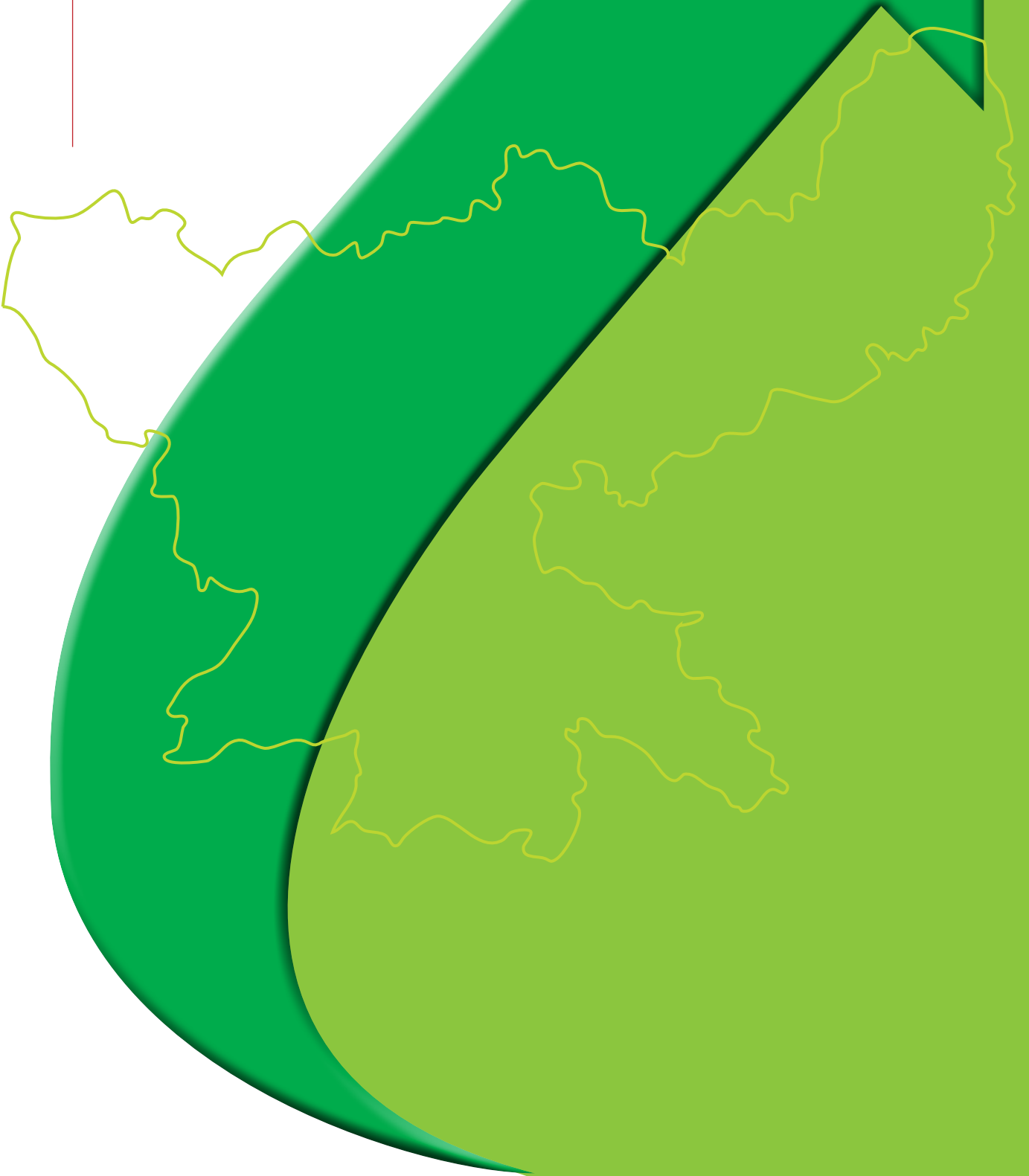
In 2015-16 the weights and measures department was infused in the PDS department. It has been proposed to computerise the weights and measures department in the year 2016-17.

CONCLUSION

With the introduction of digitalisation and biometric system, the State Government has already taken one step towards transparency in public distribution system. Further, the initiatives like increasing the storage capacity of godowns, constructing new godowns, introducing white ration cards, linking the UID number with ration cards and other new schemes clearly depicts the state's effort towards improving food security and public distribution.

8

INDUSTRY AND
MINING



Jharkhand is becoming the vanguard of industrialisation among the Indian States. The State has made impressive strides over the years towards industrialisation. It has contributed to the revenue collection for the State besides improving the quality of life in certain pockets like Jamshedpur- Saraikela-Chaibassa, Ramgarh-Patratu-Hazaribagh, Latehar-Chandwa, Ranchi-Lohardaga, Bokaro-Chandankiyari-Dhanbad-Giridih etc.

Jharkhand is presently producing about 20-25% of total steel being produced in the country.

With the proposed expansion of a number of integrated steel plants, Jharkhand will be producing over 25 MT of steel and thus will turn to be a potential steel-hub in India. Recently, an MOU has been signed between the Steel Ministry and NMDC for establishment of 6 MT integrated Green Field Steel Plants. Even various types of auto grade steels, which were earlier being imported, are now being produced within the State. Department of Industries, Mines and Geology, organizations like Industrial Area Development Authorities, Jharkhand State Khadi and Village Industries Board, Jharkhand Industrial Infrastructure Development Corporation (JIIDCO), JSMD, Single Window Society and JHARCRAFT are making significant contribution in industrialisation of the State and some of them are cash surplus. The State Government is committed to provide international standard infrastructure and facilities in the industrial areas and estates managed by the Industrial Area Development Authorities.

Industry is central to the economies of modern societies and an indispensable motor

of growth. It is essential to state economies, to widen their development base and meet the growing needs. Many essential human needs can be met only through goods and services provided by industry. The production of food requires increasing amounts of agrochemicals and machinery. Beyond this, the products of industry form the material basis of contemporary standards of living. Thus all economies require and rightly aspire to efficient industrial bases to meet changing needs.

As has been discussed in the first chapter, the base year has been changed from 2004-05 to 2011-12, by Jharkhand too, to come in line with the Centre for estimation of state income and related aggregates. This new series of data on income and related aggregates, give a new set of figures and different growth rate compared to the estimates based on 2004-05 base year. This is because the new series includes new and emerging sectors, is based on changed weights of the existing sectors and revised method of estimation of the State income aggregates.

The CAGR (from 2011-12 to 2015-16) for the industrial sector is 7.2 percent (GSDP) and 7.4 percent (NSDP). If the average year to year growth is observed, it can be seen that 2013-14 was the year that recorded negative growth, which can be attributed to the slowdown in the economy, which affected the industrial sector of Jharkhand. However, the growth rate has picked up from the later years, and was at 9.7 percent in 2014-15 and 12.2 percent in 2015-16 (GSDP). If we take the NSDP values, it can be seen that the highest growth has

been recorded in electricity, gas, water supply and other utility services followed by the manufacturing sector.

The manufacturing sector which witnessed a huge growth in 2012-13, suffered through major setbacks in 2013-14 and brought the growth rate down from 23.6 percent to (-8.4) percent, owing to the economic slowdown of

the country. However, the sector has started improving, and has reached a double digit growth in the later two years, the credit of which can be attributed to the efforts made in boosting the manufacturing sector of the State. The initiatives like “Make in Jharkhand” have made it possible for the manufacturing sector to improve by boosting investments and promoting manufacturing units in the State.

Table 8.1: Growth in GSDP and NSDP of the Industrial Sector at Constant prices (CAGR and AAGR)

Item	CAGR (2011-12 to 2015-16)		AAGR							
			2012-13		2013-14		2014-15(P)		2015-16(A)	
	GSDP	NSDP	GSDP	NSDP	GSDP	NSDP	GSDP	NSDP	GSDP	NSDP
Mining and quarrying	7.2	6.9	6.8	6.2	-0.6	-2.5	15.3	15.3	8.0	9.3
Manufacturing	8.5	9.3	19.8	23.6	-7.2	-8.4	10.7	11.0	12.5	13.5
Electricity, gas, water supply & other utility services	8.1	8.2	18.7	15.6	1.6	-0.4	0.6	-0.7	12.4	19.9
Construction	4.1	3.8	-6.6	-7.3	10.4	9.1	2.7	2.8	11.0	11.8
Industry	7.2	7.4	10.4	11.6	-1.8	-3.3	9.7	9.8	11.0	12.2

The industrial sector grew at an average annual rate of 7.2 percent between 2011-12 and 2015-16. The value of the output of this sector, at constant (2011-12) prices, was about Rs. 63 thousand crore, which increased to Rs. 83 thousand crore in 2015-16. Except for the year 2013-14, which was a year of economic slowdown for the State, growth in its output remained almost uniform through out this period. In the year 2013-14, the output of this sector decreased by 1.8 percent; its output at constant prices decreased by Rs.1236 crore in a single year – from about Rs. 69,760 crore in 2012-13 to Rs. 68,523 crore in 2013-14. In rest of the years it grew at a rate between 9 to 11 percent per annum.

Within the industrial sector, the manufacturing sector, which accounts for almost 50 percent of the output of industrial sector, recorded the most impressive growth. It recorded an average annual growth of 8.5 percent in the

value of its output at constant prices during this period; from about Rs. 30 thousand crore in the year 2011-12 to about Rs. 41 thousand crore in the year 2015-16. The year 2013-14, however, turned out to be a very bad year for this sector. The output of this sector, which reached to about Rs. 36 thousand crore in 2012-13 from about Rs. 30 thousand crore of the previous year – a growth of about 20 percent in a single year - declined to about Rs. 33 thousand crore in the year 2013-14. It, however, recovered in the successive years by recording 10.7 and 12.5 percent growth rates respectively in the years 2014-15 and 2015-16.

Mining and quarrying, another important constituent of industrial sector in the State, grew at an average annual rate of 7.22 percent during this period. The construction sub-sector, however, recorded a very modest growth in the last five years; it grew by an

average annual rate of 4.11 percent per annum only. The modest performance of this sector was because of its poor performance in the years 2012-13 and 2014-15. Compared to the output of the previous year, the value of the output of this sector decreased by 6.6 percent in 2012-13, and increased by only 2.7 percent in 2014-15. The value of the output of this sector, otherwise, recorded an impressive growth in 2013-14 and 2015-16 – by more

than 10 percent in comparison to the output of previous years.

Electricity, Gas and Water Supply has recorded a growth of about 8 percent per annum, which is mainly because of its impressive double digit growth in the years 2012-13 and 2015-16. Otherwise, in the years 2013-14 and 2014-15 its growth was very low; -1.6 percent and 0.6 percent respectively.

Table 8.2: The value of output (at 2011-12 prices in lakh Rs.) & Growth Rates of Industrial Sector

Sector	2011-12	2012-13	2013-14	2014-15 (P)	2015-16(A)	CAGR (11-12 to 15-16)
Mining & quarrying	1620374	1730483	1720631	1983916	2141761	
Growth rate		6.8	-0.6	15.3	8.0	7.22
Manufacturing	3016583	3614824	3356361	3716292	4181247	
Growth rate		19.8	-7.2	10.7	12.5	8.50
Construction	1439526	1344315	1484303	1523709	1691220	
Growth rate		-6.6	10.4	2.7	11.0	4.11
Electricity, Gas & Water Supply	241235	286345	291006	292750	329192	
Growth rate		18.7	1.6	0.6	12.4	8.08
Industry	6317718	6975967	6852301	7516667	8343420	
Growth rate		10.4	-1.8	9.7	11.0	7.20

Source: Directorate of Statistics, GoJ

Though, there is a decline of about 2 percentage point in the contribution of industry in the GSDP of the State between the years 2011-12 and 2015-16, there is very little structural change within this sector. The contributions of mining and quarrying and electricity, gas and water supply has remained constant in the last five years. The mining and quarrying contributed about 25 percent whereas the electricity, gas and water supply contributed about 4 percent to the output of this sector. The contribution of manufacturing to the output of the industrial sector has fluctuated around 50 percent and that of construction

at around 20 percent in the last five years. The contribution of manufacturing was 47.7 percent to the output of this sector in 2011-12. It increased to 51.8 percent in 2012-13, the year in which this sector recorded an exemplary progress of about 20 percent. Its contribution to the total output of industrial sector fluctuated around 50 percent thereafter. Similarly, the contribution of construction was 22.8 percent to the output of industrial sector, which decreased to 19.3 percent the very next year and then fluctuated around 20 percent thereafter.

Table 8.3: Share of the sub-sectors of Industry in the total value of output of industrial sector

Sector	2011-12	2012-13	2013-14	2014-15	2015-16
Mining & quarrying	25.6	24.8	25.1	26.4	25.7
Manufacturing	47.7	51.8	49.0	49.4	50.1
Construction	22.8	19.3	21.7	20.3	20.3
Electricity, Gas & Water Supply	3.8	4.1	4.2	3.9	3.9
Industry	100.0	100.0	100.0	100.0	100.0

Source: Directorate of Statistics, GoJ

ANNUAL SURVEY OF INDUSTRIES

As per the Annual Survey of Industries (ASI), the major source of industrial statistics, provides estimates of various aggregates like fixed & working capital, input, output, value added, employment etc. pertaining to organised manufacturing sector. ASI covers all factories registered under the sections 2 m (i) and 2m (ii) of the Factories Act, 1948 and

Beedi & Cigar units registered under Beedi & Cigar Workers (Conditions of Employment) Act, 1966.

The ASI analysis 2013-14 provisional figures show that the top performers in terms of fixed capital, number of factories, output and GVA are three states, namely Maharashtra, Tamil Nadu and Gujarat.

Table 8.4 : Top Performers with respect to ASI data analysis 2013-14¹- All India

Particulars	State top performers	Percentage
No. Of Factories (in Units)	Tamil Nadu	16.64
	Maharashtra	12.97
	Gujarat	7.00
Fixed Capital (in Lakh)	Gujarat	16.12
	Maharashtra	13.75
	Tamil Nadu	11.41
Output (in Lakh)	Gujarat	18.77
	Maharashtra	13.93
	Tamil Nadu	10.33
Gross Value Added (in Lakh)	Maharashtra	21.46
	Gujarat	14.60
	Tamil Nadu	10.02

¹ The data for ASI 2013-14 are provisional figures

The State's (Jharkhand) contribution in total value of output, working capital and in the Net Value Added (NVA) in the country was 1.80 per cent, 2.2 per cent & 2.45 per cent respectively. Selected indicators of industries are given in the table below.

Jharkhand seems to be lagging behind when compared to the top state performers in terms of these characteristics.

Table 8.5 : Selected Indicators of Industries ASI data analysis

Particulars	2012-13			2013-14		
	Jharkhand	India	Percentage to India	Jharkhand	India	Percentage to India
No. of Factories	2697	222120	1.21	2688	224576	1.20
Fixed Capital (in Rs. Million)	58808.1	2021954	2.91	41106.2	1839683	2.23
Working Capital (in Rs. Million)	220854.5	9638519	2.29	205999.4	10108363	2.04
Total output (in Rs. Million)	1085121	60259454	1.80	1077944	65552512	1.64
Total Input (in Rs. Million)	835855.9	50186659	1.67	833530.5	54901395	1.52
Gross Value Added (in Rs. Million)	249264.7	10072795	2.47	244413.5	10651116	2.29
Net Value Added (in Rs. Million)	209130.3	8519487	2.45	198724.6	8953419	2.22
Employment (in Lakh)						
Profit (in Rs. Lakh)	1048854	44426292	2.36	840211	43956552	1.91
Total Emoluments Added (in Rs. Million)	55778.5	2380573	2.34	60965.8	2724150	2.24
Total Persons engaged (in Units)	188046	12950025	1.45	187877	13538114	1.39

Source: ASI 2013-14

ASI 2013-14 reveals that the state (Jharkhand) had better results in 2012-13 as compared to the year 2013-14. Jharkhand has shown decline in percentage in majority of the characteristics except wages per persons engaged and fixed capital to output and NVA ratios.

Important indicators are given in Table 8.6

Table 8.6 : Important indicators of ASI data 2013-14 and 2012-13 (value in Rs. Lakh unless otherwise mentioned)

	All-India		Jharkhand		Percentage change All-India	Percentage change Jharkhand
	2013-14	2012-13	2013-14	2012-13		
Per factory in operation						
Fixed Capital	1278	1217	3039	3163	5.01	-3.92
Total no. Of persons engaged (in nos)	73	72	80	88	1.39	-9.09
No of workers	56	56	55	60	0.00	-8.33
Output	3530	3365	4592	5101	4.90	-9.98

	All-India		Jharkhand		Percentage change All-India	Percentage change Jharkhand
	2013-14	2012-13	2013-14	2012-13		
GVA	574	562	1041	1171	2.14	-11.10
NVA	482	476	846	983	1.26	-13.94
Per persons engaged						
Output	48,42,071	46,53,231	57,37,498	57,70,506	4.06	-0.57
GVA	7.86	7.77	13.00	13.20	1.16	-1.52
NVA	6.61	6.57	10.57	11.12	0.61	-4.95
Wages*	2.30	2.12	3.93	3.67	8.49	7.08
Ratios						
Fixed Capital to output	0.36	0.36	0.66	0.62	0.00	6.45
Fixed Capital to NVA	2.65	2.56	3.59	3.21	3.52	11.84
NVA to Output	0.14	0.14	0.18	0.19	0.00	-5.26
GVA to Fixed Capital	0.45	0.46	0.34	0.37	-2.17	-8.11
Output to Input	1.19	1.2	1.29	1.3	-0.83	-0.77
Profit to Output	0.07	0.07	0.07	0.07	0.00	0.00

Source: own calculations based on ASI 2012-13, 2013-14 reports

*Wages include salaries and employers contribution

Major industries in terms of total value of output during 2013-14 are basic metals (59.4 percent), Motor Vehicles and trailers (11.35 percent), Non metallic mineral products (6 percent) coke and refined petroleum products (5.78 percent), and others (7.10 percent).

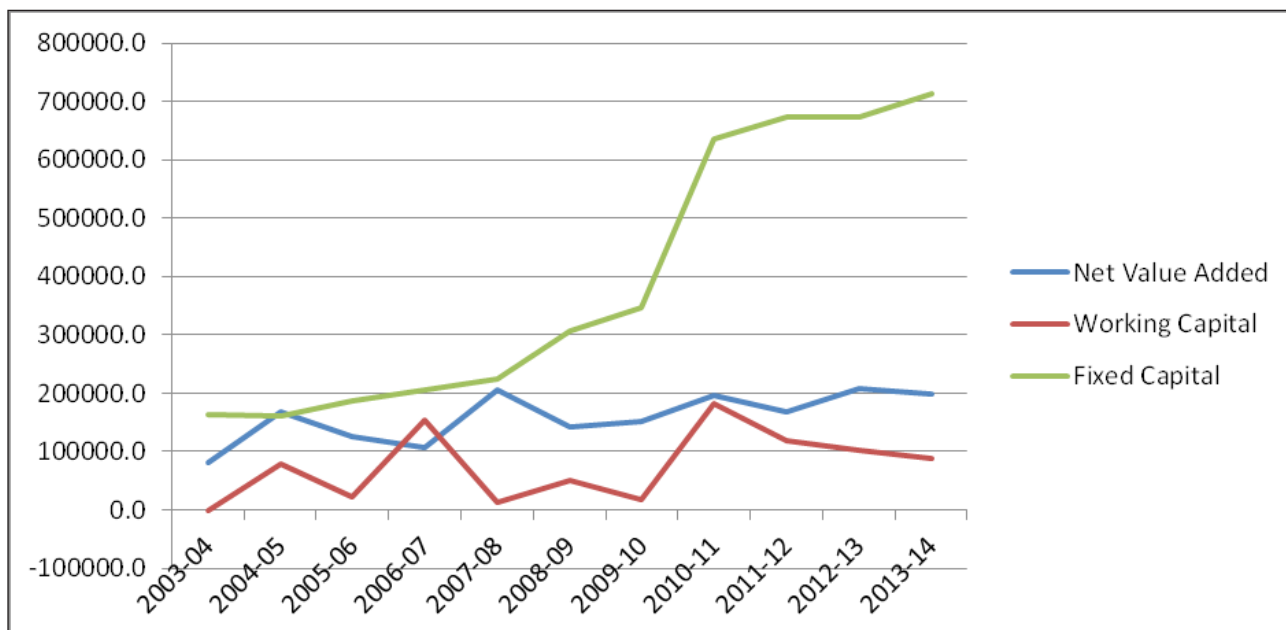
These industry groups accounted for 89 percent value of output of all industries and accounted for 93 percent of the total fixed capital, according to ASI 2013-14. Important characteristics of industries in the State according to ASI are given in the table below.

Table 8.7 : Major industries and their selected characteristics by 2-digit industry division (NIC 2008) for Jharkhand

Year	Year	Number of Industries	Number of Factories in operation	Fixed Capital	Working Capital	Wages to workers	Total output	Materials Consumed	Total Input	Net Value Added
Food Products (10)	2012-13	184	176	35964	8072	3107	184759	133651	150014	30486
	2013-14	180	159	33352	18935	2702	170676	118762	140318	27138
Beverages (11)	2012-13	22	14	22842	9111	382	21415	17407	20777	-722
	2013-14	18	17	16081	-201	538	33073	2072	24140	6039
Tobacco Products (12)	2012-13	33	31	402	1320	402	10873	2963	7003	3845
	2013-14	33	27	374	28875	512	13948	5817	10327	3596

Year	Year	Number of Industries	Number of Factories in operation	Fixed Capital	Working Capital	Wages to workers	Total output	Materials Consumed	Total Input	Net Value Added
Textiles (13)	2012-13	5	4	460	532	605	5510	2847	3523	1919
	2013-14	4	4	505	338	432	5329	3363	4179	1081
Wood and wood products (16)	2012-13	36	31	403	493	111	2256	1498	1693	520
	2013-14	32	32	670	2611	120	4847	2433	4203	558
Paper and paper products (17)	2012-13	15	14	1529	910	41	3747	920	3137	494
	2013-14	14	14	1632	850	45	2894	1523	2722	66
Printing and reproduction of recorded media (18)	2012-13	30	28	26083	7424	3514	25060	15572	21137	1436
	2013-14	28	28	22743	11844	1480	37439	19503	25359	10844
Coke, refined petroleum products, etc. (19)	2012-13	361	217	62744	63413	29301	1192750	437504	528013	658528
	2013-14	380	268	80024	93129	30944	622899	394916	482909	131261
Chemicals and Chemical products (20,21)	2012-13	103	88	187665	51028	3685	198870	108166	184729	2688
	2013-14	96	91	146441	60882	3156	197940	94679	153897	31988
Rubber and Plastic products (22)	2012-13	45	44	4771	4310	540	14901	9525	11355	2945
	2013-14	47	41	4517	1008	530	10670	7075	8649	1652
Other non-metallic mineral products (23)	2012-13	969	761	206811	26269	12152	543500	240796	324550	201816
	2013-14	975	875	240118	-21836	16560	646747	292744	393757	230046
Basic Metals (24)	2012-13	352	256	4521621	643647	130280	6032856	3200100	5048035	723960
	2013-14	345	284	4678670	372132	156263	6403766	2995711	5045787	1090259
Fabricated Metals (25)	2012-13	103	256	160773	145238	3774	261763	193183	243348	8166
	2013-14	108	99	144887	25312	4130	267742	102965	243988	12796
Office, accounting and computing machinery, Radio, T.V. and communication equipments & apparatus. Medical, precision and optical instruments (26)	2012-13	3	3	1969	7049	369	19015	9432	11797	6858
	2013-14	3	2	1734	8404	397	20955	13644	16205	4367
Electrical machinery and apparatus (27)	2012-13	24	20	8379	6643	1017	46696	34946	40472	5630
	2013-14	12	12	5805	2785	457	23760	14684	19309	3877
Machinery and equipments repair & installation (28, 33)	2012-13	88	72	57679	86707	11652	363027	161708	231289	124951
	2013-14	72	71	65431	80277	9623	324651	154750	220541	99909
Motor vehicles, trailers (29)	2012-13	125	110	403451	-41856	42358	1276955	941968	1075085	164062
	2013-14	152	152	675810	5097	54029	1223641	860325	1007201	153742
Other transport equipments (30)	2012-13	12	11	1050	649	131	48169	4043	4354	43671
	2013-14	8	8	560	389	90	2627	2044	2231	311
Furniture (not elsewhere classified) (31)	2012-13	4	4	22	31	5	48	19	28	19
	2013-14	4	3	20	13	5	49	25	30	17
Others	2012-13	190	171	1023852	21808	6060	599034	165189	448219	110031
	2013-14	180	161	1015501	191390	7550	765787	364522	529554	177698
Total	2012-13	2697	2127	6728469	1024577	249485	10851206	5681438	8358559	2091303
	2013-14	2688	2347	7134878	882234	289564	10779440	5469960	8335305	19887246

Figure 8.1 : Net Value Added, Working Capital and Fixed capital in Jharkhand



A state wise analysis of a few important industrial indicators (graphs)

A state wise comparison of a few selected indicators like Net Value Added, Fixed Capital, Working Capital, Number of Factories, Number of Mandays (Employees) reveal that Jharkhand does not come among the top ranking states. The top four performing states namely Maharashtra, Gujarat, Tamil Nadu and

Karnataka and the Eastern Region States have been selected for the analysis. . Among the eastern states too, Jharkhand is better than only Bihar in terms of these indicators. States like West Bengal, Odisha and Chhattisgarh are doing better than Jharkhand. These figures are a percentage of the total value of the indicators (at All-India level).

Figure 8.2 : Industrial indicators of a few selected states according to ASI 2013-14 (1)

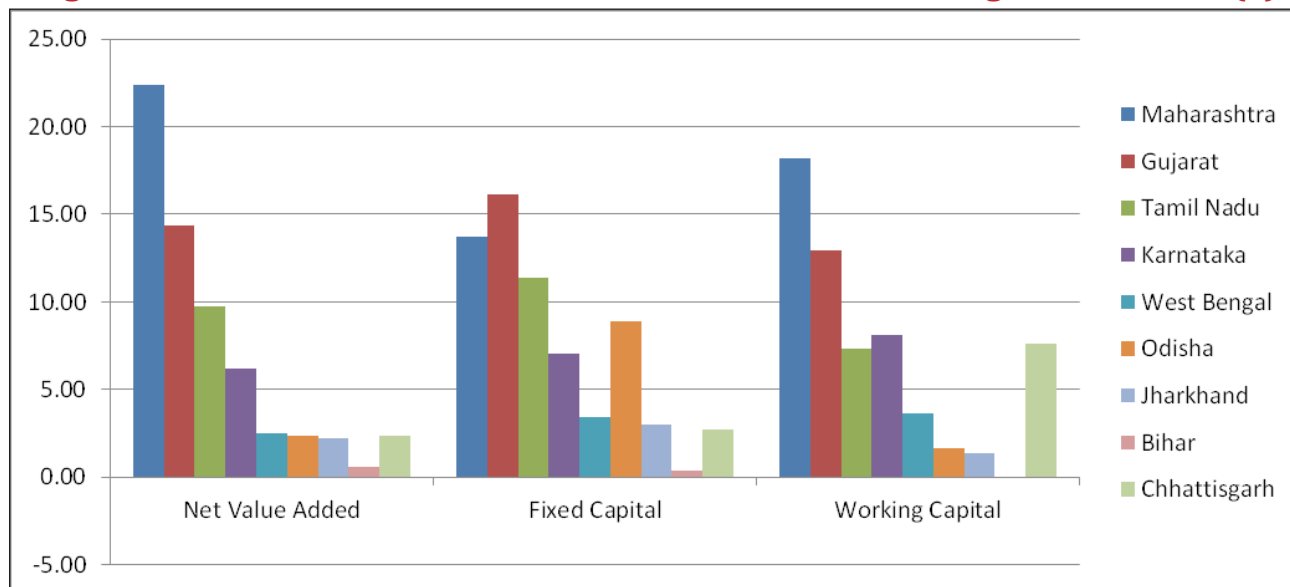


Figure 8.3 : Industrial indicators of a few selected states according to ASI 2013-14 (2)

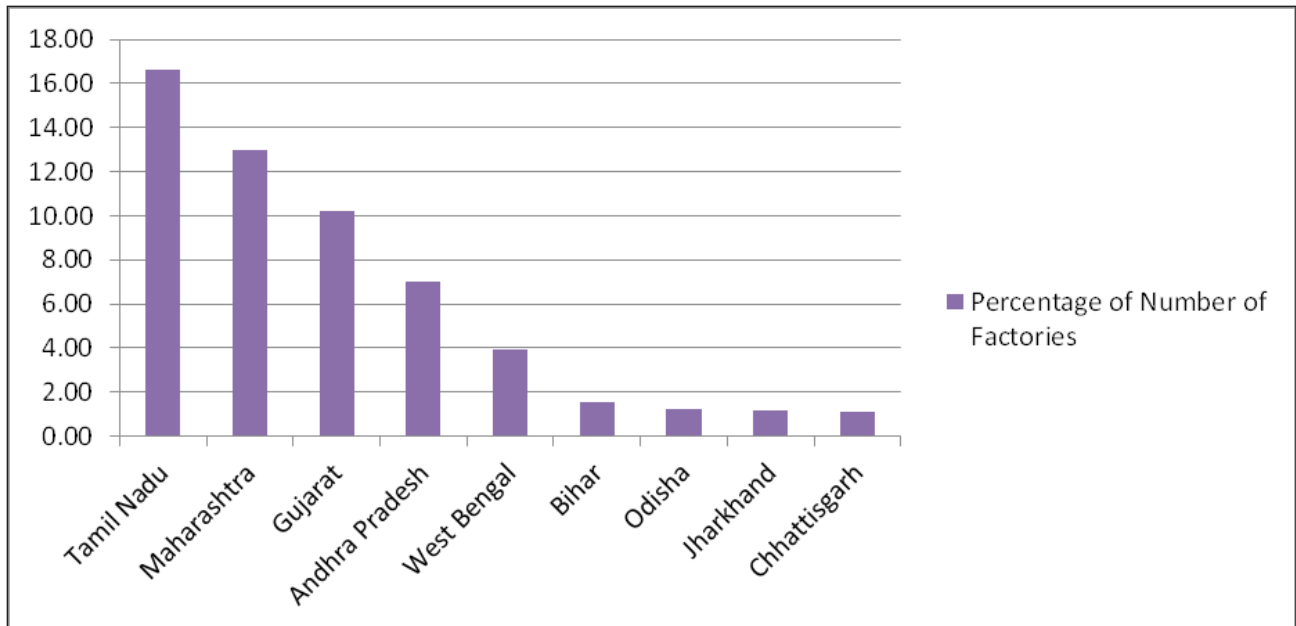
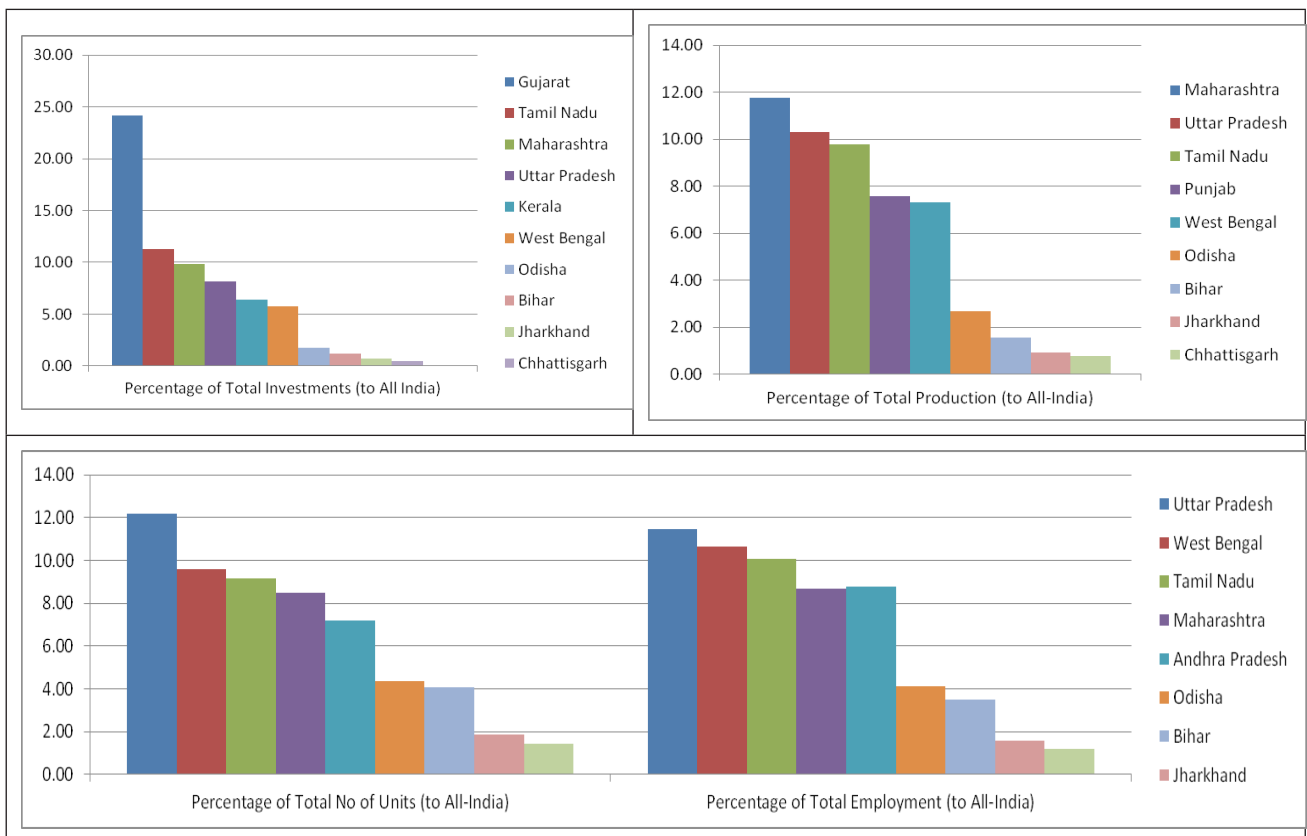


Figure 8.4 : The state wise analysis of the MSME sector on basic indicators like Total Investments, Total Employments, Total No of Units and Total Production, have been taken from the Fourth Census on MSMEs (2006-07).



The investment climate of the state of Jharkhand has shown improvement, with higher levels of investment, employment generation in the economy, and new units being set up.

The level of investments has increased in the year 2014- 2015. There has been increase in investments in Mega Industries, Large and medium industries, Food and Micro and Small industries. The number of units have also

shown an increase in all sectors, especially in the Food Industry, where there were no units set up for the last 14 years, but has shown a drastic improvement during the year 2014-15 with 46 units coming up. Jharkhand Food and Feed Processing Policy can be the probable reason for this. This has also resulted in an increase in the employment levels of the State, which does paint a positive picture of the scenario.

Table 8.8 : Industrial investment

Sl No	Particulars	No of Units		Investment (Rs. In Cr)		Employment	
		2000 to March 2014	2014 to Dec 2015	2000 to March 2014	2014 to Dec 2015	2000 to March 2014	2014 to Dec 2015
1.	Mega Industries	39	6	34250.05	4855.74	10090	4035
2.	Large & Medium Industries	123	6	8683.06	112.03	10094	414
3.	Food	-	46	-	259.81	-	1397
4.	Micro & Small Industries	44747	3858	1592.29	176.63	168740	17342

Source: Annual Plan, 2015-16

16 new MoUs have been signed during the 12 plan period with an investment of Rs.

74853.11 crore. 3 new Mega units have been started, with an investment of 1043.25 crore.

Table 8.9 : Status of MOUs signed by Industries during 12th Plan

Period	MoU signed (Rs in Cr)		Mega units that have started Production	
	No.	Investment	No.	Investment
12 th Five Year Plan	16	74853.11	3	1043.25

Source: Annual Plan, 2015-16

Government Initiatives

Several initiatives taken up by the Jharkhand Government in the last year have started yielding fruitful results. From developing a single window portal, www.advantage.jharkhand.gov.in, which enables investors to get all the required information for investment and also get approvals to clearance of the

Jharkhand Single Window Clearance Bill 2015, Jharkhand has come a long way in making the required progress at the forefront of the industrial sector.

Jharkhand Government is also keenly working towards skill development, improving exports, Mineral based products, Agriculture

and Processed Food products to ensure increased industrial development across the State. Jharkhand is leading and is wooing investors in mineral exploration, Plastics, Chemicals, Electrical, Cement, Metallurgy and Automobile components, Equipment's for Heavy Engineering companies etc.

Jharkhand has important steel plants and mines. With auto grade steel plants being set up, there is a distinct advantage with respect to freight in sourcing cold rolled sheets. Jharkhand's automotive industry produces a wide range of products from simple nuts and bolts to complex items like shafts, radiators and axles supported by the Tata Motors as the anchor company. Jharkhand has experienced phenomenal growth in the Sericulture Sector. In order to maintain the leading edge and rejuvenate existing rural industries including sericulture, handloom, handicraft, khadi, textile etc., it is envisaged to assist them in modernisation/technological up-gradation and provide necessary common facilities, backward and forward linkages including product design, marketing support etc. so as to make them globally competitive and their products remunerative.

Around 30% of Jharkhand's geographical area is covered with highly bio-diversified forests, thus, giving opportunity for development of Minor forest produce based industries and herbal based industries. Also, its agro-climatic condition is suitable for development of Agri-based and allied sector industries.

Jharkhand's proximity to the Ports of Kolkata, Haldia and Paradeep, makes the State attractive for being an ideal location for Export Oriented Units (EOUs), interested to enter in emerging markets of South East Asia considering the freight advantage with safe, smooth and faster movement of their produce.

Golden-Quadrangular-Super-Highway which passes through Jharkhand, is very close to

some of the cities of Jharkhand viz. Dhanbad, Hazaribagh, Bokaro, Giridih, and Barhi. These cities are well connected to the super highway via branch roads. Further, it has high logistical advantage in catering to markets within and adjoining states of West Bengal, Odisha, Bihar and Chhattisgarh.

The combined population of Jharkhand and these four adjoining states is about 247.5 million, which is nearly 25% of the country's population, making it very advantageous from business perspective. The Central Government's Eastern Dedicated Freight Corridor passes through the State and would connect Jharkhand with West Bengal, Bihar, Uttar Pradesh, Delhi, Haryana, Punjab and Rajasthan and is expected to be immensely beneficial for industries in the State. It would immensely help in the transport of finished products to the ports in the Bay of Bengal in lesser time thereby bringing down transportation cost.

There has been large scale change in the industrial environment due to economic liberalisation, privatisation and globalisation. Strong emphasis is being placed on Micro, Small and Medium Enterprises (MSME). Clustering is being promoted, pollution norms have been made more stringent, and the concept of 'go' and 'no go' zoning has been developed for mining clearance. Value Added Tax (VAT) regime has been implemented and is likely to be further replaced by Goods and Service Tax (GST). Jharkhand is progressing fast on adopting best practices for making an investor friendly environment in the State in order to facilitate investments, employment generation and welfare of the people. Measures like Jharkhand Investment Promotion Board, single window clearance, online payments, online verification, third party certifications, self-certification, time-bound approvals, availability of information online, standard operating procedures for approvals, deemed

approvals, etc. are being adopted by various departments and government agencies.

The present policy aims at creating an industry-friendly environment for maximising investment, especially in mineral and natural resource based industries, MSMEs, infrastructure development and rehabilitation of viable sick units. The objective here is to maximise the value addition to the State's natural resources by setting up industries across the State, generating revenue and creating employment.

Jharkhand Industrial and Investment Promotion Policy 2016

Industrial development promotes higher capital formation, raises income and absorbs surplus workforce to bring about equitable development. Therefore, the State Government has accorded top priority to industrial growth as a means to mitigate poverty and unemployment. Jharkhand Industrial and Investment Promotion Policy aims to establish state-of-the-art infrastructure, promote manufacturing, enhance inclusivity, foster innovation and create employment opportunities across sectors. Various policy instruments have been detailed in this document to catalyze the same.

The State intends to be the most preferred destination for investors by providing favourable business climate, excellent infrastructure, good law and order and peaceful industrial relations. The new industrial and investment promotion policy focuses on creating conducive ecosystem which makes industries based in Jharkhand innovative and globally competitive. Government of Jharkhand lays utmost emphasis on sustainable industrial development anchored by capacity building at the grassroot level. The policy approach is encapsulated below:

Objective:

- a) To convert Jharkhand into a favoured destination for investors and to promote sustainable Industrial growth of the State
- b) To create time bound, web-based transparent working mechanism for project clearance, Date of Production declaration and financial and non-financial assistances and clearances
- c) To establish linkages between large industries and MSME/ ancillary industries
- d) To ensure participation of scheduled tribes, scheduled castes and other underprivileged sections of the society for inclusive industrial growth
- e) To promote employment generation in industrial and service sector by providing facilitation under Industrial and Investment promotion Policy, MSME Act 2006 and other policy interventions
- f) To promote MSME sector for textile, auto component, food processing and I.T., besides ancillary and downstream industries
- g) To increase the level of processing, reduction of wastage, value addition, enhance the income of farmers as well as increase exports thereby resulting in overall development of food and feed processing sector
- h) To create more Industrial Parks in private, joint venture and PPP mode under Jharkhand Industrial Park Policy 2015
- i) To provide direct and indirect employment in the MSME sector
- j) To promote SEZ for IT and auto components
- k) Timebound disposal of project clearances through Single Window System

- l) To promote quality certification, FPO, process ISO and patent certification for local industries
- m) To promote new tool rooms and expand the activities of existing tool rooms
- n) To set up new training institutes/centres for skill development with emphasis to train 30% women and up-gradation of existing training institutes with modern standard syllabus
- o) To realise the potential of Agriculture sector and rural economy by setting up some more food parks in Jharkhand
- p) To revive viable sick units
- q) To promote sector specific approach and value addition in production
- r) To encourage the adoption of green, clean-energy business practices
- s) To promote innovation, start-ups and technology transfer
- t) To promote qualitative enhancement of skill and human resources of the State
- u) Improving business environment by emphasising upon 'Ease of Doing Business'
- v) Enabling manufacturing processes
- w) Zero effluent discharge plants

Improving the Business Eco-system

Government of Jharkhand has accorded highest priority for improving business eco-system in the State. With the view to steer rapid economic reforms and promote investment in the State, it is imperative to create an environment which is congenial for entrepreneurship development. Industry consultation, timely clearances, responsive administration and transparent government have been identified as the corner-stone for improving business environment and

boosting investor's confidence. To that end, the state shall provide both, pre and post investment services and facilitation for rapid industrialisation. The various components of improving the Business Eco-System are:

- Jharkhand Investment Promotion Board
- Single Window Clearance Mechanism
- Single Window Portal
- Single Window Cell
- Ease of Doing Business
- Jharkhand Investment Centre

Development of Industrial Infrastructure

High-end quality infrastructure facilities are absolutely essential for industrial development of the State. As a result of the availability of quality infrastructure, industries get established with less capital investment and can function without impediments. These infrastructural facilities assist in growth of business and industry along with promoting fair competition. In addition to generating new employment opportunities and contributing in social development, it helps in attracting indigenous and foreign investment. Development of Industrial infrastructure in the under-developed region has been identified as one of the strategies to attract industries and investments to these regions. Infrastructural facilities like land, industrial area development, industrial parks, transport infrastructure, telecommunication network, Special Economic Zones (SEZ), Industrial Corridor have been taken under the purview of the Industrial Policy 2016.

Development of MSME Sector

MSME sector has emerged as a highly vibrant and dynamic sector of the Indian economy over the last five decades. MSMEs contribute to nearly 8% of the country's GDP, 45%

of the manufacturing output and 40% of the exports. They also provide the largest share of employment after agriculture and hence, can contribute enormously to the socio-economic development of the State. Development of MSME sector underscores entrepreneurship and innovation. Moreover, they are complementary to large industries as ancillary units. Therefore, GoJ places strong impetus on the development of this sector.

Thrust Areas

Jharkhand has natural advantage in some sectors like Mining, Mineral based industries, steel, coal-based thermal power plants, coal to poly-generation industry, food processing, automobile and auto component, textiles and handicrafts etc. It is true that the natural advantage being owned by Jharkhand State has not been fully exploited for employment generation and improving the living standard of people. Some of the thrust areas have been identified in this policy. They are Tourism, Film Industry, Textile and Apparels, Sericulture, Handloom and Handicraft, IT and ITeS, Electronics System Design and Manufacturing, Biotechnology, Automobiles and Auto Components, Renewable Energy and Agro-Food Processing Based Industries.

Jharkhand Textile, Apparel and Footwear Policy 2016

There has been large scale change in industrial environment due to economic liberalisation, privatisation and globalisation. Strong emphasis is being placed on Micro, Small and Medium Enterprises (MSME). Clustering is being promoted, pollution norms have been made more stringent, concept of 'go' and 'no go' zoning has been developed for mining clearances.

The Jharkhand Government is working towards improving exports, skill development, mineral based products, handicrafts, handlooms,

agriculture and processed food products to ensure increased industrial development across the State. Jharkhand is also wooing investors in mineral exploration, plastics and rubber, chemicals, electrical, cement, metallurgy and automobile components, and equipments for heavy engineering companies.

Around 30% of Jharkhand's geographical area is covered with highly bio-diversified forests, thus giving opportunity for development of minor forest produce based industries and herbal based industries. Also, its agro-climatic condition is suitable for development of agri-based and allied sector industries.

Textile and Apparel Sector in Jharkhand

Jharkhand, in its Industrial and Investment Promotion Policy 2016 has declared textile as "Thrust Area". Jharkhand has experienced phenomenal growth in Sericulture Sector. In order to maintain the leading edge and rejuvenate existing rural industries including sericulture, handloom, handicraft, khadi, textile etc., it is envisaged to assist them in modernization/ technological up-gradation and provide necessary common facilities, backward and forward linkages including product design, marketing support etc. so as to make them globally competitive and their product remunerative. Silk products from the State are famous for its quality and have good demand within the country as well as in the international market.

Jharkhand ranks first in the country in production of Tasar Silk. In order to maintain the leading edge and give special thrust to the sector, Jharkhand Silk, Textile and Handicraft Development Corporation (JHARCRAFT) was established in 2006 to provide support in designing, training, entrepreneurship development, marketing and raw material support in clustered and organized manner by grouping local artisans, SHG's and NGOs involved in similar activities.

JHARCRAFT has emerged as a brand not only in the country but also abroad. JHARCRAFT is supporting more than 2.0 lakh rearers, reelers, spinners, weavers, artisans etc. It also maintains cocoon banks using existing infrastructure besides creating new infrastructure with the financial support of the State Government and has 18 marketing outlets in cities including Ranchi, Delhi, Kolkata, Bangalore, Ahmedabad and Mumbai. Marketing is also being extended under franchisee mode.

Development of Handloom

In addition to silk weaving, the State has taken steps for revival of cotton wool weaving. Handloom fabric woven with cotton, wool or silk yarn has a strong presence in the districts of Ranchi, Latehar, Palamu, Ramgarh, Dhanbad, Bokaro, Godda, Pakur, Sahebganj and Khunti. There are 162 Primary Weavers Co-operative Societies and one Regional Handloom Co-operative union in the State. They were under stress since 1996 as there was paucity of raw materials, lack of new designs and marketing opportunities. This sector has been revived after a gap of 12 years.

More than 80 societies have become functional. In Palamu area, wool weaving is done traditionally. Blankets and shawls woven earlier were coarse. Today, good quality blankets, shawls, tweeds, scarves and mufflers are being woven.

In cotton clusters also, quality of weaving has improved. Earlier fabrics were woven on 48-52 reeds; today, 100-120 reeds are used. Yarn of 2/17, 2/20 and 10s were used; now weavers are using 2/40, 2/60, 2/80, 100-200 count yarns for finer weaving. They have started using jacquard and dobby also.

Fifteen cluster development schemes are being implemented for cotton weavers, for carpet and wool weaving. This will help create employment for more than 4000 weavers in

the next two years.

35 mini handloom clusters have been sanctioned by Government of India with each cluster consisting of 250-300 weavers. The scheme is being implemented by JHARCRAFT with an objective to:

- Provide basic infrastructure such as looms and accessories to weavers
- Training for skill upgradation, design support and marketing support

Development of Sericulture

State Government is keen to develop Tasar post-cocoon activities in the State with a view to provide employment opportunities, particularly for the women, in the rural areas. To develop post-cocoon activities, Common Facility Centres (CFCs) are being established where facility of reeling machines and other necessary equipment are provided for Tasar silk reeling for a group of 30 women. After training, the women group is involved in the production of Tasar silk. Marketing support is provided by JHARCRAFT.

Mega Handloom Cluster

The Mega Handloom Cluster scheme has been sanctioned by the Government of India; Developer and consultants have also been selected. DPR of Mega Handloom cluster has been approved by PAMC under comprehensive Handloom Cluster Development scheme (CHCDS). All six districts of Santhal Pargana i.e. Deoghar, Dumka, Godda, Sahebganj, Jamtara and Pakur will be covered under this Mega Handloom cluster.

Textile and Apparel Parks

Industrial area with common infrastructure needed for textile and apparel industries plays a major role in the development of textile and apparel sector in the State. Again, specialization of a particular product based on the location,

raw material and other advantages boosts the niche market contribution in the State. Considering these facts, Jharkhand has already developed few parks in the Textile and Apparel sector and has proposed to build few more in this area:

- Silk park at Rajnagar (Saraikela-Kharaswan)
- Silk Park at Irba, Ranchi
- Mega Textile park at Deoghar

Vision and Objectives of the Jharkhand Textile, Apparel and Footwear Policy 2016

- α) To establish the Textile and Garment Industry of Jharkhand as a producer of internationally competitive value added products, thereby maintaining dominant presence in the growing domestic and international market and contributing to the sustainable employment and economic growth of the State
- β) To reinforce the value chain of the textile industry across the State through capital infusion, technology transfer, skill up-gradation and handholding

Objectives:

1. To achieve higher and sustainable growth in the entire textile value chain from fibre to finished products, with an emphasis upon balanced regional development:
 - a) Strengthening and enhancing the capacity of all the essential value chain activities such as Spinning, Weaving (Handloom and Power loom) including pre loom activities, Knitting, Processing, Garmenting, Technical Textiles and other supporting ancillary activities including Textile Machinery Manufacturing
 - b) Promoting well- being of the cooperative sector spinning mills

- c) Supporting and strengthening the power loom sector in order to modernize production technologies, enabling supply of good quality fabrics in the required quantum
 - d) Making Information Technology (IT) an integral part of the entire value chain of textile production and thereby facilitate the industry to achieve international standards in terms of quality, design and marketing
2. To equip the Industry to withstand pressure of import penetration and maintain a dominant presence in the domestic market
 3. To liberalise controls and regulations so that the different segments of the textile industry are enabled to perform in a greater competitive environment
 4. To facilitate emerging Technical Textiles in critical areas such as production, technology and research and development. The Policy will encourage integrated development in the sector aiming to sustainability of the textile units in the State
 5. To support the industry with skilled human resource and to create at least 5 lakh new employment opportunities in the State under the Policy period:
 - a. Strengthening the process of bridging the skills gap by providing better institutional linkages, creating a good pool of trainers by conducting Training of Trainers and the Assessment and Certification process to ensure the quality of training program
 6. Infrastructure development to make the Units globally competitive and meet the export compliance through Cluster based Textile Parks, Mega Projects and CETPs etc.

Capacity Building

With the textile and apparel industry providing employment opportunities to over 45 million people directly and 60 million people indirectly, Government of Jharkhand understands the need to focus on capacity building measures for improving support systems so that the emerging opportunities on account of globalization and liberalization are exploited. The Government strives to provide expertise and hand holding to all stakeholders and equipping them with necessary knowledge and skills so as to achieve and sustain visible socio-economic development.

The policy has laid emphasis on creation of opportunities that would directly augment employment in the State. The training module should be developed with the close involvement of industry and other stakeholders in the planning and implementations stages for the development of sector-specific skills for textiles and apparel. The policy also recognises the need to develop 'Centres of Excellence' and empower them by bestowing sufficient autonomy in its academic, administrative, and management areas.

National Institute of Fashion Technology (NIFT):

It has been proposed to set up NIFT Campus in Ranchi, Jharkhand. The Ranchi Campus will offer undergraduate, postgraduate level programmes in areas of Fashion Technology through School of Design and School of Fashion Technology and Management. It will also offer Certificate Programmes through its continuing education programmes offered by the proposed Centre for Industrial, Artisan, and Crafts persons' Interaction (CIACI)

Footwear Design and Development Institute (FDDI):

It has been proposed to set up Footwear Design and Development Institute (FDDI)

in Jharkhand so that the mismatch of the trained manpower requirement in this sector is balanced and critical support to the Industry in the area of Design, Technology and Management is provided through which the industry can become more competitive, in terms of Design, Cost, Quality and Delivery Time, in the global market.

Jharkhand Institute of Craft and Design (JICD)

The State Government has sanctioned Jharkhand Institute of Craft and Design to be set in Ranchi to create professionals for traditional creative industries. It aims to improve the quality of life by developing technically qualified professionals which will aid in socio-cultural and economic development for a sustainable future. It also aims to develop a unique pedagogy based on craft and design with the help of NID, Ahmadabad.

Skill Development

Skill development efforts in the area of Sericulture, Handloom and Handicraft have been intensified with the setting up of:

- Jharkhand Silk Training Centre, Kharsawan, in collaboration with NIFT, Kolkata
- Saheed Nirmal Mahto Institute at Bhagaiya in collaboration with NID, Ahmedabad
- Apparel Training Centre, Namkum, Ranchi in collaboration with the Export Promotion Council, GOI
- Weaver's Training Centre, Ranchi, Saraiyahat (Dumka), Latehar, Jamshedpur, Gumla and Madhupur (Deoghar)

Jharkhand Skill Development Mission Society (JSDMS)

Jharkhand Skill Development Mission Society (JSDMS) was registered on 1st October, 2013

under the Societies Registration Act, 1860 to focus on skill development in sectors such as Agriculture, Apparel, Made Ups and Home Furnishing, Handicrafts, Textile and Handloom among others.

Strengthening of seed sector

For development of sericulture, availability of Tasar seed is the most important factor. To fulfil the requirement of the Tasar seed, Government of Jharkhand intends to strengthen the seed sector by providing trained and skilled manpower besides adequate allocation of funds.

Incubation Centres

Government of Jharkhand aims to create an integrated workspace and linkages-based entrepreneurial ecosystem for the start-ups that are operationally and financially viable thus increasing the chances of success of start-ups and decreasing the time and costs required to establish and grow a new business. The outcomes envisaged include:

- Promote entrepreneurship in apparel manufacturing
- Create additional manufacturing capacity
- Generate additional employment opportunities

Centre of Excellence for Textiles / Technical Textiles

With the changing trend in the textile sector and technical textile being a knowledge based research oriented industry, there is a need for Centre of Excellence for Textiles. A Centre of Excellence for Textiles will be setup in the State in co-operative arrangement with the Government of Jharkhand as the lead partner duly supported by other institutes having the requisite capacity such as Bombay Textiles Research Association (BTRA) or any leading technical institution of the State. The Centre

of Excellence will be funded by the State Government.

Entrepreneurship Development Program (EDP):

To attain a considerable growth and development in the Small and Medium Enterprises (SME) sector through emerging efficient entrepreneurs. Higher education institutions in textile and apparel sector shall be encouraged to conduct tailor-made Entrepreneur Development Programmes. The programs shall provide the basic knowledge on entrepreneurship qualities, with emphasis on skills and behaviours, to the emerging entrepreneurs apart from disseminating the benefits of the textile policy and creating awareness on technical part of textile sector.

Sericulture development

Silk is a natural protein fibre and sericulture or silk farming is rearing of silkworms for the production of silk. In the present era, Jharkhand is the leading producer of Tasar silk. In order to increase the production of protein fibre, (mainly tasar silk) systematic efforts were made during 11th five year plan. With an increase in the production, income of the farmers have also increased from 5000 to 55000 (40-45 days work) per month which is a radical leap forward. In order to increase efficiency and to increase the production following steps have been proposed:

- Engage about 1.5 lakh farmers in this sector during Annual Plan 2016-17
- Rearers, spinners, reelers, and weavers to be organized into SHG & clusters etc. in park mode activities
- JSTDI, which is one year certificate course, is proposed to be strengthened and Ahimsa and organic branding of silk with competent certification will be ensured

- Financial assistance is required to meet the physical target so it will be provided by Central Silk Board, NABARD, RKVY and other funding agencies of GOI
- 100 Acre mulberry plantation will be covered during 2016-17 under the 12th plan period
- Health insurance for 50000 women silk growers & crop insurance scheme for 2000 tasar farmers will be provided under CDP
- The production of silk is proposed to be increased from 1000 MT to 2500 MT, from which at least 10 percent of the total raw silk production would be converted into thread and cloths.
- It has been proposed to earmark some fund for research and innovations in this area.
- Efforts are being made for the rearing of Laria Eco Race of Tasar on Sal trees and after the implementation of Krisak Sambad Suvida scheme through EFFCO KSL, 10,000 tasar farmers will be benefited.

Post Cocoon Reeling & Spinning

Employment provision for women is the most essential element for the growth & development of a family. Hence the State Government has planned to develop Tussar post cocoon activities in the State in order to generate employment opportunities for the women in rural areas. For this, Common Facility Centres (CFC) are being established, where facility of reeling machines & other necessary equipments are provided for Tussar silk reeling for a group of 30 women. After the training, women of the group are involved in the production of Tussar silk. JHARCRAFT is going to provide market support and has decided to provide training in reeling and spinning to 4650 women beneficiaries of 155 CFC during the year 2016-17.

CREATING OPPORTUNITIES CHANGING LIVES- JHARCRAFT

Jharkhand Silk Textile and Handicraft Development Corporation Ltd. (JHARCRAFT) is a Government of Jharkhand undertaking under the Industry Department and is registered under section 26 under Companies Act 1956. It was incorporated on 23rd August 2006. It was established to develop and support sericulture farmers, weavers and artisans living in remote areas of Jharkhand. The organization is entrusted with the role of implementation of the Government funded schemes to promote Tasar Silk, Handloom and Handicraft of the State. The infests of Jharkhand were showcased in Germany and Japan and were visited by the Prime Minister of India and Chancellery of Germany in Hannover, Germany, which gave JHARCRAFT a global presence. It was also adjudged as the best Government undertaking to have social impact by the Times Group last year. As JHARCRAFT is engaged in imparting training to the craft workers, which will support in the production and marketing of their product, the Government of Jharkhand has classified one of the objectives to set up Institute of Fashion Technology, NID Design centre in association with JHARCRAFT. the works carried out by JHARCRAFT are as follows:

- Implementation of various schemes of Handloom, Sericulture & Handicraft.
- Implementation of Mega Handloom Cluster, Godda sponsored by Government of India and other Centrally sponsored schemes.
- Implementation of computer Aided Design in 5 centres with the help of C-DAC and other State plan and training programs.
- Running of 30 marketing outlets in various cities to provide marketing support to the person engaged in production of handloom, Sericulture & Handicraft Goods.

Table 8.10 : Annual Plan of need based interventions for the States/UTs for the year 2016-17 for Eastern Region. Important craft areas/Uncovered craft areas/Intervention areas prioritized for the year 2016-17

Craft Cluster Areas identified by the government		Major Craft	No of Artisans	Other crafts	No of Artisans	Total no of artisans	Intervention Proposed With justification
Areas	District						
Saraikela	Saraikela	Bamboo & Paper Machie	400 & 100	Terracotta	100	600	Uncovered Area 1. Training 2. Design 3. Marketing
Ranchi	Ranchi	Bamboo & Embroidery	1000	Terracotta	100	1100	To Develop the Skill & Produce innovative Marketable Products 1. Training 2. Design 3. Marketing
Bhanathpur & Kharundhi	Garhwa	Bamboo & Jute	500	Carpet	3000	3500	Uncovered Area 1. Training 2. Design 3. CFC 4. Raw Material Bank & Capital & EDP-Spl. For Carpet
Ormanjhi	Ranchi	Bamboo	200			200	Inadequate AHVY
Kanke	Ranchi	Terracotta	200			200	Uncovered Area 1. Training 2. Design
Gumla	Gumla	Jute	300	Bamboo	300	600	Inadequate 1. Raw Material 2. Training 3. Design 4. Marketing
Deoghar	Deoghar	Terracotta & Embroidery	300	Bamboo	300	600	Inadequate 1. Training 2. Design 3. EDP
Giridih	Giridih	Cane & Bamboo	1000			1000	Inadequate 1. Training 2. Design
Bokaro	Bokaro	Embroidery	500			500	Uncovered 1. Training 2. Design 3. Capital
Poraiyahaat	Godda	Jute	500			500	Inadequate 1. Raw Material 2. Design 3. EDP

MINERALS

Jharkhand, a land of immense mineral potential, has a glorious past and a vibrant & dynamic future. The State, having strong fundamentals

of industrial growth with ancient heritage of mining and mineral exploration, provides an excellent opportunity for future investment in the mineral sector. Jharkhand is a repository

of vast mineral resources. This natural gift of minerals is an outcome of its diversified geological set up comprising of lithological sequence ranging from Achaean to Recent. The State occupies an important position on the metallogenic and tectonic map of the country.

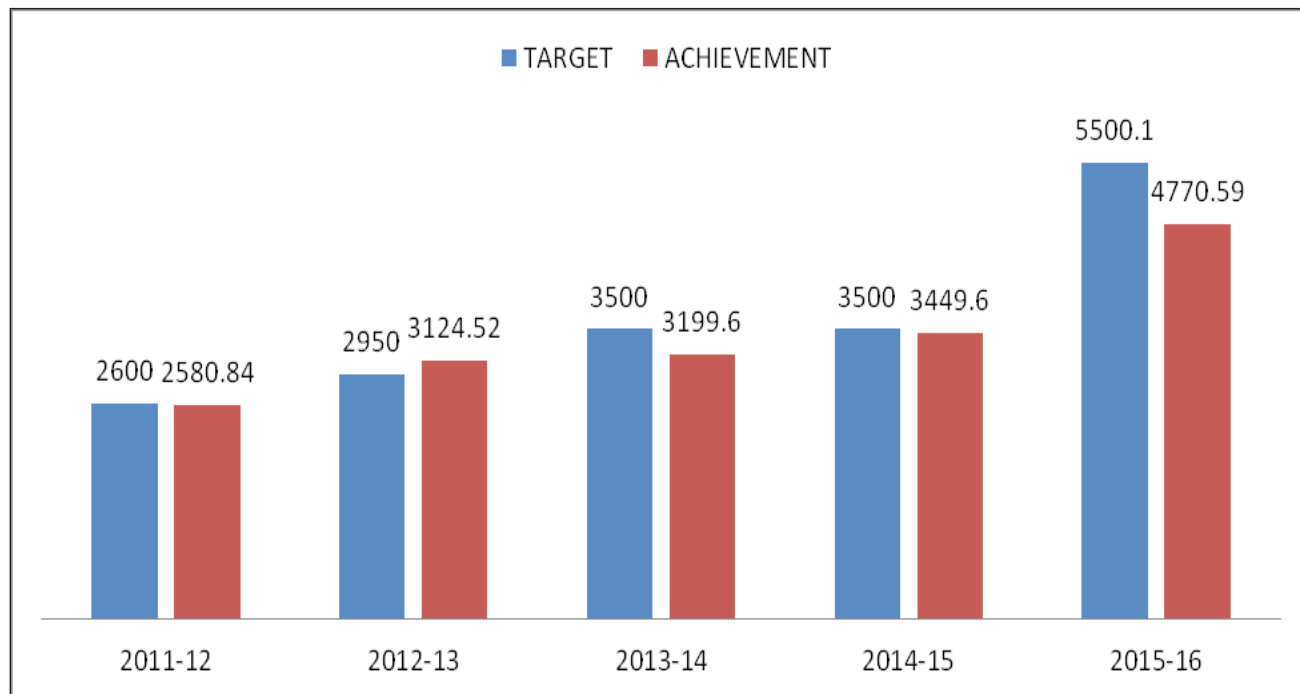
The State is endowed with large and rich deposits of a variety of metallic and non metallic mineral deposits such as Coal, Iron ore, Bauxite, Limestone, Copper, Mica, Graphite and Uranium. Jharkhand is the sole producer of Coking Coal and Uranium. Besides these, it possesses various other minerals in medium to small quantity viz. Andalusite, Apatite, Asbestos, Bentonite, Baryte, China clay, Chromite, Dolomite, Felspar, Fire clay, Fluorspar, Kyanite, Magnetite, Manganese, Noble Metals (Gold & Silver), Ochre, Pyrite,

Quartz, Quartzite, Steatite (Soapstone), Uranium (Atomic Mineral) and several varieties of gemstones.

Deposits of Coal, Iron ore, Copper, Bauxite, Dolomite and Pyroxenite are available in plenty. China clay, Fireclay, Magnetite, Graphite, Kyanite, Quartzite, Quartz, Feldspar, Mica & Decorative stones are present in sufficient quantity. The reserve of Andalusite, Manganese, Chromite, Beryl, Talc, Gold, Bentonite are also available, though in small quantity.

The revenue generation has been gradually increasing through the years. However, short from the target collection; the revenue generation is increasing, and has increased to Rs. 4770.59 crores.

Figure 8.5 : Revenue collection as Royalty by the Department: Target and Achievement (in Rs Crores)



Coal is the highest revenue grossing mineral in Jharkhand, followed by Iron Ore and Stone.

Coal has generated a revenue of Rs 2,71,801 lakh for the year 2015-16.

Table 8.11 : Mineral wise Revenue Collection 2015-16

Sl. No	Name of Mineral	Amount (in lakh)
1	COAL	271801.34
2	C.B.M (O.N.G.C)	28.16
3	IRON ORE	107047.53
4	BAUXITE	2748.46
5	COPPER ORE	279.92
6	GOLD, SILVER	15.85
7	URANIUM	1383.37
8	LIMESTONE	5669.59
9	DOLOMITE	172.42
10	GRAPHITE	23.85
11	FIRECLAY	1.02
12	CAYNITE	2.75
13	CHINA CLAY	11.91
14	SOAP STONE	0.78
15	QUARTZ/ FELDSPAR	24.44
16	C.P./ RED MUD	0.22
17	PURKSONITE	23.71
18	MARBLE	1.60
19	STONE	11343.27
20	GRAVEL/MORAM	54.23
21	QUARTZITE	26.49
22	BRICKS SOIL	408.77
23	SAND	3213.12
24	APPLICATION FEE EXTRA	511.86
25	WORK DEPARTMENT	25525.55
26	NON AUCTIONED OUTSTANDING	27.39
27	AUCTIONED OUTSTANDING	1427.20
28	COAL AUCTION AMOUNT RECEIVED	45284.39
TOTAL		477059.19

Source: Department of Mines and Minerals, GoJ

Table 8.12 : District wise Revenue Collection of Minerals

(in lakh)

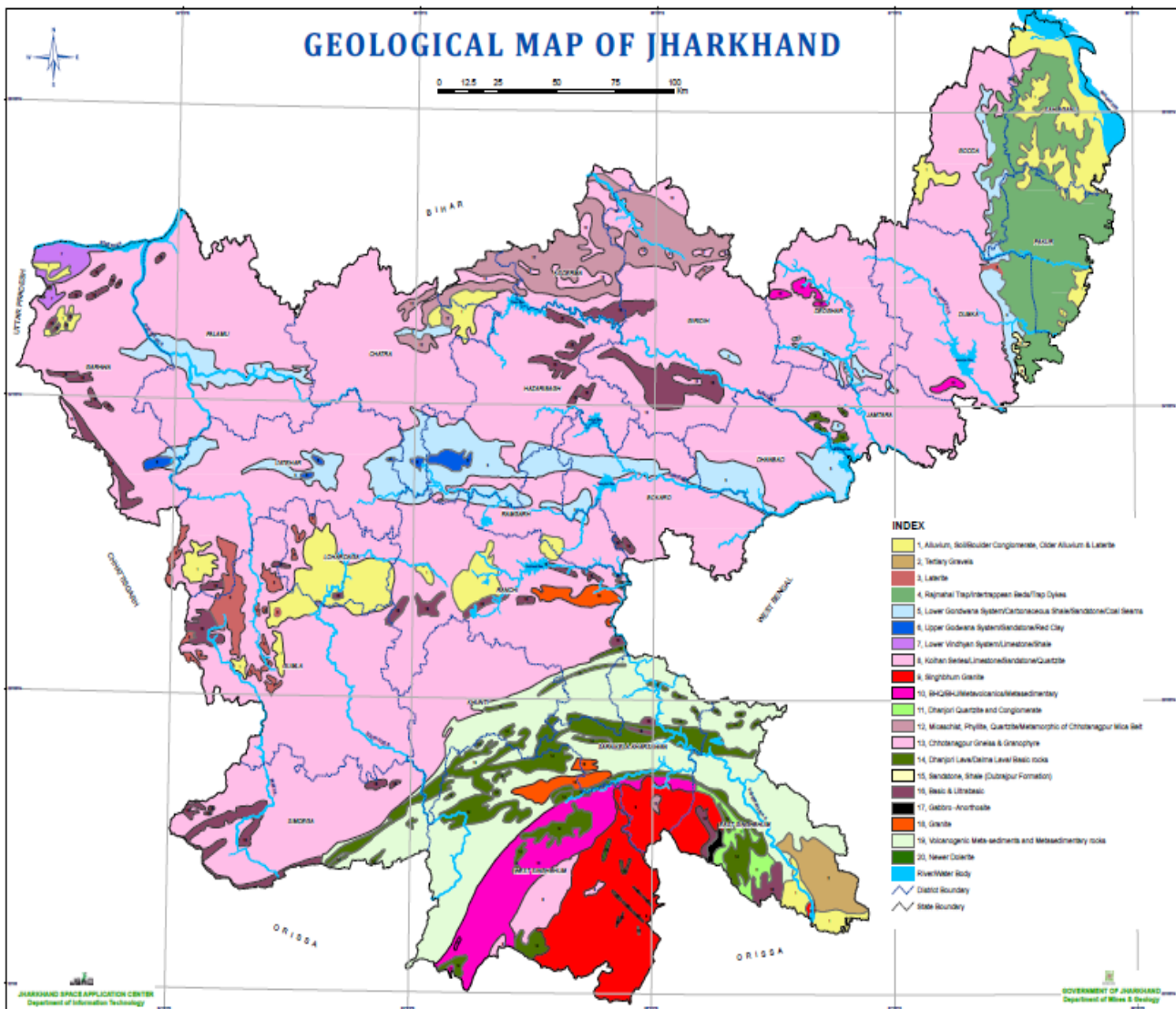
Sl. No	DISTRICT	FINANCIAL YEAR 2014-15 (Target)	FINANCIAL YEAR 2014-15 (RECIEVED)	FINANCIAL YEAR 2015-16 (TARGET)	FINANCIAL YEAR 2015-16 (RECIEVED)
1	2	3	4	5	6
1	DHANBHAD	98845.00	87373.66	139360.31	89149.53

Sl. No	DISTRICT	FINANCIAL YEAR 2014-15 (Target)	FINANCIAL YEAR 2014-15 (RECIEVED)	FINANCIAL YEAR 2015-16 (TARGET)	FINANCIAL YEAR 2015-16 (RECIEVED)
2	BIKARO	31308.00	29045.87	46323.06	32584.51
3	DIRIDIH	1827.00	2281.09	3630.07	2344.42
4	HAZARIBAGH	14074.00	11539.00	18394.78	11670.08
5	RAMGARH	30800.00	31751.83	50637.59	69591.30
6	CHATRA	35431.00	37312.86	59511.08	41877.67
7	KODERMA	1135.00	854.82	1356.69	900.14
8	PALAMU	3275.00	3475.07	5536.77	1433.00
9	LATEHAR	2800.00	2400.59	3825.63	3997.33
10	GADHWA	901.00	751.54	1197.80	1804.94
11	RANCHI	6500.00	4569.48	7284.58	7333.61
12	KHUTI	505.00	671.10	1002.24	1354.65
13	LOHARDAGHA	1181.00	1353.94	2151.15	1840.41
14	GUMLA	2446.00	2132.26	3397.84	2066.45
15	SIMDEGHA	468.00	535.63	782.24	951.51
16	JAMSHEDPUR	3800.00	3902.99	6221.22	4956.51
17	CHAIBASA	72000.00	81188.73	129496.80	114886.15
18	SARAIKELA	1305.00	1437.54	2285.60	2308.97
19	JAMATADH	483.00	453.53	721.12	503.80
20	DUMKA	2000.00	1680.26	2676.72	2448.97
21	GADDAA	15816.00	20544.59	32768.37	21588.94
22	PAKUDH	13900.00	10373.48	16536.97	5096.13
23	SAHEBGANJ	2500.00	2606.57	4155.63	4050.25
24	DEVGARH	6700.00	6747.28	10755.75	7035.53
25	COAL BLOCK AUCTION AMOUNT RECEIVED				45284.39
TOTAL		350000.00	344983.71	550010.00	477059.19

Source: Department of Mines and Minerals, GoJ

Jharkhand's mineral potential has been glorious since decades, but it also has a dynamic future, for which the Department of Mines and Geology has made an extensive 12th five year plan for the state. The state having

strong fundamentals of industrial growth, with an ancient heritage of mining and mineral exploration, provides for an excellent opportunity for future investments in the mineral sector.



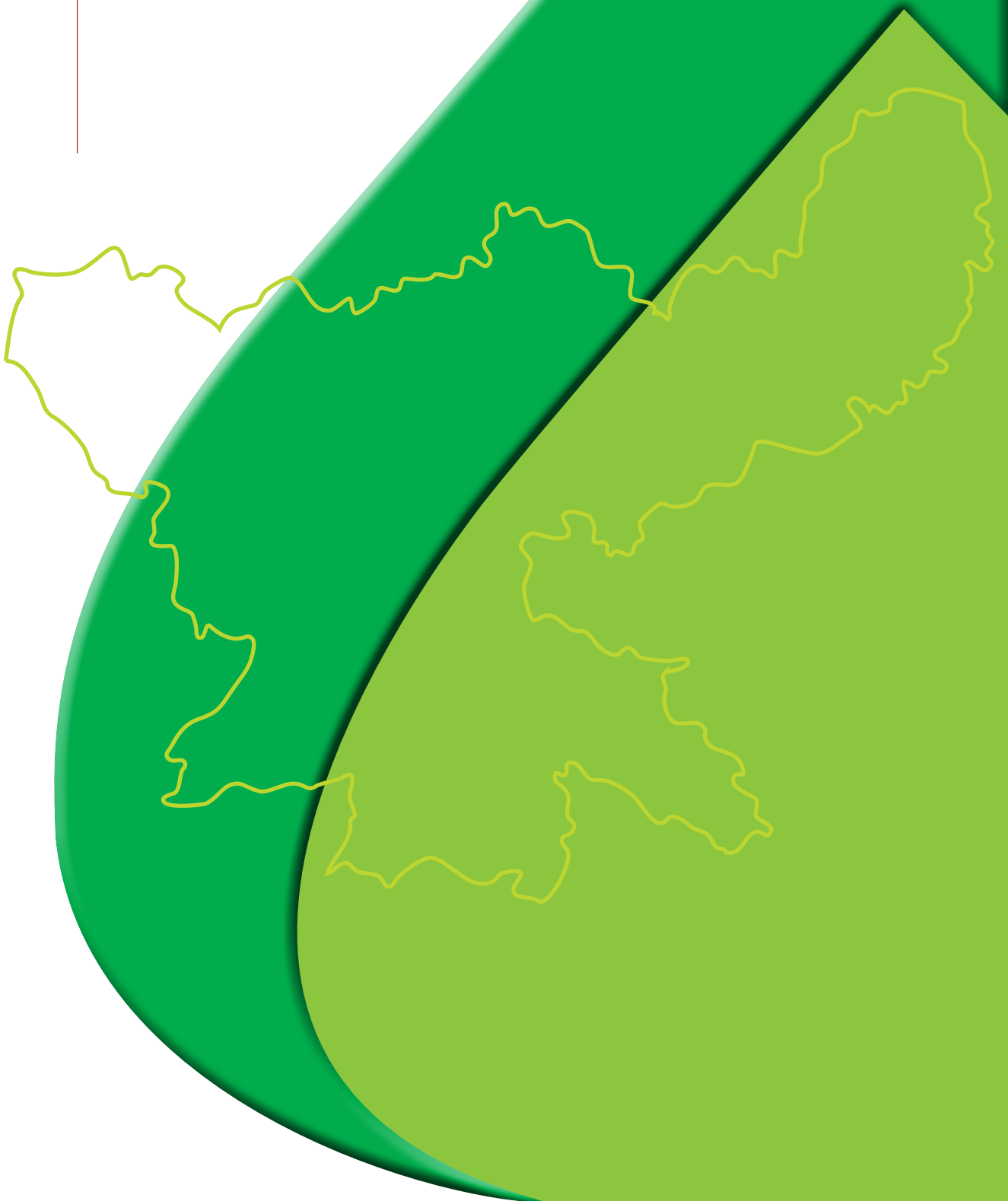
Conclusion

The State has made impressive strides over the years towards industrialisation. It has contributed to the revenue collection for the State besides improving the quality of life. However, the stagnancy of the industrial sector

needs revival. The industrial sector, is although making a comeback, and the government with a push like the upcoming Global Investors summit in Jharkhand can make the state into an investors hub.

9

INFRASTRUCTURE AND
COMMUNICATION



The catalytic infrastructure that is required for the development of the State is making progress. The road network has been gradually improving with various national corridor projects being implemented. The electricity access, although lower than the national average, can make future improvements and with unbundling the JSEB can pave way to a robust and sustainable power sector. The Information and Technology has made great progress through different schemes that are being implemented, and paving way for the vision of a “Digital India” to be successful.

Road

The Road Construction Department has been doing extensive work. Total length of Roads (including State Highways, MDR and other RCD roads) has increased from 7501 km in the year 2014 to 9751.5 km in the year 2016. However, the road infrastructure in Jharkhand needs augmentation. The roads under RCD consist of State highways (91231.90 km), Major District Roads (4845.70 km) and other RCD roads (3673.80 km).

Table 9.1: Roads under RCD on 01.4.2016

Total Length	9751.5 km
Breakup	
SH (State Highways)	1231.90 km
MDR (major District Roads)	4845.70 km
Other RCD Road	3673.80 Km

Source: Department of Road Construction, GoJ

The upcoming projects planned by the Department has a budget of Rs. 4000 cr, out of which Rs. 1527 cr has already been spent till June 2016. 38 percent of the expenditure has already been spent for the year by June 2016.

The physical target of the Roads is 1450 km out of which 300 km has been completed. There is a provision for 40 bridges to be constructed, out of which 20 bridges have already been constructed.

Table 9.2: Budgetary Provision / Expenditure in 2016-17

Budgetary Provision	Rs 4000 cr
Expenditure till June 2016	Rs. 1527 cr
% expenditure	38.18%
Physical Target	
Roads	1450 Km
Bridges	40 Nos.
Achievement	
Roads	300 Km
Bridges	20 Nos.

Source: Department of Road Construction, GoJ

Road infrastructure has been divided into three categories; namely, National Highways, State Highways and major District Roads, Rural Roads and Minor District Roads. The National Highways are the primary system of roads which connects the State to the different parts of the country. The State Highways are

the secondary system of roads, which connect the districts of Jharkhand with one another, thereby generating more mobility among people within the State. Rural roads constitute the tertiary sector, where connectivity with the remote villages and the rural areas provide the people with easy access to livelihood.

Table 9.3: The present status of National highways (2016)

No of National Highways (NHs)	25
Total Length	2612 km
Breakup	
NH with State Govt.	1890 km
NHs transferred to NHAI (NH-2, 6, 23 (C-R), 32, 33 & 133B)	722 km

Source: Department of Road Construction, GoJ

Major National Highway Corridor schemes have been taken up for the four-laning of the NH roads. The details are provided below.

Table 9.4: National Highway Corridor Schemes

(A) Major NH Corridor Schemes of 4-Lane / 2Lane+Paved Shoulders: DPRs sent to NHAI (GoI) for Implementation	
	4-laning of 34 km (km 0-34) of NH-75 (Ratu Road Scheme)
	4-laning of 21 km (km 35-55) of NH75
	4-laning of 206 km (km 56 - 261) of NH-75
	4-laning of 23 km (km 2.9 to 26) of NH-23
	4-laning of 185 km (km 27 to 211) of NH-23
	4-laning of 23 km(Gumla-Chhatisgarh border) of NH-78
	4-laning of 86 km(Hansdiha-JH/Bihar Border) of NH-133
	4-laning of 55.40 km(Parwa More-JH/Bihar Border) of NH-98
	4-laning of 54 km (Chaibasa-Hata-Tiring) of NH-220
	2-Lane with Paved Shoulders of 172 km of NH-114A
	2-Lane with Paved Shoulders of 42 km (Barharwa-Pakur-W.Bengal)of NH-133A
(Project Cost Rs 9388 crore, Length 903 Km)	
(B) Major NH Corridor Schemes of 2 Lane +Paved Shoulders sent to Ministry of Road Transport & Highways (GoI) for sanction under Annual Plan NH(O) 2016-17	
	2-Lane with Paved Shoulder of 23 km of NH-78
	2-Lane with Paved Shoulder of 20 km of NH-333
	2-Lane with Paved Shoulder of 12.8 km of NH-333A
	2-Lane with Paved Shoulder of 15 km of NH-114A

	2-Lane with Paved Shoulder of 23 km of NH-98
	2-Lane with Paved Shoulder of 16 km of NH-133
(Project Cost Rs 725crore, Length 110 Km)	
(C) State Road Schemes posed to MHA, Gol under Road Requirement Plan(RRP) Phase- II (LWE)	
	148 Bridge /Road schemes (Bridge: 58 / Road: 90)
	Length 1690 km
	Cost: Rs. 3725 cr.

Source: Department of Road Construction, GoJ

Road density

Road density of Jharkhand is below the national average. Hence, in order to catch up to the national average in the 12th plan period a length of around 7660 km road has to be upgraded to SH/MDR category.

The basic objective or strategy for the 12th plan period is to ensure that the State capital, Ranchi can be accessible through transport within 9 hours from any part of Santhal Pargana division, 5 hours from any part of Palamu division and 8 hours from the rest of Jharkhand.

Table 9.5: National vs Jharkhand indicator of SH & MDRs

	India	Jharkhand
Total Length of Roads	599662	9548 (approx)
Road Density in terms of area (Road km/ 1000 sq. km)	182.40	119.77

Source: Department of Road Construction, GoJ

The achievement under the 12th plan period can be seen in the table below. The year 2015-16 has been the best year in terms

of strengthening of the roads as well as construction of bridges. It has been the highest as compared to the previous years.

Table 9.6: Achievement of the 12th Five Year Plan

Work	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Strengthening/ Widening of Roads	747	998	1000	2745
Bridges completed	25	10	20	55

Source: Department of Road Construction, GoJ

Table 9.7: Budget Announcement

	Projects	
A	Construction/ reconstruction/ widening & strengthening of 1000 Kms of Roads	
1	Giridih- Gandey - Pandeydih Road, 42.5 Km	Construction work in progress
2	Marcha (on SH-03) - Rania- Sode (on SH-04) Road,35.7 Km	Construction work in progress
3	Chakradharpur- Rajnagar- Saraikela Road (upto Orissa Border), 22 km	Construction work in progress

Projects		
4	Pithoria-Thakur Goan-Burmu-Rai-Khelari Road,37 km	Sanctioned (Bid to be invited)
5	Charhi- Ghato Road, 11.5 km	Sanctioned (Bid invited)
6	Asanbani-Haripur Road, 26 km	Construction work in progress
7	Balumath-Herhanj-Panki road, 47 km	Sanctioned (Bid to be invited)
8	Ranchi- Mun Road, 62 km	To be taken up under PPP
9	Itkhori-Bodhgaya (Jharkhand Border) Road, 40 km	To be Sanctioned
10	Bagra More-Lawlon-Panki Road, 35 km	To be Sanctioned
11	Simaria-Tandwa Road, 27 km	Sanctioned (Bid invited)
12	Patratu- Barkagaon Road, 14 km	Processed for sanction
13	Karra- Gobindpur- Bakashpur Road, 30 km	Sanctioned (Bid invited)
14	Pathargama- Rajabhita- Bansjore road, 10 km	Sanctioned (Bid invited)
15	Mahuda- Sindri Road, 23 km	Sanctioned (LA proposal to be submitted)
16	Kudu- Bero Road. 36 5 Km	Sanctioned (Bid invited)
17	Chaibasa- Tonto - Ruam Road. 59 Km	Sanctioned (bid to be invited)
18	Ahilyapur- Dakbunglow Road, 42 Km	Sanctioned (Bid invited)
19	Gobindpur- Asanbani- Rakha Mines Road, 25Km	Sanctioned (Bid invited)
20	Burmu- Umedanda- Hendegir- Bindapathar- Patratu rd, 65.5 km	Part-I sanctioned (Bid invited), Part-II (through SHAJ) processed for sanction
B	PPP Projects	
1 (i)	Ranchi- Bokaro- Dhanbad 6 lane Expressway	Alignment finalized, Traffic study completed, Topography survey completed, LAP being ppd. Technical Feasibility Report being prepared
1 (ii)	Establishment of Industrial Corridor connecting Ranchi Dhanbad and Jamshedpur forming a 6 lane Golden Triangle	Alignment of Dhanbad - Jamshedpur finalized (Jaina more- Chawka), Topography survey in process, LAP also being prepared and Technical Feasibility Report being prepared

Source: Department of Road Construction, GoJ

Various projects have been taken up by the State Highways Authority of Jharkhand (SHAJ), for which the total cost is Rs. 2252 crore. A

total of 752 km of roads/bridges would be constructed under the SHAJ.

Table 9.8: Projects with State Highways Authority of Jharkhand (SHAJ)

Sl.	Name of Work	Length (Km)
1	2	3
1	Improvement & upgradation of Koderma- Domchanch - Khorimahua - Jamua (SH-13) Road to 2 lane / 2 lane with paved shoulders	69.07
2	Garhwa- Sahpur (MDR-120) Road	30.44

Sl.	Name of Work	Length (Km)
3	Bridge over Koel River in Sundipur- Pansa Road(1600 m span)	
4	Hazaribagh- Barkagaon- Tandwa- Khelari- Bijupara Road.	115.65
5	W/S Chandrapura - Phusro - Gomia Road	36.47
6	Ghaghra-Netarhat Road	54.3
7	Chhattarpur - Japla Road	32.47
8	W/S of Chakradharpur - sonua - Goelkera Road	35.78
9	W/S of Khunti - Torpa - Kolebira Road (SH-03).	82.06
10	Dumka- Masalia- Kundhit Nala Road 2 lane with paved shoulder	53.36
11	Mohammadganj - Japla - Dangwar Road	35.77
12	Chatra- Chauparan (MDR-068)	49.17
13	Vikas-Booty More- Kantatoli to Rampur Road	25.35
14	Deoghar - Madhupur Road.	27.39
15	Maricha (6 KTK Road-SH3)- Soude Road (up to SH4)	35.74
16	Giridih-Gandey- Pandedin Road	47.8
17	Saraikela-Rajnagar- Chakradharpur	22.0
	Total	752.82
	Ongoing works (Total Project Cost - 2252.0 Crore)	

Source: Department of Road Construction, GoJ

Electricity Access

The electricity access of Jharkhand, when compared at all India level, shows a very low percentage. The availability of power is around 0.70 percent when compared to the

all India level. The power requirement, per capita availability and installed capacity has also been stagnant when compared to the All India level. However, when figures are taken only from Jharkhand , it has been observed that Jharkhand is progressing at a slow pace.

Table 9.9: Comparative Power Statistics 2009-10 to 2015-16

States	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
AVAILABILITY OF POWER (in Million Units)							
Jharkhand	5407	5985	6030	6765	7007	7390	7567
ALL INDIA	746644	788355	857886	908652	959829	1030785	1090713
percent to All-India	0.72	0.76	0.70	0.74	0.73	0.72	0.69
POWER REQUIREMENT (Million Units Net)							

States	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Jharkhand	5867	6195	6280	7042	7143	7599	7748
ALL INDIA	830594	861591	937199	995557	1002257	1068923	1114235
percent to All-India	0.71	0.72	0.67	0.71	0.71	0.71	0.70
PER CAPITA AVAILABILITY OF POWER (in kilo wat)							
States/Union Territories	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Jharkhand	200.7	222.1	182.9	205.2	212.6	224.2	229.5
ALL INDIA	725.9	766.4	708.9	750.8	793.1	851.8	901.3
percent to All-India	27.6	29.0	25.8	27.3	26.8	26.3	25.5
STATE-WISE INSTALLED CAPACITY OF POWER (Mega Watt)							
Jharkhand	1942.86	1983.86	3037.86	2269.86	2579.86	2625.91	2625.91
ALL INDIA	159398.49	173626.40	199877.03	223343.60	245258.53	271722.17	298059.97
percent to All-India	1.22	1.14	1.52	1.02	1.05	0.97	0.88

Source: Jharkhand Stat

The State is home to nearly 68 lakh households, out of which 38 lakh Households (56 percent) are electrified. Presently, out of total 50.9 lakh rural households, nearly 22.8 lakh are electrified (44.7 percent), whereas out of 17.2 lakh urban households, nearly 15.4 lakh are electrified (89.5 percent) in the State. The remaining 28.2 lakh rural and 1.8 lakh urban households are yet to be electrified. Considering the national household electrification level of 72 percent, a significant emphasis on electricity access is required by the State.

The State has successfully achieved 93 percent village electrification by providing electricity to 27,462¹ villages out of a total of 29,492 villages. The remaining 2,030 villages are expected to be electrified by December 2017 under various central and state government schemes.

In terms of per capita consumption, Jharkhand

with per capita consumption of 552 kWh is significantly lower than the national average of 1,010 kWh, which signifies that not only a massive electrification drive is required, but round the clock electricity is also to be ensured to all the connected consumers.

Comparative Analysis of the Energy Sector of Jharkhand with the all India Average

The table below clearly indicates that Jharkhand is lagging behind in almost all the aspects of the energy and power consumption in comparison to the all India average. Only 56 percent of the households have access to electricity as compared to 72 percent at the all-India level. The rural and urban electricity access is also lower when compared to the all-India figures. The peak shortage is as high as 14.60 percent, while that of India is 2 percent.

¹ Status as on 31st December 2015, Department of Energy, GoJ

Table 9.10: Comparative energy Scenario of Jharkhand and All-India (percent)

Particulars	Jharkhand	All-India
All Households access to electricity	56	72
Rural Households – electricity access	32.36	56
Urban Household – electricity access	89.50	92.70
Power Consumption per capita (Units)	552	1,010
AT&C losses (percent)	39.50	23.30
Peak Shortage (percent) –2014-15	14.60	2.00
Energy shortage (percent)-2014-15	6.00	5.00

Source: PFC, CEA and Department of Energy, GoJ

As per the Central Electricity Authority, Government of India, Jharkhand is largely dependent on Coal energy. Gas and Diesel

energy are non-existent. There are a few Hydro power utilities in the State ownership and central ownership.

Table 9.11: Installed Capacity (In Mw) Of Power Utilities in Jharkhand (Including Allocated Shares in Joint & Central Sector Utilities) (As On 31.07.2016)

Ownership/ Sector	Modewise Breakup							Grand Total
	Thermal				Nuclear	Hydro (re- newable)	RES (MNRE)	
	Coal	Gas	Diesel	Total				
State	1190	0.00	0.00	1190	0.00	130.00	4.05	1324.05
Private	900	0.00	0.00	900	0.00	0.00	16.19	916.19
Central	314.93	0.00	0.00	314.93	0.00	70.93	0.00	385.86
Sub Total	2404.93	0.00	0.00	2404.93	0.00	200.93	20.24	2626.10

Source: Executive Summary, Power Sector, Jan, 2016, Ministry of Power, Central Electricity Authority, New Delhi

Jharkhand Urja Utpadan Nigam Limited

In order to expand the capacity of electricity production, Patratu Vidyut Utpadan Nigam Limited has been incorporated on 15.10. 2015, which is a joint venture of JBVNL and NTPC.

This joint venture will establish thermal power plant of 4000MW production capacity along with the improvement of production capacity of the present units.

On April 1, 2016 land was transferred to PVUNL for the field operation and management of present unit of Patratu and the expansion of phase. Presently one running unit numbered 10 of Patratu Vapour Power Plant is generating 75 to 80 MW of electricity

on an average. After the transformation of Banhardi coal block into PVUNL, quarried coal of this block will be used in the proposed Unit of the Nigam and with this 4000 MW electricity will be available to people at low cost and without interruption..

In two places of Jharkhand - Tilaya and Deoghar - UMPP of 4000 MW capacity has to be established. The State will receive 1000 MW from Tilaya UMPP and 1500 MW from Deoghar UMPP. Under the tariff based competitive tender process a PFC consultant has been authorized for both the UMPPs for the selection of developer.

Electricity Supply and Distribution

The electricity distribution system of the State has been expedited in the direction of strengthening and renovating. Under the Annual Development Plan in the FY 2015-16, 5 new electricity sub centre, 600 km HT line, 560 km LT line, 55 new power transformers and 7219 transformers were established. Till May of the FY 2016-17, 87.6 km HT line and 53.40 km LT line were constructed and 3 new transformers and 177 transformers were established.

Important steps have been taken in the direction of strengthening the protection system of the electricity sub-centre. Under these steps in the past 6 months 277 new 11 K.V, VCB and 170 new 33 KV, VCB have been installed. Apart from this, in the current FY in Jharkhand, repair work of damaged 33 KV and 11 KV VCB is underway in all the working sub-centre of electricity.

Transformer Replacement Policy is being prepared in order to bring transparency in the replacement of burnt transformers like the Government of M.P. Under this policy consumer can lodge their complaints through SMS so that the damaged transformers would be replaced under certain period of time.

Apart from 6 working transformer repairing workshop, 8 new transformer repairing workshops have been established against the 9 new additional transformers repairing workshops and the rest one workshop is in progress for the repairing of transformers in the FY 2015-16

Under the Complementary Annual Development schemes, 19 new 33/11 KV power sub-centres have been constructed, 152 Km 33 KV line, 846 Km 11 KV line, 988 Km L.T line, and 8382 distributional transformers have been installed and further establishments have been approved.

Rural Electrification

Out of 29492 villages, 26851 centres of villages have been electrified till 31/3/2015 under the schemes of the State. Rest 2641 unelectrified villages, 908 villages in the year 2015-16 and 222 villages in the month of April, May and June of 2016-17 have been electrified.

Rest 1511 villages are on target for the electrification by December 2016. Rest 1511 villages to be electrified under the different schemes are as follows:

518 un-electrified villages have to be electrified under the 10th and 11th plan of RGGVY and the work is on progress.

170 un-electrified villages will be electrified under the 12th plan of Dendayal Upadhaya Gram Jyoti Yojna.

270 un-electrified villages have to be electrified under the Dendayal Upadhaya Gram Jyoti Yojna.

490 un-electrified distant villages will be electrified by JREDA through Solar Energy Plant.

Commerce and Revenue

There are 29 Lakh consumers under the State corporation in which 91 percent are domestic, 06 percent are commercial, 0.5 percent are industrial and 2.5 percent are agricultural and others.

On an average the monthly consumption is 982 million units and total units sold are 49 percent domestic, 6 percent commercial, 40 percent industrial, and 6 percent agricultural and other consumers.

In the State on an average 2000 MW electricity is consumed in which 80 MW, 360 MW, 187 MW, 765 MW and 600 MW are received from PTPS, TVNL, IPP, DVC and Central allocation respectively. Monthly expenditure on energy is Rs. 425 Cr.

Average revenue recovery is Rs. 232.97 in the FY 2015-16 which is Rs. 17.78 Cr. more from the recovery of the FY 2014-15. AT & C Loss is 35.88 in the FY which is 5 percent less in comparison to the FY 2014-15.

An agreement was signed with the Power Trading Corporation (PTC) for the State's Efficient Power Portfolio Management in August 2015. Corporation is the Member client of IEX and because of this membership any problem of power shortage/ power surplus can be solved by power purchase and power trading.

Under the Domestic Efficient Lighting Programme (DELP) the State is providing 10 LED bulbs to the domestic consumers at cheaper rate which helps to save the precious energy. Till date 61.57 Lac LED bulbs have been distributed in 6 cities of the State.

Camps are organised at divisional zone and in supply area for the quick solution of pending applications of consumers for new electricity connections.

The Electricity Department, Government of India, has launched a new programme UDAY (Ujwal Discom Assurance Yojna). This programme is operational and is a financial turnaround of Power Distribution Companies (Discom).

Under the UDAY scheme the State Government will acquire 75 percent debt of the JBVNL of which 50 percent has already been acquired and 25 percent acquisition will be done in the year 2016-17.

The State Government has paid 100 percent CPSU's outstanding dues of JBVNL amounting Rs. 5553 Cr. JBVNL will work with strong determination for the improvement of its' operational efficiency with the main goal to reduce AT & C loss to 15 percent in the year 2018-19 and aims to bring ACS/ARR group at zero level. In relation to this, JBVNL has to complete the target of Feeder and DTR metering.

Consumer Facilities and Services

JBVNL's web portal and online services was inaugurated on 15th Oct 2015 under the ease of doing business and for providing online facilities to the consumers. This facilities include new connections, modification, complaint and payment of bills online.

Now the consumers can apply online for new connection through the single window system of the State Government which is integrated to the JBVNL portal. In addition to this, Mobile App has been developed for providing better online services and consumers are taking the advantages of these services.

Consumers can deposit their electricity bill through 400 post office, 4470 Pragya Kendra, 129 Any Time Payment KIOSK, RTGS/NEFT and departmental counter now. Consumer can also use JBVNL portal.

SCADA (Supervisory Control and Data Access) has been installed in three cities – Ranchi, Dhanbad and Jameshpur - so that online monitoring can be done for electricity distribution arrangement.

Actions are taken for the implementation of ERP to increase the working capacity of JBVNL and following modules would be installed through this:-

- i. Financial and Accounting
- ii. Human Resources and Management
- ii. Project Management
- iv. Inventory and Procurement module

Through R-APDRP, (part A) commercial activity of the Corporation is being IT enabled and with the implementation of ERP, non-commercial activity of the Corporation will also become IT enabled and as a result the Corporation would achieve its goal of enhancing its working capacity through correct decision making and correct working pattern. Survey of Electrical Network Asset

and Consumer Indexing has been done by taking the details from the consumers directly through GIS. GIS survey has been planned for other towns and rural areas besides R- APDRP towns and the Corporation is heading in this direction and this will help in increasing the working capacity of the Corporation in Energy Accounting, Billing and Collection, etc.

Electricity Demand & Supply Position

The State has witnessed improvement in terms of demand supply gap over the last few years through the bridging of gap between the

national and the Jharkhand figures. However, it still doesn't compare well with the national average. As can be seen from the table below, the Peak demand has been increasing year by year, whereas the Peak availability has not increased at the same rate. In the year 2013-14 the Peak shortage was 16.20 percent, which has decreased to 14.60 percent; however, it is still very high when compared to the national average of 2 percent. The Energy shortage has decreased from 8 percent in the year 2010-11 to 6 percent in the year 2014-15. The gap is seen to be closing with the national average of 5 percent.

Table 9.12: A comparison between the energy requirement and peak demand for JBVNL and comparison with all over India

Particulars	Jharkhand					India
	2010-11	2011-12	2012-13	2013-14	2014-15	2014-15
Peak Power Demand and Supply						
Peak Demand (MW)	1,790	1,850	1,900	2,060	2,120	1,47,815
Peak Available (MW)	1,523	1,547	1,638	1,726	1,810	1,44,788
Peak Shortage (percent)	14.90	16.40	13.80	16.20	14.60	2
Energy Requirement and Availability						
Energy Requirement (MUs)	10,976	11,020	11,900	12,361	12,720	10,48,672
Energy Available (MUs)	10,103	9,988	10,912	11,631	11,954	9,95,157
Energy Shortage (percent)	8.00	9.40	8.30	5.90	6.00	5

Source: Department of Energy, GoJ

Though Jharkhand has adequate generation capacities through the tie-ups with IPPs, Central allocations and State generating sources, a significant part of the power shortages can be attributed to the evacuation and access issues in the State.

One of the key performance parameter of efficiency in electricity distribution, i.e. level of AT&C losses in Jharkhand points towards an immediate need to invest significantly in the electricity distribution infrastructure in the State. The AT&C losses during the year 2014-

15 (FY15) stood at 39.5 percent, as against the national average of 23.3 percent. Although, compared to the previous years, the AT&C losses are seen to be significantly reducing, but efforts need to be made to curb the losses even more. The plan for the loss reduction trajectory had an estimate of 34 percent AT&C loss for the year 2016-17.

Table 9.13: Loss reduction trajectory, AT&C Losses & T&D Losses

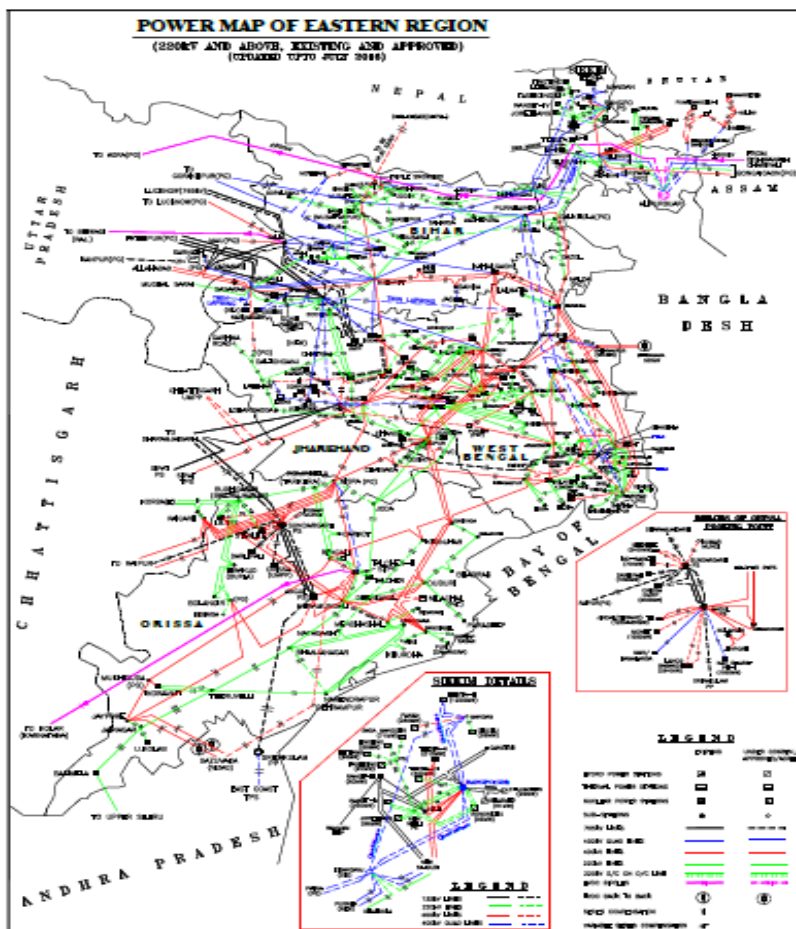
Plan	2014-15	2015-16	2016-17	2017-18(E)	2018-19(E)
Loss Reduction Trajectory (percent)	39.5	36.2	32	27.7	25.6
AT&C Losses (percent)	39.5	36.28	34 (up to Sept, 16)		
T&D Losses(percent)	30	28.76	25		

Source: Department of Energy, GoJ

As is clear from the above portrayed scenario, there is immense potential for the State to revamp its power and energy scenario. The State has, of late, identified the need for investment in this sector. Hence, the State has embarked on the journey of revamping its power sector and undertaken the challenging task of providing electricity access to all consumers by the year 2018-19, as envisaged under the Power for All Roadmap. The State has demonstrated its commitment to achieve

operational and financial turnaround of its utilities and has become the first State in the Country to sign the Ujjwal Discom Assurance Yojna (UDAY).

The Power for All (PFA) program is a joint initiative of the Government of India (GoI) and the State Governments aiming to achieve 24 X 7 availability of reliable power to all households, industrial & commercial establishments and all other electricity consuming entities by the end of the year 2018-19.



Jharkhand State Solar Policy 2015

The Government of Jharkhand has recently notified a draft for a new solar policy. The new policy will be known as the Jharkhand State Solar Power Policy 2015. This new Policy will be in operation for five years from the date of issuance and will remain operational till modified or superseded by a new policy.

Objectives of the Policy:

The Policy targets to achieve 2500 MW of solar energy by 2020 with an objective of promoting local manufacturing facilities and generating employment in the State.

Minimum Target: The minimum size of the solar PV power plant at single location shall be 1 MW. The targets of the policy are elaborated below.

Table 9.14: Targets of the Jharkhand State Solar Policy

Description	Unit	FY 16	FY17	FY18	FY19	FY20	Total
Solar Photovoltaic Power Plants	MW	50	200	500	500	750	2000
Rooftop Solar Power Plants	MW	25	50	100	125	200	500
Solar Thermal Power Plants	MW	5	10	10	10	15	50

Source: Jharkhand State Solar Power Policy 2015

Implementation of the Plan

1. Utility Scale Projects:

- Development of Solar Power Plants for Sale of Electricity to the Distribution Licensee.
- Generation of Solar Power for Sale of Electricity to Third party or through Open Access.
- Development of Solar Parks.
- Development of Solar Power Plants under REC Mechanism.
- Development of Solar Power Plants on Canals.
- Development of Solar Power Plants under the schemes announced by the Government of India.

2. Rooftop Solar Photovoltaic Power Plants Connected with Electricity System:

- Development of Solar Power Plants for sale of electricity to the distribution Licensee.
- Generation and sale of electricity to a person/entity other than distribution licensee via Open Access mode.

- Generation, Captive Consumption and injection of surplus electricity under Net Energy Metering Mechanism.
- 3. Decentralized & Off-Grid Solar Applications: The Government will also promote decentralized and off grid solar applications, to meet the requirements of electricity and thermal energy, as per the guidelines issued by the Ministry of New and Renewable Energy, Govt. of India.

Incentives Offered:

- Exemption from the payment of Electricity Duty.
- Deemed Industry Status will be provided.
- Pollution Clearance.
- Open Access will be allowed.
- Exemption from payment of Conversion Charges.
- Exemption from the payment of VAT & Entry Tax.
- Exemption from wheeling Charges.
- Exemption from Distribution Losses.

- Exemption from payment of Cross Subsidy Surcharge. Banking for 100 percent of energy during all the 12 months of the year.
 - Third Party Sale within or outside the State will be allowed.
 - Must run status for Solar Power Projects.
 - Renewable Energy Certificate (REC).
 - Deemed Public Private Partnership (PPP) Status.
 - Non-Agriculture Status for the land where Solar Power Projects will be accorded.
3. In the potential categories to be notified like star hotels, hospitals, and residential complexes with more than 50 KVA total connected loads, the use of solar water heating system shall be made mandatory.

Apart from all this the Government also intends to promote solar manufacturing and R&D facilities in the State. Incentives to such manufacturing facilities will be provided separately. JREDA will act as the Nodal Agency for all projects.

Overall the policy offers good number of incentives to the project developer, in terms of tax relaxations, must run status, exemptions from various charges etc. The policy proposes to increase the Solar Purchase Obligation (SPO) to 4 percent for the consumers, which is 1 percent for now (as per JERC orders 2012). It also puts obligation for consumers to use the decentralized solar applications, which appears to be a good approach.

It looks promising and offers a fresh start for the State, which hasn't seen much of the capacity addition in the solar energy sector. The State is having a total potential of more than 18 GW of solar energy. Out of this potential, a target of 2.5 GW can be achievable, given that the State Government works positively towards it.

Solar Purchase Obligation (SPO):

1. Solar Procurement Obligation (SPO) will be mandatory for the commercial consumers with LT Industrial connection with more than 50 kVA connected load and for all HT & EHT consumers. All such consumers have to procure 4 percent of their power from solar sources.
2. All new domestic buildings having floor area equal to or greater than 3000 sq.ft will have at least 100 kw Solar PV system. In case of Housing Societies, 5 percent of energy usage for common amenities should be from solar sources.

Box 9.1: Atal Gram Jyoti Yojna and Tilka Manjhi Grameen Krishi Pump Yojna

Under the ambitious scheme of Jharkhand Govt. A.P.L, B.P.L, and medium/marginalised farmers of all the 81 areas of the legislative assembly will be given free electricity connection. Under both the schemes, villages would be selected by the MLAs. For the execution of the schemes, executive agencies are selected in all the electricity supplying areas and offices have been established, manpower has been recruited and survey has been started. Under the ATAL GRAM YOJNA, 364500 beneficiaries of APL and BPL and under the TILKA MANJHI GRAMEEN KRISHI PUMP YOJNA, 303750 beneficiaries will be given electricity connection. The goal of giving electricity connection to the selected beneficiaries - 121500 and 101250 respectively - has been decided for FY 2016-17 and rest will be benefitted in the next FY plan. For both the schemes the State Government has allocated Rs.100 Cr. in the FY 2015-16 and for the next FY 2016-17 there is provision of allocation of Rs.100 Cr.

RAILWAYS

Railways constitute a significant part of the transport network and provide connections on multiple fronts: industrial production centres get connected with markets as well as with sources of raw materials for facilitating industrial development, and the agricultural production centres are connected with the distant markets. Railways link places, enabling large-scale, rapid and low-cost movement of people across the length and breadth of the

country. In a growing economy like Jharkhand, railways undoubtedly have an important role to play in promoting the development of the backward areas and it is with this view that the State Government has accorded high priority to expand the rail network in the State.

The Government of Jharkhand has signed a Memorandum of Understanding with the Ministry of Railways, under which 6 new railway projects have been started.

Table 9.15: New Railway Projects

Name of the Project	Length
Ranchi-Barkakhana-Hazaribagh-Koderma	203 km
Ranchi-Lohardaga (Extended upto Tori)	113 km
Koderma-Tilaiya	14 km
Koderma-Giridih	111 km
Doeghar-Dumka	60 km
Dumka-Rampurhat	64 km
Total Length	565 km

Source: Annual Plan, 2016-17

CIVIL AVIATION

The basic challenge of the State with respect to civil aviation is to set a new horizon for development in every sphere of State administration. There are a number of proposals for the enhancement and improvement of civil aviation facilities. One of the most projected developments is in the retrieval and up-gradation of the State owned aerodromes, helipads and base infrastructure. Another objective in the priority list of the State is setting up of proper training base in order to implement the existing programmes of enabling the youth to get employment in the aviation sector. This also includes the construction and equipage of a multi-disciplinary aviation academy and infrastructure set up at Dumka, Palamu and Chaibasa.

State Schemes on Civil Aviation

- Land acquisition for the development of Deoghar International Airport
- Establishment of flying academy at Dumka
- Aero Modelling and Aero Sports

TRANSPORT AND COMMUNICATION

New Initiatives to be implemented in the field of transport and better mobility are as follows:

Heavy Motor Vehicle Driver Training Institute and Skill Development Programme

A joint venture (PPP mode) has been made with Tata Motor company in Jamshedpur to establish the Heavy Motor Vehicle Driver

Training Institute. The detailed plan and DPR has been submitted at the Centre. In view of the Skill India Mission, a proposal to establish Heavy Motor Driver Training Institute in 10 acres of land under PPP Mode at Dhanbad, Saraikela-Kharasva and Deoghar have been submitted to the Government.

Rural Bus Services

Connectivity of the rural areas with that of the urban is an essential component for the development of a region as a whole. To connect rural Jharkhand to the zila headquarters and to provide better transport facilities, a rural bus service is proposed to be developed. The number of ways/roads to be identified would be 63 in Dumka, 55 in Hazaribagh, 35 in Palamu and 83 in Ranchi.

Superfast AC Delux Bus Service

On the occasion of Jharkhand Foundation Day, 15th Nov 2015, a superfast AC Delux bus service was launched. For this, 5 vehicle permits for Ranchi to Tata, 7 vehicle permits for Ranchi to Hazaribagh, 1 vehicle permit for Dhanbad to Hazaribagh, and 2 vehicles permits for Ranchi to Giridih have been issued. Soon, these services will be spread over the other regions of the State also, so that all the areas are connected to the headquarters.

Road Safety

The Jharkhand Government Road Safety Policy 2015 was established in order to reduce accidents and to make the roads safer. The road safety officials as well as the police department will be provided with modern equipment like

alkometer etc. C.C.TVs will be provided so that the people disobeying the traffic rules can be caught. The hoardings that cause difficulty for the commuters would be removed.

Improvements in the Auto Services

In the area under the Jharkhand Municipal Corporation and even outside, the colour of the autos were changed. The colours of the autos were decided so that it becomes easier for the people to commute. For example, autos for both male and female passenger are that of green colour and those driven by women for women passengers are of pink colour.

Equipments for Enforcement of Traffic Rules and Acts

To achieve the target of advanced quality of services at par with national standards, and for the arrangement of regular fitness checking of vehicles through modern equipment, a sum of Rs 1.20 crore was supposed to be spent during the financial year 2013-14 and an outlay of Rs 35.00 lakh was proposed for the financial year 2014-15.

Information Technology & e-Governance

The Department of Information Technology of the State has been functioning as an independent entity since June 2003. Prior to this, the functions of the department were clubbed together with the Department of Science & Technology. The details of the plan allocation and expenditure are shown in the table below. It can be seen that in the year 2015-16, the utilisation was 88 percent, the highest in the years.

Table 9.16: Utilisation pattern of the IT department

Financial Year	Provision (Rs Crore)	Expenditure (Rs Crore)	Utilization
2007-08	52.97	50.74	95.79
2008-09	70.00	48.95	69.93
2009-10	23.08	11.19	48.48

Financial Year	Provision (Rs Crore)	Expenditure (Rs Crore)	Utilization
2010-11	38.28	29.35	76.67
2011-12	61.00	12.15	19.92
2012-13	37.66	19.09	50.69
2013-14	98.27	85.24	86.74
2014-15	120.00	59.38	49.48
2015-16	121.55	107.00	88.03
2016-17	184.38	184.38(Anticipated)	100 (anticipated)

Source: Department of Information Technology and E-Governance, GoJ

Key Achievements

The Department of Information Technology, Government of Jharkhand, has established JharNet, Pragya Kendras (Common Service Centres), Video conferencing facilities in jails and courts for trial of prisoners from jails and also computerized land registration and treasury offices along with commercial taxes, e-Nagarik and e-District to enable citizens to request for online delivery of services and receive them particularly in respect of various certificates viz. caste, income, residence, birth, date etc. Some of the salient achievements are enumerated below:

- General public has been provided “e-Nagrik Service” for birth and death certificates, Income certificates and Residential certificates through Common Service Centres in the Panchayats. Banking services like Payment Bank and other e-Governance services are also being provided through Common Service Centres.
- All the Registry offices situated in the State have been fully computerized. Hence, the registry documents are issued to the party on the same day.
- The video conferencing system has been established in District Courts and Jails of the State. Nowadays, prisoners need not present themselves in the court physically because the trial facilities are arranged through video conferencing directly from the jails.
- The e-Procurement scheme has been started in government departments. In this process, any eligible tender can be filed from any corner of the country or the world. This is done through the use of digital signatures.
- All Treasuries and Sub-treasuries of the State have been computerized. All Data from treasuries and sub-treasuries are transferred directly to the State Data Centre. The GPF accounts of the government employees are available online anytime. The financial transactions of all treasuries and sub-treasuries can be viewed in minutes. New computers and its peripherals have been installed for smooth functioning of treasuries.
- CCTVs have been installed in all district/sub-divisional jails. These are IP cameras, therefore, it is possible to monitor movements as well as check visitors centrally. e-MULAKAT solution facilitates offsite meeting between prisoners and their visitors through video-conferencing.
- NKN & Jharnet - NICNet integration with Jharnet. This has improved robustness & redundancy to Jharnet Network & further enabled a wider range of video-conferencing and other services.
- Electronic publication of Gazette has been made mandatory. Paper publication of the same has been discontinued with

effect from 10th December 2012.

- Electronic Service Delivery Rule 2013 has been published making online delivery of services mandatory and departments and organizations undertake conscious efforts for it.
- Jharkhand Space Application Center (JSAC) has hosted Geo Data base and Village Profile for the entire State.
- JSAC has hosted online Ground Water Prospect Map for the use of concerned offices/departments and public to mitigate the water scarcity in the State by scientific management through quick decision support system.
- JSAC has integrated land records (Khatan and Cadastral/Revenue Maps) and hosted those online.
- JSAC is monitoring satellite based crop status and has hosted it online.

JSAC has developed e-Panchayat having ward level digital data for gram panchayat, panchayat samiti and zila parishad.

- Human Resource Management System (HRMS): The scope of work consists of replication of Manav Sampada- A Green Governance Tool for Human Resource Management within the State of Jharkhand by the Himachal Pradesh State under the Rapid Replication System of Deity. Presently, this project is being implemented and managed by Personnel, Administrative Reforms & Rajbhasha Department.
- Attendance System - Aadhaar Based Attendance System has been implemented from 01.01.2014 in all the Government buildings like Project Building, Nepal House, FFP Building, Board of Revenue, HTI Building, Van Bhawan, SKIPA (ATI), SIRD, Suchna Bhawan, DC Offices,

Blocks, Government Hospitals, Govt ITIs and Polytechnics, BIT Sindri, 300 listed Government Secondary schools and Kasturba Vidyalayas, etc. The system utilizes Aadhaar authentication system of UIDAI. The system works on multiple platforms (Windows, Android, etc.) and form factors (Laptop, Desktop and Tablets, etc.) It is an easily implemented system. The system ensures proper employee attendance, leave management, tracking of attendance, prevention of forgery in attendance.

- Computerization of Law Department & AG Office - This Software is first of its kind in the Country. Through this software digitization of filed cases are being carried out. All the Departments can download/view the digital copy of filed cases / case status / judgments online on the dedicated portal vidhi.jharkhand.gov.in. Online Affidavit Management System has also been incorporated in this portal.

Box 9.2: Jharkhand Integrated Mines & Minerals Management System (JIMMS)

The project was initiated during 2013. The Phase-I Pilot was implemented for MIS Module in the month of October 2015 for all the district mining offices. In this module the statutory details like Grant of Lease / License, Mining Plan approval, Forest Clearance, Environment Clearance, Surface Right Grant data of mines were collected. After data collection the same were verified and validated by the concerned Mining Officer. Then the Pilot of Dues Clearance Certificate and Dealer Registration will be implemented.

Key result areas (KRA) and Key performances indicators (KPI) of the system :

SL	EARLIER PROCESS	EXISTING JIMMS PROCESS
A)	Mines statutory clearance data was referred from their individual hard file	It is auto checked from MIS database for any type of transaction
B)	Representative of Lessee/Dealers was submitted transit permit request in hard copy at the local mines office and doing follow-up every day	Lessee/Dealers can apply online Transit Permit from their own office and gets the application status online from the application
	Mining office checks all statutory clearances from the files, which is a cumbersome process and delay	At the time of application submission online system checks all required statutes from MIS database automatically.
C)	Mining dues application fees and royalty paid through manual challan at the local Treasury office after endorsement/recommendation by local mining office in the challan form	Lessee/Dealers can pay application fee, required royalty through online payment from any of their bank account without any hassle.
D)	Delay in the manual file movement, if the designated officer is in leave for some days	System has the facility to delegate power and re-assign job for faster delivery of the Transit Permit
E)	No accountability in delay file movement and approval process	Officers are accountable for delay in approval process
F)	Less No. of Permit was issued due to time constraint in finding eligibility for getting Permits	As the regulatory system is automated, system allows to issue permits without delay and as a result efficiency in issuing transit permits has improved a lot.
G)	After issuance of Permit, authorized user needs to collect the required Transit Pass Book from the mining office	After issuance of permit, System will calculate the required Transit Passes and allow to the mines to start dispatch
H)	Anybody can forge the manual TP and misuse the Passes for illegal transportation	1D , 2 D barcode is introduced, where the barcode can store all information of the mineral dispatched
I)	Difficult to authenticate the real Transit pass issued at the mines, in case of mobile squad checking or at the Govt. Check gate	By reading the 1D, 2 D barcode or by using mobile technology the transit Passes can be authenticated at any place
J)	No facility to have a second level authentication process, unless physically verified the transit Pass book from the Mines end	Call center facility has been introduced to checked any transit pass from any place by using a specific Toll free Number

K)	Difficult to trace the actual quantity dispatched to destination, unless until it is physically reported at the mining office	Easy to trace the actual dispatch at any point of time from the System
L)	In case of Rail Transport, lessee/dealers needs to take a permission in shape of Forwarding from mining office then submit it to the Station Master for Rake indent	As the Mine Portal (JIMMS) is integrated with Indian Railway System (FOIS), once the Permit issued, mines portal pushed the permit information to FOIS and Rake Indent made on this basis
M)	Monthly return on mineral dispatch needs to be done manually	Mineral dispatch report auto generated by the system and asked for confirmation before final submission
N)	No facility and difficult to get the actual quantity exported through Ports and the destination	As Mines Portal is integrated with all Ports and it is very easy to track the actual export figure through individual Ports.

Key Achievements and Initiatives taken up in the Year 2016-17

- e-District: Portal “JharSeva” (e-District) is live with 54 services. More than 10 lakh applications have been processed. Caste, income, birth, death and resident services have been rolled out in 23 districts. EDM hiring has been completed in 21 out of 23 districts to support e-District roll out. Help desks have been established in all the districts. A central helpdesk is also placed in Ranchi to provide support. Jan Suidha Kendras have been established in all the districts where applications are processed free of cost. Necessary hardware is being procured in required areas to facilitate smooth execution of e-District services.
- e-Mulakat: With reference to the subject captioned above, e-Mulakat project being implemented by JAP-IT will provide video conferencing solution independent of device .i.e. can be accessed through windows laptop/desktop and will work on any internet connectivity. It will be reliable and secure communication facility and support the Government administration in day-to-day work, decision making and bring speed, efficiency, reliability and accountability in overall system of Government-to-Government (G2G) and of Government-to-Citizen (G2C) functioning.
- The bidder process has been completed and the software is under testing. During testing e-Mulakat has been used during e-inauguration of Legal Literacy Club on 10.12.2016. This technique can be used to carry out 10,000 live video conferencing and 500 concurrent video conferencing.
- Common Service Centre (CSC): As per the guidelines of the GOI, Jharkhand has established 4693 (4460 Rural + 233 Urban) CSCs. 1117 CSCs are being operated through Panchyat Bhawan. 3560 CSCs are currently operational and providing services to citizens. In Jharkhand, 4562 Gram Panchayats (GP) are there in 24 districts and it is mandatory to have one CSC in each GP, which has been complied too. These CSCs are currently managed by three SCAs (AID, BASIX and UTL) working in five divisions (Ranchi, Hazaribagh, Kolhan, Palamu and Dumka). JAP-IT is the nodal

agency of the Government of Jharkhand, of IT Department for the implementation of CSC scheme in Jharkhand. With the various initiatives undertaken by the Central/Jharkhand Government, such as ICT infrastructure development- JHARNET, NOFN, e-District, e-Nagrik etc. & various services available through MMPs under NeGP, the Government is envisaged to deliver these end-to-end services to the citizens in an integrated manner.

- JharNet: The Government of Jharkhand had conceptualized & setup the Jharkhand State Wide Area Network (JharNet) during the period 2005–2006. This network primarily acts as the communication setup for the Government of Jharkhand for Government-to-Government (G2G) services. The current JharNet network operates at multiple levels, with the State Capital Ranchi functioning as the State Head Quarters (SHQ) with the connectivity extending vertically to 24

District Head Quarters (DHQs), further to 37 Sub-Divisional Head Quarters (SDHQs) and also 214 Block Head Quarters (BHQs). Approximately, 1700 Government Offices at SHQ, DHQs, and SDHQs are also connected horizontally to the respective SHQ, DHQs and SDHQs. JharNet provides data, voice & video Services up to districts and data & voice services up to BHQs.

- WAMIS (Works and Accounts Management Information System): Government of Jharkhand has decided to implement Works and Accounts Management Information System (WAMIS) for five user Departments, namely Rural Works, Water Resources, Drinking Water & Sanitation, Road Construction and Forest & Environment, in the first phase. WAMIS has been developed by C-DAC, Pune. This system will effectively help in end-to-end computerisation of the works-departments with e-Procurement.

Box 9.3: Establishment of IT Park

Government of Jharkhand is very keen to setting-up IT Park in the State for providing facilitation to IT/ITES industries. As per the indicator, the IT / ITeS Industry in India is one of the primary growth engines for the Indian economy and has contributed 8% to India's GDP in the FY 2013. The industry has transformed India's image on the global platform and fuelled economic growth by energizing higher education sector (especially in engineering and computer science). The industry directly employs 25 million Indians contributing to social transformation in the country. Government of Jharkhand would also like to contribute in this way of establishment of IT Park in the State. Approx. 170 acres of land in HEC area has been identified for the establishment of IT Park.

- IIIT: Total 34 students have been admitted in IIIT Ranchi in ECE & CSE Branch for the session 2016-17. Classes have already started in Mentor Institute, NIT Jamshedpur. Hostel facilities are being extended to all candidates.
- Skill Development (Programme for Youth): Under the Free Coaching Scheme, Free Training is being imparted by C-DAC & NIELIT to SC/ST Candidates for increasing the employability of the youths. C-DAC has its own training centres at Ranchi and Dhanbad, whereas

NIELIT has started training at 10 districts of the State. C-DAC has completed the training program for 146 candidates and training of 129 candidates is in progress. NIELIT has also completed the training to 320 candidates out of 600 candidates. Further payment to both the agencies will be made on the basis of the voucher produced by both the agencies.

- Ranchi City Wi-Fi: In line with the “Digital India” initiative of the Government of India, Department of IT and e-Governance, Government of Jharkhand, has taken the initiative to create Wi-Fi hotspots in Ranchi to transform it into a Wi-Fi city. The City Wi-fi Project has progressed from floating of EoI to publishing the tender, after thorough discussions regarding viability and technical aspects of the project with vendors.
- BharatNet: The project is in the first phase (OFC laid in 1257 GPs out of 1417 GPs) and BSNL is providing connectivity in seven districts – Ranchi, Ramgarh, Hazaribagh, Koderma, Bokaro, Deoghar and Sahebganj. Phase 1+ has also started in districts namely Dhanbad, East Singhbhum, Giridih, Latehar, Lohardaga and Palamu. Rest 11 districts are under Phase II where work will start after completing Phase I and Phase 1+. According to the new guidelines from the Central Government; OFC will be placed overhead in BharatNet Project. A Special Purpose Vehicle (SPV), “Jharkhand Communication Network Ltd”, has already been formed for the implementation of the BharatNet Project in Jharkhand..
- Payment Gateway: Department of Information Technology & e-Governance, Government of Jharkhand, has introduced and implemented the Common Payment Gateway System in the year 2013 for

various Departmental Applications which delivers online services to the citizens at their door-steps with the help of National Database Management Ltd (NDML). NDML, on behalf of DIT, has created a common infrastructure that is used by States/Departments to offer various services through their State portals with a facility to make online payments. Following departments have implemented the Online Payment Gateway System in their applications to collect fee ,taxes, royalty etc:-

- Registration Department
- Commercial Taxes Department
- Transport Department
- Exam Board Department
- Jharkhand Generic Portal
- Mines Department
- Urban Department
- Ranchi Municipality
- JAP-IT
- Tourism Department

And many more are in the pipeline to be integrated with this service viz. Agriculture Department, Building Construction Department etc.

- Cyber Security: It has been proposed to establish Jharkhand Cyber Co-ordination Centre (JC3) in the State. CDAC, Pune has been asked to submit the proposal for establishment of Cert-Jhar.
- Crisis Management Plan for Countering Cyber Attacks and Cyber Terrorism outlines a framework for dealing with cyber incidents for a coordinated, multi-disciplinary and broad approach for rapid identification, information exchange, swift response and remedial actions in order to mitigate and recover

from malicious cyber related incidents impacting critical business functions and processes of the Government of Jharkhand. Apart from this, the other purposes are: -

- a. To ensure that interruption or manipulations of critical functions/services in critical sector organizations of the State are brief, infrequent and manageable and cause least possible damage.
- b. To enable respective Administrative Departments to draw-up their own contingency plans in line with Crisis Management Plan for countering cyber-attacks and cyber terrorism, equip themselves suitably to implement, supervise implementation and ensure compliance among all the organizational units within their domains.
- c. To assist organizations to put in place the mechanisms to effectively deal with cyber security crisis and be able to pin point responsibilities and accountabilities to individual level.

This plan takes into consideration the crisis that occurs due to cyber security incidents and breaches, and presents a broad approach to deal with such crisis. The approach and methodology of this Crisis Management Plan are derived from the "Crisis Management Plan for Countering Cyber Attacks and Cyber Terrorism" prepared by the Department of Electronics and Information Technology (DeitY), Government of India.

The field of cyber security is technology intensive and new vulnerabilities emerge with progress in technology giving rise to new types of incidents. As such, the plan of response to cyber security incidents needs to be updated

on regular basis, preferably once in a year.

The Crisis Management Plan for Countering Cyber Attacks and Cyber Terrorism describes the following aspects:

- a. The Critical Sectors, Nature of cyber crisis and possible targets and impact of particular type of crisis on these targets.
- b. Crisis due to focused cyber-attacks affecting the organisations in critical sector such as Defense, Energy, Finance, Space, Telecommunications, Transport, Public Essential Services and Utilities, Law Enforcement and Security.
- c. Different Types of cyber crisis described include Large-scale defacement and semantic attacks on websites, Malicious code attacks, Large scale SPAM attacks, Spoofing, Phishing attacks, Social Engineering, Denial of Service (DoS) and Distributed DoS attacks, attacks on DNS, Applications, Infrastructure and Routers, Compound attacks and -High Energy RF attacks.
- d. Measures to be taken at the organisational level for enhancement of security posture of Information and Network including implementation of Information Security Best Practices based on ISO 27001 standard, provisioning for Business Continuity Plan and/with Disaster Recovery, Awareness building and Security Training
- e. Incident handling and management, sharing of information pertaining to incidents and conducting mock drills to test the preparedness of Critical Infrastructure organisations to withstand cyber-attacks.
- f. Setting up of CERT Jhar and PMU to monitor day-to-day activities.

Box 9.4: Future Initiatives

E-Office: The rapid transformation in electronic delivery mechanism necessitated the requirement for increasing efficiency in government processes and service delivery mechanism by including e-Office as a core Mission Mode Project (MMP) under the National e-Governance Plan (NeGP), Department of Electronics Information Technology of India.

e-Office facilitates Anywhere/Anytime office, making it paperless with seamless transfer and common responsibility. It provides faster access and single authorization, saving time as well as ensuring quality. It make possible for the Government to connect, communicate and collaborate as a single entity.

GoJ intends to implement e-Office, which requires to be developed for GoJ before implementation & maintenance. DoIT, GoJ will be the Nodal Department and JAP-IT will be the Nodal Agency to implement this project in Jharkhand.

The e-Office product will be a suite of applications for conducting office procedures electronically which is expected to transform government functioning to a more efficient mode. It is developed as a standard reusable product amenable to replication across the governments; at the central, state and district levels. Some of the state Government has already implemented the e-Office application along-with selected Ministries and Central Government Departments. The proposed e-Office application has number of features which may smoothen/simplify the government process of file movements. It may also compyl in various Indian languages. The feature is essential since many state governments are transacting bilingually, in English and in the local language.

Box 9.5: All Jharkhand IT Talent Search (UDAAN)

All the four phases of the IT Talent Search Tests have been successfully completed on 14.11.2016. A total of 102 participants have been selected for according the scholarship.

Box 9.6: Move towards a Cashless Society

Distribution of mobile phone under Cashless Jharkhand Mission: The State Government has decided to distribute one lakh smart phones to the deprived section of the State in order to encourage the Cashless transactions. For the above purpose a total of Rs. 30 Cr. is proposed for the FY 2017-18. Under this scheme, a number of new schemes of State level importance are added from time-to-time viz Cashless Jharkhand (Smart Phones) & Others.

Wi-Fi Hotspot in LWE affected Areas: Ministry of Home Affairs, Government of India has approved a scheme for providing network connectivity in LWE affected areas across the country. A total of 782 sites have been selected for the same in the State. BSNL has been authorized to erect the Mobile towers in those areas. Till now, almost all the mobile towers are functional.

The State Government has decided to develop those sites as High Speed Internet Hubs. It would benefit the local Rural residents as well, thereby achieving the objectives of Digital India and Cashless Jharkhand Campaigns.

CONCLUSION

Extensive and efficient infrastructure is critical for ensuring the effective functioning of the economy, as it is an important factor determining the location of economic activity and the kinds of activities or sectors that can be developed in a particular economy. In addition, the quality and extensiveness of infrastructure networks significantly impact economic

growth and affect income inequalities and poverty in a variety of ways. Considering the catalytic role played by infrastructure in accelerating the economic growth, the Government of Jharkhand is committed in its efforts to improve and expand infrastructure in the State through numerous projects and programmes in a bid to bring it at par with the national standards.

10

LABOUR AND
EMPLOYMENT



In the era of automation and technological revolution, generating employment opportunities and equipping the labour force to grab those is a major challenge. The Government of Jharkhand has shown perseverance to counter this challenge by improving upon the continuing programme as well as by taking new initiatives. The state government is fully committed to labour welfare and hence is always active in increasing the coverage of social security measures for workers working in organized as well as unorganized sectors. At the same time it is equally concerned about the welfare of senior citizens and the unemployed youth of the state.

In line with the stated challenges and objectives the state is actively implementing all centrally sponsored labour welfare programs, viz. *Atal Pension Yojana, National Pension Scheme, Deen Dayal Upadhyaya Grameen Kaushalya Yojna, INSPIRE Programme, Mahatma Gandhi National Rural Employment Guarantee Act, Pradhan Mantri Kaushal Vikas Yojna, Pradhan Mantri Suraksha Bima Yojana, Pradhan Mantri Jeevan Jyoti Bima Yojana, etc.*

In addition to the centrally sponsored schemes the state is also running several welfare schemes of its own taking into consideration the specific needs of its citizens. Some of them are, Lac Development Scheme for Schedule Tribes whose objective is to provide additional income to poor tribal families, Ambedkar Technical Scholarship in which scholarship is given to SC students to help them in pursuing their technical education, Vocational training scheme for Paharia Primitive Tribe to promote employment/self employment, Training and Extension Scheme for Milk Producers to train the milk producers of rural areas by different methods, etc.

Status of Employment in Jharkhand

Largely the two sectors- public and private have been used to estimate the current magnitude of employment by the Directorate General of Employment and Training, Ministry of Labour & Employment GOI for the country as well as for the states. Table 10.1 shows the status of employment in Jharkhand.

Table 10.1: Estimated Employment in the Public and Private Sectors in Jharkhand

(As on 31st March) ('000 number)								
Year	Central Govt.	State Govt.	Quasi Govt.		Local Bodies	Act Estts.	Non Act. Estts.	Grand total (Col.2 to Col.8)
			Central	State				
1	2	3	4	5	6	7	8	9
2009	87	179	915	42	19	282	30	1554
2010	96	177	936	43	19	301	35	1607
2011	89	183	939	40	19	271	30	1571
2012	89	184	936	40	19	279	31	1578

Source: Directorate General of Employment and Training, Ministry of Labour & Employment, GOI

The overall employment which was around 15, 54, 000 in 2009 became 15, 78, 000 in 2012 with an increase of 24, 000 jobs. The public

sector is the dominant employer in the state. However, the private sector is also playing a significant role.

Status of Unemployment in Jharkhand

As per the Report on Fifth Annual Employment - Unemployment Survey (2015-16), Ministry of Labour & Employment, Labour Bureau, Government of India, the Unemployment Rate based on Usual Principal Status approach was estimated to be 5 per cent at the All India level for in other words about 5 per cent of the persons who were available for work during the reference period, and could not get work and remained unemployed. During the same reference period, Jharkhand has an unemployment rate of 7.7 per cent which is higher than the all India average.

Workers and Work Participation Rate (WPR) in Jharkhand

There are three categories of workers- Main, Marginal and Non-workers in our Census Reports. The main workers are those who were engaged in any economically productive activity for 183 days (or six months) or more during the year whereas, the marginal workers are those who worked for less than 183 days (or six months). The total workforce is the aggregate of main and marginal workers and WPR is defined as the ratio of total workforce to total population. Table 10.2 shows the figures of workforce and WPR for Jharkhand along with India.

Table 10.2 : Workers and Work Participation Rate -Jharkhand & India (Persons)

Jharkhand						
Census Year	Workforce			Work Participation Rate		
	Total	Rural	Urban	Total	Rural	Urban
2001	10109030	8569591	1539439	37.516122	40.900893	25.6841095
2011	13098274	10777152	2321122	39.706017	43.013852	29.2588447
India						
2001	402234724	309956070	92278654	39.104675	41.745452	32.2517665
2011	481888868	348743092	133145776	39.797406	41.828315	35.307243

Source: Computed on Census Report 2001 and 2011, General Economic Tables- B series

The temporal analysis of total workers of Jharkhand and India explain that the work participation rate has registered a continuous increase in the last two decades. As per 2001 census the total WPR in Jharkhand was 37.5 and it was less than the national average (39.1). However, as per 2011 census, it is almost equal. Although, the Urban WPR in Jharkhand has improved between 2001 to 2011, from 25.6 to 29.2 but, it is still lower than the national average which is 35.3. It is also noticeable here that the rural WPR is better than the urban WPR at both levels in Jharkhand and in India.

Percentage of Main and Marginal Workers to Total Workers

It helps in understanding the changes in the nature of additional employment opportunities created. If an increase in WPR is taken as an increase in employment opportunities then an increase in the ratio of marginal workers to total workforce will certainly mean an increase in frictional or seasonal employment. Table 10.3 reveals the above stated phenomenon in Jharkhand as well as at the national level.

Table 10.3: Percentage of Main and Marginal Workers to Total Workers

Jharkhand						
Census	Main			Marginal		
	Total	Rural	Urban	Total	Rural	Urban
2001	63.77251	59.57508357	87.1383	36.22749	40.42492	12.8617
2011	52.0572	45.34444722	83.22505	47.9428	54.65555	16.77495
India						
2001	77.8165	73.94162405	90.83187	22.1835	26.05838	9.168126
2011	75.23842	70.50130214	87.64615	24.76158	29.4987	12.35385

Source: Computed on Census Report 2001 and 2011, General Economic Tables- B series

There has been a sharp decline in the ratio of main workers to total workforce from 2001 to 2011 in Jharkhand as compared to the national average. Similarly the proportion of main workers to the total workforce is quite low- only 52.0% in Jharkhand compared to 75.2% of the national average in 2011. This highlights either the scarcity of regular employment opportunities or the inability of the workforce to grab all types of additional employment opportunities created in the state.

Gender-wise Work Participation Rate (WPR) in Jharkhand

Table 10.4 shows that the overall female WPR rate is better than the national average and is improving. However, the female main WPR is poor compared to the national level. In 2001 it was 38.0 and declined to 33.8 in 2011 whereas, the national average has increased from 57.2 to 59.6 over the same period.

Table 10.4 : Gender-wise WPR in Jharkhand

Jharkhand						
Census	Overall		Male		Female	
	Male	Female	Main	Marginal	Main	Marginal
2001	65.88026744	34.11973256	77.0897599	22.9102401	38.0588222	61.9411778
2011	64.31968823	35.68031177	62.13157892	37.86842108	33.89646529	66.10353471
India						
2001	68.37163964	31.62836036	87.32188083	12.67811917	57.26853323	42.73146677
2011	68.88307596	31.11692404	82.30706721	17.69293279	59.59066027	40.40933973

Source: Computed on Census Report 2001 and 2011, General Economic Tables- B series.

Ranking of Districts by Work Participation Rate

Table 10.4 shows the inter-district variation in terms of Work Participation Rate in Jharkhand and their relative improvement over the

years. New districts like Khunti and Simdega have topped the ranking list in 2011 whereas, Gumla the number one rank of 2001 ranking, slipped to number four in 2011.

Table 10.5 : Ranking of Districts by Work Participation Rate : 2001-2011

Rank	WPR	State, Districts	WPR	Rank
2011	2011		2001	2001
	39.70602	Jharkhand	37.51612	
1	48.87974	Khunti	NE	NE
2	48.14136	Simdega	NE	NE
3	47.92915	Lohardaga	42.07522	5
4	47.55187	Gumla	48.92613	1
5	47.28009	Dumka	44.23603	2
6	46.25211	Pashchimi Singhbhum	44.06372	4
7	44.93271	Pakur	44.12012	3
8	43.19912	Garhwa	38.91212	8
9	43.10708	Latehar	NE	NE
10	42.60525	Sahibganj	41.82556	6
11	42.3753	Giridih	33.84971	16
12	42.03803	Godda	40.26389	7
13	41.29123	Jamtara	NE	NE
14	40.37825	Saraikela-Kharsawan	NE	NE
15	39.21646	Ranchi	38.66712	9
16	38.1336	Chatra	37.79317	11
17	37.74217	Hazaribagh	34.68969	15
18	36.95979	Deoghar	37.1304	12
19	36.76408	Palamu	37.82279	10
20	36.49505	Purbi Singhbhum	34.93032	14
21	35.93923	Kodarma	35.04384	13
22	33.2327	Bokaro	28.65055	17
23	32.87454	Ramgarh	NE	NE
24	31.45867	Dhanbad	27.70253	18

Source: Directorate of Employment and Training, Government of Jharkhand

Role of Employment Exchange in Guiding the Youth of the State

The employment exchange of Jharkhand is committed to provide help in securing deserving employment opportunities to the eligible youth of the state. With this objective, it is working hard to organize Rojgar Mela, Recruitment Camp, and Career Counselling camps at regular intervals in different districts and towns of the state. In order to facilitate

the process, the state has 47 such offices, including four administrative offices of the Deputy Director and three Special Exchanges for the physically handicapped each at Ranchi, Bokaro, and the 'Steel City' of Jamshedpur. There is one Special Employment Exchange for women in Ranchi, one Special Exchange for candidates from the Scheduled Castes/ Scheduled Tribes (SCs/STs) in Dumka and one Executive Employment Exchange for technical degree holders in Ranchi which also provide

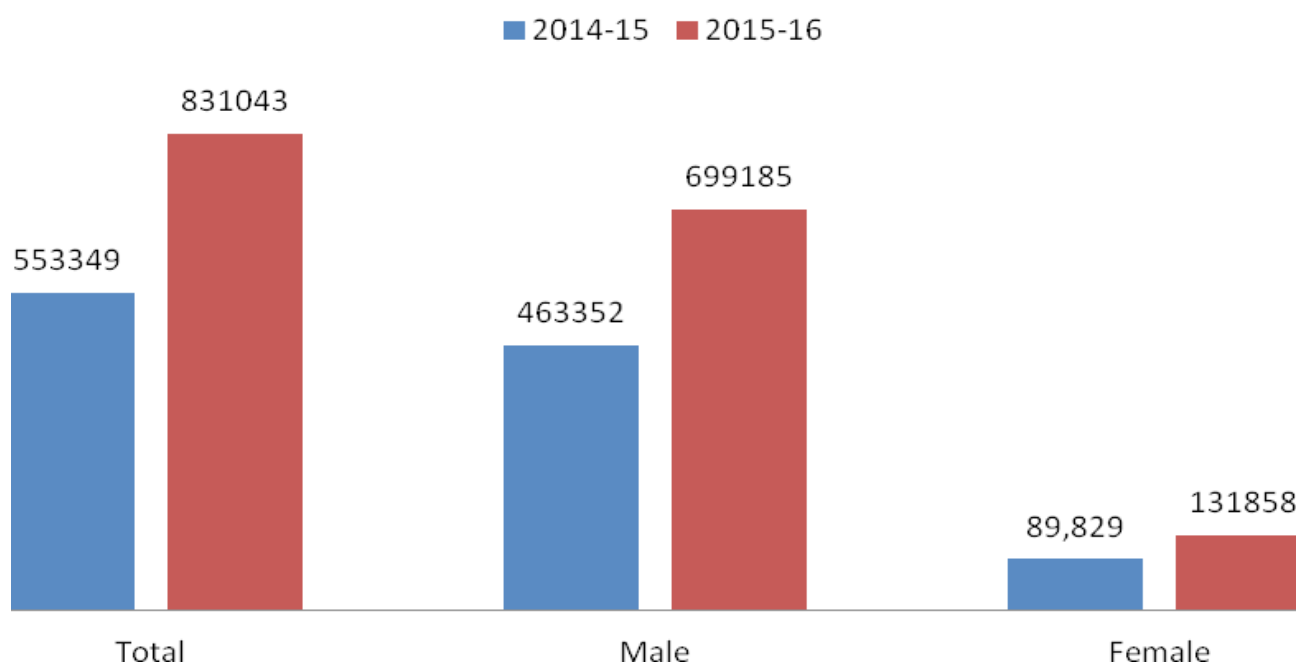
services to the postgraduate degree holders of the state. In order to provide easy as well as round the clock access, the process of registration is now available online through its web portal.

Registration Details

Figure 10.1 presents a comparative status of the number of job seekers over the last two years (2014-15 & 2015-16 till 12th December)

in Jharkhand. It shows the improved services by the exchange offices as the number of registrations have increased significantly. The total number of job seekers has increased from 5,53,349 to 8,31,043 which is an increase of over 50%. However, the proportion of female jobseekers in the total workforce has remained low at less than 16% which reflects the dismal state of female work participation in Jharkhand.

Figure 10.1 : Gender-wise jobseekers in Jharkhand



Source: Directorate of Employment and Training (Employment Wing), Government of Jharkhand.

Rojgar Mela and Recruitment Camps

The department organizes several Rojgar Melas (job fairs) and Recruitment Camps throughout the year to facilitate interaction between jobseekers and job providers. Table 10.1 shows that between 2009-10 to 2016-17, 139 Rojgar Mela and 185 Recruitment Camps have been successfully organized and over one lakh twenty thousand candidates got jobs through Rojgar Mela and over fifteen thousand candidates were selected for jobs

through Recruitment Camps during the same period. The department aims to organize many more such melas in the coming years to help the youth of the state. Table 10.5 gives the year-wise details of Rojgar Mela, Recruitment Camps and number of selected candidates through them. It is quite clear that there has been steady success in helping jobseekers to secure a job through these initiatives of the department.

Table 10.6 : Rojgar Mela and Recruitment Camps

Year	Rojgar Mela		Recruitment Camps	
	No. of Mela	No. of selected candidates	No. of Camps	No. of selected candidates
2009-10	8	14073	-----	-----
2010-11	11	13122	4	358
2011-12	25	22160	27	2880
2012-13	24	17062	27	3061
2013-14	18	23552	39	1944
2014-15	13	9403	32	1861
2015-16	30	16093	27	2927
2016-17	10	4579	29	2224
Total	139	120044	185	15255

Note- There are 27 more Rojgar Mela proposed for the financial year 2016-17

Source: Directorate of Employment and Training (Employment Wing), Government of Jharkhand.

Distribution of Employment Registration

The registration data of the job seekers demonstrates the distribution of youth in Jharkhand who are looking for jobs. Table 10.7 gives information on the gender-wise number of job-seekers registered in the Employment Exchange over the last few years. There has been a sharp increase in the no. of registrations in 2016 and 2015 as compared to 2014. There

is a similar trend in case of male as well as female registration numbers. However, the proportions of female registration numbers in total have a declining trend. In 2014 it was 18.96% which came down to 17.08% in 2015 and in 2016 it is 16.09%. Thus, although more women have registered themselves at the employment exchange, their share in total registration has dropped by more than 2 percent in these three years.

Table 10.7 : Registration at the Employment Exchange

Year	Registration		
	Male	Female	Total
2014	45215	10580	55795
2015	92295	19016	111311
2016*	68736	13185	81921

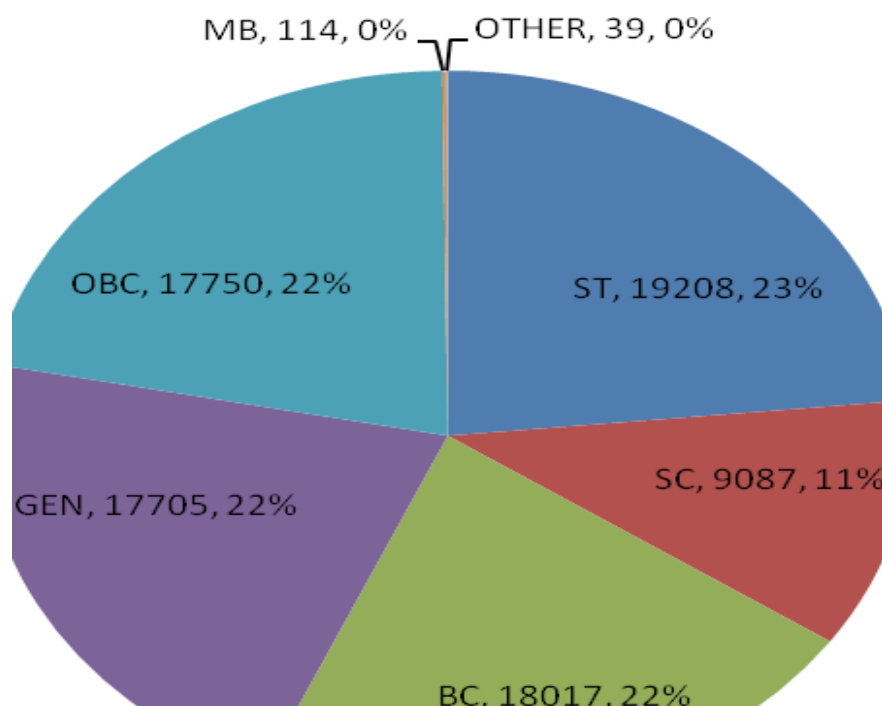
*Includes data from January to December, 23.

Source: Directorate of Employment and Training (Employment Wing), Government of Jharkhand

Figure 10.2 gives the category wise distribution of registrations at the Employment Exchange between January 2016 and December 2016 in the state. As per the past trend ST continues to be the major shareholder followed by SC, OBC and General. However, the share of ST in 2014

and 2015 was 31.03 and 26.48 respectively. It has come down to 23.44 in 2016. This is a good sign as the Employment Exchange has been quite successful in helping the community in securing employment.

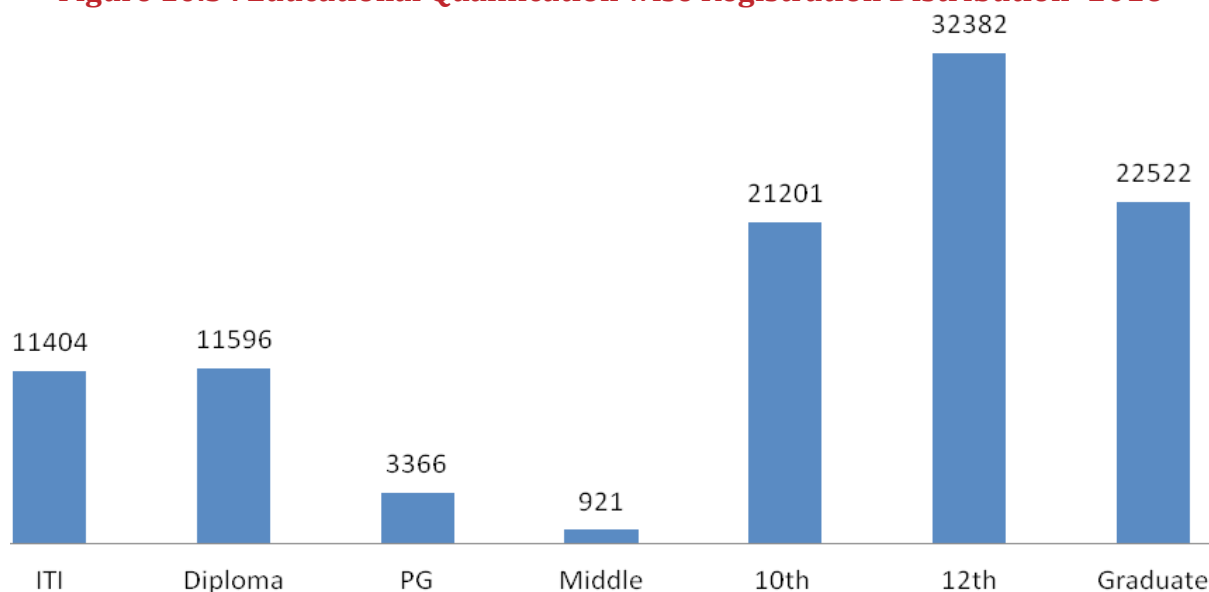
Figure 10.2 : Category wise Registration Distribution- 2016



Source: Directorate of Employment and Training (Employment Wing), Government of Jharkhand

Educational qualification wise registration details help in giving a picture of the attempts of the government towards educational development and skill development in the state. Figure 10.3 gives the Educational Qualification wise details of registration at the Employment Exchange in 2016 from January to December. It is clear that the proportion of ITI and Diploma holders in the total registration is quite impressive. This also shows the achievements of ITI institutes and the vocational training institutes in the state.

Figure 10.3 : Educational Qualification wise Registration Distribution- 2016



Source: Directorate of Employment and Training (Employment Wing), Government of Jharkhand

Social Security

Social Security measures are always considered as an important parameter to judge the welfare conditions of the workforce working in any establishment. The department of labour, GoJ is involved continuously in making efforts to provide as well as secure maximum social security to its work-force. In this connection the GoJ also ensures that businesses adhere to the provisions for minimum wages. Recently, a notification was issued for revision of 'minimum wages'. As per this notification, minimum wages for unskilled workers will be

revised to Rs. 224.93 per day, an account of a Rs. 14.93 Dearness Allowance to be effective from October 2016, as compared to Rs. 210 earlier. This will benefit a large number of workers (about 90%) in the unorganized sectors of Jharkhand. The details of the minimum wages prevailing in Jharkhand for general purposes and separately for government offices are provided in Table 10.7 and 10.8 respectively. Similarly, the wage rates for contract labourers are provided in Table 10.9 on a monthly basis.

Table 10.8 : Minimum Wages in Jharkhand- General purpose (Daily rate in rupees)

Type of worker	Minimum wages w.e.f. August 2015	Variable Dearness Allowance w.e.f. October 2016	Existing Minimum Wages
Unskilled	210	14.93	224.93
Semi-skilled	220	15.64	235.64
Skilled	290	20.61	310.61
Highly Skilled	335	23.81	358.81

Table 10.9 : Minimum Wages in Jharkhand- Government offices (Daily rate in rupees)

Type of worker	Minimum wages w.e.f. August 2015	Variable Dearness Allowance w.e.f. October 2016	Existing Minimum Wages
Unskilled	225	15.99	240.99
Semi-skilled	240	17.06	257.06
Skilled	310	22.04	332.04
Highly Skilled	360	25.59	385.59

Source: Directorate of Employment and Training, Government of Jharkhand

Table 10.10 : Wage Rates for Contract Labourers (Monthly rate in Rupees)

Type of worker	Minimum wages w.e.f. August 2015	Variable Dearness Allowance w.e.f. April 2016	Existing Minimum Wages
Unskilled	6550	362.21	6912.21
Semi-skilled	6860	379.35	7239.35
Skilled	9120	504.33	9624.33
Highly Skilled	10450	577.88	11027.88

Source: Directorate of Employment and Training, Government of Jharkhand

Child Labour in Jharkhand

The Government of Jharkhand is committed towards building a state, which is free from all forms of child labour through convergence of relevant departments and stakeholders, thereby creating an enabling and protective environment for the holistic development of children. Jharkhand is among one of the Empowered Action Group states where a large section of the population is predominantly tribal and poverty stricken, and hence vulnerable to child labour and trafficking. A majority of child labour in Jharkhand is employed in hotels/dhabas, as domestic workers, in brick kilns, bidi making, coal picking, mining, begging, garage, automobile workshops, building construction, stone crushing, rag picking etc. As per the Census

2001 report Jharkhand had 4,07,200 working children in the age group of 5-14 years including main and marginal (3 to 6 months) which came down to 2,53,717 in Census 2011 report registering a fall of over 37% in the decade. A similar trend has also been observed in NSSO reports also. NSSO Estimate of Child Labour in Major Indian States, 2004-05 (Age group 5-14) states that Jharkhand has 2,06,000 child labourers. Whereas, the NSSO (66th round of Survey) on Child Labour in Major Indian States, 2009-10 (Age group 5-14) states that Jharkhand has only 82,468 child labourers. This indicates a fall of near about 60% in five years. Table 10.11 shows that the proportion of child labour in total workforce has also reduced from 2.3 to 1.65 and it is evidence in support to the objective of a Jharkhand which is free from child labour.

Table 10.11 : Region wise incidence of Child Labour (5 to 14 years)

Jharkhand				
Year	Total	Rural	Urban	% share of Child Labour in total Workforce
2004-05	206000	167000	38000	2.3
2009-10	82468	67807	14661	1.65

Source: Director Employment and Training, Government of Jharkhand

Way Forward to prevent migration of labourers

The Government of Jharkhand is focusing on a prevention of distressed migration by implementing GOI schemes and directives of Supreme Court and NHRC. For addressing issues related to unsafe migration a pilot work “Work in Freedom Project” with ILO is going on in Ranchi, Khunti and Gumla districts. As women are more vulnerable, special focus is on female migration prone districts i.e. Khunti, Simdega, Gumla and Lohardaga.

A new bill for regulating Placement Agencies and Domestic Helps has been passed by the

Assembly. Apart from migration, focus is on child labour leading to identification and rehabilitation of child labourers and a strict enforcement of Minimum Wages act 1948.

Under a new scheme, the government is planning a campaign based approach that felicitates the return of female migrant workers; need based skill training with backward and forward linkages, coverage with social security schemes, linkage with Self Help Groups (SHGs), Employment generation schemes, etc. The outcome of this strategy will be monitored regularly and this will go a long way in developing an integrated and holistic approach for the purpose.

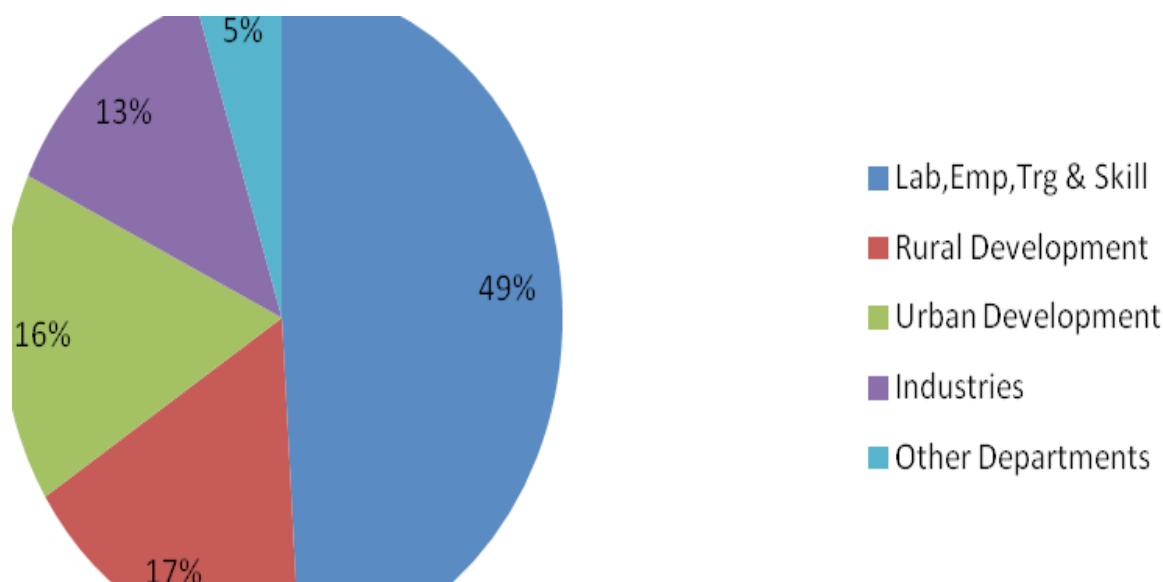
Jharkhand Skill Development Mission Society

Jharkhand Skill Development Mission Society got registered on 1st October, 2013 under the Societies Registration Act, 1860. From 18th June, 2015 onwards it has been functioning as an autonomous institution under the Department of Planning and Development, Government of Jharkhand. The main objective of this society is to create employment opportunities for the youth of the state and to ensure that it in turn helps in the economic development of the state. The society focuses on framing policies for skill development in the state, developing self employment and entrepreneurship skills and creating an environment for investment in this sector.

In the year 2014-15, through the different

schemes of this society along with different departments of Jharkhand government, approximately 1 lakh people were given training on vocational courses. The society in co-ordination with 18 departments of the state is involved in organizing skill development programmes in Jharkhand. These concerned departments are: Agriculture, Animal Husbandry and fisheries, Drinking water and Sanitation, Health and Family Welfare, Industries, Human Resource Development, Welfare, Social Welfare, Labour and Employment, Science and Technology, Energy, Forest and Environment, Rural Development, Urban Development, Tourism, Transport, Arts, Culture, Sports and Youth Affairs and Information and Technology. The figure below (Figure 10.4) clearly approves the direction of working of the society.

Figure 10.4 : Department wise trained beneficiaries during the financial year 2014-15



Source: Jharkhand Skill Development Mission Society

Under this society, Saksham Jharkhand Kaushal Vikas Yojna has been started. It was inaugurated on 27th December, 2016 by the Chief Minister of Jharkhand, Shri Raghubar Das in Gumla. Saksham Jharkhand Kaushal Vikas Yojana has been framed with an objective to provide training to the unemployed youth of

the state with special focus on women. This scheme will be effective in upgrading the quality of skill training and in increasing the number of participants. This will be a non residential training, in which, after training, an evaluation will be conducted and certificates will be distributed. Jharkhand is the first

state to provide skill training in Sector Skill Council (SSC). Under this scheme, the state government has prospected to provide jobs to 4500 youths in 2017.

Under Saksham Jharkhand Kaushal Vikas Yojna the state government has approved of 95 centers for training. The training will be free of cost. Training will be given to youths within the age group of 18-35 years. They will be trained as per the norms mentioned by Skill Development and Entrepreneurship Ministry (GOI) on 15th July, 2015. The registration of these students will be done through Hunar Portal which will be connected with their Aadhar number. The minimum time period of training will be 200 hours and it will be mandatory for the enrolled candidates to have a minimum of 80 percent attendance.

Jharkhand Skill Development & Entrepreneurship Policy 2015

Jharkhand aims to be a state which acknowledges skill as a matter of right for youth. So, the Jharkhand Skill Development Mission Society framed the Jharkhand Skill Development and Entrepreneurship Policy 2015 for Jharkhand. This policy emphasizes on broad principles for skill development activities in the state. Through effective awareness campaigns the society is trying to engage potential candidates for skill training.

The policy focuses on developing block level skill centres and engaging Kaushal Mitras to identify local skill-needs as they will be involved in creating employment opportunities, spreading awareness and mentoring the local youth. The policy also talks about setting up of new ITIs and women ITIs in every district and sub division, creating awareness regarding the various employment options among potential candidates, helping them in taking correct decisions and assisting them in securing wages or self employment.

The policy also focuses on engaging the industries in skill development for quality training, so as to meet the industries' need. The policy stresses upon the need for CSR and suggests aligning with Jharkhand CSR Council to utilize earmarked funds for skill development and entrepreneurship. Further emphasis has been laid on developing migration support centres. These centres are said to be situated in those areas of Jharkhand where migration to the other states is maximum, and to be present in those states which receive migrants from Jharkhand.

New Initiatives Undertaken by the Department in 2016-17

The employment wing of the directorate of employment and training, Government of Jharkhand (GOJ), has undertaken some new initiatives where a model career centre is established in Ranchi with the assistance of the central government. Similarly, two more model career centers are being set up in Dhanbad and Jamshedpur through the utilization of the state fund. The department is waiting for the approval of three more such centres at Dumka, Deoghar and Hazaribagh. These centres will facilitate the process of creating a bridge between the job seekers and the job providers by enabling them to develop their skills through training programme and helping them to make the right career decisions. So far, the department has been able to supply data for 6,46,484 candidates to the National Career Service Portal and steps are taken to create an online link with the National Portal.

Model Career Centre

Under the National Career Service (NCS), Employment Exchanges are to be transformed into Career Centres in a phase wise manner. In the first phase Sub Regional Employment Exchange, Ranchi is being upgraded as Model Career Centre with 100% assistance from

central fund. In addition to this, two additional Employment Exchanges, Jamshedpur and Dhanbad have been taken for the establishment of Model Career Centre under State fund. For this Rs. 38 lakh has been allotted in the financial year 2016-17.

In the financial year 2017-18, it is proposed to establish Model Career Centres at 10 Employment Exchanges i.e. Hazaribagh, Deoghar, Bokaro, Dumka, Daltonganj, Godda, Garhwa, Ramgarh, Jamtara and Lohardaga. For this Rs. 568.96 lakh has been proposed by the state.

Hunar

HUNAR is a name of skill development portal designed by JAP-IT, an IT development wing of the Department of Information Technology (DoIT). HUNAR puts all the skill development activities of all the departments at one platform. All the departments will have the facility to deliver their skill development services electronically. The name of the portal was kept as HUNAR which is an acronym of Hallmarking of Unrecognized Novice and Amature Resources.

Mukhyamantri Jan-Van Yojna

In order to conserve environmental equilibrium an extension of forest cover is necessary. For this private land can be used by providing financial benefits and assistance to individuals. This will also increase the income sources of farmers in the state. A scheme for this purpose has been announced on 15th November 2015 with multiple objectives.

Truck Driving School

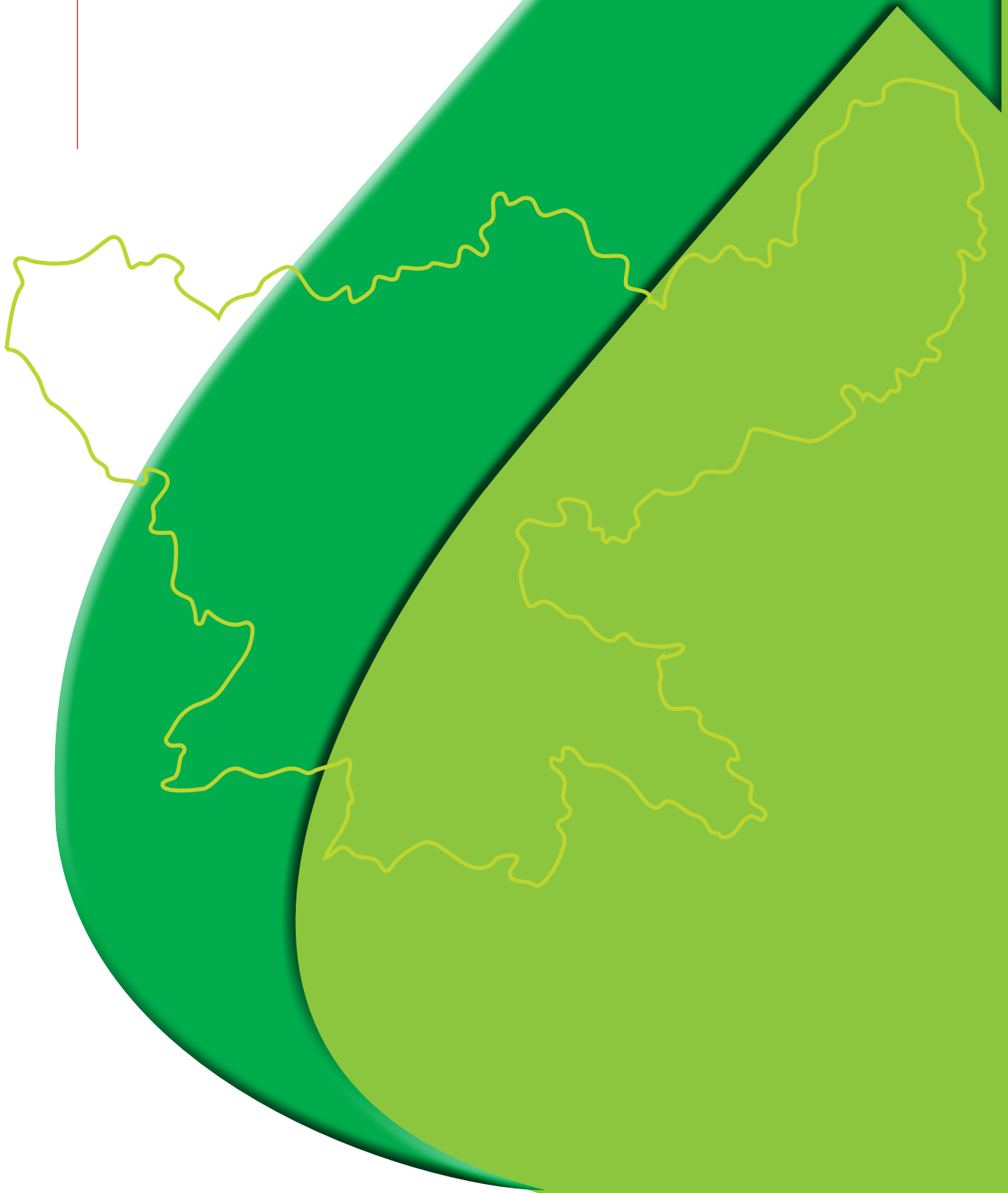
Jharkhand is the first state to open a heavy vehicle driving school in India. In these schools under the National Skill Development Mission, training will given by the state government in collaboration with Tata Motors, the government of Punjab and Rajasthan. Driving institutes at Mohana and Ajmer have been selected to impart the training. 79 youths will be selected for the first batch; among them 50 percent trainees will be from ST/SC and the rest 50 percent from BPL families.

Conclusion

As compared with all India average, the overall work-force participation rate was quite low in 2001 but in 2011 Jharkhand successfully matched that rate. However, in case of urban work force the participation rate in Jharkhand lagged behind the all India average. As per the latest survey (2015-16) the unemployment rate is 7.7 per cent in Jharkhand which is quite higher than the national average of 5 per cent. However, Jharkhand is committed to be a better performer and has created 24000 jobs between 2009 -12. New initiatives of the Government such as Mukhyamantri Jan-Van Yojna, Model Career Centres and digital platform for training and business- Hunar, will certainly help the state in resolving unemployment problems. Jharkhand's continued efforts have managed to maintain its place in the top Ten Indian States at the seventh spot in 2016 in World Bank's ranking of ease of doing business.

11

EDUCATION



Jharkhand has made some noticeable improvement in education in the recent years. The rate of literacy in Jharkhand has increased from 53.56 percent in 2001 to 66.41 percent in 2011 and, the state has made progress in the inclusive coverage of almost all the educational parameters in this time period. Certain identifiable factors on which the government has worked are minimising poor attendance, increasing gross enrolment ratio, reducing the number of drop-outs and imparting quality education to the children. The state has embarked significant reforms in higher education by increasing private investment and introducing new colleges so as to ensure access, equity and quality education. The state government has begun the journey of making Jharkhand a knowledge hub in the coming years. Hence, many new initiatives have been proposed and have been implemented by the state at elementary, secondary and at higher and technical educational level.

Literacy Rate

The literacy rate in Jharkhand is much less than the national rate. It was about 11 percent less than the literacy rate of the country in 2001. In 2011 also it remained about 8 percent less than that of the country (Census, 2001 and 2011).

The Census results show that the annual growth in the literacy rate of Jharkhand was more than that of India between 2001 and 2011. Jharkhand's literacy rate has shown an annual growth of 2.40 percent between 2001 and 2011, while, India's literacy rate has shown an annual growth of 1.42 percent in the same time period. The NSSO, 2014 results also narrate the same story. According to this survey, the literacy rate of Jharkhand increased at an annual rate of 1.95 percent¹ from 2011 to 2014; from 66.41 percent in 2011 it increased to 70.3 percent in 2014. India on the other hand, witnessed an annual growth of 0.61 percent in its literacy rate in the same time period.

¹ NSSO 71st round survey 2014 and census 2011 data are not perfectly comparable. So it can be said that there has been a percentage growth of around 2 percent. The percentage growth projected is based on the concept that as the denominator value is increasing; the rate of growth is decreasing.

Table 11.1: Literacy Rate in Jharkhand and India

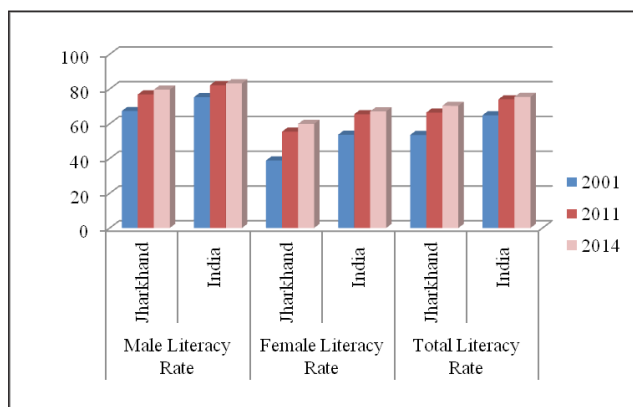
	2001			2011			2014		
	Male Literacy Rate	Female Literacy Rate	Total Literacy Rate	Male Literacy Rate	Female Literacy Rate	Total Literacy Rate	Male Literacy Rate	Female Literacy Rate	Total Literacy Rate
Jharkhand	67.30	38.87	53.56	76.84	55.42	66.41	79.6	59.9	70.3
India	75.26	53.67	64.84	82.14	65.46	74.04	83.2	67.1	75.4
Gap with India	7.96	14.8	11.28	5.3	10.04	7.63	3.6	7.2	5.1

Source: Census 2001 and 2011, and NSSO 71st round survey, 2014

Although in 2001, 2011 and 2014 the female literacy rate in the state has remained lower than the male literacy rate but the annual growth rate of the female literacy rate has been higher than that of the male literacy rate. The female literacy rate has shown an annual growth of 4.26 percent between 2001 and 2011 and 2.69 percent between 2011 and 2014.

The male literacy rate in this time periods has shown an annual growth of 1.42 percent and 1.2 percent, respectively. This can be seen as a major outcome of the enrolment drives of the state government in which stress was given for enrolment of girls. This encouraged the households to bring more girls to the doorstep of schools.

Figure 11.1: Literacy Rate in Jharkhand and India



Source: Census 2001 and 2011, and NSSO 71st round, 2014

A notable improvement in female literacy in the state is reflected in terms of diminishing gender gap² in literacy rate. In 2001, for Jharkhand, the gender gap was 42.24 percent which got reduced to 27.88 percent in 2011 and 24.75 percent in 2014. The state is also slowly converging with the national gender gap in literacy rate. The difference of gender gap between India and Jharkhand was 13.56 percent point in 2001 which got reduced to 7.57 percentage point in 2011 and 5.40 percentage point in 2014.

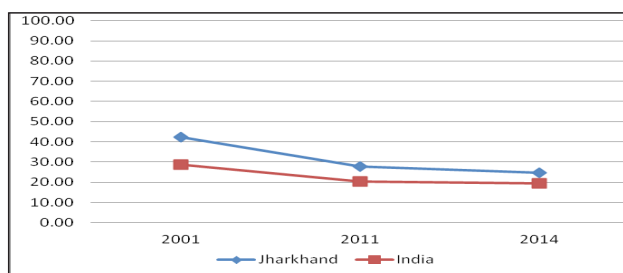
2 Calculated by the formula (Male literacy – Female literacy)/ Male literacy * 100. It shows the percentage shortfall in female literacy from male literacy.

Table 11.2: Gender Gap in Literacy rate

	2001	2011	2014
Jharkhand	42.24	27.88	24.75
India	28.69	20.31	19.35
Gap from India	13.56	7.57	5.40

Source: Census 2001 and 2011, and NSSO 71st round, 2014

Figure 11.2: Gender Gap in the Literacy Rate

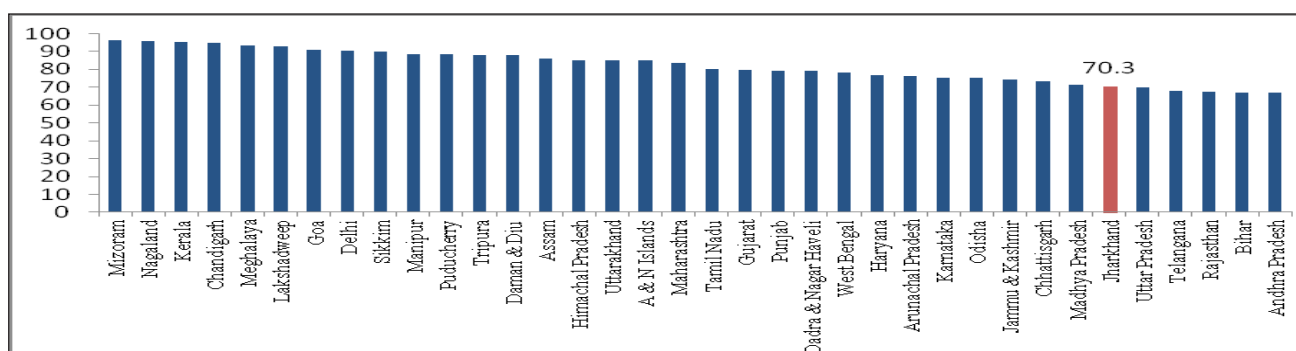


Source: Census 2001 and 2011, and NSSO 71st round, 2014

Inter-State Comparison of Literacy Rate

It is true that Jharkhand’s literacy rate has improved over the years but when compared to other states, it still lies in the group of low literate states of the country. Jharkhand’s literacy rate in 2014 was 70.3 percent and ranked 6th from the bottom only higher than the states like Bihar, Uttar Pradesh, Rajasthan, Telangana and Andhra Pradesh. According to NSSO round 2014, the literacy rate of Mizoram was highest in the country with a literacy rate of 96.2 percent. It was followed by Nagaland and Kerala whose literacy rates were 95.7 percent and 95.2 percent respectively. A literacy gap of 25.9 percent point was sighted between Jharkhand and Mizoram.

Figure 11.3: State wise Total Literacy Rate in India



Source: NSSO 71st round survey, 2014

Inter District Comparison of Literacy Rate in Jharkhand

There has been a substantial improvement in the literacy rate of Jharkhand, but the growth among the districts of the state has been asymmetrical. In 2001, Ranchi with a literacy rate of 76.06 percent was the highest in the state, followed by Purbi Singhbhum, Dhanbad and Ramgarh, whose literacy rates were 75.49 percent, 74.52 percent and 73.17 percent respectively, whereas, the least literate districts were Godda, Sahibganj and Pakur whose literacy rate were 48.82 percent, 52.04 percent and 56.40 percent.

In terms of annual growth in literacy rate, districts like Pakur, Garhwa, Giridih and Palamu fared well with a growth rate more than 4 percent. However, the most literate districts like Ranchi and East Singhbhum had an annual growth in literacy rate of less than 2 percent. Less literate districts have shown a higher growth rate in literacy as compared to more literate districts because of lower denominator (the literacy rate of 2001) in the former than in the latter. But, this has also been because of the intensive efforts of the government in improving the enrolment and literacy in these districts.

Table 11.3: Inter district Comparison of Literacy Rate in Jharkhand

District	2001	2011	Annual Growth in Literacy (2001-2011)
Garhwa	39.2	60.33	5.39
Palamu	44.9	63.63	4.17
Chatra	43.2	60.18	3.93
Hazaribagh	57.7	69.75	2.09
Kodarma	52.2	66.84	2.80
Giridh	44.5	63.14	4.19
Deoghar	50.1	64.85	2.94
Godda	43.1	56.40	3.09
Sahibganj	37.6	52.04	3.84
Pakur	30.6	48.82	5.95
Dumka	47.9	61.02	2.74
Dhanbad	67.0	74.52	1.12
Bokaro	62.1	72.01	1.60
Ranchi	64.6	76.06	1.77
Lohardaga	53.6	67.61	2.61
Gumla	51.7	65.73	2.71
West Singhbhum	50.2	58.63	1.68
East Singhbhum	68.8	75.49	0.97
Saraikela Kharsawan	-	67.70	-
Ramgarh	-	73.17	-
Jamtara	-	64.59	-
Latehar	-	59.51	-
Khunti	-	63.86	-

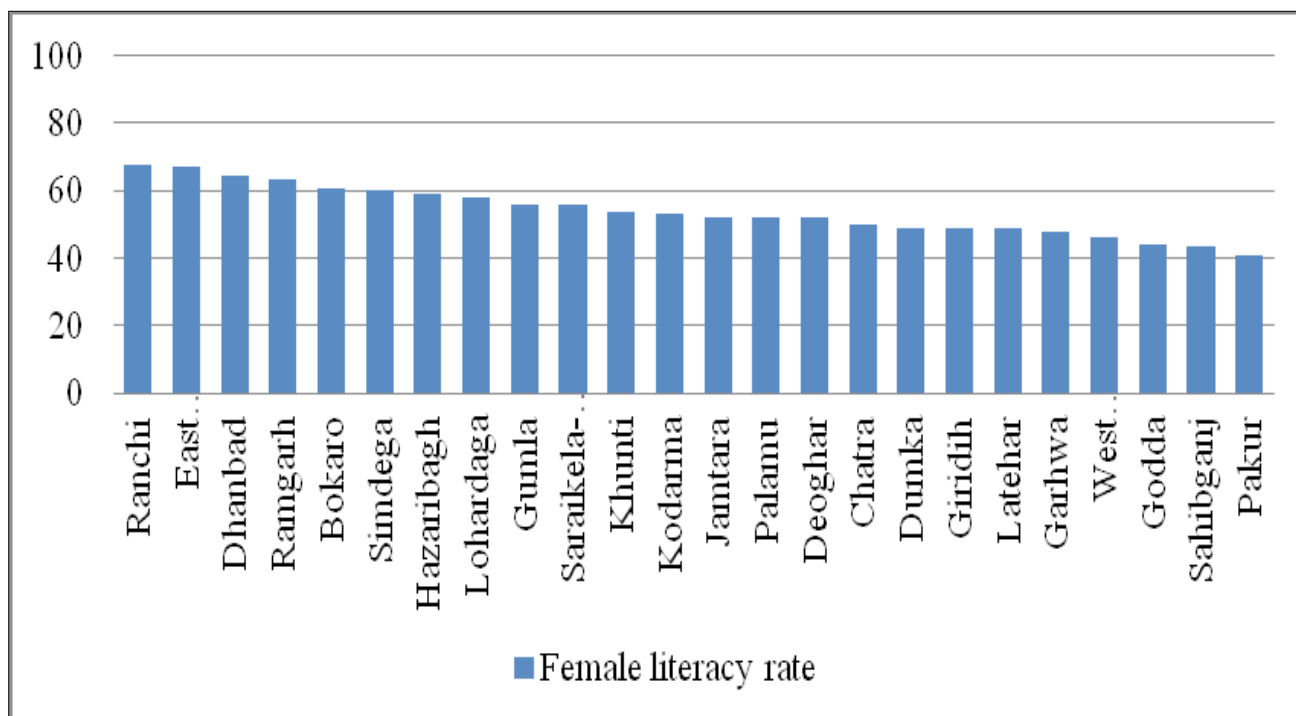
District	2001	2011	Annual Growth in Literacy (2001-2011)
Simdega	-	67.99	-
Jharkhand	53.56	66.40	2.63

Source: Census 2001, 2011

The districts, which usually have high literacy rate, have also high female literacy rate. Usually the districts, which are more urbanised, have higher literacy and higher female literacy rates. The highly urbanized districts of the state like Ranchi, East Singhbhum, Dhanbad, Ramgarh and Bokaro have 67.44 percent,

66.81 percent, 64.29 percent, 63.09 percent and 60.63 percent literacy rates, respectively, whereas, the comparatively less urbanised districts like Godda, Sahibganj and Pakur have 44.14 percent, 43.31 percent and 40.52 percent literacy rates, respectively.

Figure 11.4: District wise Female Literacy Rate in Jharkhand in 2011



Source: Census 2011

Literacy Rate by Location and Social Groups in Jharkhand

The table below shows that compared to the state average, the marginalised social groups still lag behind in literacy rate. However, in Jharkhand, there is very little difference between the literacy rates of the two most marginalized groups - the SCs and STs. The literacy rates of the SCs and STs living in the rural areas are almost the same. However,

there is difference in the literacy rates of the two communities living in the urban areas. Both the male and female literacy rates of the STs living in the urban areas is higher than the SCs of the urban areas. The gender gaps is much higher in rural are as compared to the urban areas, for the SCs, STs and all the communities.

Table 11.4: Literacy Rate by Location and Social Groups in Jharkhand

Location	Scheduled Castes			Scheduled Tribes			Total		
	Persons	Males	Females	Persons	Males	Females	Persons	Males	Females
Rural	53	64	41	55	67	44	61	73	49
Urban	67	77	57	75	83	68	82	88	76
Total	56	67	44	57	68	46	66	76	55

Source: Census 2011

School Education

The basic elements of knowledge and skill are learnt at an early age of education. The government of Jharkhand has thus, taken an initiative to improve the prospects of education and strengthen the basic format of education in Jharkhand. In this section, the pertinent issues of the number of schools, enrolment and quality education plan of the state, status of teachers, and schemes for promotion of the elementary education sector have been dealt at length.

Status of Schools in the State

The schools in Jharkhand have been divided into 3 groups, namely government schools, private schools, madarsa and other unrecognised schools. The total number of government schools in the state is 40,437 out of which 25,791 are primary level government schools. In addition to this, there are 2586 private schools and 4418 Madrasa in the state. In terms of middle and higher education, the state has 1972 government schools, 1166 private schools and 2971 other types of schools.

Table 11.5: Status of Schools in State

	Primary Only	Primary with U.P	Primary with U.P & Sec & H.Sc	Upper Pri. only	U.P. with Sec. & H.Sec	Pri. With U. Pri & Sec.	U.P. with Sec.	Total
Government Schools	25791	12674	42	58	369	1373	130	40437
Private Schools	772	648	296	53	35	352	430	2586
Madarsas & Unrecognised Schools	1447	2462	37	22	3	359	88	4418

Source: State Report Card, DISE 2015-16

Comparison of Total Enrolment of Two Consecutive Years

In the year 2015-16, the total enrolment at primary level was 17,36,877. The following table (Table 11.6) depicts that in primary, upper

primary, and primary with upper primary and secondary schools the overall enrolment of students has decreased by 35,924, 2,188 and 12,046 respectively, although in other primary schools the enrolment has increased.

Table 11.6: Comparison of Total Enrolment in Two Consecutive Years

	Primary Only	Primary with U.P	Primary with U.P & Sec & H.Sc	Upper Pri. only	U.P. with Sec. & H.Sec	Pri. With U. Pri & Sec.	U.P. with Sec.	Total
Total Enrolment (2014-15)	1772801	3485258	332950	21532	42470	773243	109535	6537789
Total Enrolment (2015-16)	1736877	3488010	345831	19344	53962	761197	114351	6519572

Source: State Report Card, DISE 2015-16

Total Enrolment in Different Government, Private, Madarsas and Unrecognised Schools

The students of the state still show an affinity towards imparting school education in government schools. The government schools recorded the highest enrolment with 47,29,025

in 2015-16. It is followed by 9,29,811 students in private schools, and 8,63,232 students in madarsas and other unrecognised schools. Expectedly due to presence of high drop out rates in higher level of schooling the enrolment rate decreases with increase in the level of education in all types of administered school.

Table 11.7: Total Enrolment in Different Government, Private, Madarsa and Unrecognised Schools

	Primary Only	Primary with U.P	Primary with U.P & Sec & Hr.Sec	Upper Pri. only	U.P. with Sec. & Hr.Sec	Pri. With U. Pri & Sec.	U.P. with Sec.	Total
Enrolment in Government Schools	1539984	2650820	23731	6353	43048	453375	10584	4727895
Enrolment in Private Schools	69687	255454	300774	10607	10615	189842	91528	928507
Enrolment in Madarsas & Unrecognized Schools	127206	581736	21326	2384	299	117980	12239	863170

Source: State Report Card, DISE 2015-16

Percentage of Schools Having Single Classroom in Schools

The percentage of schools having a single classroom in 2014-15 and in 2015-16 of Jharkhand and India has been depicted in the following table (Table 11.8). There has been no change in the percentage of all schools having a single classroom³ in 2014-15 and 2015-16 in Jharkhand, because in both the years it was 0.9 percent. But in India, the percentage has decreased from 4.4 percent in 2014-15 to 4.2 percent in 2015-16. In certain schools of Jharkhand, that is primary, primary with upper primary and secondary and higher secondary, and primary with

upper primary and secondary, the percentage of single classroom for the two consecutive years hasn't changed. In case of India, only the primary with upper primary and secondary schools stood at 0.6 percent for the two consecutive years. In 2015-16 besides upper primary, and upper primary with secondary and higher secondary schools, all other schools in Jharkhand have a lower percentage of a single classroom than India as a whole. In 2015-16, 9.8 percent primary schools in Jharkhand have single classrooms, although at all India level only 1.7 percent. Again, the percentage of upper primary with secondary and higher secondary schools in Jharkhand stood at 3.4 percent against India's 1.8 percent.

³ Percentage of Single-Classroom Schools = (Schools having Single-Classroom/ total government schools)* 100

Table 11.8: Percentage of School having Single Classroom in Schools

		Primary Only	Primary with Upper Primary	Primary with Upper Primary and Secondary and Hr. Sec.	Upper Primary Only	Upper Primary with Sec. and Hr. Sec.	Primary with Upper Primary and Secondary	Upper Primary with Secondary	All Schools
Jharkhand	2014-15	1.1	0.3	0.8	6.3	2.5	0.4	4.6	0.9
	2015-16	1.1	0.2	0.8	9.8	3.4	0.4	5.7	0.9
India	2014-15	6.4	0.5	0.6	1.8	1.5	0.6	8.6	4.4
	2015-16	6.1	0.4	1.1	1.7	1.8	0.6	9.4	4.2

Source: State Report Card, DISE 2015-16

Student-Classroom Ratio in the Schools of Jharkhand and India

The student-classroom ratio⁴ in 2014-15 of both India and Jharkhand for all schools stood at 27. In 2015-16, the state's student-classroom ratio decreased by a point, that is, 26; whereas India's student-classroom ratio remained at 27. Within these two years in Jharkhand, the student-classroom ratio in the upper primary with secondary and higher secondary schools has increased from 21 to 27 and in upper primary with secondary schools the ratio has

increased from 33 to 35. In India the student-classroom ratio has increased from 33 to 34 in the primary with upper primary, secondary and higher secondary schools. In 2015-16, the student classroom ratio of primary schools in Jharkhand was 19 and in India was 23. Similarly, the student-classroom ratio of upper primary with secondary and higher secondary schools in Jharkhand was 27 and that of India was 44. Other than these two types of schools, in all other schools, the student classroom ratio of Jharkhand is higher than that of India, as shown in the following table (Table 11.9).

⁴ % Student-Classroom Ratio (SCR) = (Total Enrolment within an Educational Level/ Total teachers within an Educational Level)* 100

Table 11.9: Student Classroom Ratio in Schools of Jharkhand and India

	Region	Primary Only	Primary with Upper Primary	Primary with Upper Primary and Secondary and Hr. Sec.	Upper Primary Only	Upper Primary with Sec. and Hr. Sec.	Primary with Upper Primary and Secondary	Upper Primary with Secondary	All Schools
Jharkhand	2014-15	20	29	45	37	21	38	33	27
	2015-16	19	28	45	35	27	37	35	26
India	2014-15	24	28	33	25	44	29	30	27
	2015-16	23	27	34	24	44	30	32	27

Source: State Report Card, DISE 2015-16

District wise upgradation of Primary Schools in the State

From 2009-2010 onwards an initiative has been taken in the establishment of new primary schools in the areas/habitations where primary schooling facilities haven't reached yet. Thus, the Government of

Jharkhand along with SSA is trying to serve all regions with quality primary schooling. A total of 19270 primary schools have been upgraded from the Education Guarantee Scheme (EGS) centres and 10279 primary schools have been upgraded to the upper primary level.

Table 11.10: District Wise Primary School Status in State

District	No. of EGS Upgraded to Formal Primary Schools/New School Opening	No. of Primary School upgraded to Upper Primary Level
Bokaro	909	405
Chatra	1058	601
Deoghar	1175	485
Dhanbad	792	336
Dumka	1063	595
Garhwa	899	355
Giridih	2019	1083
Godda	670	422
Gumla	879	431
Hazaribagh	719	407
Jamtara	535	334
Khunti	475	207
Koderma	309	245
Latehar	647	299
Lohardaga	325	129
Pakur	341	316
Palamu	1569	1064
Paschimi Singhbhum	779	419
Purbi Singhbhum	558	355
Ramgarh	338	181
Ranchi	1146	504
Sahebganj	741	406
Saraikela	888	467
Simdega	436	233
Jharkhand Total	19270	10279

Source: Jharkhand Education Project Council

Mid Day Meal

The government of Jharkhand with a view to enhance the enrolment, retention, attendance and nutrition level among children tried to make Mid day Meal an important tool. To make the common people aware about this scheme and its needs, a seminar has been proposed to be conducted by the district welfare officer. In this seminar, all the five panchayat members and well known people will participate. It has been decided that the full nutrition quantity for everyday will be calculated according to the number of students. This whole procedure will be monitored by the Saraswati Vahini and by the headmaster of the concerned schools.

In this quest, a new weekly menu chart has been implemented in the current financial year. With the application of new school

timing and menu, an overall increase in the attendance of students has been recorded. In the Anganwadi centres children between three to six years, will get one egg or one seasonal fruit for breakfast instead of dalia. Sattu ghol in addition to khichri will be served to them in mid day meals. In the primary and upper primary schools jaggery is served to every child after meal.

The Bal Sansad (Child Cabinet) is effectively managing the Mid Day Meal by counting the number of children present and informing the Saraswati Vahini who will be monitoring cleanliness within the school premises, ensuring that every child washes his/her hand before and after taking the meal, and is helping in serving the meal.

Best practices followed in the state for the

effective implementation of the schemes:-

- The state is providing egg/seasonal fruit thrice a week
- The state is providing Rs. 500 extra to each cook-cum helper per month
- Effective management of MDM through Bal Sansad (child cabinet). Bal Sansad counts the number of children present and informs Saraswati Vahini, monitors children sitting in rows while taking MDM and also helps in serving the meals.

Some of the challenges that still persist according to AWP&B 2015-16 are;

- Coverage of 57% of children in primary areas and 54% children in upper primary areas
- Health checkups which are met by only 30% of the children enrolled
- IFA being distributed to only 18% of children
- Firewood fuel still used for cooking in 80% schools and others.

Thus, the motive behind this scheme in improving the nutritional status of school-age

children in the long run is yet to be achieved.

Social Category Wise Distribution of Teachers in the Schools

Social category and gender wise teachers have been illustrated in the table below (Table 11.11). The distribution has been done to study the total number of regular and contractual teachers in the different types of elementary schools. A total of 1,42,230 teachers are employed in the primary with upper primary schools. It is followed by 1,01,905 teachers in the primary schools and 846 teachers in the upper primary schools.

The total strength of regular teachers in the elementary schools of Jharkhand is 97,213. It is followed by 84,652 contractual teachers, 65,985 OBC teachers, 42,052 ST teachers and 12,986 SC teachers. In the elementary schools of the state 58,499 regular male teachers, and 61,383 contractual male teachers are employed. Similarly, a total of 38,714 regular female teachers and 23,269 contractual female teachers are there. As per the social category and gender, the highest number of male teachers is 48,963 from the OBC category and the highest number of female teachers in 19,337 from the ST category.

Table 11.11: Social category wise Distribution of Teachers in the Schools

Teachers by Gender & Castes	Regular-Teachers		Contractual-Teachers		SC Teachers		ST Teachers		OBC Teachers	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Primary Only	10750	6787	28781	11180	3738	930	10751	6892	16151	5945
Primary with U.P	29547	18521	27972	9319	4897	1402	9109	8379	24868	8216
Primary with U.P & Sec & H.Sc	4699	5072	421	374	160	108	208	375	803	395
Upper Pri. only	248	185	45	13	5	2	87	106	111	44
U.P. with Sec. & H.Sec	1023	542	364	949	68	72	123	594	486	374
Pri. With U. Pri & Sec.	9154	5928	3443	1310	1095	352	1752	2116	5055	1720
U.P. with Sec.	3078	1679	357	124	119	38	685	875	1489	328

Source: State Report Card, DISE 2015-16

Status of Para Teachers in the State

Teachers who are appointed by the Village Education Committee (VEC) are called para teachers to facilitate schools. The minimum educational qualifications for these para teachers has been set by the State Project Director and preference will be given to the candidates with higher qualification, if they are from the same village, SC, ST and are women. Table 11.12 presents a district wise distribution of para teachers in the state. The following report has been presented by JEPC on 31st March, 2016. It has divided the para teachers under the following three categories:

- Para Teachers for Upgraded Primary School/Newly Established Primary School Scheme Centres (EGS)

The Village Education Committee of respective schools appoints 2 teachers to facilitate the newly established primary school/Upgraded Primary Schools Under this category, as on 31st March 2016, a total of 31,824 para teachers are working against a sanctioned number of 38,594.

- Para Teachers based on 1:40 Teacher Pupil Ratio

The Village Education Committee of respective School appoints teachers to facilitate the working of the school when the pupil teacher ratio is more than 1:40. These para teachers are appointed for a short period (generally for one academic session).The sanctioning of appointment for para teachers under this category has been stopped from September 2007 onwards but as on 31 March 2016, a total of 22,153 para teachers are working against a sanctioned number of 28,836.

- Para Teachers for Upgraded Upper Primary Schools

The VEC of respective schools appoints 3 teachers to facilitate the newly upgraded Upper primary school one each for class VI, VII and VIII. The Para teacher so appointed takes care of the classes of Maths, Science and English/Language. A total of 17,911 Para teachers are working against a sanctioned number of 30,864 under this category as on 31st March, 2016 in Jharkhand.

Table 11.12: District wise status of Para Teachers working under different categories as on 31st July, 2012

District Name	Upgraded Primary school	Upgraded Middle school	1:40	Total
Bokaro	1542	741	1504	3787
Chatra	1865	1126	1048	4039
Deoghar	2012	658	1706	4409
Dhanbad	1376	753	1077	3206
Dumka	1860	1232	738	3830
Garhwa	1368	719	1777	3864
Giridih	3362	2087	1444	6893
Godda	1112	852	491	2455
Gumla	1485	758	396	2639
Hazaribagh	1328	568	2296	4245
Jamtara	966	702	746	2425
Khunti	879	314	142	1335
Koderma	467	506	940	1913
Latehar	1093	439	245	1777
Lohardagga	515	108	280	903
Pakur	531	510	867	1928
Palamu	2550	1223	1850	5623
Pashchimi Singhbhum	1256	675	433	2364

District Name	Upgraded Primary school	Upgraded Middle school	1:40	Total
Purbi Singhbhum	906	625	816	2347
Ramgarh	504	309	1036	1849
Ranchi	1513	704	1294	3587
Sahebganj	1227	842	406	2475
Saraikela	1356	930	449	2735
Simdega	751	530	152	1733
Grand Total	31824	17911	22133	72316

Source: Sarva Shiksha Abhiyan (SSA), JEPC 2015-16 Report

Box 11.1: Digital Live Smart Classes

It is a unique initiative by the government of Jharkhand to reach out to the children of naxalite affected areas in the state. The government of Jharkhand has planned to educate the children of these areas through **digital live smart classes**. An agreement between the school authorities and the educational department, and information technology and the e-governance department has been made regarding this. According to the agreement digital live smart classes will be started in each school of the panchayats in the first stage. Children from the interior regions of the state and belonging to the scheduled tribe and scheduled caste will be given basic education through this programme. Audio and video clips would be used to teach them.

Source: Courtesy Prabhat Khabar, 17th September, 2016

Performance of Students (standard 1-8)

NCERT had conducted a survey spread over 2 rounds to study the learning achievements of students in language, maths, science and social science at the end of standard 3rd, 5th, 7th and 8th. The following table 11.13 shows that after round 1, only 59.97 percent of the students have the ability to understand language in comparison to 63.12 percent of the national average. Although after round 2, at the end of class 8, 51.18 percent of students have language

understanding ability in comparison to 56.49 percent of the national average. The students' performance was the worst in maths, as after round 2 at the end of standard 8 only 33.76 percent students having the understanding ability to follow the maths classes as the against 42.57 percent of the national average. In subjects like, Social science and Science/ E.V.S, the overall performance is moderate.

Table 11.13: Learning achievement of students at the end of class III, V, and VII/ VIII carried out in every third year in Schools of Jharkhand

	Language		Maths		EVS/ Science		Social science	
	Round 1	Round 2	Round 1	Round 2	Round 1	Round 2	Round 1	Round 2
Class III	59.97	66.74	54.67	61.0	Not applicable			
National Average	63.12	67.84	58.25	61.89	Not applicable			
Class V	-	63.82	-	57.40	-	58.41	Not applicable	
National Average	58.87	60.31	46.51	48.46	50.30	52.19	Not applicable	
Class VIII	-	51.18	-	33.76	-	44.60	-	40.11
National Average	53.86	56.49	39.17	42.57	46.19	47.89	41.30	42.71

Source: JEPC 2015-16 Report NCERT's Round 1(2003) and Round 2 (2009) survey findings

Box 11.2: Pankh Yojna

To connect the urban slum children with schools, “Pankh Yojna” was launched by the Education Minister, Dr. Neera Yadav on 6th December, 2016. It is a state initiative to make the urban slum families aware of the need for education and the importance of sending their children to school. A campaign has started, in which mobile vans ‘Yojna Rath’ will be visiting all the slums of the state to create an awareness about the scheme. These ‘Raths’ were launched on 5th December 2016 from Hatia and they visited the various slums of the capital. Jharkhand Shiksha Pariyojna will be taking the help of social networks for campaigning. A whatsapp number has been launched, to which people can send the details of children between 6 to 14 years, who are not attending schools. A cell named “Udan Dasta” has been set up, whose responsibility will be to contact the parents of the concerned child and ensure that the child gets enrolled in a school.

Source : Courtesy Prabhat Khabar, 7th December, 2016

SECONDARY AND HIGHER SECONDARY EDUCATION

The state government has passed the plan to upgrade 189 middle schools to higher secondary schools of 23 districts. The middle schools are: 4 in Bokaro, 22 in Deoghar, 3 in Khunti, 10 in Latehar, 3 in Ranchi, 4 in Ramgarh, 19 in Sahebganj, 5 in Saraikela, 6 in Dhanbad, 9 in Godda, 3 in Gumla, 14 in Garhwa, 20 in Hazaribagh, 12 in Giridh, 7 in Jamtara, 5 in Pakur, 12 in Palamu, 9 in Paschimi Singhbhum, 6 in Purbi Singhbhum.

To cater to the growing needs of the youth population, there are 4340 secondary and 1229 higher secondary schools in Jharkhand. Between 2014-15 and 2015-16 the total number of schools in Jharkhand has increased by 38. In India, a total number of 2,52,176 secondary and higher secondary schools are there, out of which, only 1.82 percent schools are there in Jharkhand. The percentage of schools in rural areas of Jharkhand is 78.98 percent which is more than the percentage of schools in the rural areas of India.

Table 11.14: Number of Schools in State

		Jharkhand	India
No. Of districts under U-DISE	2014-15	24	680
	2015-16	24	680
Number of schools	Secondary	2014-15	233517
		2015-16	239148
	Higher secondary	2014-15	109318
		2015-16	112637
	All schools	2014-15	244653
		2015-16	252176
Percentage of schools in rural areas	2014-15	69.85	
	2015-16	78.98	

Source: Secondary Education, Flash statistics, DISE 2014-15 and 2015-16

Student-Classroom Ratio

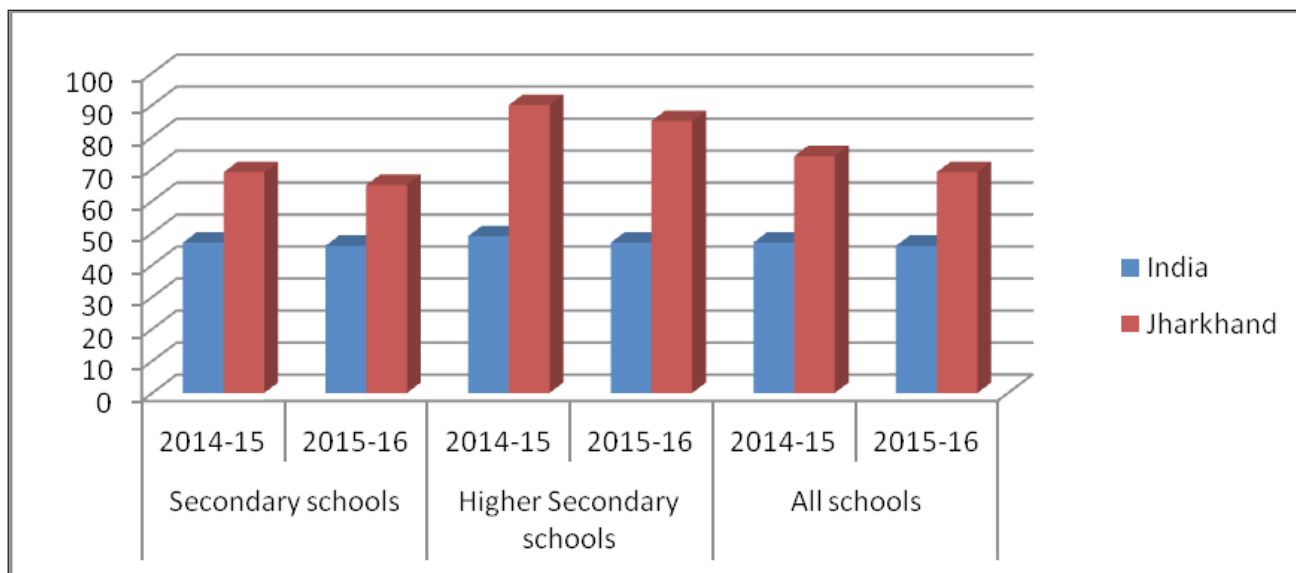
The overall student-classroom ratio in the state has decreased from 74 in 2014-15 to 69

in 2015-16. At the all India level, the student-classroom ratio has decreased from 47 in 2014-15 to 46 in 2015-16. In 2015-16, the student-classroom ratio in secondary schools

in Jharkhand was 65 and in India it was 46. The student-classroom ratio in higher secondary schools of Jharkhand was 85 and that of India

was 47 in the same year. So the overall student-classroom ratio of the state is higher than in India as a whole.

Figure 11.5: Student Classroom Ratio



Source: Secondary Education, Flash statistics, DISE 2015-16

Distribution of Teachers in the Secondary and Higher Secondary Schools of Jharkhand and India

In the following table (Table 11.15), the teachers in Jharkhand and India have been divided into two categories; regular and contractual. There are 14,702 regular teachers and 1892 contractual teachers in the secondary schools

of Jharkhand. Similarly, there are 6446 regular teachers and 2484 contractual teachers in the higher secondary schools of Jharkhand. In comparison to the all India level, the value is very low. Altogether, there are 21148 regular and 2600 contractual teachers in the state, whereas in India, there are 19,02,538 regular and 2,06,006 contractual teachers.

Table 11.15: Distribution of Teachers in the Secondary and Higher Secondary Schools in Jharkhand and India

	Jharkhand		India	
	Regular	Contract	Regular	Contract
Secondary Teachers	14702	1892	1319287	129345
Higher Secondary Teachers	6446	708	583251	76661
Total Teachers	21148	2600	1902538	206006

Source: Secondary Education, Flash statistics, DISE 2015-16

Total Enrolment of Students in the Secondary and Higher Secondary Schools

The total enrolment in the state has increased from 1576107 in 2014-15 to 1585428 in 2015-16. In 2015-16, the total enrolment in

Jharkhand's secondary schools was 10,25,793 and in India it was 3,91,45,052. The total enrolment in Jharkhand's higher secondary schools was 5,59,635 and that of India was 2,47,35,397. Thus the total enrolment in the secondary schools was more than in the higher secondary schools.

Table 11.16: Total enrolment of Students in the Secondary and Higher Secondary Schools of Jharkhand and India

State/country	Total Enrolment					
	Secondary		Higher Secondary		Total	
	2014-15	2015-16	2014-15	2015-16	2014-15	2015-16
Jharkhand	1014028	1025793	562079	559635	1576107	1585428
India	38301599	39145052	23501798	24735397	61803397	63880449

Source: Secondary Education, Flash statistics, DISE 2015-16

Social Category Wise Enrolment in the Secondary and Higher Secondary Schools

Among the four categories, the enrolment of OBC students in the secondary school is the highest. In Jharkhand, the enrolment of OBC students from 2014-15 to 2015-16 has increased by 10,910. Similarly, the enrolment of students in the general category within the same year span in Jharkhand has increased by 4,523. But in contrast, the enrolment of the scheduled caste and schedule tribe students has decreased by 3,436 students and 232 students respectively. Well at the all India

level, the enrolment of the schedule caste, schedule tribe and OBC students has increased by 1,62,065, 70,450 and 6,43,380 respectively. Only the enrolment of the general category students has decreased by 32,442.

In the higher secondary schools of Jharkhand, from 2014-15 to 2015-16 the enrolment of students of the general category, schedule caste and other backward caste has decreased by 816, 2411 and 3562 students respectively. But at the national level the enrolment in all the social categories has increased between 2014-15 and 2015-16.

Table 11.17: Social Category Wise Enrolment of the Students in Secondary and Higher Secondary Schools

State/Country	Secondary Schools							
	General		Scheduled Castes		Scheduled Tribes		Other Backward Class	
	2014-15	2015-16	2014-15	2015-16	2014-15	2015-16	2014-15	2015-16
Jharkhand	145247	149770	127590	124154	235799	235567	505392	516302
India	10829954	10797512	7149151	7311216	3252785	3323235	17069709	17713089

Higher Secondary Schools								
State/Country	General		Scheduled Castes		Scheduled Tribes		Other Backward Class	
	2014-15	2015-16	2014-15	2015-16	2014-15	2015-16	2014-15	2015-16
Jharkhand	157159	156343	60849	58438	118308	122653	225763	222201
India	7769873	8041897	4134286	4287448	1516735	1674735	10080904	10731317

Source: Secondary Education, Flash statistics, DISE 2015-16

Enrolment as per stream at the Higher Secondary Schools

On studying the enrolment of students according to the stream at higher secondary level, besides Arts, in all other streams, enrolment of girls is lower than that of boys⁵. Both in India and Jharkhand the total

enrolment of girl students in the Arts stream is more than in other streams. A total of 152241 girls from Jharkhand and 5758570 girls from India are enrolled in Arts stream. In the Science stream 43,225 girls and 71554 boys are enrolled in Jharkhand. In India 33,84,443 girls and 45,67,360 boys are enrolled in the science stream.

⁵ Total may not add to total enrolment because of missing values and no responses.

Table 11.18: Enrolment as per stream in the Higher Secondary Schools

State/UT	Enrolment by Stream at The Higher Secondary Level									
	Arts		Science		Commerce		Vocational		Other Streams	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
Jharkhand	142938	152241	71554	43228	40577	30010	1278	900	1480	620
India	5379043	5758570	4567360	3384443	1660242	1407881	287274	184577	316508	259028

Source: Secondary Education, Flash statistics, DISE 2015-16

Age -Specific Enrolment Ratio

The age-specific enrolment ratio has been calculated by dividing the children into two age groups, that is 14+ to 15+ years and 16+ to 17+ years. In the following table ⁶(Table 11.19) a gender and year wise comparison of the age-

specific enrolment ratio of the students in India and Jharkhand has been presented. In Jharkhand the enrolment ratio of 14+to 15+ years student in 2015-16 was 73.71 and of 16+to 17+years was 43.33. Well, both for India and Jharkhand the enrolment ratio of girls in both the age groups and in both the years was more than that of the boys. Thus, the number of girls within the age group of 14 to 17 years who got enrolled to schools was more than that of the boys.

⁶ Enrolment of a specific age-group irrespective of the level of education and as a percentage of the population of same age group. Enrolment ratios are based on child population provided by the Department of Higher Education, Ministry of HRD

Table 11.19: Age Specific Enrolment Ratio

	14+ to 15+ years						16+ to 17+ years					
	Boys		Girls		Total		Boys		Girls		Total	
	2014-15	2015-16	2014-15	2015-16	2014-15	2015-16	2014-15	2015-16	2014-15	2015-16	2014-15	2015-16
Jharkhand	63.95	71.22	68.5	76.47	66.11	73.71	44.74	41.24	47.49	45.72	46.01	43.33
India	69.4	76.55	71.29	79.29	70.29	77.83	47.86	47.69	48.31	48.28	48.07	47.97

Source: Secondary Education, DISE 2015-16

STATUS OF CHILDREN WITH SPECIAL NEEDS (CWSN) SCHOOLS IN JHARKHAND

According to the latest report of the Jharkhand Education Project Council (JPEC) the number of CWSN schools in state from 2001-02 to 2015-16 have increased from 8756 in 2001-02 to 78667 in 2015-16. The following table 11.20 explains the same.

Table 11.20: Status of CWSN schools in Jharkhand

Financial Year	Number of CWSN schools
2001-02	8756
2002-03	21572
2003-04	28800
2004-05	27715
2005-06	26839
2006-07	38684
2007-08	34804
2008-09	34096
2009-10	40026

Financial Year	Number of CWSN schools
2010-11	42725
2011-12	45243
2012-13	66068
2013-14	70068
2014-15	77061
2015-16	78667

Source: JPEC 2015-16

STATUS OF KASTURBA GANDHI BALIKA VIDYALAYA (KGBV) IN JHARKHAND

At present there are 203 KGBV running in Jharkhand. It is a central government sponsored initiative, to provide the schools at every block of the state so that the girls from minority and backward classes get basic education and can become independent. Table 11.21 summarizes the number of KGBV in the different district of Jharkhand and also the enrolment per class from 6th to 8th standard. 29062 is the total number of girls who have got enrolled between 6-8 classes in KGBV.

Table 11.21: Class wise Enrolment of Girls (VI-VIII)

District	No. Of KGBV	Class wise			Total
		VI	VII	VIII	
Bokaro	8	408	313	267	988
Chatra	10	489	477	459	1425
Deoghar	8	379	331	341	1051
Dhanbad	6	308	293	298	899
Dumka	10	500	500	500	1500
Garhwa	14	696	683	670	2049
Giridih	12	617	589	546	1752
Godda	8	407	368	358	1133
Gumla	10	500	499	500	1499
Hazaribagh	10	450	481	447	1378
Jamatara	4	199	200	200	599
Khunti	5	250	251	249	750
Koderma	4	197	151	156	504
Latehar	6	298	297	297	892
Lohardaga	5	234	212	238	684
Pakur	6	322	280	251	853
Palamu	12	600	600	600	1800
Pashchimi Singhbhum	15	690	676	685	2051

District	No. Of KGBV	Class wise			Total
		VI	VII	VIII	
Purbi Singhbhum	9	450	450	450	1350
Ramgarh	4	200	192	187	579
Ranchi	13	628	623	640	1891
Sahibganj	9	456	411	375	1242
Saraikela Kharsawan	8	413	391	396	1200
Simdega	7	328	332	333	993
Grand Total	203	10019	9600	9443	29062

(Source: AWP&B 2016-17)

Table 11.22 summarizes the classroom wise enrolment from 9th to 12th standard. In Palamu district, where 2282 girls are enrolled. Paschimi Singhbhum, 2583 girls are enrolled

Table 11.22: Class wise Enrolment of Girls (IX-XII) in KGBV

District	No. Of KGBV	Class wise				Total
		IX	X	XI	XII	
Bokaro	8	331	324	236	220	1111
Chatra	10	437	361	264	174	1236
Deoghar	8	342	343	253	195	1133
Dhanbad	6	298	293	303	285	1179
Dumka	10	470	496	149	100	1215
Garhwa	14	677	572	444	430	2123
Giridih	12	587	529	387	301	1804
Godda	8	370	318	210	129	1027
Gumla	10	666	316	345	254	1581
Hazaribagh	10	462	483	312	294	1551
Jamatara	4	199	190	119	113	621
Khunti	5	247	232	185	192	856
Koderma	4	200	190	151	142	683
Latehar	6	303	302	217	184	1006
Lohardaga	5	223	221	183	117	744
Pakur	6	259	152	46	29	486
Palamu	12	600	577	586	521	2284
Pashchimi Singhbhum	15	682	639	639	623	2583
Purbi Singhbhum	9	426	449	462	414	1751
Ramgarh	4	186	185	140	107	618
Ranchi	13	573	516	408	392	1889
Sahibganj	9	406	348	182	218	1154
Saraikela Kharsawan	8	404	367	425	306	1502
Simdega	7	276	192	182	78	728
Grand Total	203	9624	8595	6828	5818	30865

(Source: AWP&B 2016-17)

Number of Teachers in KGBV in Jharkhand

The following table 11.23 summarizes the number of teachers in the different KGBV schools at present and also shows the list of

teachers targeted to be achieved. 640 teachers are at present working in KGBV. In Paschmi Singhbhum 59 teachers are employed, it is the highest number of teachers employed in the state followed by 42 in the district of Ranchi.

Table 11.23: District wise Full time teachers in KGBV

District	Total no. Of KGBV	Target	Teachers in place
Bokaro	8	40	19
Chatra	10	50	21
Deoghar	8	40	27
Dhanbad	6	30	21
Dumka	10	50	41
Garhwa	14	70	26
Giridih	12	60	36
Godda	8	40	35
Gumla	10	50	22
Hazaribagh	10	50	29
Jamatara	4	20	15
Khunti	5	25	20
Koderma	4	20	12
Latehar	6	30	19
Lohardaga	5	25	17
Pakur	6	30	16
Palamu	12	60	29
Pashchimi Singhbhum	15	75	59
Purbi Singhbhum	9	45	21
Ramgarh	4	20	7
Ranchi	13	65	42
Sahibganj	9	45	39
Saraikeela Kharsawan	8	40	34
Simdega	7	35	33
Grand Total	203	1015	640

(Source: AWP&B 2016-17)

The table 11.24 depicts a district wise non-teaching staff in KGBV across the state. There are 174 accountants, 177 cooks and 177 night

guards working for KGBV in the state. Again Paschimi Singhbhum is the district where the highest number of full time non-teaching staffs is employed.

Table 11.24: District wise full time non-teaching staff in KGBV

District	Total no. Of KGBV	Accountant Working	Cook Working	Night Guard
				Working
Bokaro	8	5	7	7
Chatra	10	7	9	9
Deoghar	8	8	8	8

District	Total no. Of KGBV	Accountant Working	Cook Working	Night Guard
				Working
Dhanbad	6	6	6	6
Dumka	10	9	10	10
Garhwa	14	9	13	13
Giridih	12	12	9	0
Godda	8	8	6	4
Gumla	10	10	8	12
Hazaribagh	10	7	7	8
Jamatara	4	3	4	4
Khunti	5	5	5	4
Koderma	4	3	2	4
Latehar	6	6	5	4
Lohardaga	5	3	5	4
Pakur	6	6	6	6
Palamu	12	11	12	12
Pashchimi Singhbhum	15	14	15	15
Purbi Singhbhum	9	8	4	9
Ramgarh	4	3	2	3
Ranchi	13	9	11	13
Sahibganj	9	9	9	9
Saraikela Kharsawan	8	8	7	7
Simdega	7	5	7	6
Grand Total	201	174	177	177

Source: AWP&B 2016-17

Box 11.3: Transparent Communication: Information on school level schemes a phone call away

Information on the status of various school-level schemes and initiatives will be a phone call away for the people of Jharkhand. The State School Education and Literacy Department is upgrading two of its helpline numbers to provide data on the teachers' recruitment, infrastructure development, the status of mid-day meals and others. This will ensure transparency in the communication between the common people and the education department as it will directly connect us to the information centre. The helpline numbers would also function as a **grievance redress platform**, where people can complain about irregularities in the implementation of various schemes. There are over 40,000 government schools in the state but most of them are located in the rural areas. Thus, helpline numbers would make it easy for the villagers to stay updated about the facilities their children are entitled to. The helpline numbers are:-18002456542/18003456544.

Source: Courtesy Hindustan Times, 6th October, 2016

QUALITY EDUCATION PLAN

A report has been presented by the Jharkhand Education Project Council (JEPC) under SSA on

the state's initiative for quality education in state. Following are some of the projects on which the state has already started working or has proposed its plan.

1. School Kit

Every child will get a pair of shoes, socks, belt, school bag, stationary items (pensil, eraser, geometry box, etc.). Further, to ensure transparency, the fund allocated for the purpose i.e. 590 rupees for primary and 715 rupees for upper primary (for each child), is directly transferred into the account of the enrolled students. This endeavour has changed the scenario: the gap between the government schools and private schools on the up front has been changed and it has helped in eradicating the inferiority complex in the children studying in the government schools. Attraction towards their school has increased; therefore, students now feel a sense of oneness with their school. The result has been 10 to 20% increase in the retention of students in school and a consequent increase in attendance as well.

2. Vidya Lakshmi Yojna

Vidya Lakshmi Yojna is an initiative taken by the state government to provide incentive to the SC / ST under-privileged girl students who are deprived of the basic amenities so that their interest and inclination towards their school increases. Under this scheme a sum of rupees 2000 is deposited in the account of class 6 SC / ST girl students and they are entitled to get the total amount when they take admission in class 9. Usually they drop out of school after class 6 but because of this effort they remain in school till they complete their basic education. This will act as a financial magnet to attract girl students to the schools.

3. Jharkhand Awasiya Vidyalaya

Similar to the national scheme of Kasturba Gandhi Balika Awasiya Vidyalaya for the girl child, the state government has launched the Jharkhand Awasiya Vidyalaya to ensure that the 'out of school girl students' of the concerned block get a residential school within the block having free boarding and lodging, fooding,

clothing, items of daily need, study materials (including books, copies and stationeries). This scheme ensures that the girl child gets basic education till class 8. The future plan is to gradually provide free education till class XII. Therefore this scheme is going to finally bring about a state wise change in the literacy rate. The plan has been successfully implemented because of these efforts and the good quality of life in these residential schools, the drop-out rates have gone down.

4. Swach Vidyalaya Swasth Bacche

The state has launched 'Swach Vidyalaya Swasth Bacche' campaign by following the Pradhan Mantri Swachatta Abhiyan. The focus was to inculcate etiquette, mannerisms and personal hygiene amongst students so that they could spread this message to their families and community and bring an environmental change in the society. Various activities under this campaign were carried out such as school level competitions, workshops and seminars, SMC meeting, hand wash, Bal Sansad orientation, plantation, etc. Involvement of all stake holders such as administration, public representatives, NGOs and community were ensured under this programme. To promote sound health among the students, their wholesome development will be ensured.

5. Hamara Vidyalaya Adarsh Vidyalaya

The initial concept of model schools in the district has been implemented wherein about 10 schools have been developed as 'Adarsh Vidyalaya'. Gradually there is a plan to create at least 5 model schools in every block. It is an endeavour towards creating a good learning environment in the school to facilitate education among the students in the class. In the year 2016-17 a proposal has been given to develop 5 schools in each block, in total 65 schools in the district as model schools (Adarsh Vidyalayas).

6. Change in School Hours

The school timing has changed from 10a.m. to 4p.m. to 8 a.m. to 2 p.m. This was done because students used to run back home after getting their Mid-Day meals. It prevented the teacher from completing the syllabus for the day in the class and therefore on the whole

the curriculum would remain incomplete by the end of the session. But with the new timing there has been a positive change as the children stay in school for the whole day, they are inclined to attend all the classes and therefore the learning output has increased main folds.

Box 11.4: Bal Samagam: A platform for children to showcase their talent

Bal Samagam is a part of the quality education plan of the state. It aims in developing leadership skills in the children by providing them a platform to showcase their talents at various levels in different fields. It involves about 30 different activities (like sports, dramatics, literary skills and etc) which in turn help in developing a healthy competitive spirit among the children and ultimately helps in turning these youngsters into responsible citizens of uplifting the society.

On 5th December, 2016 Bal Samagam was organised in the Angara, Itki, Ratu and Mandar blocks. Students from different schools participated in the various competitions (games, recitation, debate, science mela, maths mela, essay writing). The successful students are awarded certificates, medals and shields as tokens of appreciation. These students will also get an opportunity to participate in the district level Bal Samagam.

Source : Courtsey Prabhat Khabar, 6th December 2016

HIGHER AND TECHNICAL EDUCATION

Higher education improves an individual's quality of life. Higher education includes mostly professional education and is strongly vocationally or professionally oriented. To improve the quality of education and to increase investment in this sector, the Government of Jharkhand has taken some effective steps by passing 5 private universities Act in the assembly. The government had constituted a separate department namely "Higher and Technical Education" on 13.07.2015 so as to fulfil its objectives and to increase its focus on this area. The mission of higher education is to achieve access, equity, quality and excellence.

The government of Jharkhand is determined in bringing some significant changes in higher education. In the current financial year the government of Jharkhand has decided to construct 100 colleges, including polytechnic and technical institutions, which are expected to be completed in the coming two to three years.

According to the RUSA 2015-16 survey report, there are 11 universities and 343 colleges are working under them. Only 2 universities in the state namely, Kolhan University in Chaibasa and Vinoba Bhave University in Hazaribag are NAAC accredited and 24 colleges in the state are NAAC accredited. Three colleges got the NAAC accreditation by the 17th standing committee on 15th -17th September 2016.

UGC Recognized Universities in State

- **Central University** – Central University of Jharkhand
- **State university** – Birsa Agriculture University, Kolhan University, Nilamber Pitamber University, Siddhu Kanhu University, Vinoba Bhave University and National University of Study and Research in Law.
- **Deemed University** – Indian School of Mines and Birla Institute of Technology

- **Private Universities** – AISECT, AMITY University, Jharkhand Rai University, Pragyan International University, Sai Nath University and ICFAI university

State Board of Technical Education, Jharkhand

The State Board of Technical Education came into existence just after the creation of Jharkhand in 2000 for establishing and monitoring technical institutions. The Board is responsible for formulating new courses and developing curricula, besides working for

the advancement of technical education and research work. The State Board of Technical Education Jharkhand, Ranchi is under the administrative control of the Department of Science & Technology, Government of Jharkhand. Since its formation the board is striving continuously for the betterment of the academic standard of Polytechnics and Women Industrial School (WIS) of this State. At present, 13 Engineering government polytechnic colleges and 3 private engineering polytechnic colleges are affiliated to it and 3 non- engineering polytechnic colleges are affiliated to it.

Box 11.5: Jharkhand Raksha Shakti University

Governor Droupadi Murmu inaugurated **Jharkhand Raksha Shakti University**, Ranchi on 3rd October, 2016. It is the third such university in the country after Gujarat and Rajasthan. The university offers unique courses, such as:-BSc (Hons) in computer application and cyber security, BSc (HONS) in forensic science, PG Diploma industrial security, and diploma in police science. The temporary campus of JRSU has been set up in the erstwhile State Judicial Academy. It has five classrooms; one library with 280 books to begin with, one laboratory and teachers’ room and the varsity office. The permanent campus is built in the Khunti district. This university lays stress on skill development. In th coming years this will help in dealing with cyber crime and arrest the migration of students to other states to some extent. The chief minister said that this university is a step forward to bolster the state’s higher and technical educational scenario.

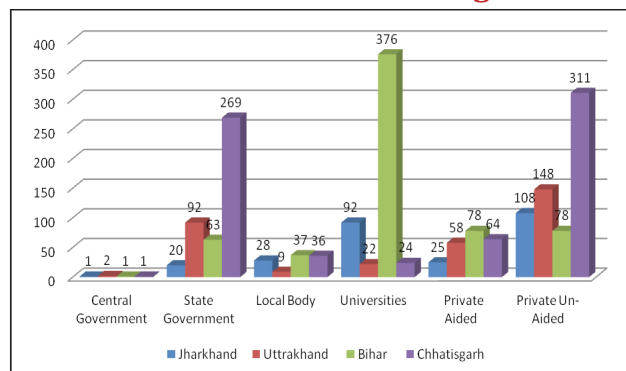
Source: Courtesy Hindustan Times, 4th October,2016

Inter State Comparison of Colleges and Recognised Institutions

Jharkhand was carved out of Bihar, and Chattisgarh and Uttarakhand were formed with Jahrkhand. So, a comparison between theses four states has been done on the number of colleges and recognised institutions. The figure below (Figure 11.6) clearly shows that there is 1 central government institution in Jharkhand, Chattisgarh and Bihar, and 2 central government institutions are in Uttarakhand. There are 20 state government institutions in Jharkhand which is far below than that of Chattisgarh that has 269. Bihar has the highest number of universities, that is, 376 and it is followed by 92 in Jharkhand. There are only 25 private aided universities in the

state as compared to Bihar that has 78. Thus, Chattisgarh has the highest number of colleges/ recognised institutions on comparing it with the other three states, whereas Jharkhand has a total of 274 colleges/recognised institutions.

Figure 11.6: Inter State Comparison of Private and Public Colleges



Source: AISHE 2015-16 report

Social Category wise Male and Female Student Enrolment in Higher Education

The total enrolment of students in higher education has increased from 3,14,280 in 2014-15 to 343784 in 2015-16. Table 11.25 depicts an increase in the total enrolment of

male students by 16,012 from 2014-15 to 2015-16. Similarly, the total female students enrolment has also increased by 13,492 from 2014-15 to 2015-16. Social category wise, the OBC students enrolment rate is the highest both in the male and female students.

Table 11.25: Social Category and Male and Female Student Enrolment in Two Consecutive Financial Years

Social Category	Year	Gender	Jharkhand
Schedule Tribe(ST)	2014-15	Male	43910
		Female	49335
		Total	93245
	2015-16	Male	43597
		Female	50403
		Total	94000
Schedule Caste(SC)	2014-15	Male	26028
		Female	19785
		Total	45813
	2015-16	Male	29061
		Female	22742
		Total	51803
Other Backward Caste(OBC)	2014-15	Male	92983
		Female	82239
		Total	175222
	2015-16	Male	106275
		Female	91706
		Total	197981
Total	2014-15	Male	162921
		Female	151359
		Total	314280
	2015-16	Male	178933
		Female	164851
		Total	343784

Source: AISHE 2014-15 and 2015-16 report

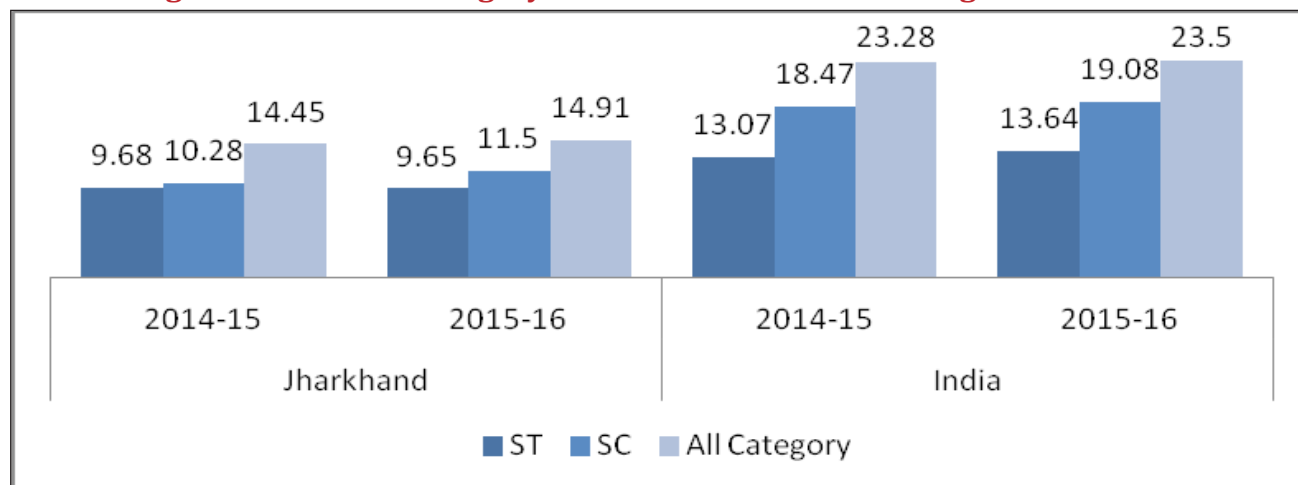
Social Category wise Gross Enrolment Ratio

The figure 11.7 depicts the social category wise gross enrolment ratio of students engaged in higher education in Jharkhand and India. In Jharkhand the enrolment ratio has increased

by approximately 0.46 from 2014-15 to 2015-16. In India the increase has been by 0.22 from 2014-15 to 2015-16. Thus, it clearly shows that the increase in gross enrolment ratio of Jharkhand is higher than that of India. Social category wise in Jharkhand, the gross

enrolment ratio has silently decreased by 0.03 among the schedule tribe (ST). But among the schedule caste (SC) the gross enrolment has increased by 1.22.

Figure 11.7: Social Category Gross Enrolment Ratio in Higher Education



Source: AISHE 2014-15 and 2015-16 report

Post wise Male and Female Teachers in the Universities and Colleges in the State

On the basis of designation and gender the status of teachers in the state universities and colleges has been listed in the following table

11.26, along with that, the status of teachers at all India level has also been depicted in table 0.29. A total of 589 professors, 1471 associate professors, 413 lecturer (selection grade), 4938 assistant professors, 142 lecturers (senior scale) are working in Jharkhand.

Table 11.26: Post Wise Male and Female Teachers in Universities and Colleges

Position	Gender	Jharkhand	India
Professor & Equivalent	Male	521	67018
	Female	68	21675
	Total	589	88693
Reader & Associate Professor	Male	1115	109115
	Female	356	58422
	Total	1471	167537
Lecturer (Selection Grade)	Male	249	20093
	Female	164	12065
	Total	413	32158
Assistant Professor	Male	3631	359013
	Female	1307	249562
	Total	4938	608575
Lecturer(Senior Scale)	Male	104	12234
	Female	38	7459
	Total	142	19693

Source: AISHE 2015-16 report

Social Category wise Male and Female Faculty in Two Consecutive Financial Years

There has been an overall increase in the faculty from 2014-15 to 2015-16. The male

teaching staff has increased from 2010 to 2772 from 2014-15 to 2015-16. The women teaching faculty has also increased from 802 to 1109 from 2014-15 to 2015-16. In social category, the OBC faculty is highest in number as compared to ST and SC staffs.

Table 11.27: Social Category wise Male and Female Faculty in Two Consecutive Financial Years

Social Category	Year	Gender	Jharkhand
Schedule Tribe(ST)	2014-15	Male	316
		Female	346
	2015-16	Male	402
		Female	481
Schedule Caste(SC)	2014-15	Male	185
		Female	52
	2015-16	Male	247
		Female	71
Other Backward Caste(OBC)	2014-15	Male	1509
		Female	404
	2015-16	Male	2123
		Female	557
Total	2014-15	Male	2010
		Female	802
	2015-16	Male	2772
		Female	1109

Source: AISHE 2014-15, 2015-16 report

Status of Faculty with Disability and Belonging to Minority Communities

In the category of minority communities, there has been a decrease in the male teachers from 112 to 109 and an increase in female teachers

from 107 to 131 in 2014-15 and 2015-16 respectively. In PWD the male faculty has increased from 62 to 78, whereas in Muslims, there has been an increase in the number of male and female teachers.

Table 11.28: Status of Faculty with Disability and Belonging to Minority Community

Category	Year	Gender	Jharkhand
PWD	2014-15	Male	62
		Female	15
	2015-16	Male	78
		Female	16
Muslims	2014-15	Male	338
		Female	94
	2015-16	Male	422
		Female	112

Category	Year	Gender	Jharkhand
Other Minority Community	2014-15	Male	112
		Female	107
	2015-16	Male	109
		Female	131

Source: AISHE 2014-15, 2015-16 report

Box 11.6: New Initiatives under Rashtriya Uchchar Shiksha Abhiyan

Rashtriya Uchchar Shiksha Abhiyan (RUSA) is a Centrally Sponsored Scheme (CSS), launched in 2013 which aims at providing strategic funding to the eligible higher educational institutions of the state. RUSA emphasizes on the upgradation of the existing colleges, setting of new colleges, correcting regional imbalances in the access to higher education, and thus makes an attempt to improve the overall quality of education. The government of Jharkhand is also walking in the same path. Some of the initiatives taken and their impact are as follows:

- The state Higher Education Plan has been approved by Project Approval Board (PAB) of Rashtriya Uchchar Shiksha Abhiyan (RUSA) to the tune of 206 crore.
- An amount has been sanctioned for setting up an English language lab in the five universities of the state.
- Indian School of Mines has been converted to IIT.
- Initial work for setting up of Jharkhand Technical University in Namkum, Jharkhand Institute of Craft and Design, Jharkhand Raksha Shakti University and Indian Agricultural Research Institute has started.
- An initiative has been taken of holding the classes in two shifts (that is day and evening) in the colleges and universities so that none of the youth are deprived of higher education.
- It has been proposed to open universities in 12 districts which are educationally backward.
- An amount of 26 crore has been sanctioned for setting up 1 English college in Jamshedpur.
- An amount of 55 crore has been sanctioned for upgrading Ranchi College to a university.
- An amount of 20 crore has been granted for the infrastructure development of the 3 universities of the state.

INITIATIVES AND ACHIEVEMENTS

CENTRAL GOVERNMENT

Establishment of Girls' Hostel

The establishment of girls' hostel has been merged with Rashtriya Madhyamik Shiksha Abhiyan (RMSA). GOI has taken an initiative, in establishing girls' hostels in educationally backward blocks (EBB) of the state. 161 girls' hostels have been sanctioned by GOI in

Jharkhand. The state government has sent a proposal for 42 girls' hostel for the year 2016-17.

Establishment of Model Schools

This is a centrally sponsored scheme and the centre is bearing 50% of the total recurring and non recurring expenditure. The state government has requested the GOI to sanction 89 schools for the completion of civil works in these schools for the year 2016-17.

- **Scholarship Scheme 2016**

CBSE offers merit scholarship to the meritorious Single Girl Student under CBSE Scholarship Scheme. Applicants who are studying in the 10th class and are single girl child of their parents can take the benefit of this scheme to continue their further studies of 11/10+2 from the Central board of secondary education. The objective is to offer scholarships to the praiseworthy Single Girl apprentice, who is the only child of her parents, and has qualified the 10th class CBSE Examination with 60% / 6.2 CGPA or more marks/ grades and can carry on her further academic qualifications from the same board. The scheme is intended to recognize the efforts of the parents in supporting education among girls and to provide encouragement to commendable students.

- **Indira Gandhi PG Scholarship for Single Girl Child 2016**

An amount of Rs. 3,100 is to be provided by the UGC to support the post graduate education of single girl child in non-professional courses and to recognise the value of observance of the small family norm. The scholarship has been launched with an aim to compensate the direct costs of girl education at all levels especially for such a girl who is the only girl child in her family.

STATE GOVERNMENT

- **Bal Priya Vidyalaya (RTE compliant - Child Friendly Schools)**

Jharkhand Education Project Council (JEPC) in collaboration with UNICEF, has undertaken some activities for strengthening RTE compliance at the school level. Focus is on the comprehensive development of the child through the whole school concept. Around 240 schools in 13 districts in the state have been made RTE compliant (Phase 1) on the indicators related to quality classroom

transactions, WASH, Child Participation, School community linkage through active SMC and holistic School Development Plan (SDP), School environment, school library and bio-intensive gardens, etc. The schools have demonstrated qualitative improvement and this has been documented in the form of 'A Story of Bal Priya Vidyalaya' document by the key stakeholders including teachers, students (Bal Sansad, Bal Partakers), SMCs, CRPs, etc. Through this programme children have enjoyed their freedom of expression and leadership and the community members are happy that their school has started functioning well.

- **Establishment of Gym and Wi-Fi network in KGBV**

The government has taken the initiative of establishing gym and Wi-Fi network at KGBV and distributing tablets and PCs amongst students. Gyms are established to promote physical training to girl students and for the promotion of sports, as the girls of Jharkhand have exhibited their potential not just at the national level but also internationally.

Use of Information and Communication Technology (ICT) is the need of the hour and in order to facilitate it Wi-Fi network will be provided in the schools. It will give the students an enhanced accessibility to unlimited knowledge in all the fields of study. They will also get access to learning materials like free e-books, pictures, flow charts, diagrams, new trends, latest national and international news, upcoming global events and text materials, free You Tube videos. Class 8 students of KGBV have been provided Tablet PCs. In these tablets learning material in the digital form can be accessed through Wi-Fi networking.

- **Swachh Vidhyalaya**

Jharkhand is among those 17 successful states/ UTs that under the Swach Vidyalaya Scheme have been able to complete the construction

of 15795 toilets in different government schools. Under SSA, RMSA and SBKA fund 2630 toilets have been constructed in schools, under corporate funds 11 toilets have been constructed and under PSUs 13154 toilets have been constructed. It is a big achievement for the state as they have completed the target number within the given time frame.

- **Signing MOU with Private Universities**

To improve the quality of education and to increase the private investment in the state, 5 private universities have been given the “letter of Intent”. For a student exchange programme, the state signed a MoU with Tech Mahindra (IT-ITES) for skill development, robotics and cloud computing, apart from setting up the incubation centre and BPO.

In the educational sector, the state has signed MoU worth Rs 350 crores with MNR Education Trust Integrated Medical and Para-medical Education Campus and it would be set up in the next five years on an 80-acre land.

- **Initiatives for Innovative Learning**

Under innovative learning, permission for the establishment of the digital library has been granted. Along with that permission for setting up of WIFI facility in all universities, BIT Sindri and in all Polytechnic colleges has been also accepted.

- **Upgradation of SSA (Sarva Shiksha Abhiyan)**

Jharkhand is planning to upgrade at least 5,000 Sarva Shiksha Abhiyan (SSA) centres and recruit nearly 15,000 teachers in a bid to ensure quality education for over five lakh students in these rural establishments. At present, these students are taught by AD-HOC educators hired on honorarium to make up for the dearth of regular ones. Fresh recruitment would be made through the 2016 Jharkhand Teachers’ Eligibility Test (JTET). The first step would be to upgrade the SSA schools. Then

vacancies would be created and filled through JTET.

- **Zero Drop-Out**

The state government has taken all the major steps to lower the drop-out ratio to zero. For this, in the first phase, five panchayats will be marked and will be declared as drop-out free by February 2017, and action plans will be prepared to make the rest of the panchayats drop-out free. Bio matrix attendance system will be started. It will be the responsibility of the ‘mukhiya’ of the particular panchayat to maintain records of the students attending the schools, and also talking to their parents when they are absent. After ensuring zero drop-outs in schools by the ‘mukhiya’, a team will come for confirmation and finally the state government will declare the panchayat as a drop-out free panchayat.

For this, an initiative has been taken by the government by introducing free air travels for children. This is being done to boost their confidence and to encourage them for attending schools. The motto of organising such an initiative is to declare Jharkhand a drop-out free state by the year 2019.

- **Establishment of Coaching Centres**

In order to prepare students of the universities for competitive examinations, the state government has sanctioned an amount for the establishment of coaching centres in an attempt to ensure the employability of students.

- **Appointments and Recruitments**

In order to fill the vacant posts in the universities and to increase the teacher-student ratio, JPSC has been authorized to make appointments and promotions so that the vacancies get filled up during the year.

- **Desk – Chair Facility in Schools**

The students’ enrolment in school is increasing

and so also the need for better infrastructure. At present in about 8006 schools, the desk-chair facility is there. The state government has sanctioned an amount of Rs. 800 crore for buying new desks and chairs for the schools. This money will be given to the Jharkhand Education Project Council. In the present financial year, the desks and chairs will be bought for medical schools and for secondary and higher secondary schools as well. In 2017-18 desks and chairs for elementary schools will be bought. These benches and desks will be bought from the carpenters of the state so that they are also able to earn their living.

- **Electricity Facility in all Schools**

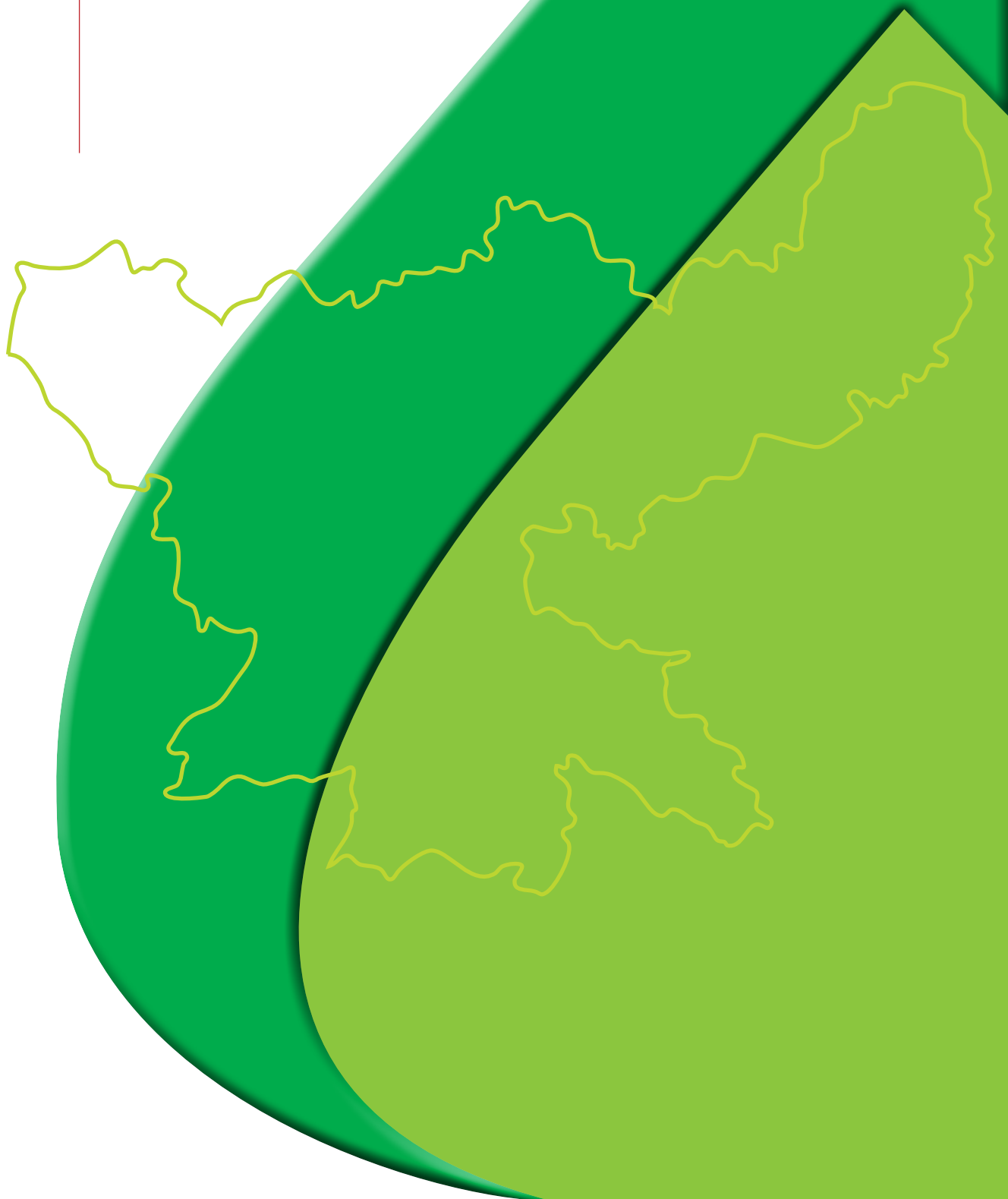
The state government has started providing electricity facility in all the elementary and secondary schools of the state. An expenditure of amount of Rs. 401.74 crore has been laid for it. In the year 2016-17, the government has planned to provide electricity facility in 14469 secondary schools, 6000 elementary schools

and 51 Kasturba Gandhi Balika Vidhyalaya. In the rest of the schools by 2017-18 electricity connection will be provided.

CONCLUSION

The universalization of the educational sector and the improvement of quality of education are the foremost task before the state government. In recent years, it can be seen that the face of education in Jharkhand has changed, although it is lagging behind in comparison to other states but a significant improvement can be seen when compared with itself. The overall number of schools, colleges and universities has increased; overall enrolment rate has also improved. Further, the state government is taking initiatives to improve the quality of education in the state. With an aim of the overall development in educational sector, the government is taking effective steps, as there is still room for improvement and betterment.

12 HEALTH



Providing quality health care services, particularly for those in remote and distant areas in order to reduce morbidity and mortality at all levels and in all sectors without any discrimination is the prime objective of the Government of Jharkhand. The Government has been increasingly trying to create health infrastructures and trained health personnel in public, private and voluntary sectors to ensure basic as well as advanced health care services and facilities to its people. The efforts of the Department of Health, Medical Education & Family Welfare of the Government of Jharkhand is commendable on account of persistent improvements in several types of Health Indicators keeping in mind the low level of health awareness among the people and the diverse geographical conditions.

Status of Health Indicators in Jharkhand

Mortality and Birth rates are the primary health indicators. Several key measures, such as Infant Mortality Rate (IMR), Maternal Mortality Rate (MMR), Crude Birth Rate (CBR) and Crude Death Rate (CDR) are used very often to indicate a State's overall health.

Table 12.1: Birth and Mortality Indicators

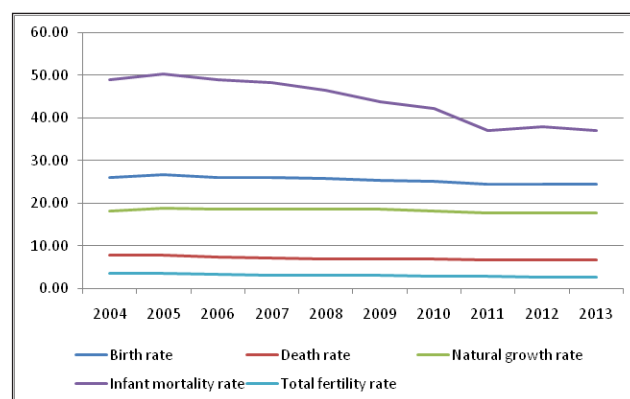
	SRS 2013	SRS 2014
CBR	24.6	23.8 (India-21)
CDR	6.8	5.9 (India-6.7)
IMR	37	34 (India-39)
	SRS 2010-12	SRS 2011-13
MMR	219 (India-178)	208 (India-167)

Source: Sample Registration System- Different years, Registrar General, India.

According to the Sample Registration System (SRS) 2014, CBR in Jharkhand stood at 23.8 against 24.6 per 1000 mid-year population in the year 2013, which shows an improvement. However, it is higher than the national average of 21. Similarly CDR stood at 5.9 in the year 2014 against 6.8 per year 1000 population

in the year 2013, indicating a significant improvement in reducing mortality as compared to the national average of 6.7. Infant Mortality Rate and Maternal Mortality Rate also decreased in the year 2014 from their respective rates in the previous year. However, MMR is quite higher as compared to the India average. The Figure 12.1 shows the trend in these indicators during 2004-2013 here a clear trend of improvement can be easily observed.

Figure 12.1: Annual estimates of Birth rate, Death rate, Natural growth rate, Infant mortality rate and Total fertility rate, 2004-2013



Source: Compendium of India's Fertility and Mortality Indicators, 1971 - 2013.

Communicable and Non-communicable Diseases in Jharkhand

The State has been able to bring down the proportion of communicable as well as non-communicable diseases quite significantly. Under National Leprosy Eradication Programme, Jharkhand has performed exceedingly well in the recent years. The prevalence rate per 10,000 population was 0.96 in the year 2014-15 but it has declined to 0.69 in the year 2015-16. Similarly, the number of Annual New Case Detection Rate (ANCDR) has also gone down from 13.63 per 100,000 population in 2014-15 to 12.15 per 100,000 population in 2015-16. Table 12.2 provides the performance of the State between

2014 and 2015 in terms of disease Prevalence Rate (PR) for several vector borne diseases. It shows that the Prevalence Rate has gone up

for Kala-azar, Filaria and Dengue but it has declined for Malaria.

Table 12.2 Prevalence Rate of Vector Borne Disease in Jharkhand

Disease Prevalence Rate (PR)	2014	2015
Malaria Prevalence Rate (per thousand population)	2.94	2.91
Kala-azar Prevalence Rate (per 10,000 population)	1.91	2.48
Filaria Prevalence Rate (per 10,000 population)	66.41	93.61
JE Prevalence Rate (per 10,000 population)	0.03	0.03
Dengue Prevalence Rate (per 10,000 population)	0.01	0.03

Source: Department of Health, Medical Education and Family Welfare, Government of Jharkhand

GoJ is also putting efforts to reduce the prevalence of non-communicable diseases. During 2015-16, State NCD Cell screened 2,54,566 people for diabetes and detected 32,572 (12.8 %) cases. The State is in the process of initiating screening for Cancer patients as well. GoJ has started a new initiative where 3 Districts of Jharkhand (Ranchi, Dhanbad and Bokaro) have been selected as pilot project for population based NCD screening. In order to prevent blindness in the State, GoJ has taken several initiatives under its Blindness Control Programme. Table 12.3 provides target and achievement of the State over the last two years.

Table 12.3: Performance of Blindness Control Programme

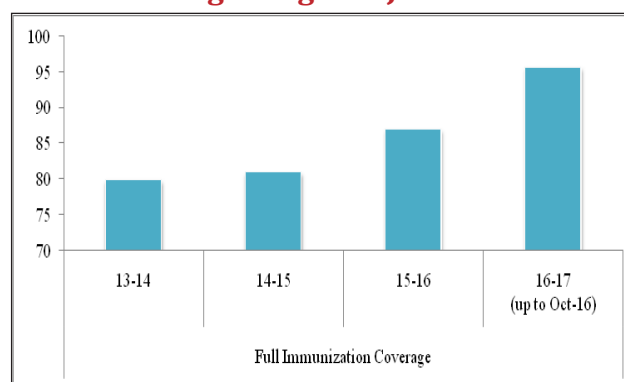
Pro-gramme	Target 2014-15	Achievement 2014-15	Target 2015-16	Achievement 2015-16
Cataract	114000	77683	114000	72528
School Eye Screening	1111000	732824	1111000	878553
Provide Free Glass	15000	6000	20000	8035

Source: Department of Health, Medical Education and Family Welfare, Government of Jharkhand

Child Health

With an aim to reduce IMR and Under 5 years Mortality Rates, several schemes under NHM are running in the State and among them Immunization scheme is playing an important role in improving both the present and the future health outcome of the children. Jharkhand has shown significant improvement in providing Full Immunization coverage in the recent years. In the year 2016-17 (up to October 2016), it has been able to provide coverage of up to 96 percent in the State. Figure 12.2 shows an increasing proportion of this percentage in the recent years.

Figure 12.2: Status of Full Immunization Coverage Target in Jharkhand

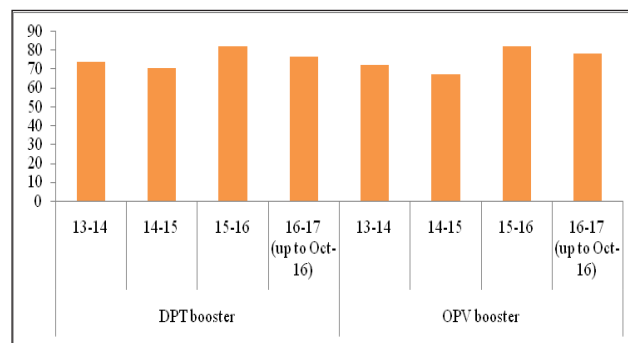
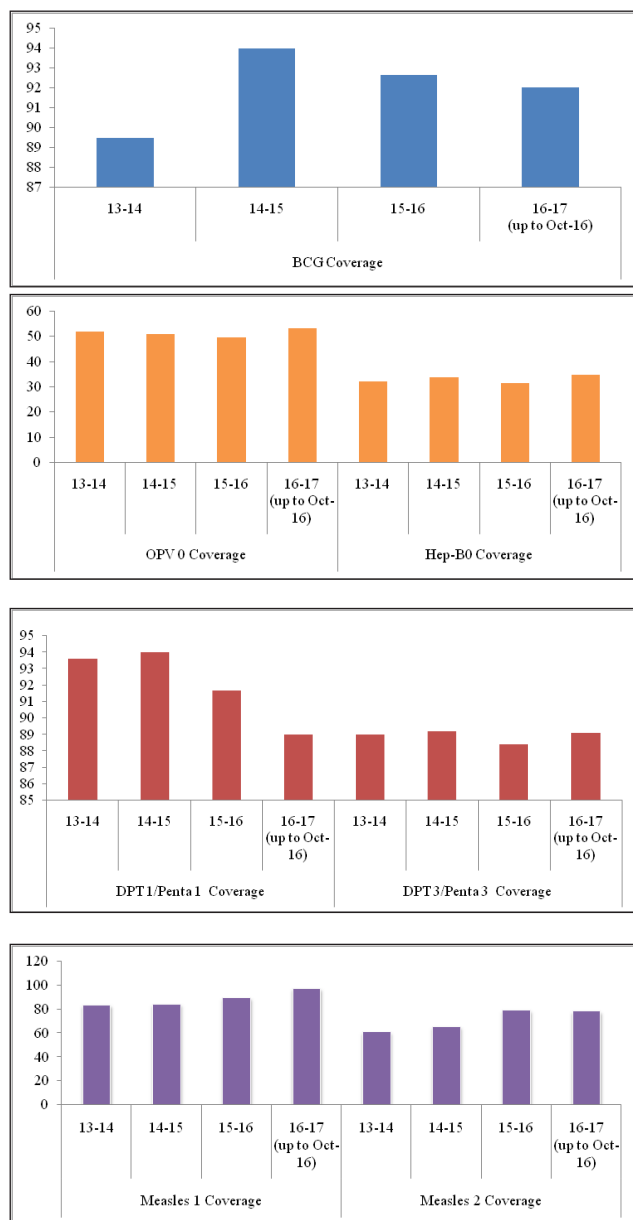


Source: Health Management Information System

Status of recent progress in certain common Vaccines

Figure 12.3 shows the recent years progress in BCG, OPV, Hep-B0, DTP, OPV etc. As per October 2016 figures, the achievement is more than 90% in case of BCG in the current year. Similarly, in case of other vaccines also the State has been able to maintain a consistent performance.

Figure 12.3: Target achievements in case of common Vaccines

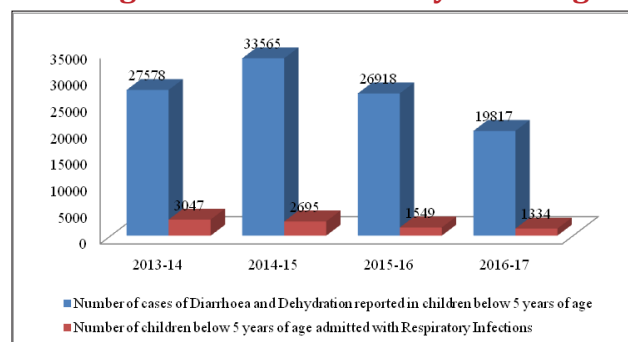


Source: Health Management Information System

Health Indicators for Children

Apart from immunisation, the State has also been able to show some significant improvements in the Child Health Indicators. For example in the year 2016-17, only 19,817 cases of Diarrhoea and Dehydration in children below 5 years of age were reported compared to 26,918 in the previous year (a decline of over 25 percent). The number of children below 5 years of age admitted with respiratory infections has also decreased by more than 50 percent from 2013-14 as shown in Figure 12.4.

Figure 12.4: Number of cases of Diarrhoea, Dehydration and Respiratory Infections among Children below five years of age.



Source: Department of Health, Medical Education and Family Welfare, Government of Jharkhand

Indicators of Nutritional Status among Children aged below five years

According to the Rapid Survey on Children (RSOC) 2014 and Clinical, Anthropometric and Bio-chemical (CAB) survey 2014, Jharkhand has performed well as per the indicators which shows that the nutritional status among

children aged below five years have improved. Table 12.4 gives detailed information on such indicators.

Table 12.4 Indicators of Nutritional Status among Children aged below five years

Indicators	NFHS-3 (2005-06)	RSOC (2014)	CAB 2014	HMIS/State MIS			
				2013-14	2014-15	2015-16	2016-17
Nutritional status below 5 years							
Below -2 SD Wasting (Weight for Height) (%)	32.3	15.6	21.3	-	-	-	-
Below -3 SD Wasting (Weight for Height) (%)	11.8	3.7	8.8	-	-	-	-
Below -2 SD Stunting (Height for Age) (%)	49.8	47.4	50.5	-	-	-	-
Below -3SD Stunting (Height for Age) (%)	26.8	23.7	28.5	-	-	-	-
Below -2 SD Underweight (Weight for Age) (%)	56.5	42.1	45.7	-	-	-	-
Below -3 SD Underweight (Weight for Age) (%)	26.1	16.1	18.3	-	-	-	-
Below -2 SD Undernourished (BMI for Age) (%)		-	22.5	-	-	-	-
Below -3 SD Undernourished (BMI for Age) (%)		-	12.4	-	-	-	-
Above 2 SD Overnourished (BMI for Age) (%)		-	5.5	-	-	-	-
Above 3 SD Overnourished (BMI for Age) (%)		-	1.9	-	-	-	-
Anaemia status by Haemoglobin Level							
Anaemia in the age group 6-59 months (%)	77.9	70.3	78.4	-	-	-	
Severe Anemia in the age group 6-59 months (%)	2	1.9	0.6	-	-	-	
Iodine content in Household Salt (>15PPM)	53.6	54.9	92.4	65.8	68	67	78
Vitamin A supplementation	19.7	18.7	-	-	-	83	92
Folic Acid /Iron Supplementation,	-	-	-	-	-	7	23
Exclusive breast feeding upto 6 months	57.8	64.3	-				
Percentage of newborns weighted after birth	-	-	-	91.3	92.4	92.4	92.3

Source: Health Management Information System

Maternal Health

Good maternal health is a necessary requirement to reduce MMR and IMR. The GoJ is committed to take care of maternal health. It is an established fact that delays in medical assistance to pregnant women is a major cause for the high maternal mortality rate. In order to facilitate the transportation of the pregnant women to the nearest health care service, GoJ provides the facility of 'Mamta Wahan' service for the would-be mothers within the State. Under this service, round-the-clock ambulance services are provided for pregnant women. For availing this service, family members of the would-be mothers can call the call-centre that would receive phone calls and ensure availability of ambulance at doorsteps within the least possible time. Since this service is having an increasing demand, its availability has been increased from 2420 in the year 2015-16 to 2657 in the year 2016-17 as is clear from table 12.5.

Family Planning

Family planning is an important step towards attaining the desired number of children. It helps couples in deciding about child spacing and childbirth timing. It also helps in taking care of the health of the mother and children. The Government of Jharkhand provides all the Family Planning Services like Tubectomy, NSV, IUCD, PPIUCD/PAIUCD, OCP and Condom through its several health facilities centres. New methods like chentchroman, POPs and Injectables are being proposed to be included in the basket of family planning to enhance the Family Planning Services in the State. Table-12.6 gives the total numbers of family planning tools used by people over the last three years through public as well as private channels.

Table 12.5: District wise number of Mamta Wahans in Jharkhand

Sl.No.	DISTRICT	NO.OF MAMTA WAHANS AS ON 2015-16	No of MamtaWahan Operating in Districts 2016-17
1.	Bokaro	114	112
2.	Chatra	104	131
3.	Deoghar	86	105
4.	Dhanbad	76	56
5.	Dumka	117	131
6.	Garhwa	149	154
7.	Giridih	169	167
8.	Godda	162	153
9.	Gumla	99	97
10.	Hazaribagh	89	135
11.	Jamtara	153	155
12.	Khunti	71	84
13.	Koderma	31	58
14.	Latehar	63	93
15.	Lohardaga	77	72
16.	Pakur	78	75
17.	Palamu	82	132
18.	PashchimiSingh- bhum	54	57
19.	PurbiSingh- bhum	137	157
20.	Ramgarh	102	113
21.	Ranchi	132	135
22.	Sahibganj	98	102
23.	Saraikela	127	134
24.	Simdega	50	49
	TOTAL	2420	2657

Source: Department of Health, Medical Education and Family Welfare, Government of Jharkhand

Table 12.6 Family Planning Tools users

Year	Vasectomy		Tubectomy		IUCD Insertion		PPIUCD Insertion		Oral Pills	Condoms
	Public	Pvt.	Public	Pvt.	Public	Pvt.	Public	Pvt.	Public	Public
2014-15	2746	852	69811	36358	90002	2339	15152	0	662441	3441548
2015-16	2618	753	75134	46956	83753	3723	23093	0	624303	3172123
2016-17 till Nov.	751	450	10947	8151	57990	2277	22431	0	372911	1863826

Source: Department of Health, Medical Education and Family Welfare, Government of Jharkhand

Currently Jharkhand is running fifteen Family Planning Programmes. Table-12.7 lists all those programmes.

Table 12.7 List of Family Planning programmes currently run in Jharkhand

1	Fixed Day Static Approach	8	Comprehensive IUCD training for health service providers
2	Enhanced Compensation Scheme	9	Ensuring Spacing in Birth(ESB) - A Incentivized Scheme for Sahiyya
3	Male & Female Sterilization FDS/Camps	10	Pregnancy Test Kit
4	Family Planning Indemnity Scheme(FPIS)	11	PPIUCD performance link based payment Scheme
5	Accreditation of Private Hospitals/Clinics	12	Family Planning Mobile Team
6	World Population Day & Vasectomy Fortnight	13	Drop Back Facility for Sterilization client
7	Home Delivery of Contraceptive (HDC)	14	Family Planning Logistic Management Information System(FPLMIS)
8	Induction & refresher Training of Minilap& NSV	15	Mission ParivarVikas

Source: Department of Health, Medical Education and Family Welfare, Government of Jharkhand

Gender Plan

Empowering women and girls by promoting gender equality is a priority. Gender related inequalities and disparities affect women’s and girl’s health, their risk of HIV and consequently the health of families and communities. Policies are aimed to ensure that women have access to family planning, maternal care, reproductive health, HIV prevention, and awareness of health and hygiene.

Jharkhand has programs focused on maternal

care, family planning, reproductive health, HIV prevention, Anemia reducing schemes; program for free distribution of sanitary napkins to adolescent school going girls etc. Dedicated Mother and Child Hospitals were planned to be made functional from the year 2016-17. Nursing education is set to give a new thrust to create more employment opportunities for women, and fill the gaps in manpower like the nursing in public health, hospitals and nursing teaching institutes.

Health and hygiene awareness issues among women are addressed by Anganwadi Sevika, ANMs and Saahiya health workers. A new scheme- “**Mukhya Mantri Nishulk Breast and Cervical Cancer Screening Scheme**” has also been proposed to improve women specific health care in the State.

Health Infrastructures & Health Human Resource Scenario

The availability and accessibility of public health care facilities to the masses, especially to the rural populace in far flung and tribal areas, constitutes an inevitable factor in the well-being of the citizens of a the State. Jharkhand has made a mark in constructing an extensive network of public health facilities in the State. According to the Rural Health Statistics (RHS) as on March 2016, Jharkhand has 3953 active Sub-Centres (SCs), 327 Primary Health Centres (PHCs), and 188 Community Health Centres (CHCs), 12 Sub-Divisional Hospitals (SDHs), 24 District Hospital (DHs) and 95 Mobile Medical Units (MMUs). As recorded on March 2015, compared to last year there is a slight decline in the number of Sub-Centres (3957 to 3953) and Mobile Medical Units (101 to 95).

The required numbers of health centres and shortfalls have been calculated with rural

population of Jharkhand and India during Census, 2011 taking it as the base year. The Rural Health Statistics as on March 2016 recorded shortfalls of 35 percent in Sub-Centres, 66 percent in PHCs, and 22 percent in CHCs. This has somehow remained constant since the 2015 records. While Jharkhand has performed better as compared to the national average shortfall in case of CHCs with 22% shortfall as compared to the nationwide shortfall of 30%, its achievement falls way below the national average in the case of PHCs. While the national deficiency is just 22 per cent for PHCs, Jharkhand has a whopping 66 per cent deficiency in the number of functioning PHCs as compared to what is required in accordance to its huge rural populace.

The scenario is identical in case of rural health infrastructure in tribal areas, wherein there is 59 per cent shortfall in the number of active PHCs as compared to just 27 per cent shortfall nationally. The achievement of the State is again commendable in case of CHCs which recorded a surplus in the number of centres required as compared to 25 per cent nationwide deficit for tribal areas. The shortfall in number of active sub-centres too is lesser (11 per cent) than the national average (21 per cent) for tribal areas.

Table: 12.8. Number of Health Facilities Functioning and Shortfalls in Rural Health Infrastructure in Jharkhand*, 2015 and 2016

Status of Health Facilities	Number of Health Centres		
	Sub-centres (SCs)	Primary Health Centres (PHCs)	Community Health Centres (CHCs)
Required as on March 2015	6060	966	241
Active as on March 2015	3957	327	188
% Shortfall in 2015	35	66	22
Required as on March 2016	6060	966	241
Active as on March 2016	3953	327	188
% Shortfall in 2016	35	66	22
All India % Shortfall in 2016	20	22	30

*As per Total Rural Population of Jharkhand according to Census, 2011

Source: Rural Health Statistics 2015 and 2016; Health Management Information System (HMIS) Portal, Retrieved from <https://nrhm-mis.nic.in/SitePages/HMIS-Publications.aspx> on January 12, 2017

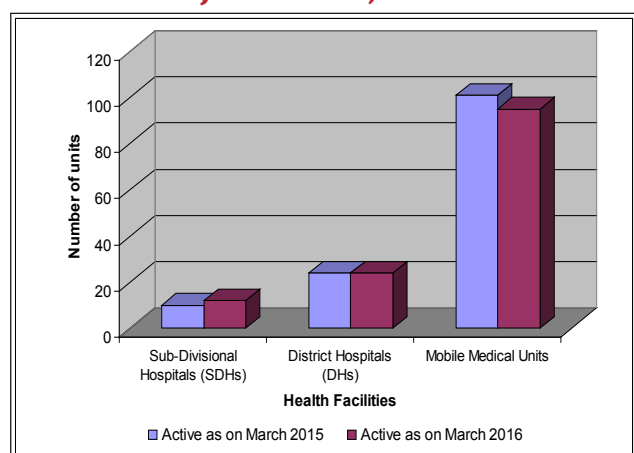
Table: 12. 9. Number of Health Facilities Functioning and Shortfalls in Rural Health Infrastructure in Tribal areas of Jharkhand*, 2015 and 2016

Status of Health Facilities	Number of Health Centres		
	Sub-centres (SCs)	Primary Health Centres (PHCs)	Community Health Centres (CHCs)
Required as on March 2015	2622	393	98
Active as on March 2015	2333	160	104
Shortfall in 2015	289	233	**
% Shortfall in 2015	11	59	**
Required as on March 2016	2622	393	98
Active as on March 2016	2333	160	104
Shortfall in 2016	289	233	**
% Shortfall in 2016	11	59	**
All India % Shortfall in 2016	21	27	25

*As per Rural Population of Tribal areas of Jharkhand according to Census, 2011 ** Surplus

Source: Rural Health Statistics 2015 and 2016; Health Management Information System (HMIS) Portal, Retrieved from <https://nrhm-mis.nic.in/SitePages/HMIS-Publications.aspx> on January 12, 2017

Figure 12.5: Number of Active Health Facilities in Jharkhand, 2015 and 2016



Source: Rural Health Statistics 2015 and 2016; Health Management Information System (HMIS) Portal, Retrieved from <https://nrhm-mis.nic.in/SitePages/HMIS-Publications.aspx> on January 12, 2017

Jharkhand. To study the intra-state disparity, districts as per the Census of India 2011 have been considered as units of study. According to the Rural Health Statistics (RHS) as on March 2016, there are 24 district hospitals in Jharkhand with one district hospital in each district. The distribution is however not equitable in case of the Sub-divisional hospitals. Bokaro has the highest SDHs, (3) whereas fifteen districts are without any SDHs. The maximum number of CHCs are present in West Singhbhum (15) followed by Ranchi (13). The highest number of PHCs exist in Dumka (36) followed by Ranchi (28) and Dhanbad (25). The maximum number of functioning SCs exist in Ranchi (365) followed by West Singhbhum (342).

Spatial Pattern of availability of Health Infrastructure in Rural Jharkhand:

There is a marked intra-state disparity in the availability of health facilities in rural

**Table 12.10: District-wise availability of Health Centres in Jharkhand,
(As on 31st March, 2016)**

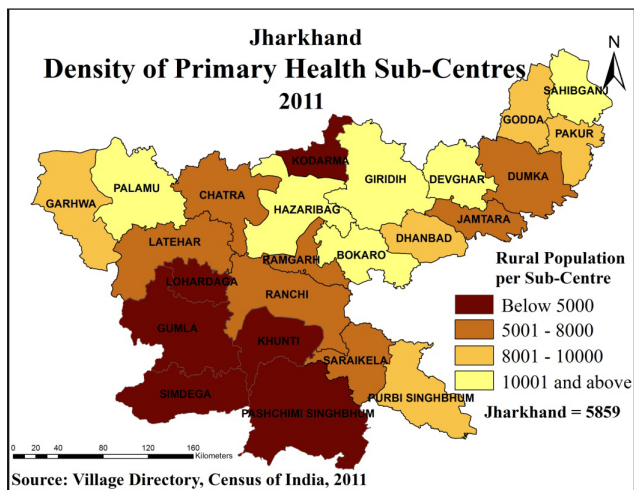
Districts	Number of Health Centres				
	Sub Centres	PHCs	CHCs	Sub Divisional Hospital	District Hospital
Bokaro	116	16	8	3	1
Chatra	93	11	6	0	1
Deoghar	181	4	7	1	1
Dhanbad	137	25	8	0	1
Dumka	258	36	10	0	1
E. Singhbhum	243	18	9	0	1
Garhwa	132	12	7	1	1
Giridih	181	15	12	0	1
Godda	185	10	7	0	1
Gumla	242	13	11	0	1
Hazaribagh	146	14	10	1	1
Jamtara	132	15	4	0	1
Kodarma	65	6	4	0	1
Khunti	108	4	6	0	1
Latehar	97	10	7	0	1
Lohardaga	73	10	5	0	1
Pakaur	121	9	6	0	1
Palamu	171	21	8	2	1
Ramgarh	54	5	4	0	1
Ranchi	365	28	13	1	1
Sahibganj	155	10	6	1	1
Saraikela	194	13	8	1	1
Simdega	162	7	7	0	1
W. Singhbhum	342	15	15	1	1
Jharkhand	3953	327	188	12	24

Source: Rural Health Statistics, 2016; Health Management Information System (HMIS) Portal, Retrieved from <https://nrhm-mis.nic.in/SitePages/HMIS-Publications.aspx> on January 12, 2017

District-wise density of health centres is a more viable measure to gauge the spatial imbalance in the rural health infrastructure. The densities of various health facilities are computed as simple ratios of the number of health centres in a district to its corresponding rural population. The existing norm is to provide a Sub-Centre per 3000 population, a PHC per 20,000 population and a CHC per 80,000 population in tribal areas. The rural population of Jharkhand being predominantly tribal, this norm can be considered as the benchmark for the availability of health centres in accordance

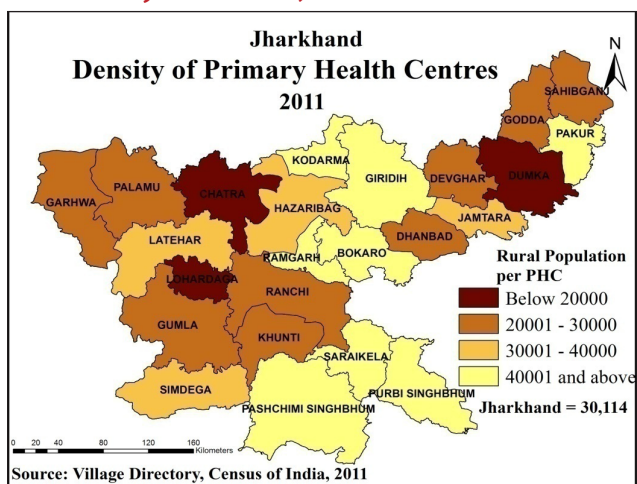
to the population size. The inverse of the ratio has been considered here for the computation of densities, thus depicting the size of rural population dependent on each type of health centre. The district-wise density of the Sub-centres in rural Jharkhand computed from the Village directory of Jharkhand, Census of India 2011, depicts that the tribal districts of Khunti, West Singhbhum, Simdega, Gumla and Lohardaga have high density of SCs with less than 5000 population dependent on each SC. The State average for Jharkhand is 5859 of its rural populace per active SC.

Figure 12.6: District-wise Density of Primary Health Sub-centres in Rural Jharkhand, 2011



Source: Computed from Village Directory, Jharkhand, Census of India, 2011

Figure 12.7: District-wise Density of Primary Health Centres (PHCs) in Rural Jharkhand, 2011 Census

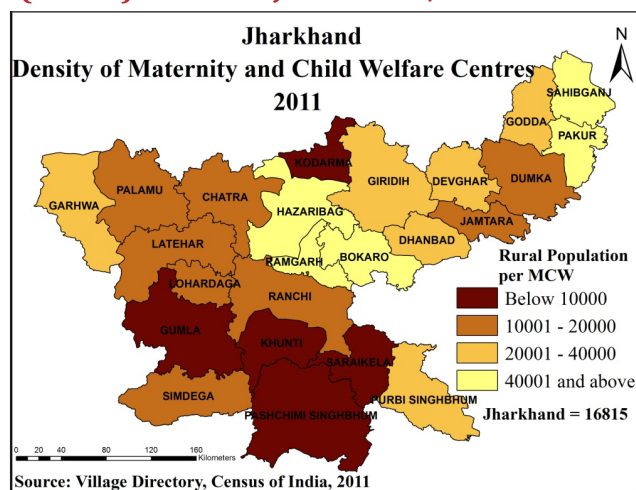


Source: Computed from Village Directory, Jharkhand, Census of India, 2011

The district-wise density of PHCs in rural Jharkhand depicts that only the districts of Dumka, Chatra, and Lohardaga have PHC density in accordance to the norm of one PHC per 20,000 population. The State average for Jharkhand is 30,114 of its rural population per functioning PHC. Almost half of the districts have more than 30,000 people dependent on each PHC. The district-wise density of Maternity and Child Welfare Centres (MCWs)

in rural Jharkhand depict that the tribal districts of Khunti, West Singhbhum, Gumla and Saraikela have high density of MCW centres. The State average for Jharkhand is 16,815 of its rural population for every MCW centre. Almost half of the districts have more than 20,000 rural inhabitants dependent on each MCW centre.

Figure 12.8: District-wise Density of Maternity and Child Welfare Centres (MCWs) in Rural Jharkhand, 2011 Census



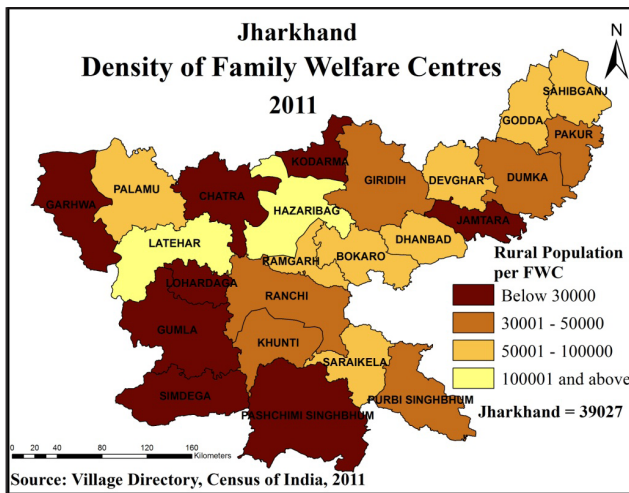
Source: Computed from Village Directory, Jharkhand, Census of India, 2011

The district-wise density of Family Welfare Centres (FWCs) in rural Jharkhand illustrate that the tribal districts of West Singhbhum, Simdega, Gumla and Lohardaga and other districts of Garhwa, Chatra, Koderma and Jamtara have high density of FWCs. The State average for Jharkhand is 39,027 of its rural population for every FWC. The districts of Hazaribagh and Latehar have more than one lakh of its rural inhabitants dependent on each FWC.

The district-wise density of Mobile Health Clinics (MHCs) in the rural Jharkhand demonstrates good availability of MHCs in tribal districts of West Singhbhum, Simdega, Khunti and Lohardaga. Other districts of Garhwa, Chatra, Godda and Jamtara have high density of MHCs with less than 50,000 of the

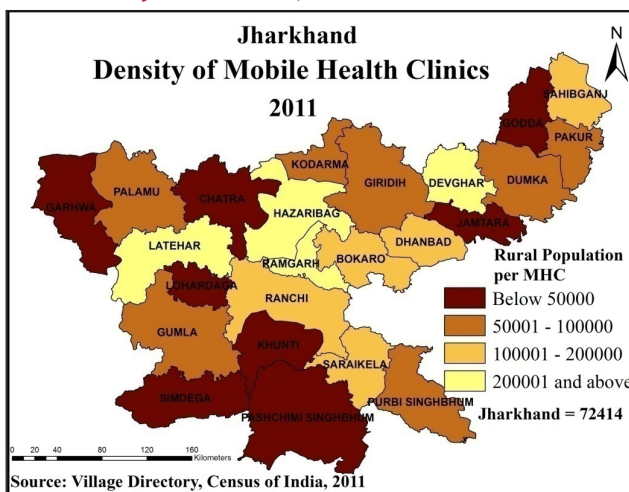
rural populace dependent on each MHCs. The State average for Jharkhand is 72,414 of its rural population for every MHC. The districts of Hazaribagh, Latehar, Ramgarh and Deoghar have more than two lakh of its rural inhabitants dependent on each MHC.

Figure 12.9: District-wise Density of Family Welfare Centres (FWCs) in Rural Jharkhand, 2011 Census



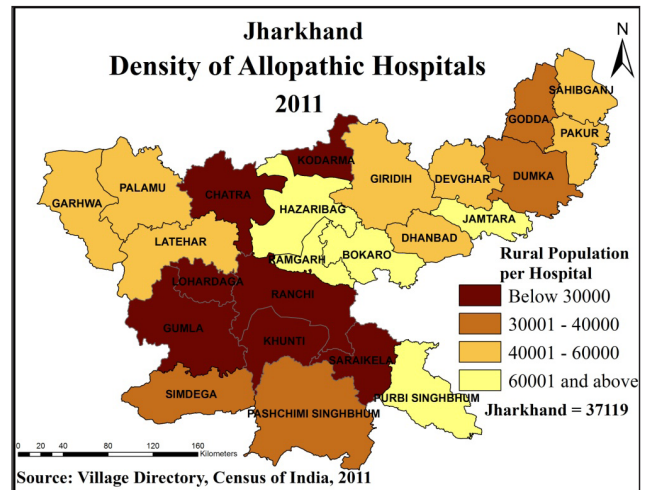
Source: Computed from Village Directory, Jharkhand, Census of India, 2011

Figure 12.10: District-wise Density of Mobile Health Clinics (MHCs) in Rural Jharkhand, 2011 Census



Source: Computed from Village Directory, Jharkhand, Census of India, 2011

Figure 12.11: District-wise Density of Allopathic Hospitals in Rural Jharkhand, 2011



Source: Computed from Village Directory, Jharkhand, Census of India, 2011

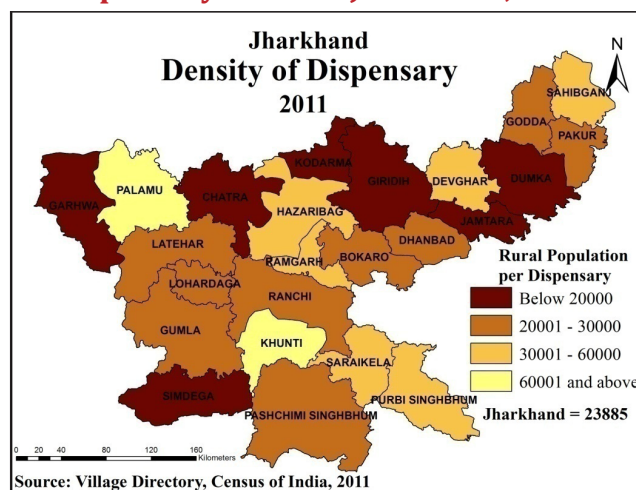
The district-wise density of Allopathic Hospitals in rural Jharkhand show that the tribal districts of Khunti, Gumla, Lohardaga, Ranchi and Saraikela and other districts of Chatra and Koderma have high density of Allopathic Hospitals. The State average for Jharkhand is 37,119 of its rural population for every Allopathic Hospital. Almost half of the districts have more than 60,000 rural inhabitants dependent on each Allopathic Hospital. The district-wise density of Dispensary in rural Jharkhand shows that the districts of Simdega, Garhwa, Chatra, Giridih, Jamtara, Dumka and Koderma have high density of Dispensaries with less than 20,000 of their population dependent on each Dispensary. The State average for Jharkhand is 23,885 of its rural population per Dispensary. The districts of Khunti and Palamu have more than 60,000 rural inhabitants dependent on each Dispensary.

Position of Building for Health Centres in Rural and Tribal Areas of Jharkhand:

According to the Rural Health Statistics (RHS) of March 2016, there is a shortfall of 1409 buildings to house all the SCs. Out of the total

of 3953 SCs in Jharkhand, only 2170 are functioning in government buildings and another 374 buildings are under construction. The PHCs, CHCs, SDHs and DHs have more number of buildings than required.

Figure 12.12: District-wise Density of Dispensary in Rural Jharkhand, 2011



Source: Computed from Village Directory, Jharkhand, Census of India, 2011

Table 12.11: Building Position for Health Centres in Jharkhand, (As on 31st March, 2016)

Health Centres	Total Centres functioning	In Govt. Building	Buildings under construction	Buildings required to be constructed
Sub-centres (SCs)	3953	2170	374	1409
Primary Health Centres (PHCs)	327	255	93	**
Community Health Centres (CHCs)	188	188	71	**
Sub-Divisional Hospitals (SDHs)	12	12	3	**
District Hospitals (DHs)	24	24	7	**

**construction in excess of number of building required

Source: Rural Health Statistics, 2016; Health Management Information System (HMIS) Portal, Retrieved from <https://nrhm-mis.nic.in/SitePages/HMIS-Publications.aspx> on January 12, 2017

Table 12.12: Building Position for Health Centres in Tribal areas of Jharkhand, (As on 31st March, 2015 and 31st March, 2016)

Health Centres	Year	Total Centres functioning	In Govt. Building	Buildings under construction	Buildings required to be constructed
Sub-centres (SCs)	2016	2333	1166	219	948
	2015	2333	1166	258	909
Primary Health Centres (PHCs)	2016	160	110	51	**
	2015	160	110	24	26
Community Health Centres (CHCs)	2016	104	104	42	**
	2015	104	104	29	**

**construction in excess of number of building required

Source: Rural Health Statistics 2015 and 2016; Health Management Information System (HMIS) Portal, Retrieved from <https://nrhm-mis.nic.in/SitePages/HMIS-Publications.aspx> on January 12, 2017

According to the Rural Health Statistics (RHS) of March 2016, there is a shortfall of 948 buildings to house all the SCs in the tribal areas of Jharkhand. Out of the total 2333 SCs, about 1166 are functioning in government buildings and another 219 buildings are under construction. The shortfall of government buildings for SCs in tribal areas has increased from 909 buildings during March, 2015 to 948 buildings during March, 2016. The PHCs too had a shortfall of 26 buildings during March 2015 which was covered by March, 2016 with an increased number of PHC buildings under construction (24 in March, 2015 to 51 in March, 2016). Presently, both PHCs and CHCs have more number of buildings than required

for tribal areas of Jharkhand.

Status of Health Personnel for Health Centres in Rural and Tribal Areas of Jharkhand:

In terms of health personnel, Jharkhand has more than the required number (required 4280, in position 7632) of female health workers/Auxiliary Nurse Midwife (ANM) in SCs and PHCs as on 31st March, 2016. There was a surplus manpower in case of doctors too in the PHCs (required 327, in position 372) during March 2015. However, presently there is a shortfall of 17.1 percent (required 327, in position 271) as on 31st March, 2016.

Table 12.13: Number of Health Personnel Functioning and Shortfalls in Rural Health Infrastructure in Jharkhand*, (As on 31st March, 2016)

Type of Health Workers	Required	In Position	% Shortfall	
			2016	2015
Health Worker (Female)/ANM at SCs & PHCs	4280	7632	**	**
Health Worker (Male) at SCs	3953	454	88.5	90.2
Health Assistants (Female)/LHV at PHCs	327	19	94.2	95.1
Health Assistant (Male) at PHCs	327	19	94.2	91.7
Doctors at PHCs	327	271	17.1	**
Total specialists at CHCs (Surgeons, OB&GY, Physicians, Paediatricians)	752	122	83.8	83.0
Radiographers at CHCs	188	39	79.3	69.1
Pharmacists at PHCs & CHCs	515	236	54.2	40.8
Laboratory Technicians at PHCs & CHCs	515	276	46.4	41.6
Nursing Staff at PHCs & CHCs	1643	1054	35.8	25.1

*As per Total Rural Population of Jharkhand according to Census, 2011

** Manpower in Surplus ANM: Auxiliary Nurse Midwife; LHV: Lady Health Worker

Source: Rural Health Statistics 2015 and 2016; Health Management Information System (HMIS) Portal, Retrieved from <https://nrhm-mis.nic.in/SitePages/HMIS-Publications.aspx> on January 12, 2017

Jharkhand faced shortage of almost 88.5 percent in terms of male health workers in the SCs as on March, 2016 (required 3953, in position 454) which however has declined from 90.2 percent during the year 2015. There has been a similar decline in shortfall of female health assistants at PHCs. But still rural areas of Jharkhand face deficiency of nearly

94 percent in terms of female and male health assistants at the PHCs. There has been slight increase in shortfall of total specialists at CHCs (83.0 to 83.8 percent during 2015-2016) and marked increase in shortfall of Radiographers at CHCs (69 to 79 percent during 2015-2016), Pharmacists at CHCs (40 to 54 percent during 2015-2016), Laboratory Technicians at CHCs

(41 to 46 percent during 2015-2016) and Nursing Staff at PHCs & CHCs (25 to 35 percent during 2015-2016).

Table 12.14: Number of Health Personnel Functioning and Shortfalls in Tribal areas of Jharkhand*, (As on 31st March, 2015 and 31st March, 2016)

Type of Health Workers	Required	In Position	% Shortfall	
			2016	2015
Health Worker (Female)/ANM at SCs	2333	4480	**	**
Health Worker (Female)/ANM at SCs & PHCs	2493	4682	**	**
Health Worker (Male) at SCs	2333	239	89.8	89.8
Health Assistants (Female)/LHV at PHCs	160	5	96.9	90.6
Health Assistant (Male) at PHCs	160	2	98.8	87.5
Doctors at PHCs	160	117	26.9	0.0
Total specialists at CHCs (Surgeons, OB&GY, Physicians, Paediatricians)	416	33	92.1	92.1
Radiographers at CHCs	104	39	62.5	42.3
Pharmacists at PHCs & CHCs	264	189	28.4	65.5
Laboratory Technicians at PHCs & CHCs	264	224	15.2	53.4
Nursing Staff at PHCs & CHCs	888	809	8.9	35.0

*As per Rural Population of Tribal areas of Jharkhand according to Census, 2011

** Manpower in Surplus ANM: Auxiliary Nurse Midwife; LHV: Lady Health Worker

Source: Rural Health Statistics 2015 and 2016; Health Management Information System (HMIS) Portal, Retrieved from <https://nrhm-mis.nic.in/SitePages/HMIS-Publications.aspx> on January 12, 2017

In terms of health personnel, the tribal areas of Jharkhand has more than the required number (required 2493, in position 4682) of female health workers/Auxiliary Nurse Midwife (ANM) in SCs and PHCs as on 31st March, 2016. There was no deficit of manpower in case of doctors in the PHCs during March, 2015 but there is a shortfall of 27 percent (required 160, in position 117) as on 31st March 2016.

The tribal areas of Jharkhand faces shortage in terms of male health workers in the SCs by almost 89.8 percent as of March, 2016 (required 2333, in position 239). There has

been a decline in shortfall of Pharmacists at CHCs (65 to 28 percent during 2015-2016), Laboratory Technicians at CHCs (53 to 15 percent during 2015-2016) and Nursing Staff at PHCs & CHCs (35 to 9 percent during 2015-2016) which is a commendable achievement. But still the far flung tribal areas of Jharkhand face deficiency in terms of female and male health assistants at PHCs by nearly 97 percent and 99 percent respectively. There has been an increase in shortfall of Radiographers at CHCs (42 to 62 percent during 2015-2016).

Table 12.15: Status of Health Manpower at Functioning Health Centres in Rural Jharkhand, (As on 31st March, 2015 and 31st March, 2016)

Status of Health Manpower	March, 2015		March, 2016	
	Number	%	Number	%
Total Sub Centres Functioning	3957	-	3953	-
Without HW[F]/ANMs	61	1.5	60	1.5
Without HW [M]	2825	71.4	2839	71.8
Without Both	39	1.0	39	1.0
Total PHCs functioning	327	-	327	-
With 4+ Doctors	6	1.8	6	1.8
With 3 Doctors	12	3.7	2	0.6
With 2 Doctors	84	25.7	81	24.8
With 1 Doctor	165	50.5	180	55.0
Without Doctor	60	18.3	58	17.7
Without Laboratory Technicians	204	62.4	204	62.4
Without Pharmacists	227	69.4	227	69.4
With Lady Doctor	35	10.7	35	10.7

Source: Rural Health Statistics 2015 and 2016; Health Management Information System (HMIS) Portal, Retrieved from <https://nrhm-mis.nic.in/SitePages/HMIS-Publications.aspx> on January 12, 2017

Status of Health Facilities available at Health Centres in Rural Jharkhand:

The health centres in the rural areas of Jharkhand lack basic amenities. Almost 65 percent sub-centres (SCs) lack regular water supply in Jharkhand as compared to 28 percent of nationwide deficiency. However, there has been a decline in this shortfall during the last one year (69 to 65 percent during 2015-2016). About 81 percent sub-centres (SCs) lacked electric supply during 2015 which has reduced to 70 percent as on March, 2016. But it is still a massive deficiency as compared to the national average of 26 percent. Around 25 percent SCs do not have all-weather approachable road as on March, 2016 in comparison to only 11 percent of SCs without access to all-weather approachable road all over India.

Among the PHCs, almost 52 percent are without any regular water supply, 43 percent are without electric supply, and 9 percent

without any all-weather approachable road. Only 64 percent PHCs have labour/delivery room for delivery and childbirth, 26 percent have Operation Theatres (O.T.) and 44 percent with at least 4 beds as on March 2016. Only 11 percent of the PHCs are connected with telephone facility and less than 2 percent have computer facility. This is extremely meagre as compared to 55 percent and 60 percent of PHCs nationwide being connected with telephone and computer facilities respectively.

In case of the CHCs, only 2 percent have all four specialists, 94 percent have functional laboratory, 88 percent with functional O.T., 90 percent with delivery room, and 90 percent with newborn care facility as on March 2016. Nearly 31 percent CHCs have at least 30 beds and 30 percent has a regular supply of AYUSH drugs for common ailments, but only a meagre 11 percent have functional stabilization units for newborn care as compared to 40 percent

of PHCs nationwide. All the CHCs in Jharkhand are equipped with Referral Transport facility and have a regular supply of Allopathic drugs for common ailments as on March, 2016. This

is indeed a commendable achievement for Jharkhand's health care infrastructure given that this is yet to be achieved at the national level.

**Table 12.16: Status of facilities available at Health Centres in Rural Jharkhand (in %),
(As on 31st March, 2015 and 31st March, 2016)**

Status of Facilities	Jharkhand		All-India
	March, 2015	March, 2016	March, 2016
Total Number of Sub Centres Functioning	3957	3953	155069
Without Regular Water Supply	68.5	64.8	28.5
Without Electric Supply	80.7	69.8	25.6
Without All-Weather Motor able Approach Road	25.5	25.0	10.5
Total Number of PHCs functioning	327	327	25354
Without Regular Water Supply	52.9	52.0	6.6
Without Electric Supply	42.5	42.5	4.6
Without All-Weather Motor able Approach Road	9.2	9.2	5.9
With Labour Room	62.1	63.6	70.9
With Operation Theatre	26.0	26.0	36.6
With at least 4 beds	42.5	44.0	75.6
With Telephone	11.6	10.7	54.7
With Computer	0.9	1.8	59.2
Total Number of CHCs functioning	188	188	5510
With all four specialists (Surgeons, OB&GY, Physicians, Paediatricians)	9.0	2.1	14.9
With functional Laboratory	92.6	93.6	94.8
With functional O.T.	87.8	87.8	83.2
With functional Labour Room	90.4	90.4	92.3
With functional stabilization units for new Born	10.6	10.6	40.1
With New Born Care Corner	90.4	90.4	81.7
With at least 30 beds	21.8	31.4	75.1
With Referral Transport	100.0	100.0	93.5
With Regular Supply of Allopathic drugs for common ailments	100.0	100.0	97.5
With Regular supply of AYUSH drugs for common ailments	21.8	29.3	62.4

Source: Rural Health Statistics 2015 and 2016; Health Management Information System (HMIS) Portal, Retrieved from <https://nrhm-mis.nic.in/SitePages/HMIS-Publications.aspx> on January 12, 2017

Ayurveda, Yoga and Naturopathy, Unani, Siddha and Homeopathy (AYUSH):

Recently the State has initiated setting up a Pharmacy (Diploma) College for Unani at Giridih and Pharmacy Diploma College for Homoeopathic at Godda. Jharkhand is also considering creating a post of Ayush Doctors

& Ayush Pharmacists as per IPHS Norms.

At present, the State is running several AYUSH schemes which include:

- Free distribution of Ayush medicines at Co-locate and Ayush Dispensaries throughout the State.

- State Yoga Centre at Ranchi.
- Operational Jharkhand State AYUSH medical Council at Ranchi.
- Independent Ayush Directorate at R.C.H. campus, Namkum Ranchi.
- State Homoeopathic Medical College and Hospital in Godda. This centre is offering degree courses in Homoeopathic System of Medicine.
- The first batch of students has graduated from the State Ayurvedic Pharmacy College at Sahibganj.
- Infrastructure is being developed for the State Ayurvedic Medical College and Hospital, Chaibasa, State Unani Medical College and Hospital, Giridih and State Ayurvedic Pharmacy College at Gumla.

Vision, Goal, and Strategy of the Government for the FY 2016-17

The Government of Jharkhand is committed to make quality health care available, accessible and affordable to all sections of society. The State aims to provide free medical care to the disadvantaged sections and those who are living in remote and distant areas. The ultimate goal is to provide quality health care facilities to each and every person in the State. The Government is making efforts to rope in private sector, NGOs, PRI's and other stake holders for the improvement of community health and expand the reach of health care at primary, secondary and tertiary levels. The efforts being made by the Government would reflect in improvement of the key health indicators such as MMR, IMR, TFR, U5MR, Sex ratio, Malnutrition, Anaemia etc. The endeavour would be to achieve the following 12th plan targets:-

- Reduce MMR from 208 (2013) to 100/100000 live births by the year 2017.
- Reduce IMR from 36 (2012) to 25/1000

by the year 2017.

- Reduce TFR from 2.7 (2012) to 2.1 by the year 2017.
- Prevention and reduction of Anaemia in woman aged 15-49 years from 70.4% to 28% by the year 2017.
- Reduce annual incidence and mortality from tuberculosis by half compared to 1990.
- Reduce prevalence of leprosy to <1/1000 population in all the blocks.
- Reduce Annual Parasite (malaria) incidence from 2.93 to be <1/1000 population.
- Reduce the microfilaria prevalence to less than 1 percent in all districts.
- Eliminate Kala-azar in the affected 4 districts of Jharkhand by the year 2017.
- Raising the Sex ratio for age group 0-6 from 943 to 950 by 2016-17.

Strategy

- Government is committed to train and enhance capacity of PRIs to own, control and manage public health services at the primary level as envisaged in the 73rd Constitutional Amendment Article 243G, 11th schedule.
- Promote access to improved healthcare at household level through the Accredited Social Health Activist (ASHA).
- Formulate and execute health plan for every village through village health committee of the Panchayat and to strengthen the sub-centres.
- Strengthen the existing PHCs and CHCs for improved curative care as per IPHS standards.
- Prepare and implement an inter-sectoral district health plan prepared by the

District Health Mission by converging the programmes of drinking water, sanitation & hygiene and nutrition.

- Integrate vertical health and family welfare programmes at the State, district and block levels.
- Formulation of transparent policies for the deployment and career development of human resource for health.
- Develop the capacities for preventive health care at all levels by promoting healthy life styles, reduction in consumption of tobacco and alcohol etc.
- Promote NGO working in underserved areas. Promotion of public-private partnerships to achieve the public health goals.
- Mainstreaming AYUSH.
- Strengthening Medical education, Para-medical & Nursing Education.
- Strengthening Food & Drug Administration.
- Health insurance coverage to provide health security to the poor and disadvantaged.

Some New Initiatives and Schemes for FY 2016-17

Jharkhand State Genetic Screening and Counselling Campaign

Congenital health malformations and hereditary genetic diseases are the major concern in Jharkhand, particularly among the tribal population. The extent of the problem needs assessment and appropriate intervention.

As per the study done by RIMS, Ranchi several incidences of different congenital hemoglobinopathies, like Thalassemia major (4.17%)/ Sickle- B thalassemia

(2.53%), Sickle cell disease (3.03%) followed by thalassemia minor (0.25%), IDA (2.27%) and undiagnosed cases (0.38%) were found in Jharkhand. Factors contributing to their high prevalence include consanguineous marriages, high birth rate, and ignorance. However, screenings, counselling, prevention and management of genetic disorders have yet not been incorporated into the mainstream of health care system in Jharkhand.

Establishment of Para-Medical Institute in PMCH, Dhanbad and MGMMCH, Jamshedpur

There is an acute shortage of Para-Medics in government and private sector hospitals/ health centres. In the three medical colleges of the State, paramedical courses are conducted with a total intake capacity of 200 students per year, covering 13 courses. However, these courses are conducted in the space of the medical colleges meant for the medical students. In RIMS a separate institute is under construction. There is a need for para-medical institute in PMCH and MGM medical colleges. It is, therefore proposed to construct Para-Medical Institute building with necessary facilities including furniture & equipments at Patliputra Medical College and Hospitals (PMCH) and Mahatma Gandhi Memorial Medical College and Hospitals (MGMMCH).

New Medical College and Hospital at Hazaribagh, Dumka and Palamu

The Government of India has sanctioned setting up of 3 New Medical Colleges at Hazaribagh, Dumka and Palamu in the FY 2014-15 @ Rs. 189.00 crores under 75:25 sharing by the Central and the State fund. It is proposed for all 3 Medical Colleges during the FY 2016-17.

Incentive for Establishing Private Medical colleges

The Government has approved a new incentive policy for establishing medical colleges in

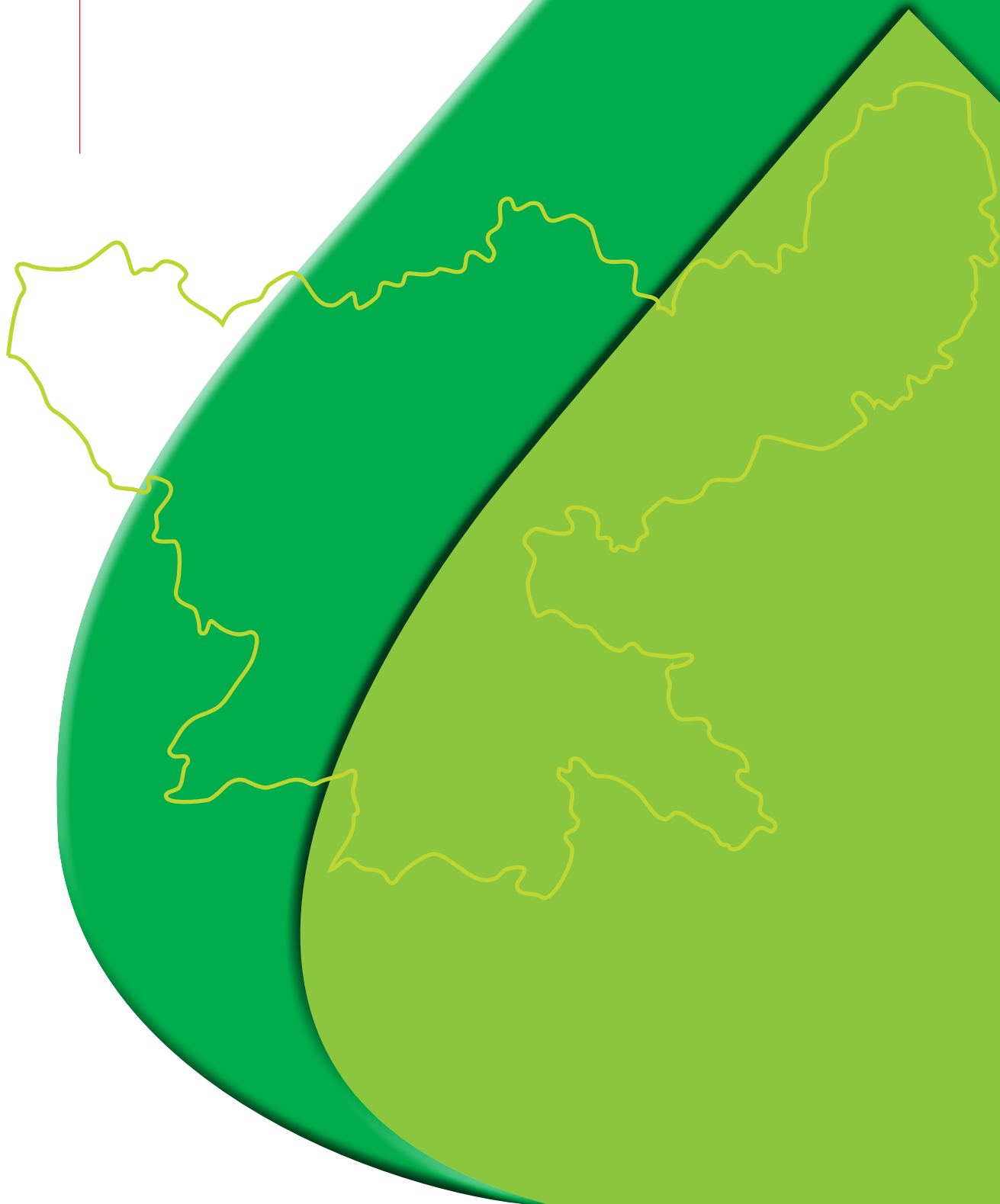
private sector. As per the policy, an incentive of Rs. 30.00 crores, 25.00 crores and 20.00 crores are to be given for setting up medical colleges with 150, 100 and 50 MBBS seats respectively. Besides, an approach road and electric feeder is to be provided up to 5 KM from the main road as an interest subsidy.

Conclusion

Consistent fall in IMR, MMR, and improvement in other health and nutritional indicators across the State justifies the initiatives taken and their proper execution by the Department of Health, Medical Education, and Family Welfare of the Government of Jharkhand. However, under-achievement in some cases namely universal immunization with all necessary vaccines, health infrastructures and health human resources will continue to pose challenges for the Department.

13

DRINKING WATER AND
SANITATION



The issue of access to portable water and proper sanitation practices have taken the centre stage in realising the goal of strengthening health indicators in the State. With the advent of large scale programs like Swachh Bharat Abhiyan and National Drinking Water Program, the State has got the required thrust to realise the goals of achieving universally treated drinking water supply and universally safe sanitation practices. From low toilet coverage of 37.2 percent in the year 2015-16 to a substantially higher coverage of 46.6 percent in the year 2016-17, Jharkhand has made substantial achievements over the past one year and is ahead of the states like Bihar, Odisha, Telangana and Uttar Pradesh.

Public Health is closely linked to safe Drinking water and Sanitation Facilities. The same is true for proper scientific waste management, which is a basic pre-requisite for environmental health. The two, together, facilitates the laying down of social infrastructure in India through the project “Bharat Nirman”. Amidst unprecedented population growth, rapid urbanization and increasing income inequality, ensuring water security has become the top agenda not just in India but also in the World community (one of the 17 goals of S.D.G), according to the World Economic Forum.

According to the Census 2011, Jharkhand had a population of 329.66 million. Out of this, 76 percent of its population resides in Rural areas predominantly in difficult terrains. Hence, providing drinking water supply to all is a mammoth task for the State. Ironically, the people of Jharkhand are cursed by the blessings of Nature as the undulated topography and rocky terrain prevents the preservation of rain water, creating an acute shortage of water in the State. Due to paucity of surface sources and shallow aquifers, drinking water supply in present times primarily depends on ground water sources. Piped water supply, tube wells,

wells and open water reservoirs are some of the main sources of drinking water. Across India, 50% of the households have access to piped water facility, but in Jharkhand, the piped water supply coverage is around 13 to 15 percent, with 10 percent from treated sources and 5 percent from untreated sources. The people of Jharkhand are heavily dependent on usage of hand pumps. Whereas 33.55 percent of total population of India uses handpumps, in Jharkhand the figure stands much higher at 43.8 percent. Among others, 37 percent of the people use wells and the rest depends on other open sources. As per census 2011 data, in Jharkhand around 23.2 percent have drinking water facility within the premises, 44.9 percent have near the premises whereas 31.95 percent have water facility away from the premises. About 30 percent of the Habitations have partial facility of safe Drinking Water. The rest have access to water which contains traces of Arsenic, Flouride and Iron contamination. The provision of safe drinking water therefore is a gigantic and urgent challenge for Jharkhand’s public service delivery mechanism.

Department of Drinking Water and Sanitation is held as the nodal department for the overall policy, planning, funding and coordination of programs of Drinking water and sanitation in the rural areas of Jharkhand. The main vision of the department has been to provide safe and adequate drinking water and access to improved sanitation to all. To achieve this goal, the Centre has formulated two flagship schemes: National Rural Drinking Water Program for Rural Drinking Water Supply and Swachh Bharat Mission for Sanitation in the country. The programs are spread over three broad components i.e. water, water quality and sanitation. In addition to this, the Department of Urban Development is responsible for managing the issues pertaining to urban water supply, drainage, solid waste management and sanitation in urban localities of the State.

Providing Safe Drinking Water in Rural areas

National Rural Drinking Water Program (NRDWP)

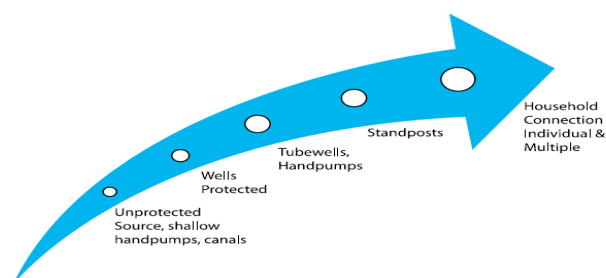
NRDWP is a centrally administered program which aims at supporting the states and UTs with financial and technical assistance in implementing drinking water supply schemes in such villages where coverage is less than 55 lpcd and in those villages which are affected by water quality problems due to over dependence on ground water based water supply schemes. It guides the State Government for building a core infrastructure that can address issues like sustainability, water availability and supply, poor water quality, etc.

The main objectives of the program are:-

- a) To enable all households to have access to and use of safe and adequate drinking water and within reasonable distance;
- b) To enable communities to monitor and keep surveillance on their drinking water sources;
- c) To ensure reliability, sustainability, convenience, equity and consumers preference to be the guiding principles while planning for a community based water supply system;
- d) To provide drinking water facilities, especially piped water supply, to Gram Panchayats that have achieved open defecation free status on priority basis;
- e) To ensure that all the government schools and anganwadis have access to safe drinking water;
- f) To provide enabling support and environment for Panchayat Raj Institutions and local communities to manage their own drinking water sources and systems in their villages;
- g) To provide access to information through

online reporting mechanism with information placed in public domain in order to bring in transparency and provide updated information.

Figure 13.1: Water ladder of Service delivery under NRDWP



Source: mdws.gov.in

With the passage of time the program has witnessed a paradigm shift in its process of implementation. In the Eleventh Five year Plan the basis of coverage under the rural water supply programme telescoped from habitations to households i.e. ensuring drinking water supply to all households in the community. In the Twelfth Five Year Plan, there was a major shift of emphasis towards piped water supply with the goal of providing at least 50% of the rural population with at least 55 lpcd of within the household premises or at a horizontal or vertical distance of not more than 100 metres from their household without barriers of social or financial discrimination. The Government's role shifted from that of a Service Provider to a facilitator i.e. from a Supply-Driven Approach to a Demand-Driven Approach. In the financial year 2016-17, the Central Government has allocated Rs. 86.99 crore for the execution of work under N.R.D.W.P. Out of this amount the Centre had released 77.17 crore by Oct 2016-17. Till October 2016, the State has spent 40.01 percent of the funds.

Table 13.1: Financial Progress of the state for 2016-17

Rs. in Crore

State	Latest Reported Month Programme / Support	Opening Balance (Central) (01/04/2016)	Allocation			Expenditure			
			Total	Central	State	Total	Central	percentage against the central fund	State
Jharkhand	October	25.67	214.9	86.99	127.9	65.86	40.9	39.78	24.95

Source: indiawaterportal.org

Components of NRDWP

To target the specific issues, the program has been divided into dedicated components like NRDWP (Coverage), NRDWP (Q and M), NRDWP (Sustainability), NRDWP (Water quality), NRDWP (DDP areas), NRDWP (Natural calamity) and NRDWP (Support). In accordance with water and sanitation policy of the Government, for a state, the total fund released under the programs are divided into sub heads for different components. The component of NRDP (Coverage) canvases issues of household level portable water provisions, whereas the quality and maintenance components looks after the

monitoring and maintenance of already installed system in rural areas and checks the quality of water supplied. The Sustainability component was introduced later realising the need to balance the demand and availability of water resources. The Natural Calamity component is a special component which deals with the medium and large scale calamity arising from water. The Support component covers support activities that may include awareness generation and capacity building programmes through Communication and Capacity Development Units, water quality testing, MIS and computerization, and R&D activities.

Table 13.2: Division wise Coverage of Habitation under NRWDP (Target and Achievement)

S.No.	Division	No. of Water Quality Affected Habitations			No. Of Partially Covered Habitations			No. Of Fully Covered Habitations		
		As on	Target	Ach	As on	Target	Ach	As on	Target	Ach
		1/4/2016			1/4/2016			1/4/2016		
1	Chas	47	0	0	1	0	0	2191	0	0
2	Tenughat	98	0	4	0	0	0	1733	34	17
3	Chatra	15	0	0	263	0	0	7516	1	1
4	Deoghar	404	10	1	62	0	0	4096	62	15
5	Madhupur	0	0	0	23	0	1	3671	47	69
6	Dhanbad-1	0	0	0	0	0	0	842	45	0
7	Dhanbad-2	17	0	0	0	0	0	2685	0	0
8	Dumka-1	351	154	107	0	0	0	1693	617	374
9	Dumka-2	806	43	97	2	0	0	4600	134	398
10	Garhwa	1087	0	0	5	0	0	3165	0	0
11	Giridih-1	108	10	0	5	0	0	2067	62	0
12	Giridih-2	37	0	2	0	0	0	2329	0	22
13	Godda	41	4	0	6	0	0	5761	110	0

S.No.	Division	No. of Water Quality Affected Habitations			No. Of Partially Covered Habitations			No. Of Fully Covered Habitations		
		As on	Target	Ach	As on	Target	Ach	As on	Target	Ach
		1/4/2016			1/4/2016			1/4/2016		
14	Gumla	4	0	0	0	0	0	4509	126	28
15	Hazaribagh	111	0	1	7	0	0	4799	0	5
16	Jamtara	378	8	0	2	0	0	4873	48	11
17	Khunti	96	2	6	1	1	0	2933	27	148
18	Jhumritilaiya	2	1	0	0	0	0	1976	57	160
19	Latehar	3	0	0	0	0	0	4301	12	0
20	Lohardaga	91	8	0	0	0	0	1553	51	0
21	Pakur	779	98	0	0	0	0	2853	194	0
22	Medininagar	265	10	0	4	0	0	6666	80	39
23	Chaibasa	380	3	24	12	0	0	4710	7	111
24	Chakradharpur	320	42	9	0	0	0	3427	286	46
25	Aditypur	3	0	0	31	0	0	1439	0	0
26	Jamshedpur	25	0	0	3	0	0	5171	0	0
27	Ramgarh	265	33	3	0	0	0	1687	103	14
28	Ranchi East	156	4	0	1	0	0	3318	56	0
29	Ranchi West	263	15	1	2	0	0	2831	58	7
30	Sahibganj	128	24	1	0	0	0	2729	312	106
31	Saraikela	466	80	0	0	0	0	4386	426	14
32	Simdega	115	1	5	0	0	0	6266	76	198
Total		6861	550	261	430	1	1	112776	3031	1783

Source: indiawaterportal.org

Initiatives taken in the State under different Components of NRDWP

Support Fund and Water and Sanitation Support Organisation (WSSO)

There are many Support activities for which States would require funds to achieve the long term goal of the sector. Thus, support for information, education and communication, human resource development, water quality monitoring and surveillance, setting up water testing laboratories , engaging State Technical Agency and National Expert Groups for preparation of Projects, technical scrutiny and evaluation of rural water supply schemes can be taken up under the 5 percent support fund of NRDWP. In addition to this NRDWP

also provides support for the development of Satellite-data imagery, GIS mapping systems, use of GPS system for unique identification of habitations and water sources and delivery points, support successful deployment of the central online monitoring system (IMIS) and such other activities .

Jharkhand State Water and Sanitation Mission

Under the support activity component, the State has started Jharkhand State Water and Sanitation Mission with the technical & financial support from the Government of India & World Bank. The Government of India and the World Bank has decided to provide Technical Assistance of Rs. 6147 crores in the Rural Drinking Water & Sanitation sector to the four lagging States of the country

viz. Uttar Pradesh, Assam, Jharkhand and Bihar. Jharkhand has selected districts with availability of sustainable water source, districts with large percentage of SC/ST population, districts with water quality affected habitations, districts with less percentage of population covered by piped water supply, and districts where percentage population coverage under sanitation is low. The project is being implemented in 6 districts i.e. Dumka, Saraikela-Kharsawan, Jamshedpur, Khunti, Palamu and Garhwa.

Figure 13.2: Coverage of State water and Sanitation Scheme



Source: indiawaterportal.org

Sustainability of Rural Water Supply Source and System

Since 1947, with an increasing growth in the population, the per capita water availability has fallen from over 5,000 m³/year to about 1,700 m³/year. This is due to the massive over-exploitation of groundwater, mostly to meet irrigation demand and increasing scarcity in drinking water during summer months. Due to deeper drilling of aquifers, drinking water sources are increasingly becoming saline or contaminated with natural contaminants like fluoride and arsenic. The new guidelines of NRDWP call for deeper involvement from the communities through the Panchayati Raj system and have made improved norms in terms of quantity and quality of water to be

supplied. Thus, the Department has accorded highest priority to “Sustainability” of drinking water sources and systems to prevent slippages. Sustainability measures, like water conservation and rainwater harvesting which leads to in-situ remediation of water quality, will have to be prioritized in water supply sector. For this purpose, 20 percent of the NRDWP allocation is made available to the States on a 100% grant-in-aid basis.

In addition to this, the NITI Aayog has also recommended a sum of 1000 crore as a onetime additional Central Assistance to all states having arsenic and fluoride affected rural habitations including Jharkhand .

Water Quality Monitoring and Surveillance

In order to develop an understanding and appreciation for safe and clean drinking water among rural communities and to enable them to determine the quality of drinking water, National Rural Drinking Water Quality Monitoring and Surveillance Programme was launched in February 2006. The programme aimed at empowering rural communities by:

- i) Bringing awareness through Information, Education & Communication (IEC) activities to address health hazards occurring due to poor drinking water quality, hygiene, sanitation etc.
- ii) Training 5 villagers/workers in each Gram Panchayat for testing drinking water sources.
- iii) In addition to 5 Gram Panchayat workers, 2 persons at the State level, 4 persons at the district and 5 persons at the Block level were trained in water testing.

Under this programme, field testing kits are provided to each Gram Panchayat. 100% financial assistance is provided to the states for this task. With effect from 1st April 2009, the Water quality monitoring and

surveillance programme has been subsumed under the NRDWP and these activities are now supported from the Support fund.

The Department of Drinking Water and Sanitation started its water Testing Lab in Ranchi in the year 2006, which is NABL certified. The unit has applied advanced technology to run at least 20 different tests

in water treatment. The basic function of this lab is to collect contaminated water samples from the Water Testing Labs of all 24 districts and run a confirmatory test on those. The largest number of sources were tested for Gumla, Chatra and Lohardaga. Iron contamination is also the highest in the above mentioned districts.

Table 13.3: District wise water quality tests conducted

S.No.	District	Total Sources Tested	Total Samples Tested
1	Bokaro	1295	1694
2	Chatra	2147	2148
3	Deoghar	1369	1371
4	Dhanbad	1202	1204
5	Dumka	444	444
6	Garhwa	1201	1205
7	Giridih	1582	1583
8	Godda	709	738
9	Gumla	2309	2371
10	Hazaribag	1614	1674
11	Jamtara	1063	1064
12	Khuti	1651	1701
13	Koderma	859	1038
14	Latehar	927	1137
15	Lohardaga	2360	2389
16	Pakur	1179	1221
17	Palamu	1977	2089
18	W.Singhbhum	1870	1874
19	E.Singhbhum	1049	1253
20	Ramgarh	1913	2195
21	Ranchi	1186	1194
22	Sahibganj	1073	1078
23	Sareikela	1574	1585
24	Simdega	783	803
Total		33336	35053

Source : indiawater.gov.in

Through the IEC strategy, the Ministry is doing a commendable job in making people aware of the Hazards of various contaminations in Drinking Water. The Ministry has been organizing Seminars,

Workshops and Meetings in the past one year to spread awareness regarding Water Contamination. Under the ambit of Corporate Social Responsibility, the corporate sector has also been involved in providing support for this goal.

Table 13.4: District wise contaminated water detected under the program

S.no	District	Total Sources Tested	No. of Sources with Single Chemical Contaminants	No. of Sources with Bacteriological Contaminants	No. of Sources with Multiple Contaminants
1	Bokaro	1295	1253	0	3
2	Chatra	2147	940	0	0
3	Deoghar	1459	46	0	0
4	Dhanbad	1202	259	0	0
5	Dumka	444	146	0	0
6	Garhwa	1234	177	0	0
7	Giridih	1582	109	0	0
8	Godda	734	21	0	0
9	Gumla	2307	578	0	0
10	Hazaribag	1686	4	0	0
11	Jamtara	1063	536	0	1
12	Khuti	1762	774	2	0
13	Koderma	859	19	0	0
14	Latehar	927	97	0	0
15	Lohardaga	2360	904	0	0
16	Pakur	1260	258	0	0
17	Palamu	1977	771	0	60
18	W. Singhbhum	1870	491	0	0
19	E. Singhbhum	1119	84	0	0
20	Ramgarh	1973	726	0	63
21	Ranchi	1233	776	0	37
22	Sahibganj	1073	10	0	0
23	Sareikela	1574	665	0	0
24	Simdega	783	628	0	0
Total		33923	10272	2	164

Source : indiawater.gov.in

Jalmani

Jalmani is a sub-program under NRDWP, which aims to provide clean water in the schools and Aaganwaadis situated in the rural areas. Due to variety of factors, the quality of drinking water is likely to deteriorate by the time it actually reaches the consumption point, especially in vulnerable areas like rural schools. In order to address this key requirement, it has been decided to install simple Stand Alone Purification systems, in one lakh schools as a value addition to the Rural Water Supply Programme.

In order to choose the appropriate technology options for the schools, the Department had constituted a High Level Technical Committee (HLTC). The Jalmani programme is implemented by the State Governments through the Gram Panchayat/Village Water and Sanitation Committees/Self Help Groups including Women Self Help Groups, School Committees and Parents Teacher Association. However, flexibility is given to the State Governments to involve other stakeholders also like NGOs working in this field, Mahila Mandals etc for a better implementation of the Programme at the village level. For operating this programme, funds are provided by the State Governments or the institutions

nominated by them to the Village Panchayats for activities relating to capacity building, awareness generation/publicity and such other activities which are necessary for the smooth implementation of the programme. The ownership of water purification systems

is vested with the school authorities. However, it is the direct responsibility of the Village Panchayats that the systems are operated effectively and the school children get quality water in sufficient quantity.

Table 13.5: District wise Physical progress of Jalmani program in 2016-17

DistrictName	No. of Rural Schools			No. of Students Benefited		
	Total Number of rural schools	Require Stand Alone System	Provided With StandAlone Systems	Boys	Girls	Total
Bokaro	906	47	47	0	0	0
Chatra	1863	290	290	2541	2739	5280
Deoghar	1301	47	19	0	0	0
Dhanbad	1721	1721	238	0	0	0
Dumka	2489	59	0	0	0	0
Garhwa	1366	84	84	5000	5000	10000
Giridih	3333	71	0	0	0	0
Godda	1827	47	0	0	0	0
Gumla	1565	65	0	0	0	0
Hazaribag	1005	330	330	1780	820	2600
Jamtara	1159	24	0	0	0	0
Khuti	1044	34	0	0	0	0
Koderma	699	150	150	5445	5729	11174
Latehar	1029	42	0	0	0	0
Lohardaga	313	30	0	0	0	0
Pakur	801	36	0	0	0	0
Palamu	964	78	78	4926	2374	7300
PaschimSinghbhum	1532	88	0	0	0	0
PurbiSinghbhum	1966	52	0	0	0	0
Ramgarh	668	130	130	1725	825	2550
Ranchi	2187	82	1	105	119	224
Sahibganj	1365	54	0	0	0	0
Sareikela And Kharsawan	1615	46	0	0	0	0
Simdega	875	100	100	4883	2092	6975
Total	33593	3707	1467	26405	19698	46103

Source: jswsm.org

Continuing State Schemes

Rural Pipe Water Supply Scheme

As mentioned earlier, the Rural populace of Jharkhand predominantly depend on Hand

Pumps for drinking water. However the ground water is over mineralised in most of the areas of Jharkhand. Therefore, the State Government has decided to link all the households with pipe water system in phased manner for the supply of safe drinking water. Through Jharkhand State Water and Sanitation

Mission (JSWSM) the State plans to enhance Rural Pipe Water Supply and Sustainable Sanitation solution reaching at least 45% and 80% of the rural household by the end of 12th Five year plan period (2017) respectively

through community involvement in planning and implementation of Water, Sanitation and Hygiene (WASH) program.

Box 13.1: Each house will have water by 2022

Like open defecation free campaign, the Department of Drinking Water and Sanitation has planned a scheme for access to water by 2022. This means by 2022, all the villages will get water through pipe connection. In the first phase, campaigns are conducted in Ramgarh and Dhanbad and 50% work has already been completed. Under these campaigns the Department has started plans of Rs. 250 Cr. and Rs. 1000 Cr. in Ramgarh and Dhanbad.

District Mineral Fund is being used for this particular *JAL-NAL* Yojna and this is the reason that in the initial phase of the programme, mineral abundant regions are selected for *JAL-NAL* Yojna. Besides Ramgarh and Dhanbad, the Government is planning to start this yojna in other districts like Bokaro, Chaibasa, Chatra and Godda.

Cumulative Physical Progress in RPWSS

Till now the government is successful in setting up and facilitating 27,957 Village Water and Sanitation Committee (VWSC) as a mandate body of Panchayat to address WASH issues in the villages. Out of these, 25,882 VWSC have been connected to the banking system for a transparent financial mechanism. For each VWSC, a lady service-provider entitled 'Jal Sahiya' is designated as treasurer of the Committee and works as the Nodal person in the village. She is entitled to take up water audit as part of baseline survey and facilitates

demand generation for WASH schemes. Under this scheme, the Operation and Maintenance of the whole program has been transferred to VWSC (Single Village Schemes). For multi-village schemes too, a common VWSC maintains the installed infrastructure as well as collects taxes for their own village. To encourage community participation, VWSC managed schemes are provided with equal amount of matching grant from Government as incentive to the amount collected by them as water tax every year. Following table shows the current year statistics of the top 20 performing villages in the State:-

Table 13.6: Physical progress of 20 best performing villages under RPWSS in 2016-17

SN.	Name of the Village	Household connections	User water charge collection in Rupees
1	ShivalbariUttar	450	1,79,640
2	ShivalbariDakshin	196	1,23,743
3	Shivalbari East,	455	3,87,789
4	Shivalbari Central	230	1,34,451
5	Agayarkund South	395	2,56,772
6	Agayarkund Uttar	196	1,43,000
7	Medha	322	1,42,413
8	Vrindavanpur	120	35,000

SN.	Name of the Village	Household connections	User water charge collection in Rupees
9	Jaynagar	500	1,00,000
10	SaraiKella	142	1,23,350
11	Charadih	213	2,38,540
12	Bero	207	70,000
13	Nuamundi (Bazar Samity)	192	1, 00,000
14	Mahudi	270	2,65,000
15	Khijri	200	112,506
16	MandarTigoe	180	40,000
17	Barasi	138	60,000
18	Meru	120	160,000
19	Rasonia	188	202,000
20	Kalubira, Simdega	140	60,000

Source: jsWSM.org

The rural piped water supply scheme is covered under different broader programs. The following table shows program wise physical progress of RPWSS in the State. In 2016-17, a total of 55 RPWS schemes were sanctioned out of which only 19 could be completed, whereas, about 52 percent of the sanctioned mini RPWSS schemes were

completed till October 2016. Under the State Plan Scheme, out of 43 sanctioned RPWSS schemes, only 14 schemes could be completed till October 2016, while, under the NRDWP, 5 big scale scheme could be completed. Apart from this, under various plans, works for installing 66 RPWS schemes and 1480 Mini RPWS schemes are ongoing.

Table 13.7: Total achievement of all Pipe water scheme in 2016-17

Sl. No.	Scheme	Pending Ongoing	Scheme Sanctioned	Total Schemes	Completed	In complete
1	State Plan					
	RPWSS	37	43	80	14	66
2	NRDWP					
	RPWSS	29	10	39	5	34
	Mini RPWSS	1480	2602	4082	1430	2652
3	NNP					
	RPWSS	0	2	2	0	2
	Mini RPWSS	0	171	171	10	161
Grand Total (1+2+3)						
	RPWSS	66	55	121	19	102
	Mini RPWSS	1480	2773	4253	1440	2813

Source : indiawater.gov.in

Rural Sanitation

Swachh Bharat Mission-Gramin

The State is making concentrated efforts to

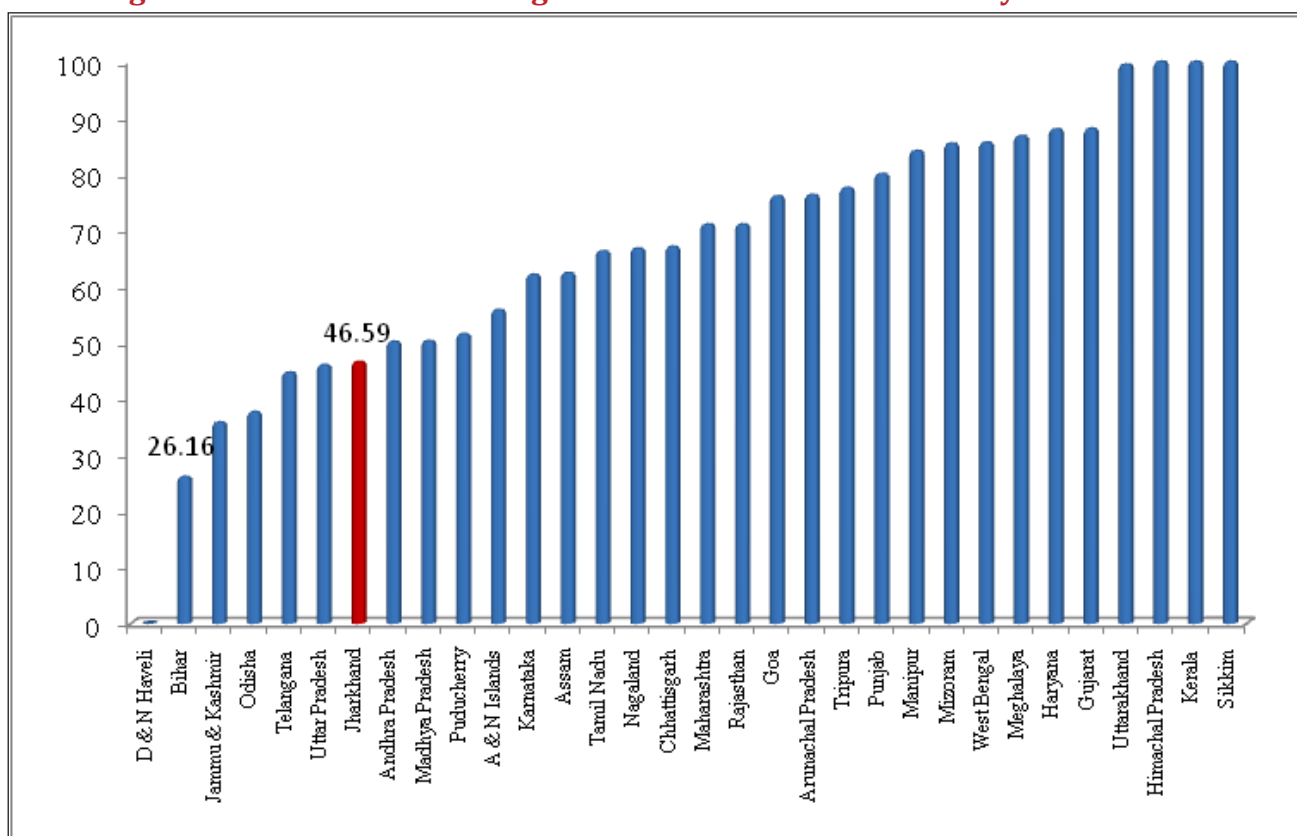
implement total sanitation in its rural parts. The State has been implementing a number of sanitation programmes with the assistance of the Central Government and external agencies like World Bank, UNICEF and other

development partners. Currently, from 2nd October 2014, the long hailed “Nirmal Bharat Abhiyan” has been rechristened as “Swachh Bharat Mission”. The mission aims at making all villages in the State as open defecation-free villages. Besides, it has a wide focus of providing Individual sanitation, house sanitation, safe drinking water, suitable disposal of human excreta, disposal of waste and used water etc.

The State Government has planned to achieve a cumulative state coverage of 52.43 percent till March 2017 with an aim of making 428 Gram

Panchayats open-defecation-free. To achieve this ambitious task, the State Government is promoting Information Education and Communication (IEC) Activities in the village. In the current financial year, intense campaign and IEC activities were undertaken to generate awareness so that a sense of need of owning toilet by each household can be generated among villagers. The IEC activities included Community triggering approach, Wall writings and paintings, mass mobilization and awareness campaign, capacitating VWSCs, masons training on technology option and media sensitization.

Figure 13.3: State wise Coverage status of Swachh Bharat Abhiyan in 2016-17



Source: sbm.gov.in

As per the baseline conducted in 2012, about 72 percent households in Jharkhand had no sanitation facility in rural areas. But with the introduction of the mission and diligent response from the State Department, the State was able to make commendable progress. In the year 2016-17, the State Government was

able to cover 4,81,262 households, raising the cumulative state coverage upto 46.59 percent. Among districts, Dumka, Hazaribagh, Lohardaga, Sahibganj and Ramgarh have registered above 60 percent coverage, while, districts like Giridih, Godda and Palamu are still lagging behind.

Table 13.8 : District wise Comparative Physical Progress of IHHL Coverage

Sr. No.	District Name	HH as per BLS-2012 (in Number)	HH without Toilet as per BLS-2012 (in percent)	Coverage of HH (including unapproved)					
				In 2013-14 (Number)	In 2014-2015 (Number)	In 2015-16 (Number)	In 2016-17 (Number)	Total HH Covered	IHHL % Coverage
1	Bokaro	217670	80.1	1071	1339	10252	27891	83928	38.56
2	Chatra	175217	81.5	10871	2767	16410	14222	76632	43.74
3	Deoghar	243197	61.7	4128	7420	11297	21037	137072	56.36
4	Dhanbad	295114	92.1	4213	4740	11634	26648	70460	23.88
5	Dumka	256651	45.2	3917	8015	12597	22181	187318	72.99
6	Garhwa	271548	78.9	221	388	9443	15826	83225	30.65
7	Giridih	366147	92.5	1758	7225	22376	30495	89308	24.39
8	Godda	262348	90.4	4889	9466	11493	14611	65529	24.98
9	Gumla	203930	69.6	2055	6135	11474	14433	96171	47.16
10	Hazaribagh	259235	61.5	12188	3172	20873	32546	168640	65.05
11	Jamtara	139712	82.9	3411	3583	8363	23522	62702	44.88
12	Khunti	103557	87.8	4826	3841	6249	12587	40130	38.75
13	Koderma	90207	76.3	335	697	5588	18478	46438	51.48
14	Latehar	134580	49.5	974	1885	10644	10474	91903	68.29
15	Lohardaga	106426	63.5	2982	2147	8860	20742	73530	69.09
16	Pakur	183364	62.3	902	3063	8473	16062	97679	53.27
17	Palamu	352827	82.2	855	2342	9906	17386	93279	26.44
18	PaschimSinghbhum	229276	64.7	5163	11858	16300	22352	136528	59.55
19	PurbiSinghbhum	270202	45.6	932	1918	12179	18400	180300	66.73
20	Ramgarh	110996	80.3	2932	2522	16347	31689	75335	67.87
21	Ranchi	325986	62.3	2409	3971	22340	29946	181435	55.66
22	Sahibganj	193004	60.2	4083	3407	28201	10843	123258	63.86
23	SeraikelaKhar-sawan	197436	75.6	507	3714	13905	21492	87697	44.42
24	SIMDEGA	107511	74.7	1196	4091	8732	7399	48633	45.24
Jharkhand		5096141	72.0	76818	99706	313936	481262	2397130	47.04* Bottom of Form

Source: sbm.gov.in

*Unapproved households included

From the table below it can be observed that the demand for building individual household toilets are still predominantly coming from Above Poverty Level (APL) households. In the year 2016-17, only 24.20 percent BPL households were sanctioned with IHHL. Among BPL families, 45.6 percent households were from the Scheduled Tribe community

and 18 percent belonged to Scheduled caste community. Among APL households, 22.91 percent were from Scheduled tribe community, while; only 6.91 percent belong to Scheduled caste community. Apart from this a major proportion (about 64 percent) of the beneficiaries was from the small and marginal farmer group.

Table 13.9: Social Category wise beneficiaries of SWBM in 2016-17

Sr. No.	District Name	IHHL Total	IHHL BPL			IHHL APL				
			Total	SC	ST	Total	SC	ST	Small & Marginal Farmers	Women Headed House holds
1	Bokaro	22305	1343	30.01	17.2	20962	10.72	8.79	67.03	4.12
2	Chatra	11311	292	71.92	6.849	11019	4.483	3.73	91.56	0.15
3	Deoghar	18073	1	0	0	18072	0.398	1.08	98.45	0.01
4	Dhanbad	21802	4300	18.63	37.44	17502	6.228	4.98	61.60	8.91
5	Dumka	17938	3867	31.39	45.59	14071	5.472	38.8	53.94	0.04
6	Garhwa	10054	74	0	17.57	9980	0.992	0.33	79.52	6.03
7	Giridih	22468	924	27.49	25.76	21544	3.964	4.11	90.00	0.39
8	Godda	12666	5599	13.68	14.54	7067	3.056	6.14	58.85	4.19
9	Gumla	7991	2526	6.77	79.57	5465	4.501	51.67	38.77	4.92
10	Hazaribagh	22783	4158	35.28	17	18625	15.85	11.84	71.84	0.11
11	Jamtara	15697	7087	10.67	38.41	8610	8.42	27.60	63.60	0.01
12	Khunti	10332	1493	7.301	70.19	8839	6.177	63.99	29.41	0.19
13	Koderma	12771	5386	23.62	1.671	7385	10.77	0.58	88.16	0.43
14	Latehar	6652	3145	30.27	48.04	3507	21.53	36.58	40.97	0.40
15	Lohardaga	14213	2311	6.015	61.83	11902	2.613	40.93	54.15	2.24
16	Pakur	12742	6081	10.79	78.01	6661	11.24	51.3	36.42	0.09
17	Palamu	13456	16	50	6.25	13440	10.03	3.504	62.27	23.76
18	PaschimSinghbhum	17864	11168	6.411	78.13	6696	8.841	77.54	12.08	0.04
19	PurbiSinghbhum	15942	0	0	0	15942	2.271	18.11	79.14	0.01
20	Ramgarh	24832	8369	14.12	28.04	16463	4.301	18.63	77.00	0.00
21	Ranchi	25490	3911	28.15	51.6	21579	4.041	55.44	40.06	0.30
22	Sahibganj	10146	4156	10.68	59.58	5990	5.442	68.43	24.47	1.35
23	SeraikelaKharsawan	16170	9700	30.95	36.67	6470	30.96	36.4	29.50	0.99
24	Simdega	5850	3560	13.43	76.1	2290	18.3	57.9	22.00	0.79
	Total :-	369548*	89467	18	45.58	280081	6.981	22.91	63.97	2.67

Source: sbm.gov.in

*includes sanctioned with pending works HHs

New Schemes and Future Plan for Improving Water and Sanitation

- It is planned that the Rural Piped water supply scheme will be extended to 19 new blocks. In addition to this 20 RPWSS schemes for parliamentary constituencies and 102 for assembly constituencies will be executed under Sansad Adarsh Gram Yojna
- In the coming Financial Year, 75 blocks covering 1000 Gram Panchayats will be

targeted to be made open defecation free. It is planned that about 4.50 lakh units of IHHL will be installed in these targeted Panchayats. It has also been decided that the Open-Defecation-free Panchayats will be given priority for RPWSS.

- Under NRDWP, in water quality affected habitations, 400 defluoridation units, 500 iron removal units and 50 arsenic removing units will be installed.

Urban Drinking Water and Sanitation

Access to safe and clean drinking water is one of the basic provisions which are fundamental to an urban centre's liveability. The Census 2011 data shows that most of the Class-I cities of the State have provisions for the supply of protected water through tap water from treated sources. The exception being Mango, Deoghar, and Chas where the main source of safe water supply is hand pump and worst performer is Giridih where uncovered well is the main source of water supply. Uncovered wells are contentiously not considered to be a source of safe drinking water. But unfortunately, uncovered wells along with hand pumps are the main sources of water supply in the Class-II towns. Among the large towns, only Phusro and Saunda have provisions for tap water from treated source as their main source of protected water supply system.

In terms of sewerage and drainage, most of the Class-I cities of Jharkhand have a combination of both open and closed drainage system with the exception of Adityapur which has provision for only open drainage network. The condition of Class-II towns is also not so good as more than half of them have open drainage networks. Phusro, Ramgarh Cantonment, Saunda, Chaibasa, Lohardaga, and Chakradharpur are the large towns with no provision for closed drainage system.

Availability of flush or pour flush toilets is regarded as an improved sanitation facility. The Class-I cities overall presents a better picture as compared to the State's average which equals the condition in Class-II towns. Among the Class-I cities, Dhanbad (0.58), Adityapur (0.59) and Bokaro Steel City (0.62) fall below the State's average availability of improved sanitation in the form of flush toilets. Among the Class-II towns, about half of them have below average availability of improved sanitation among which Jhumri Tilaiya (0.55), Sahibganj (0.57) and Bagbera (0.58) are on the lower rungs.

Similar to the rural areas of the State, continual efforts have been made in the urban areas of the State in order to strengthen the status quo of drinking water and sanitation. In the quest for providing standardised urban services and amenities to the populace, the Department of Urban Development has introduced many programs in major urban agglomerations and ULBs under Basic Services to Urban Poor (BSUP), Jharkhand Urban Infrastructure Development (JUDCO) and Swachh Bharat Mission – Urban.

Urban Water Supply

Urban Development has a vision to provide safe and sufficient drinking water to all citizens. The emphasis of the Department is on providing tap water supply system to all the existing and newly constructed houses. In the first phase, urban agglomerations like Pakur, Chakradharpur, Jamtara, Ramgarh, Ranchi, Garwah, Saraikela, Bundu were targeted for full coverage. In addition to this, under JUDCO new schemes covering areas like Phusro, Khunti, Medininagar, Simdega, Koderma, Chakuliya, Mazhiyaon and Latehar are being implemented.

Swachh Bharat Mission (Urban): The Government of India launched the Swachh Bharat Mission (SBM) on 2nd October 2014, with a cleanliness target to be achieved by 2019. All 4,041 statutory towns as per Census 2011 have been included in this mission. The mission describes a comprehensive set of actions that can deliver the goals of social transformation through elimination of open defecation and manual scavenging, solid waste management and sanitation through change in behaviour and attitude, and a rise in the consciousness about the adverse health effects of poor sanitation and waste management.

The mission target for SBM (till 2nd October 2019) is as follows:-

Table 13.10: Physical Targets of SBM-U till 2019

S.No	Components	Targets
1	Individual Household latrine	2,31,018
2	Community toilets (no of Seats)	8,106
3	Public Toilets (No of Seats)	4,260
4	Solid waste Management (No of Towns)	42

Source: Department of Urban Development, Government of Jharkhand.

From the table below, it can be observed that the Department has received very good response in the first phase targets of SBM. In the Financial Year 2016-17, application for construction of 2,35,085 individual household latrine were received by the Department. The number of applications being more than the physical target, the receipt of application has been stopped now. Out of the total applications received, till 2nd December, 2,24,847 works have been sanctioned and 51, 521 works have already been completed. Apart from this, 296 community toilets and 231 Public toilets

have also been made under the program. At present a total of 329 community toilets/ Public toilets exist across 41 Urban Local Bodies with 2494 toilet seats. But, out of this only 267 are functional. The mission also stresses on imparting awareness classes and skill development tutorials thorough which the apprentice learn how to construct affordable toilets and manage it. As places for conducting such classes are scarce in cluttered towns, the Department has decided to construct rooms above the community toilets where classes can be conducted.

Table 13.11: Status of Implementation of various components under Swachh Bharat Mission in Jharkhand (up to December 2016)

Status of Toilets:	
1. Individual Household Toilets	
Application Received (Numbers)	2,35,085
Application Sanctioned	2,24,847
Work commenced	67812
Completed (Numbers)	51,521
2. Community Toilets (Number of Seat)	
Work Commenced	415
Completed	296
3. Public Toilets (Number of Seat)	
Work Commenced	950
Completed	231

Source: Department of Urban Development, Government of Jharkhand.

Solid Waste Management

The Swachh Bharat Mission (Urban) also entails solid waste management as an integral part of the goal for achieving cleanliness in urban areas of the State. In the year 2016-17, the State has witnessed 3750 MT/D of solid waste

production from its urban areas. The solid waste management canvases all the aspects namely solid waste collection, segregation, transportation and proper disposal of wastes and framing a suitable infrastructure to support these activities. The main structure of

solid waste management followed in most of the ULBs in Jharkhand is to collect wastes from door to door, carry it outside the town and dump it in any pre-stipulated land-fill sites. In the year 2016-17, under the program Swachh Bharat Abhiyan (urban), the land sites have already been chosen in most of the ULBs. Out of total 828 urban wards, in 243 urban wards across the State, the Department is facilitating door to door waste collection. The state has

begun a process of engaging in wide and broad based consultation involving civil society and concerned citizens in order to frame Municipal Solid Waste Management Rules for the state of Jharkhand. These rules specify the state's strategy to end open dumping and burning of garbage, promote decentralized (household and community level) recycling of solid waste, and inclusion of rag pickers into the formal waste management system.

Table 13.12: Physical progress of Solid Waste management component in 2016-17

Status of Municipal Solid Waste Management:	
Ward with 100% door to door collection (Nos.)	243
Total Wards (Nos.)	828
Percentage of Wards with 100% door to door collection	29.35%
Total Waste Generation (MT/D)	3750
Total waste processing (%)	15

Source: Department of Urban Development, Government of Jharkhand.

A high power committee under the chairmanship of the Chief Secretary has been constituted for planning and monitoring of the program. In the year 2016-17, total 15 cities have been targeted across the State for the execution of Solid Waste Management program. Out of these, 13 projects have been already approved by the high power committee at Ranchi, Dhanbad, Giridih, Pakur, Chakulia, Latehar, Saraikela, Mihijam, Chirkunda, Deoghar, Khunti, Godda and Bundu. Till now for Ranchi and Dhanbad city, Concessionaire has been appointed, and work on construction of transfer stations have also been started in four wards of Ranchi and 10 wards of Dhanbad city respectively.

The Ministry of Environment, Forests and Climate Change has notified amended rules regarding the management of all sorts of urban wastes. These include the Municipal Solid Waste (Management and Handling) Rules, 2016, the Plastic Waste (Management and Handling) Rules, 2016, the Bio-Medical Waste Management Rules, 2016, the E-Waste

Management Rules, 2016, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Construction and Demolition Waste Management Rules, 2016. The Urban Development Department is involving these strategies in its future course of action. This will result in not only generating awareness regarding the importance of toilets, but will create awareness to ensure sustainable design and use of toilets which allow for, and promote, composting and agricultural use of excreta and urine.

Conclusion

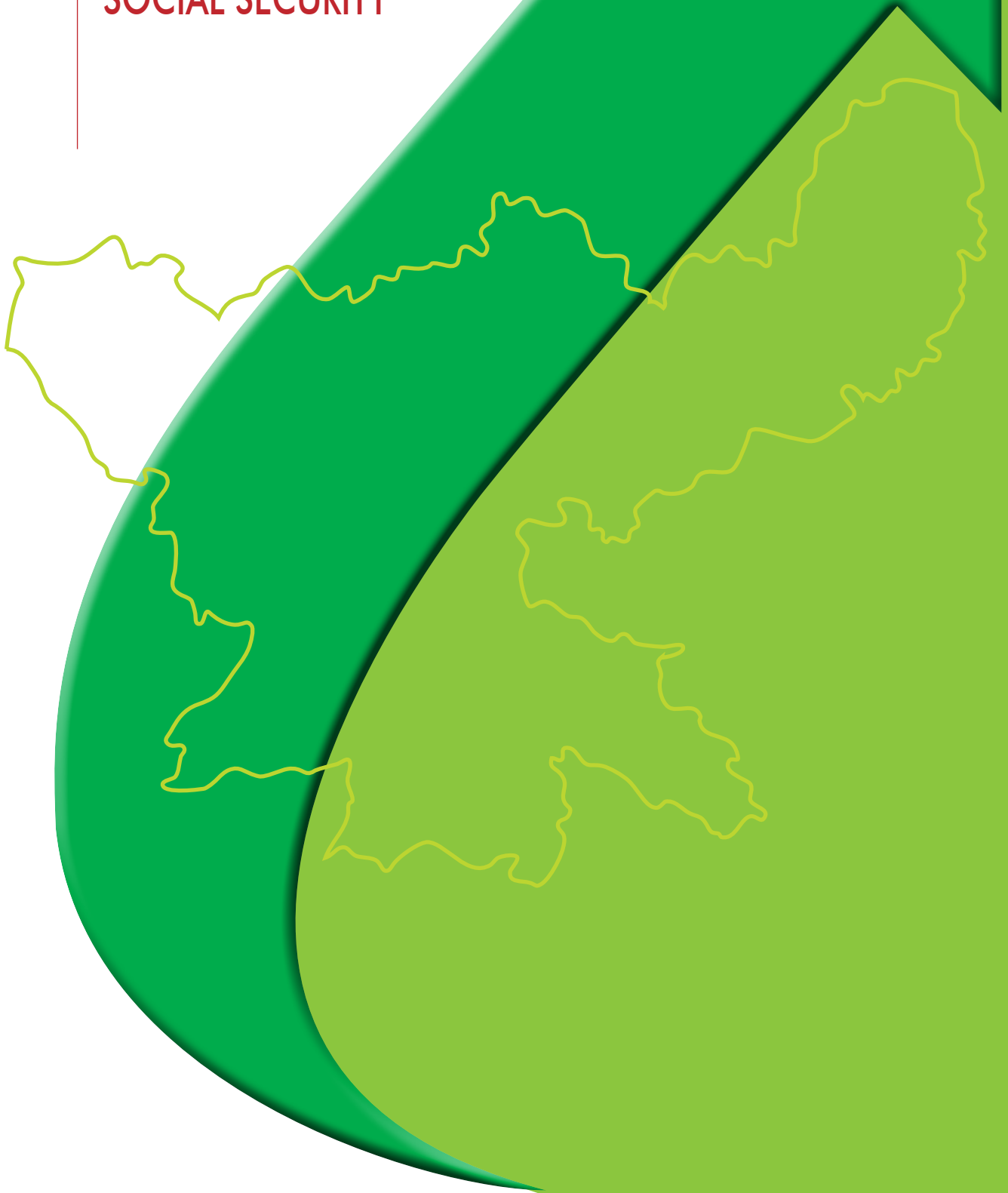
From the baseline survey 2013, it is reflected that Jharkhand as a state is lagging behind in safe drinking water and sanitation aspect compared to other neighbouring states or the developed states of the country. But as mentioned earlier in the chapter, introduction of flagship programs like NRDWP and Swachh Bharat Abhiyan has given the required impulse to transform the state of water and sanitation. The State is performing well and

is achieving most of its annual goals. If the State can maintain this momentum in coming years, it will surely realise the goal of standing among the developed states. In urban areas too, Government schemes like JNNURM and Swachh Bharat Mission are specifically directed to improve the tap water supply from treated sources, drainage and sanitation facilities, but a difference in the urban development scenario can only be made if their effective

implementation is realised beyond the Class-I cities of the State. The state is also moving away from a top down, target driven approach to a more inclusive community driven, bottom up, demand based approach for public service delivery.

14

WOMEN, CHILD
DEVELOPMENT AND
SOCIAL SECURITY



The Government of Jharkhand, through its Department of Social Welfare, Women and Child Development (DSWWCD), has formulated several policies and implementing several programmes and schemes for providing education, nutrition, health, hygiene, social protection and legislative support to women and children in the state. Besides the development of women and children, this department, also caters to the needs of the senior citizens and the persons with special needs.

No nation can aspire to achieve sustained and equitable growth without the development of its complete human resources. Women and children, who comprise nearly two-thirds of our population, therefore, cannot be left behind

in the quest for any genuine development. Hence, the Government of Jharkhand, through its Department of Social Welfare, Women and Child Development (DSWWCD), is working towards the empowerment of women and the development, care, and protection of children. Several policies have been formulated and are being implemented by the state through its Department of Social Welfare, Women and Child Development, for providing education, nutrition, health, hygiene, social protection and legislative support to women and children in the state. Besides the development of women and children, this department, also caters to the needs of the senior citizens and the persons with special needs (disabled).

Table 14.1: Vision and Mission of the Department

VISION	MISSION
<ul style="list-style-type: none"> To build an inclusive society wherein members of the target groups can lead productive, safe and dignified lives with adequate support for their growth and development. 	<ul style="list-style-type: none"> To empower and support its target groups through programmes of educational, economic and social development, and rehabilitation wherever necessary.

The following programmes have been running under the aegis of the Department of SWWCD for realisation of its vision and mission

Women Development Programmes: These programmes aim at providing support for nutritional, financial, and mental development of adolescent girls, pregnant women, lactating mothers, homeless and single women and

victims of witch hunting, sexual abuse and human trafficking. The Government has setup ‘women help-line facility’ for the quick resolution of various women related issues and has also been working towards preventing repulsive customs like witch hunt, dowry system and child marriage.

Box 14.1: One Stop Help Centre for Women

The Government of Jharkhand has introduced ‘One Stop Help Centre’ for women, similar to the Central Government policy of opening Short Stay Home. These centres are meant to support, help and subsequently empower the tormented women of the state. These Centres are going to be started in Ranchi, Jamshedpur and Dhanbad. Round the clock free medical facilities with legal and general counselling will be provided in these centres. Women fleeing from difficult situations can stay in these centres for a maximum of 5 days which can be extended in special cases. All these centres will be linked to each other. An agency named Aman Satya Trust, Gurgaon (recommended by GOI) has installed all requisite hardwares and softwares in place for the management and functioning of these centres. The agency is also extending web based technical assistance for the functioning of the centre. As per the instructions of the GOI, the establishment of One Stop Help Centre is in process in two more districts, namely Dhanbad and East Singhbhum.

Source: Department of Social Welfare, Woman and Child Development, Government of Jharkhand

ADOLESCENT REPRODUCTIVE AND SEXUAL HEALTH (ARSH):

The Government of Jharkhand is dedicated towards improving the health and wellbeing of the adolescents in the state and has drawn a comprehensive programme in tune with the National guidelines. The strategy adopted is a mix of developing capacity of service providers for delivering quality Adolescent Friendly Health Services, developing capacity of outreach workers for creating awareness and demand for ARSH services in the community, developing skills among managers for supervision for quality improvement and community level interventions for improving the health status of adolescents.

Strategies for ensuring healthy Adolescent Reproductive and Sexual Health include the following:

- Capacity building of different stakeholders on the ARSH issues,
- Strengthening the 154 ARSH clinics in the DHs and CHCs,
- Community level interventions by organizing outreach adolescent week,
- Promotion of health education among the primary and secondary target groups through IEC materials
- Convergence with other departments for health check-ups, nutritional counselling, IFA distribution, and life skill education
- Kishori Swasthya Saptah
- State Level Dissemination Workshop

Tejaswini Project: Socio-economic Empowerment of Adolescent Girls and Young Women

Adolescent girls and young women in Jharkhand face multiple constraints to education, training, and employment. Government of Jharkhand

has initiated the Tejaswini Yojana¹ in order to impart skills among girls. This scheme targets some of the most binding constraints faced by AGYW's (Adolescent Girls and Young Women) in attainment of education, training, and employment. The project is going to be implemented in 17 districts of Jharkhand².

The Tejaswini Project is going to intervene at two basic levels; firstly at the community level, where community based platforms are going to be provided to AGYW to come together for regular activities and support, life skills education to support success in several life domains, localized business, livelihood skills training and assistance, information on and access to broader services and opportunities, and, secondly at the institution level, under which vocational training and NFE (non formal education) is going to be provided to a subset of AGYW through partner institutions.

In the 17 project districts, there are about 2.1 million AGYW in the age group of 14–24, of which 13 percent belong to SCs and 25 percent belong to STs. The project expects to benefit about 680,000 AGYW as the members of community-based clubs. Of these, different numbers are expected to benefit from foundational ('soft') skills training, market-driven ('hard') skills training, and educational interventions for out-of-school AGYW, taking into consideration both demand and supply side factors. For younger AGYW (mainly those under 17), the project focuses on access to education (for out-of-school AGYW), and life skills and support that enhance future employability and empowerment. For the older AGYW, the project focuses more on the access to vocational and business skills training and support services along with life skills education.

¹ It is a World Bank financed project in India, focused on the welfare of adolescent girls and young women.

² The remaining districts are covered by SABLA a GoI scheme for adolescent girls. In order to avoid possible duplication the seven districts that are covered under SABLA have been left out.

The Tejaswini Project is going to be implemented in Jharkhand at the state level, followed by the district, block, and cluster and

finally community level. The project is going to be rolled out in three phases in all 17 districts in as mentioned below:

Table 14.2: Implementation Structure of Tejaswini Project

Sl. No.	Phases	Total number of districts	Name of the districts
1	Phase-I (2016)	4	Intensive : Ramgarh and Dumka Non-intensive: Khunti and Chatra
2	Phase-II (2017)	9 (additional 5)	Deograh, Bokaro, Dhanbad, Palamu, Godda
3	Phase-III (2018)	17 (additional 8)	Latehar, Koderma, Jamtara, Lohardaga, Saraikela-Kharsawan, Simdega, Pakur, East Singhbhum
	Total	17	

Source: Department of Social Welfare, Woman and Child Development, Government of Jharkhand

OTHER WOMEN EMPOWERMENT SCHEMES

- **Pink auto service**

This facility has been stated to provide livelihood opportunities as well as to offer safe transport facilities for women.

- **Working Women's hostels** have been constructed to provide safe residential facilities to working women.

- **Mukhyamantri Laxmi Ladli Yojana**

The State Government has started this scheme for the protection, education and secured future of girl child of BPL family. Its main objective is to reduce gender discrimination against female population, minimize the dropout rate in school and the empowerment of women. The scheme is being implemented through the Postal Department. Under this scheme girl child, born in a BPL family or even in an APL family having an annual income of not more than Rs 72,000, is covered; provided she is born only from the first or second delivery of the mother. The state Government deposits Rs. 6000 annually for five years in the Post Office in the name of the girl child making a total deposit of Rs 30,000. Out of this deposit, the beneficiary gets Rs. 2000 in

class VI, Rs. 4000 in class IX, Rs. 7500 in class X, a scholarship of Rs. 200 per month in class XI and XII and a handsome amount of Rs. 1,16,600 after completion of 21 years or at the time of marriage from the State through the Post Office.

- **Additional Honorarium to Anganwadi Workers/Helpers**

Under this scheme, an additional honorarium is paid to Anganwadi workers/Helpers from the State fund in addition to the honorarium granted by the Government of India. The rate of the State honorarium is Rs. 700 for the Workers and Rs.350 for the Helpers. The Department of Social Welfare, Women and Child Development proposes to increase the honorarium to Rs. 1400 for AWWs, Rs. 1000 for Mini AWWs and Rs. 700 for AWHs.

- **Cycle for AWCs and Mini AWCs**

This is a new scheme implemented from the Financial Year 2015-16. The objective of this scheme is to provide a bicycle in each AWC and Mini AWC. It will help AAW/AWH to run day-to-day operation of the centres properly. 16666 cycles have been provided in the last Financial Year. 21766 cycles have been provided in the Financial Year 2016-17.

- **Suraksha Bima Yojana for AWW & AWH**

Under this scheme all the AWW/AWHs have been linked with PMSBY of the GOI and the contribution of the beneficiary will be borne by the Government. The scheme will offer Rs. 2.00 Lakh accident cum disability cover (Rs 1.00 Lakh for partial permanent disability).

- **Jiwan Jyoti Bima Yojana for AWW & AWH**

The scheme has been started by the Department for providing insurance cover to women who are not capable of affording it.

- **Mukhya Mantri Kanyadan Yojana**

Under this scheme, newly married women belonging to the BPL category are given Rs. 30,000 in cash on the occasion of their marriage.

- **State Women Commission**

The State Government has constituted the State Women's Commission to look after and sort out various problems of women under the provisions of law.

Jharkhand Women Development Society (JWDS): A Step towards Empowerment of Women

JWDS, an autonomous body of the Government of Jharkhand, aims at ensuring women's safety, equity and empowerment. It encourages women entrepreneurship through access to credit and provision of loan. It identifies businesses and sectors where women can work as entrepreneur or seek employment. It ensures procurement and distribution of raw materials, equipments and machineries by women entrepreneurs. It also offers skill development, literacy and educational programmes for women, encourages participation of women in various agricultural activities and protects women's rights, safety and privileges in the household and society. Following programmes have been implemented by the JWDS:

- **Support to Training and Employment Programme for Women (STEP) – STEP**

is a GoI aided programme, which aims to provide skills that give employability to women by building their entrepreneurial capacity and improving their home and job related skills. It seeks to provide competencies, credit facilities and skill that enable women to become self-employed/entrepreneurs. The Scheme is intended to benefit women who are in the age group of 16 years and above. Many public organizations, District Rural Development Agencies (DRDA), Federations, co-operatives, voluntary organizations and NGOs have been working towards the implementation of this programme in the rural areas.

- **Adolescent Girls Help Line-Cum-Counselling (Umang) - JWDS**

is also running Adolescent Helpline-cum-Counselling Centre "Umang" with the support of RINPAS, Ranchi, at their administrative building. The Centre aims to provide counselling (in person or telephonic) to adolescent and young girls and boys under stress. Need based referral services are also being provided. The representatives of 'Umang' visit various private and Government schools of Ranchi and extend need based support to the school management in identification and management of risk behaviour among adolescents. Many workshops / seminars on various issues concerned with adolescent population have been organised and IEC materials have been developed by the agency.

- **National Mission for Empowerment of Women (NMEW) -**

This mission aims at achieving social, economic, political and legal empowerment of women through the formation and activation of a State Resource Centre for Women (SRCW).

SWADHAR Grih (A Scheme for Women in Difficult Circumstances): It is a sub-scheme of the centrally sponsored umbrella scheme “Protection and Empowerment of Women”. The objectives of this scheme are:

- To provide immediate shelter, food, clothing and care to women in crisis,
- To arrange for specific clinical, legal support and guidance to enable them to take steps for their readjustment in families and society,
- To coordinate in rehabilitating women in crisis.

Shelter homes have been constructed under this scheme. At present, this scheme has been made operational in two districts of the state, namely Palamu and Bokaro, with 50 inmates in each. The scheme is being run through NGOs. Proposals for setting up few more Shelter Homes in other districts are being considered.

Kishori Shakti Yojana/Adolescent Empowerment Scheme: It is a special intervention for adolescent girls. The objectives of the scheme are as follows:

- To improve the nutritional and health status of girls in the age group of 11–19 years.
- To provide the required literacy and innumeracy skills through the non-formal stream of education, to stimulate a desire for more social exposure and knowledge and to help them improve their decision making capabilities.
- To train and equip the adolescent girls to improve/upgrade home-based and vocational skills.
- To promote awareness on health, hygiene, nutrition and family welfare, home management and child care, and to take all measure to facilitate their marriage only after attaining the age of

18 years and if possible, even later

- To gain a better understanding of environment and social issues and their impact on their lives
- To encourage adolescent girls to initiate various activities to be productive and useful members of the society.
- The interventions under this scheme are being done with the help of the ICDS infrastructure. A total of 17 non-SABLA districts have been covered under this scheme. In aggregation, almost 136 projects have been operational under 24,380 AWCs. A total of 10,63,239 girls have benefited from this scheme.

Rajiv Gandhi Scheme for Empowerment of Adolescent Girls (RGSEAG) SABLA-

The scheme aims at holistic development of adolescent girls in the 11-18 years age group. It has two major components:

- **Nutrition Component:** There is provision of Supplementary Nutrition Programme (SNP) for out-of-school girls in the 11-14 years age group and for school going children in 14-18 years age group. SNP is being provided to eligible beneficiaries through THR (Take Home Ration), which is distributed fortnightly at AWCs.
- **Non-Nutrition Component:** It includes training on Life Skill Education, Nutrition and Health Education, and Guidance on Accessing Public Services and Vocational Training.

This scheme is running in seven districts of Jharkhand. 88 Projects are being run under this scheme and 14,052 AWCs have been involved. Under this scheme, regular meetings of the Kishori Samuha/Balika Mandals have been held at the AWCs on the issues of prevention

of early marriages, up gradation of skills of adolescent girls, health and legal awareness, etc.

Women Helpline (10921) - A women-helpline has also been set up in Ranchi. Women Helpline scheme is being implemented through Xavier Institute of Social Service (XISS).

Indira Gandhi Matritva Sahyog Yojna (IGMSY):

This is a centrally sponsored scheme under the Ministry of Women and Child Development. It is a maternity benefit program and involves conditional cash transfer scheme for pregnant women and lactating mothers of 19 years of age or above for first two live births. It provides partial wage compensation to women for wage-loss during childbirth and childcare and to provide conditions for safe delivery and good nutrition and feeding practices. The objective of this scheme is to promote appropriate practice, care and institutional delivery service utilization during pregnancy, delivery and lactation, encouraging women to follow (optimal) nutrition and feeding practices, including early and exclusive breastfeeding for the first six months. Conditional cash transfer of Rs. 6000/- is being ensured in the beneficiary's bank account through DBT in two instalments of Rs.3000/- each, first during third trimester of the pregnancy and the second 6 months after delivery. The scheme has been operational in two districts of the State, namely East Singhbhum and Simdega. 18 projects are being run under this scheme and 2,687 AWCs have been involved in it. 9436 women have benefitted from this scheme so far.

Beti Bachao, Beti Padhao: It is a Government of India assisted programme to promote birth of girl child and its acceptability in the society by adopting an inter-departmental approach. The scheme is being implemented in joint collaboration with the Department of Health,

Education & Family Welfare, Department of School Education & Literacy and Department of PRI etc. Many activities are being carried out at the block, Panchayat and village level in convergence with other government Departments and stakeholders. The scheme is being implemented in Dhanbad.

Integrated Resource - cum - Rehabilitation Centre, New Delhi and State Resource Centre, Doranda, Ranchi:

The centre at Delhi extends support in rescue of victims of Jharkhand. The children or women belonging to Jharkhand, residing in various homes/ shelter home of Delhi as well as in neighbouring States are being identified and sent back to Jharkhand after completion of the required procedure, .

A State Resource Centre is also functional in Doranda, Ranchi, in the premises of CID to facilitate support services and other needful coordination for rescue, rehabilitation and reintegration of victims with their families.

IRRC, New Delhi and SRC, Ranchi works in close coordination with each other.

Supplementary Nutrition for Pregnant & Lactating Women and Children:

It is a flagship scheme of the Department of Women, Child Development and Social Security. The scheme is being implemented through a state wide network of 38432 Anganwadi Centres (AWCs), spread over 224 ICDS projects in Jharkhand. The food is distributed for 300 days a year, the rate of food being Rs. 6.00, Rs. 7.00, Rs. 9.00 for normal children, pregnant, lactating mothers, and the under-nourished children respectively.

SCHEMES FOR WIDOWS

Bhimarao Ambedkar Awas Yojna for Widows

On the 125th birth anniversary of B R Ambedkar, the Chief Minister, Raghubar Das,

launched a new housing scheme for widows named as ‘Bhimrao Ambedkar Awas Yojana’. Under the Bhimrao Ambedkar Awas Yojana, the State Government provides a financial assistance of Rs. 75,000/- to widows to build a home in hilly areas and Rs. 70,000/- in plain areas. The assistance money is disbursed to the beneficiaries in three instalments through their bank accounts. The target of constructing 11,000 homes within the current financial year has been set under the Bhimrao Ambedkar Awas Yojana. The housing scheme for widows can be really helpful and turn out to be one of the best welfare schemes by the State Government.

Rajiv Vidhwa Samman Pension Yojana

In order to provide financial support to the widows above 40 years of the State of all categories, the Department of Social Welfare, Woman and Child Development is providing them pension at the rate of Rs. 600 per month from the FY 2016-17.

Indira Gandhi National Widow Pension Scheme

Under this scheme, all widows in the age group of 40 to 79 years, who are included in the list of BPL for the year 2002, are getting pension at the rate of Rs. 600 per month.

Table 14.3: Beneficiaries of the Indira Gandhi National Widow Pension Scheme

	Target	Achievement
No. of beneficiaries	272108	278637
No. of ST beneficiaries	122449	124595
No. of SC beneficiaries	54422	43626
No. of other beneficiaries	95238	110416

Source: Department of Social Welfare, Woman and Child Development

WITCH HUNTING PRACTICES

This evil practice draws its sustenance from the low literacy ratio and superstitious beliefs

and practices; however, there are several other complex factors that affect this practice. It leads not only to loss of significant human resource, but also renders women vulnerable. Hence there is an urgent need to completely eradicate this evil practice.

The Witchcraft Prevention Act 2001, provides for effective measures to prevent the witch practices and identification of a woman as a witch and their oppression mostly prevalent in tribal areas and else-where in the State of Jharkhand and to eliminate the woman’s torture, humiliation and killing by the society and for any other matter connected therewith or which are incidental thereto.

According to Jharkhand’s Witchcraft Prevention Act, 2001, the punishment for identifying a woman as witch is imprisonment for up to three months and/or a fine of Rs.1000. Similarly, causing harm to anyone in the name of witchcraft can lead to imprisonment for up to six months and/or a fine of Rs. 2000. Ojhas found practising sorcery can be jailed for up to a year and/or fined Rs. 2000. All of these are cognisable and non-bailable offences. The State has further launched a women’s helpline in the year 2014 to report such incidences. The Police Department has done GIS mapping of all the previous cases of witchcraft reported in the past five years. Hotspots have been identified and a three-pronged strategy to curb witchcraft has been set in place:

- I. Strict legal action in the cases reported and their regular follow-up by senior officers,
- II. Proactive intelligence collection to take pre-emptive measures to avoid such incidents, and
- III. Awareness generation through local police stations and local elected bodies such as the panchayats,

The Department of Social Welfare, Women and Child Development also runs a number

of awareness generation schemes for the eradication of the evil practice of witch hunting.

HUMAN TRAFFICKING

Jharkhand has emerged as a major source area for intra-country trafficking in India. Women and children, especially adolescent girls, are the major victims of trafficking. The sectors of

exploitation include:

- Domestic labour
- Bride Trafficking
- Brick Klin workers
- Sexual Exploitation
- Carpet industry
- Trafficking en-route orphanages

Table 14.4: Trafficking routes of Jharkhand

SL. NO.	Source District of Trafficking	Railway Stations used for trafficking (within the district or in the adjoining districts)
1	Palamu	Daltonganj
2	Dumka	Dumka
3	Pakur	Pakur, Dhanbad
4	Ranchi	Hatia, Ranchi, Mori, Barkakhana, Bhurkunda, Daltonganj, Latehar
5	Latehar	Latehar, Daltonganj, Ranchi
6	Lohardaga	Ranchi, Hatia, Barkakhana, Latehar, Daltonganj
7	Gumla	Rourkela (Odisha), Bano, Ranchi Hatia, Latehar, Daltonganj
8	Simdega	Rourkela (Odisha), Raipur

Source: Situational Report on Human Trafficking in Jharkhand- Shakti Vahini

Initiatives by Jharkhand State to Combat Human Trafficking

- **Child Protection Systems** - Jharkhand has appointed Child Welfare Committee in all districts. Child Protection officers and Child Protection units have also been created.
- **Jharkhand Mahila Samakhya Society (JMSS):**

Mahila Samakhya is an initiative by the Ministry of Human Resource Development, Government of India. It is presently operating in 10 states. The Jharkhand Chapter was started in undivided Bihar but continues ever since in Jharkhand since the State came into existence in the year 2000. While it started as an 'Education for all' initiative, it has expanded to include various programs

for the empowerment of women and girls. It is responsible for implementing the Mahila Samakhya program in Jharkhand. The empowerment of women begins with forming a Sangha (group) of 15-20 women. At present there are three types of Sanghas under the JMSS - Women Sangha, Kishori Sangha (girls' group for adolescent girls), Kishore Sangha (boys' group for adolescent boys). These groups play an important role in implementation of programs at the grass root level. These work with local groups to solve issues within the community. These groups help women and girls become aware of their rights, access banks, register children to schools reducing the dropout rate, various health camps. They also encourage participation of women in local governance by participating in various

committees. JMSS also has a functional State Gender Resource Centre for documentation, research, capacity building, developing training modules and IEC material. Apart from this, JMSS has education related initiatives. One is of Mahila Shikshan Kendras (MSK). These are residential bridge schools for women and girls. These are 11 months courses that enable them to join formal schooling system from class 5. Apart from education, they are also given life skills training, self defence and computer education. Most women and girls enrolled in these schools are survivors of domestic violence or trafficking. After achieving a competent level to join formal school, these girls are either transferred to an upgraded MSK till class 8 or to the Kasturba Gandhi Balika Vidhyalayas (KGBV), which are residential formal schools till class 12, run by the Government for scheduled castes, scheduled tribes, other backward classes and minorities. Along with these, Jagjagi Centres are run for non-formal education through the various Sanghas. JMSS encourages women to engage in activities like dairy production, agriculture, tailoring, jute craft etc for economic empowerment and to make them self sufficient. JMSS arranges for training for the women through the government or NGOs and then they are facilitated to get bank loans to start collectives for income generation. Under legal awareness, JMSS conducts legal camps, Nari Adalats. These initiatives may not target direct victims of trafficking but their general target group is of women and girls, who may find themselves in vulnerable situations to trafficking. These initiatives go a long way in reducing this vulnerability. An initiative directly targeting this group is named 'Voice Against Trafficking'. Under this initiative awareness is spread across villages about illegal placement agencies through the use of IEC material, street plays, rallies and meetings.

POLICE INITIATIVES

Anti- Human Trafficking Units (AHTU)

There are eight AHTU established in eight district of Jharkhand for the prevention of Human Trafficking.

- Helpline Related To Women and Child Trafficking Reporting
- 'Shakti' is an initiative by Jharkhand Police for safety and security of women. This is an android based mobile application that will allow women to send a distress call to Police Control Room and their relatives/ friends directly in case of any emergency.

'Shakti' pilot project is being implemented at Ranchi and East Singhbhum (Jamshedpur) district for the following Police Stations only: 1) Kadma, 2) Sonari, 3) Sakchi, 4) Bistupur, 5) Sidgoda and 6) Sitaramdera

Child Development Programmes: The Department has initiated and is running several welfare programmes for children aged 0-6 years. These programmes have been formulated with an objective of ensuring overall physical welfare and mental progress of children. These programmes are being run with the assistance of 38,432 functional Anganwadi Centres established across the State. The Department has been working sensitively and cautiously to bring an end to the evils of child prostitution and sexual exploitation. Pre-school education and health care programmes are also been conducted through various child development services. The Department is also administering special programmes for the orphan and destitute children.

The Department of Social Welfare, Woman and Child Development in collaboration with the Department of Health has initiated several child nutrition programmes and set up Malnutrition Treatment Centres (MTCs) to deal with the grave problem of malnutrition;

especially among children in the State. Total 86 MTCs are functional in the State.

India has the world's largest ECD programme, the Integrated Child Development Services Scheme (ICDS).

Integrated Child Development Scheme (ICDS)

It is a unique programme for early childhood development through a multi-sectoral approach to child development, incorporating health, early education and nutrition interventions. In order to prevent malnutrition, the programme offers growth monitoring of children, supply of micronutrient supplementation to women, children, and adolescents, and promotes healthy child feeding practices. Moreover, home-based management of diarrhoea, complete immunization programmes, free referrals for health check-ups of pregnant women and newborns, counselling of children and families to develop healthy food habits, convergence of school health programmes and Kishori Swasthya Saptah, and supply of medicine kits in all the AWCs are some of the provisions under this scheme. The scheme also focuses on empowering women, children, and adolescent girls through various literacy, educational, and life-skill development programmes.

The ICDS programme was launched in Jharkhand in the year 1975 in the Noamundi block of the current West Singhbhum district. At present altogether 224 ICDS projects are running in all the 24 districts of the State covering more than 52 lakhs children up to six years of age. The programme is implemented through a large network of AWCs which operate at the village level. The Government of Jharkhand has the aim of achieving a comprehensive nutrition programme by targeting the most vulnerable children below six years of age and pregnant women and lactating mothers, particularly belonging to

the Scheduled Castes/Scheduled Tribes (SCs/STs) and the minority population of the State. Its goal has also been to make effective and transparent delivery of child development programmes through proper planning, management, monitoring and evaluation of the programmes. The Government has integrated nutritional programmes with health services, hygiene, sanitation and safe drinking water programmes. In addition, the Government has also been attempting to create awareness among family members regarding childcare viz. behavioural changes, safe-delivery practices, antenatal care (ANC) use, and nutrition through counselling and guidance. Mothers have also been encouraged to practise breastfeeding for the proper growth and development of their children. Adolescent girls have been provided with multi-nutrients, and small children below 5 years with vaccination. One of the important components of the ICDS programme is the **Dular programme**. Dular helps to include those communities and areas where health programmes have either not reached or have been difficult to reach. As of now, Dular has been implemented in five districts of the State through 9,097 AWCs and it has benefited almost five lakh women and children in the State.

ICDS Establishment:

Under this programme establishment of DSWO & CDPO's are made.

ICDS Medicine Kits:

Under this component of the scheme, medicine kits are provided at all Anganwadi centres for children less than 6 years of age. Total quantity of Medicine Kits: 38, 432

ICDS: Pre- School Kits:

Under this component of the scheme, Pre-School kits are provided at all Anganwadi centres for children less than 6 years of age.

ICDS: Information, Education and Communication:

Under this component of the scheme, awareness is generated through the electronic and print media about the various issues concerning the development of women and children.

ICDS: Weighing Machine:

The Children of Jharkhand suffer from malnutrition at an alarming scale. The

Department of Social Welfare, Woman and Child Development aims to provide sufficient number of weighing machine and growth charts in the Anganwadi Centres.

Training Programme (STRAP):

The Government of India is providing fund for training of the AWWs and AWHs under STRAP (State Training Action Plan). As training is an essential part of the operation of AWCs, this scheme is being pursued vigorously.

Table 14.5: ICDS- Strengthening and Restructuring

SL NO.	Components	Objectives
1	Monitoring and evaluation of AWC	Printing of various records/registers; Monthly mobile recharge cost per AWW at each AWC/ Mini AWC.
2	Conduction of ECCE Day at AWC/ Mini AWC	Parents meet; involvement of local artists and craftsmen for making toys; community involvements.
3	AWC cum Creche	Care Items, Soft Toys, cleaning materials, cost of additional evening snacks to children, etc
4	Sneh Shivir in High burdened district	Nutrition cost, Medical facility and Misc. Camp requirement (6 High Burdened districts).
5	Supply of equipments and Furniture's for State Districts and Project	Furniture for office staff, computer/laptop, Printer, Fax Machine,
6	United fund for children with special needs	Cost towards the special needs for differently- able children.

Source: Department of Social Welfare, Woman and Child Development

Establishment of Real time Monitoring Cell

The cell, set up at the state directorate and district level, collects data and prepares reports on the findings of the field. It also suggests corrective actions for effective working system. This cell monitors the financial and physical performance of the scheme . A comprehensive Mobile based Monitoring Mechanism is being developed and the cells at district and Directorate level will use this system to have better supervision.

ICDS System Strengthening and Nutrition Improvement Programme (ISSNIP)

It is a World Bank assisted programme. Its main focus is to test & implement fresh approaches and address the problem of malnutrition through system strengthening in ICDS.

Broad Goal: To contribute towards improving the child development outcomes including the nutrition and early childhood education outcomes.

Specific Objectives of ISSNIP

- To strengthen the ICDS policy & planning framework, systems and capacities at the state level
- To deliver quality services, and facilitate better community engagement
- To ensure greater focus on under 3 children
- To strengthen coordinated and convergent actions for improved nutrition outcomes

Integrated Child Protection Scheme

This centrally sponsored scheme is aimed at providing a protective environment for all children in order to enable them to develop into responsible individuals. ICPS brings together multiple existing child protection schemes under one comprehensive umbrella. The programmes implemented are as under:

Table 14.6: Components of ICPS programme

COMPONENTS	OBJECTIVES
State Child Protection Society (SCPS)	In order to ensure effective service delivery, the ICPS is being implemented in Mission Mode and has set up State and District Child Protection Societies as the fundamental units at State and District levels for the implementation of the scheme.
State Adoption Resource Agency	Adoption is a process through which a child is permanently separated from the biological parents either because they are deceased or have abandoned or surrendered the child. The state will coordinate and develop the work of adoption.
District Child Protection Society	ICPS envisages setting up a District Child Protection Society in each district as a fundamental unit for the implementation of the scheme.
Maintenance grant for NGO run children home/shelter home/after care home	A large number of children in need of care and protection who either enter the Juvenile Justice System through the Child Welfare Committees (CWCs) are in need of residential care and protection during the period of pendency of any enquiry and subsequently for their long-term care, treatment, education, training, development and rehabilitation. For this shelter Home, Children Home, Observation Homes and after care homes are being operated under ICPS.
Maintenance grant for Government run children home/shelter home/after care home	A large number of children in need of care and protection who either enter the Juvenile Justice System through the Child Welfare Committees (CWCs) are in need of residential care and protection during the period of pendency of any enquiry and subsequently for their long-term care, treatment, education, training, development and rehabilitation. For this Grant-in-Aid is to be provided.
Open shelters in urban and semi-urban areas (both state and NGO run)	The open shelters, run by both NGOs and State Government, are not meant to provide permanent residential facilities for children, but to complement the existing institutional care facilities.
Grant to NGOs to run Special Adoption Agency	In order to facilitate the placement of orphaned, abandoned and surrendered children for adoption, the Juvenile Justice (Care and Protection of Children) Amendment Act 2006 empowers the State Government to recognise one or more of its institutions or voluntary organizations in each district as Special Adoption Agency.
Statutory support services	Under this head CWCs, JJBs are to be set up as per Care and Protection of Children Amendment Act, 2006.

Source: Department of Social Welfare, Woman and Child Development.

Child Health Programmes/Schemes Infant and Young Child Feeding (IYCF) Programme

It is a significant programme keeping in mind the high malnutrition and early disease rates

among the children of Jharkhand. For an early initiation of breastfeeding-awareness generation programmes have been started by the government of Jharkhand.

According to the table below, altogether 32.7

percent children aged 0-23 months were breastfed immediately or within 24-hours of birth and 64.3 percent children aged 0-5 months were exclusively breastfed in the year 2013-14. This

number is expected to have increased because of awareness generation programme of the Government to this effect.

Table 14.7: Infant & Child Feeding Practices

	Children aged 0- 23 months breastfed immediately/ within an hour of birth	Children aged 0- 5 months who were exclusively breastfed	Children aged 6- 8 months who were fed complementary foods
Region of Residence			
Total	32.7	64.3	53.7
Rural	29.5	67.9	52
Urban	44.8	44.4	61.5
Social Categories			
SCs	32.6	66.7	*
STs	37.4	58.8	61.3
OBCs	29.5	64.1	53.7
Others	34.6	55.6	*

Source: Jharkhand Fact Sheet, Rapid Survey on Children, 2013-14

Newborn Care

Newborn care is yet another child health scheme under NHM initiated to prevent neonatal and early childhood mortalities. Emphasis has been laid upon reducing high neonatal deaths through facility based and home based care. In facility based care, special newborn care units, newborn stabilization units and newborn care corners are made functional under NHM. As per specific schedule, ASHA make home visits to all newborns up to 42 days of life and receive cash incentives for home based newborn care. In addition to birth registration, they measure and record weights of newborns, ensure BCG, first dose of OPV, and DPT vaccination, and monitors mothers' and children's health for up to 42 days of delivery. According to the Table 14.28, in the year 2013-14, nearly 23.3 percent newborns in the urban areas and 9.2 percent in the rural areas received first health check up at home within 24 hours of birth. Roughly 15.1 percent newborns in the urban areas and 15 percent in the rural areas received first check up within 24 hours of birth/discharge from a health facility.

Table 14.8: Newborn who received first check up within 24 hours of Birth/ Discharge (Percentage)

	All	Home Birth	Institutional Birth (after discharge)
Region of Residence			
Total	13.0	10.4	15.0
Rural	12.1	9.2	15
Urban	16.4	23.3	15.1

Source: Jharkhand Fact Sheet, Rapid Survey on Children 2013-14

IMMUNISATION

Routine immunisation and vaccination are extremely important to prevent child morbidity and mortality. Each vaccine helps in protecting children against several diseases. The government provides families with Mother and Child Protection Card (MCP card) and immunisation card that provide information about various health services available for women and children. These cards are used for gaining knowledge about children's health, nutrition, growth, development, and immunisation record keeping.

The provision of micronutrients and de-worming is important for the proper growth and development of children. As shown in Table 14.29, the total percentage of children aged 6-59 months who received Vitamin A dose was 18.7 percent of which 23.2 percent were from the urban areas and 17.4 percent from the rural areas of Jharkhand in the year

2013-14. Nearly 6.3 percent children (aged 6-59 months) received IFA supplementation of which 6.6 percent children were from the urban areas and 6.2 percent children from the rural areas. Almost 12 percent children (aged 6-59 months) received de-worming medication in the year 2013-14.

Table 14.9: Micronutrients and De-worming

Percentage of children aged 6- 59 months received in six months prior to survey			
	Vitamin A dose	Iron and Folic acid supplement	De- worming Medication
Region of Residence			
Total	18.7	6.3	11.7
Rural	17.4	6.2	11.7
Urban	23.2	6.6	12

Source: Jharkhand Fact Sheet, Rapid Survey on Children 2013-14

The Government has undertaken several initiatives in the FY 2016-17 in order to increase the number of children getting full immunisation. 2.46 lakh children were fully immunised in four rounds under Mission Indradhanush Phase I, implemented in six districts of Jharkhand (Sahebganj, Pakur, Godda, Deoghar, Giridih & Dhanbad),. At present, the Mission Indradhanush Phase 2 is being implemented in 10 districts of Jharkhand (Sahebganj, Pakur, Dhanbad, Ranchi, Hazaribagh, Palamu, Garhwa, Koderma, Chatra, Latehar).

Strengthening of the Anganwadi Centres

The AWCs are being provided with necessary infrastructure such as electronics, weighing machines, growth charts, measuring tapes, water purifiers, fire extinguishers, carpets, etc to make them well equipped to carry out their functions.

Institutional Efforts

State Nutrition Mission

It has been constituted to prepare plans and implement existing plans effectively in coordination with all the departments working in the field of nutrition. The mission undertakes advocacy and awareness activities and runs innovative community oriented nutritional programmes on pilot basis.

Establishment of the Office of Jharkhand State Child Rights Protection Commission

The State Government has constituted the Jharkhand State Child Rights Protection Commission as per the directions of Government of India.

Box 14.2: Standard Operation Procedure for Railway to ensure Care and Protection of Children in contact with Railway (Railway SOP Document 2015)

A large number of children come in contact with Indian Railways as abandoned, trafficked, homeless and run-away from their homes. The Ministry of Railways and the Ministry of Women & Child Welfare Development decided to come together to combat the problem. Railway has developed “Standard Operating Procedure (SOP) for Railways to ensure Care and Protection of Children” in coordination with the National Commission for Protection of Child Rights (NCPCR). NCPCR, during the year 2015, focused on the security and well-being of run-away, unaccompanied and trafficked children, who use railway premises for shelter and livelihood.

Section 29, of the Juvenile Justice Act 2000, mandated that the State Government must constitute one or more Child Welfare Committee (CWC) for exercising the powers and discharging the duties conferred on such committee in relation to “children in need of care and protection.” Such Committees will exclusively have the power to deal with the safety, care and rehabilitation of such children, including the Railways.

For care and protection of children on the Railways, child Help Groups (CHG) to be established in 20 major stations of the Country. The CHG will comprise of Station Master, Station House Officer (GRP) and Senior Section Engineer (works). Ranchi is among those 20 railways stations of the country that have been selected for monitoring of child rights in the first phase. The CHG will ensure that the instruction given to SOP is implemented in letter and spirit. The Ministry of Women and Child Development will identify an NGO which will facilitate all the matters pertaining to the child in contact with railways and finally a monthly report will be submitted to the ADRM.

Source: Department of Social Welfare, Woman and Child Development.

Along with the implementation of various schemes and the delivery of different services, the Government of Jharkhand has also been focusing on improving the quality of the existing programmes in order to achieve better results. Notable achievements have been made under the ICPS and JJ system. The Government has completed need assessment of all the 24 districts of the State. In addition, State Child Protection Action plan has been made and finalized for the year 2016-17. Committees for child protection at the district, block, and village levels have been formed. Orientation and sensitization of stakeholders has been carried out in all the districts and the block headquarters. In the first phase, the registration of 15 Child Care Institutions under Juvenile Justice Act 2000 has been completed. Resource directory preparation and compilation have been completed for all the 24 districts. Sponsorship and Foster Care

Approval Committee (SFCAC) has been formed in all the districts. Training modules and IEC materials have been developed on various child protection issues. Moreover, an Anti-Child labour campaign has been organized in the districts of the State. The Government has targeted system strengthening through capacity building, monitoring and programme management in order to fulfil the needs of the local communities.

Social Welfare Programmes: Apart from looking after the welfare needs of women and children, the Department of SWWCD is also sensitive and equally concerned about the issues concerning other vulnerable sections of the society. The department has designed welfare schemes for the disabled, the elderly, destitute and the widows in the State. These include old age homes, widow pension scheme, etc

Programmes for Disabled: Several schemes are being implemented under this scheme keeping in mind the concerns of the disabled people and their needs. The Department is also running welfare schemes for persons affected by autism, cerebral palsy and other disabilities. Further, education and training programmes are being organised for the physically challenged (blind, deaf and dumb) children.

SOCIAL SECURITY

Social security includes social insurance programmes, social assistance programmes, universal programmes, mutual benefit schemes, national provident funds, and other arrangements including market-oriented approaches that, in accordance with national law or practice, form part of a country's social security system.

The Government of Jharkhand has been committed to the cause of protecting its vulnerable population through several social security programmes. The State, through the National Social Assistance Programme (NSAP), has been aiming towards ensuring national standards for social assistance. At present NSAP includes Indira Gandhi National Old Age Pension Scheme (IGNOAPS), Indira Gandhi National Widow Pension Scheme (IGNWPS), Indira Gandhi National Disability Pension Scheme (IGNDPS), National Family Benefit Scheme (NFBS), and Annapurna. The status and progress of these schemes are provided below.

- **State Social Security Scheme**

Under this scheme certain vulnerable sections of the population viz. widows, disabled persons, released bonded labourers (above the age of 18 years) and helpless old persons of 60 years of age and above, whose income is less than Rs. 5000 for rural areas and Rs. 5500 for urban areas, are paid a monthly pension of

Rs. 400. Since the year 2014, non BPL persons of 60 years and above age of rural areas having an annual income of Rs. 10, 500 and non BPL persons of 60 years and above age of urban areas having an annual income of Rs. 12, 500 are paid pension at the rate of Rs. 600 per month per person, the cost being borne by the State Government. The state Government has fixed the physical target of Rs. 3, 00,000 for this scheme.

- **Indira Gandhi National Old Age Pension Scheme**

Under this scheme, individuals in the age group of 60 to 79 years from BPL families of rural and urban areas get pension at the rate of Rs. 600 per month. For individuals who are above the age of 80 years, the pension is given at a rate of Rs. 700 per month. The target is 9, 13, 855 lakh pensioners in the age group of 60- 70 years in this scheme.

Table 14.10: Beneficiaries under Indira Gandhi National Old Age Pension Scheme (Age group of 60-70 years)

	Target	Achievement
No. of beneficiaries	913855	685705
No. of ST beneficiaries	411235	319436
No. of SC beneficiaries	182771	106502
No. of other beneficiaries	319850	259767

Source: Annual Plan, 2016-17. Government of Jharkhand

- **Indira Gandhi National Old Age Pension Scheme IGNOAPS (beneficiaries in the age group of 80 years and above)**

Till now pension was given only to persons in the age group of 60 years and above who belonged to the BPL families as per the BPL list of the year 2002. In the light of the recommendation of the Tendulkar Committee Report, it has been decided by the State Government that pension under this scheme will be given to all persons of 60 years of age and above whose annual income in rural areas

is up to Rs. 7995 and in urban areas up to Rs. 9974. The State Government has also decided to increase the state share from Rs. 200 to Rs. 400 per month from the year 2014 for the pensioners in the age group of 60-79 years. This has resulted in an increased outlay for this scheme in the financial year 2016-17 and the physical target fixed by the Government of India for this scheme is slated to be achieved by the next financial year.

Table 14. 11: Beneficiaries under Indira Gandhi National Old Age Pension Scheme (Age of 80 years and above)

	Target	Achievement
No. of beneficiaries	79712	40666
No. of ST beneficiaries	35870	17668
No. of SC beneficiaries	15942	6345
No. of other beneficiaries	27899	16653

Source: Annual Plan, 2016-17. Government of Jharkhand

● **National Family Benefit Scheme**

Under this scheme, Rs. 20,000 is provided to the dependents upon the death of a primary breadwinner (male or female) of a BPL family in the age group of 18- 59 years.

Table 14.12: Beneficiaries under National Benefit Scheme

	Target	Achievement
No. of beneficiaries	14148	2871
No. of ST beneficiaries	31440	1408
No. of SC beneficiaries	2830	393
No. of other beneficiaries	4952	1070

Source: Source: Annual Plan, 2016-17. Government of Jharkhand

● **State Pension Scheme for HIV/AIDS affected Persons**

In order to provide financial support to HIV/AIDS affected persons of the state the Department of Social Welfare, Woman and Child Development intends to provide pension to these beneficiaries at the rate of Rs. 600 per month from the FY- 2016.

● **Annapurna**

Senior citizens who are eligible but not covered under NOAPS have been receiving 10 kilograms of food grains every month.

● **Pension Scheme for Primitive Tribal Groups (PTGs)**

Under this scheme, a pension of Rs. 600 per person per month is being provided to one person belonging to the family of identified primitive tribes in the State. 9 out of the 32 tribes of the State have been identified as PTGs.

● **Captive Labour Eradication and rehabilitation scheme**

Under this scheme, if anyone is found to be keeping a captive labourer working under force and not receiving minimum wage, then under the Labour Abolition Act 1976, she/ he would be liable for punishment and heavy penalty in the form of monetary fine.

● **Inter-Caste Marriage**

Eligible couples entering into inter-caste marriage have been entitled to receive a National Saving Certificate worth Rs. 25,000.

● **Aam Admi Insurance Scheme**

Insurance has been provided to the head of a rural household, aged between 18 and 60 years, owning land area of less than 50 dismal. The premium has equally been shared by the Centre and the State Governments.

● **Domestic Migrant Workers Welfare Programme**

The State has also been ensuring the rights of migrant workers through Inter-State Migrant Act 1979 and Jharkhand State Migrant Labour Act 2005. Employers or contractors have been required to obtain license from the District Deputy Commissioners, in case they hire five or more migrant workers.

The various Welfare Schemes for 'Persons with Disability' are provided by Social Welfare

Department, Jharkhand like:-

- **Indira Gandhi National Disability Pension Scheme**

All disabled persons in the age group of 18-79 years, residing in Urban/ Rural areas, who are defined as ‘persons with disabilities’ under the Persons with Disabilities Act, 1995 and National Trust for the Welfare of Persons with Autism, Cerebral Palsy, Mental Retardation and Multiple Disabilities Act 1990 (National Trust Act, 1990) are getting pension at the rate of Rs. 600 per month.

Table 14.13: Beneficiaries under Indira Gandhi National Disability Pension Scheme

	Target	Achievement
No. of beneficiaries	31286	16929
No. of ST beneficiaries	14078	6183
No. of SC beneficiaries	6257	2430
No. of other beneficiaries	10950	8316

Source: Annual Plan, 2016-17. Government of Jharkhand

- **Swami Vivekananda Nisshakt Svavalamban Protsahan Yojna**

Under this scheme, different categories of disabled persons, who were residents of the State of Jharkhand, are provided with a sum of Rs. 600 each. The Department of Social Welfare also intends to cover the left out beneficiaries now by launching special drives for this purpose.

- **Set up and run schools meant for Spastic and other Mentally Handicapped Children**

Under this scheme there is a provision to set up and run schools for the Spastic and Mentally Handicapped children. Funds were also provided to the schools run by NGOs (Non-Governmental Organisations) for the Spastic

and other Mentally Handicapped children.

- **Fund for Muk-Badhir Schools and Schools for Muk-Badhir run by NGOs**

Under this scheme, the schools for children suffering from hearing impairment are being run. In Jharkhand, many Non- Governmental bodies were involved in running such schools. These schools are provided with funds.

- **Run schools for the blind and making funds available to the NGOs who were running schools for the blind people.**

- **Workshop for Physically Handicapped**

Under this scheme, workshops have to be organized for the Physically Handicapped. The funds were also provided for programmes organized at the district level for Abilympics (‘Persons with Disabilities’) to enable them to showcase and enhance their talent.

- **Special Instruments for the Physically Handicapped Persons**

Under this scheme, Physically Handicapped persons have to be provided with Instruments such as-Tri Cycle, Braille Kits and Sticks (baisakhi).

- **Scholarship for the Physically Handicapped Children**

Under this scheme, physically handicapped students of Class 1-8 of the State Government run schools are provided scholarship of Rs 50/- each per month; those in classes from Class 10 to Graduate studies in Government schools/colleges are provided scholarships of Rs. 250/- each per month; and students of post graduate in government colleges are provided scholarship of Rs. 260/- each per month.

- Different training programmes are organised for Departmental Staff and Officers to sensitize them to undertake publicity and awareness creation activities in rural areas.

- **Special Teacher Training College/ Special Disability Centres**

The Government intends to establish these centres in order to make the disabled people self- dependable and confident to live in society without any external help.

INSTITUTIONAL MEASURES

- **Establishment of the office of the Disability Commissioner**

The Government has set up an independent office of the State Disability Commissioner in accordance with the provision of Persons with Disability Act 1995 (Equal Opportunities, Protection of Rights and Full Participation) to implement the Act in spirit and to look after the problems of people with disability in the State. The Department of Social Welfare provides establishment cost of the office.

- **State Social Welfare Advisory Board**

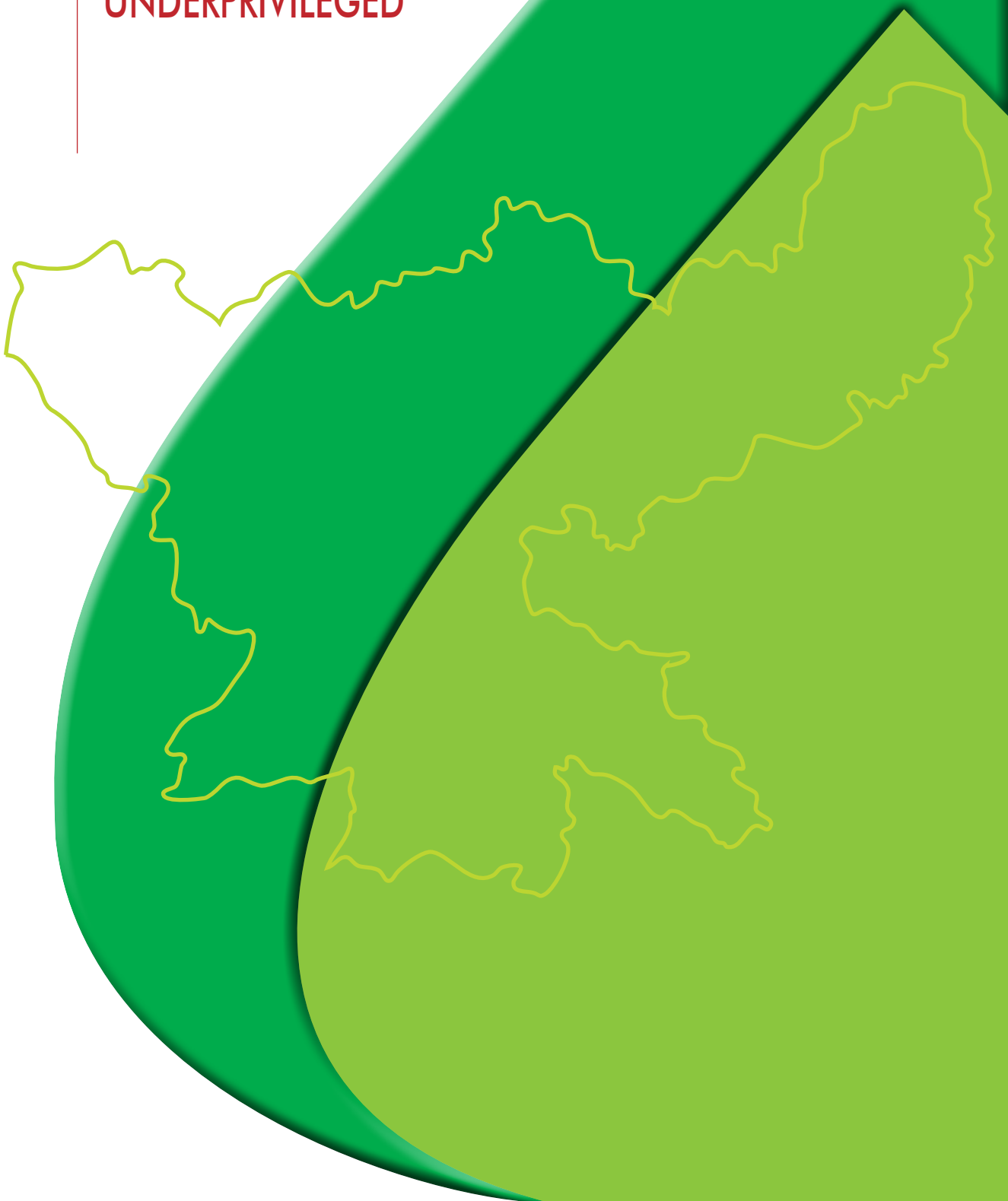
The State Government has constituted the Board as per the provision of the Central Social Welfare Board, New Delhi. The Department of Social Welfare provides 50 percent grants to meet the expenses of establishment of the Board Office.

CONCLUSION

To summarize, the Government under its various schemes and programmes is working towards the welfare of women, children, and other disadvantaged groups in the State. So far, the Government has been successfully running various women, child, and social welfare programmes in all the districts of the State. Therefore, it is expected that the State will experience a remarkable change in the condition of its vulnerable population within the next few years.

15

TRIBAL WELFARE AND INTERVENTIONS FOR THE UNDERPRIVILEGED



“Integration in all its forms may simply imply the existence of a stable community in which people can find a niche” (Taylor, 2007). Social inclusion implies a form of society which offers space for diversity, while at the same time fostering engagement of all. To achieve social inclusion and social integration, voices of the different sections of the society, their hopes, apprehensions need to be heard and addressed. Not a handful, but all members of a society must have a stake as well as a say in their shared society. This inclusiveness of society creates and maintains stableness, which in turn promotes growth and development in society. With this in mind, the Welfare Department of the State specifically addresses the educational, economic, social, cultural, health, developmental, environmental and a whole range of other needs and concerns of the Scheduled Tribes, Scheduled Castes, Other Backward Classes, Minority sections of the society; and ensures that developmental progress revolves around them and equally benefits them.

This chapter of the survey seeks to identify the initiatives taken by the State of Jharkhand from its establishment; with special focus on the year 2016-17, in the form of program and measures for the welfare and overall development of the underprivileged sections of the society, and their relevant implementation and the subsequent impact on these very sections of the society.

An underprivileged section in a population is one that has certain specific characteristics that expose it to a higher risk of falling into the net of poverty as compared to others. There are multiple and complex factors behind vulnerability. Lack of social resources is however central to understanding which sections of the society are at a higher risk of falling into the net of poverty. This can be simply understood if we divide social resources into three forms of capital- first, economic capital in the form of material assets and income; second, cultural capital such as

educational qualifications and social status; and third, social capital in the form of network of contacts and social associations. A section of society that lacks a plurality of these resources is more prone to discrimination than others in a number of spheres.

Using the above criteria and understanding, in the context of the state of Jharkhand, we can identify the following social groups as underprivileged:

- Scheduled Tribes
- Scheduled Castes
- Other Backward Classes (OBCs)
- Minorities

Demographic Information

The state of Jharkhand has a total population of 3,29,88,134 as per the 2011 Census. The Scheduled Tribes constitute 26.21 percent of the total population of the state, as per the 2011 Census data. There is a marginal fall in the Scheduled Tribe population of Jharkhand as a percentage of the total population of the state when one compares the 2001 and 2011 Censuses, since Scheduled Tribes constituted 26.3 percent of the total population of the state (as per 2001 Census). The Scheduled Caste constitutes 12.08 percent of the population of the state (as per 2011 Census) while their population constituted 11.8 percent of the total population of the state (as per 2001 Census). Thus, there is a rise in the Scheduled Caste population of Jharkhand as a percentage of the total population of the state between the time periods of 2001 & 2011.

Table 15.1: Comparison of Population of ST and SC in Jharkhand between 2001 and 2011

Type	Scheduled Tribe		Scheduled Caste	
	2001	2011	2001	2011
	7087068	8645042	3189320	3985644

Source: Census 2001 and Census 2011

Tribes of Jharkhand

Among the states and union territories of India, Jharkhand ranks 6th in terms of Scheduled Tribe population and 10th in terms of percentage share of the Scheduled Tribe population to the total population of the state. According to the Census of 2011, the population of Jharkhand comprises of 32 tribes presently, that were originally classified on the basis of their culture; for instance,

- Hunter- gatherer- Birhor, Korwa, Hill Kharia
- Shifting agriculture- Sauria Paharia
- Simple artisans- Mahli, Lohra, Karmali, Chik Baraik
- Settled agriculturists- Santhal, Munda, Oraon, Ho, Bhumji, etc

The 32 notified Scheduled Tribes of Jharkhand are:

Table 15.2: Notified Scheduled Tribes of Jharkhand

Sl. No	Name of Tribe	Sl. No	Name Of Tribe	Sl. No	Name of Tribe	Sl. No	Name of Tribe
1	Munda	9	Asur	17	Chero	25	Kora
2	Santhal	10	Baiga	18	Chick- Baraik	26	Korwa
3	Oraon	11	Banjara	19	Gorait	27	Lohra
4	Kharia	12	Bathudi	20	Ho	28	Mahli
5	Gond	13	Bedia	21	Karmali	29	Mal- Paharia
6	Kol	14	Binjhia	22	Kharwar	30	Parhaiya
7	Kanwar	15	Birhor	23	Khond	31	Sauria- Paharia
8	Savar	16	Birjia	24	Kisan	32	Bhumij

Table 15.3: Districts with ST population above 25% of the total population

Sl. No.	District Name	Percentage of ST
1	Khunti	73.3
2	Simdega	70.8
3	Gumla	68.9
4	Paschimi Singhbhum	67.3
5	Lohardaga	56.9
6	Latehar	45.5
7	Dumka	43.2
8	Pakur	42.1
9	Ranchi	35.8
10	Saraikela Kharsawan	35.2
11	Jamtara	30.4
12	East Singhbhum	28.5
13	Sahibgunj	26.8

Source: Census 2011

The Scheduled Tribes of Jharkhand are primarily rural with about 91.01 percent of

tribes residing in the rural areas of Jharkhand. A district wise distribution of the Scheduled Tribe population indicates that Khunti has the highest proportion of tribal population with 73.3%, followed by Simdega (70.8%), Gumla (68.9%), West Singhbhum (67.3%) and Lohardaga (56.9%).

Primitive Tribal Groups

Among the Scheduled Tribes, there are certain tribal communities who have declining or stagnant population, low levels of literacy, pre-agricultural level of technology and are economically backward. PTGs remain the most isolated and disadvantaged indigenous tribal groups with noticeable reduction in their population, and hence the urgent need to identify them and address the causes leading to a fall in their population, while simultaneously addressing their other concerns.

Table 15.4: Particularly Vulnerable Tribal Groups (PVTGs) and their population in Jharkhand (2001 to 2011)

Sl. No	Name of PVTG	2001	2011
1	Asur	10347	22459
2	Birhor	7514	10726
3	Birjia	5365	6276
4	Hill Kharia	164022	196135
5	Korwa	27177	35606
6	Mal Pahariya	115093	135797
7	Pahariya	20786	25585
8	Sauria Pahariya	31050	46222
9	Savar	6004	9688
10	Total	387358	488494

Source: Census 2011

Scheduled Castes of Jharkhand

The Scheduled Castes of Jharkhand are predominantly rural with 79.11 per cent of them residing in villages. At the district level, the SCs have registered the highest proportion of their population as compared to the total population in Chatra district, followed by Palamu, Garhwa, Latehar and Hazaribagh, while, Pakur and Lohardaga have the lowest proportion of SC population in Jharkhand. Out of twenty two notified SCs of Jharkhand, Chamars are the most populous caste, followed by the Bhuiya and the Dusadh respectively.

Other Backward Classes of Jharkhand

129 Communities have been identified as Other Backward Classes for the state of Jharkhand.

Table 15.5: Districts having highest proportion of Scheduled Caste population in Jharkhand

Sl No	Name of District	Percentage of SC Population
1	Chatra	32.65
2	Palamu	27.65
3	Garhwa	24.19
4	Latehar	21.31
5	Hazaribagh	17.5

Source: Census 2011

Minorities of Jharkhand

Muslims, Sikhs, Christians, Buddhists and Zoroastrians (Parsis) have been notified as minority communities. Under the Centrally Sponsored Scheme (CSS) launched in the year 2008-09, 90 Minority Concentration Districts (MCDs) in India were recognised in which, intensive programme to uplift the overall living standards of the minorities were planned. Of these 90 recognised Minority Concentration District, in Jharkhand, four minority concentrated districts were marked namely Ranchi, Gumla, Pakur and Sahebgunj. The total minority concentration is the highest in Pakur, about 44 percent, closely followed by Sahebgunj having about 42 percent minorities. Gumla has about 25 percent minority population and Ranchi has around 23 percent minority population. The districts of Pakur, Sahebganj and Ranchi have a higher Muslim minority concentration respectively, while, Gumla has a greater proportion of the Christian community.

Table 15.6: Districts of Jharkhand with greater concentration of Minority Population

Religion	Pakur		Religion	Sahebgunj	
	Population	% of Total Population		Population	% of Total Population
All Religions	900422	-	All Religions	1150567	-
Muslims	322963	35.87	Muslims	398243	34.61
Christians	75865	8.43	Christians	83208	7.23
Sikhs	356	0.04	Sikhs	198	0.18

Pakur			Sahebgunj		
Religion	Population	% of Total Population	Religion	Population	% of Total Population
Buddhists	283	0.03	Buddhists	245	0.02
Total Minority	399497	44.37	Total Minority	481894	42.04
Gumla			Ranchi		
Religion	Population	% of Total Population	Religion	Population	% of Total Population
All Religions	1025213	-	All Religions	2914253	-
Muslims	51429	5.02	Muslims	410759	14.09
Christians	202449	19.75	Christians	193974	9.03
Sikhs	221	0.02	Sikhs	4826	0.17
Buddhists	531	0.05	Buddhists	932	0.03
Total Minority	254630	24.84	Total Minority	610491	23.32

Source: Census, 2011

Provision of Scheduled are as under 5th Schedule of the Constitution

In order to protect the interests of the Scheduled Tribes, the provision of the “Fifth Schedule” is enshrined in the Constitution under article 244(2). The criteria for declaring any area as a Scheduled Area under the Fifth Schedule include the following:

- Preponderance of tribal population;

- Compactness and reasonable size of the area;
- Available administrative entity such as district, block or taluk, and
- Economic backwardness of the area as compared to neighbouring area.

Out of 259 blocks in the state of Jharkhand 111 fall under the Fifth Schedule areas (spread across 15 districts out of 24 districts).

Table 15.7: The Scheduled Areas in Jharkhand:

District	Blocks
Ranchi	Burmu, Mandar, Chanho, Bero, Lapung, Ratu, Namkum, Kanke, Ormanjhi, Angara, Silli, Sonahatu, Tamar, Bundu
Khunti	Arki, Khunti, Murhu, Karra, Torpa, Rania
Lohardaga	Kisko, Kuru, Lohardaga, Bhandra and Senha
Gumla	Bishunpur, Ghagra, Chainpur, Dumri, Raidih, Gumla, Sisai, Bharno, Kamdara, Basia and Palkot
Simdega	Simdega, Kolebira, Bano, Jaldega, Thethaitangar, Kurdeg and Bolba
Latehar	Barwadih, Manika, Balumath, Chandwa, Latehar, Garu and Mahuadarn
Garhwa	Bhandaria
West Singhbhum	Bandgaon, Chakradharpur, Sonua, Goelkera, Manoharpur, Noamundi, Jagannathpur, Manghgaon, Kumardungi, Manjhari, Tantnagar, Jhickpani, Tonto, Khutpani and Chaibasa
Saraikela Kharsawan	Govindpur (Rajnagar), Adityapur (Gamhariya), Saraikela, Kharsawan, Kuchai Chandil, Ichagarh and Nimdih

District	Blocks
East Singhbhum	Golmuri, Jugsalai, Patamda, Potka, Dumaria, Musabani, Ghatsila, Dhalbhumgarh, Chakulia and Bahragora
Dumka	Sarayahat, Jarmundi, Jama, Ramgarh, Gopikandar, Kathikund, Dumka, Sikaripara, Raneswar and Masalia
Jamtara	Kundhit, Nala, Jamtara and Narainpur
Sahebganj	Sahebganj, Borio, Taljhari, Rajmahal, Barharwa, Pathna and Barhet
Pakur	Littipara, Amrapara, Hiranpur, Pakur, Maheshpur, and Pakuria
Godda	Boarijore and Sunderpahari

Source: The scheduled areas of Jharkhand have been specified by the Scheduled areas (States of Chhattisgarh, Jharkhand and Madhya Pradesh) Order, 2003 (Constitution Order, 192) dated 20.2.2003

The Current State of Affairs

16 years since its inception, the tribal people, the Scheduled Castes, other backward classes, minorities and the other underprivileged sections of the community continue to be deprived of key social, economic and cultural resources. The state is striving and needs to work further to empower these communities by addressing the issues and concerns that are central to their existence. Some of the areas of concern include the following:

- Educational requirements of the

underprivileged (adequate number of schools, colleges, universities; access to educational institutions; scholarships; residential educational facilities; vocational educational facilities; etc);

- Housing needs of the underprivileged;
- Agriculture and livelihood concerns;
- Health, Drinking water and sanitation;
- Assets and ownership
- Social security
- Inclusive development

Table 15.8: Jharkhand- list of STs with details in terms of Households, sex-ratio, child sex-ratio, worker participation rate, main worker and marginal worker

Sl No	Scheduled Tribe Name	Number of Households	Sex Ratio	Child Sex Ratio	Literacy			Worker Participation Rate	Main Worker	Marginal worker
					Total	Male	Female			
	All STs	1761025	1003	976	57.1	68.2	46.2	46.9	46.2	53.8
1	Asur, Agaria	4399	958	956	46.9	58.0	35.4	47.5	50.5	49.5
2	Baiga	777	958	1104	36.7	43.3	29.6	46.5	25.6	74.4
3	Banjara	202	1012	939	40.3	55.4	25.6	39.0	58.9	41.1
4	Bathudi	923	975	866	51.2	63.1	39.2	50.0	47.4	52.6
5	Bedia	19631	995	1023	58.0	69.0	46.9	42.8	54.9	45.1
6	Binjhia	3109	968	928	56.3	68.9	43.4	51.3	54.2	45.8
7	Birhor	2661	960	968	34.5	41.3	27.4	47.4	42.6	57.4
8	Birjia	1358	977	997	50.2	61.7	38.4	49.6	45.0	55.0
9	Chero	19306	956	947	63.6	76.2	50.4	38.1	33.4	66.6
10	Chik Baraik	11723	997	960	64.5	75.3	53.6	47.7	55.3	44.7
11	Gond	11338	994	971	59.8	71.0	48.6	47.1	53.4	46.6
12	Gorait	1117	968	988	62.0	72.6	51.0	43.5	51.7	48.3
13	Ho	185982	1021	992	54.0	67.0	41.4	45.9	47.2	52.8

Sl No	Scheduled Tribe Name	Number of Households	Sex Ratio	Child Sex Ratio	Literacy			Worker Participation Rate	Main Worker	Marginal worker
					Total	Male	Female			
14	Karmali	12664	932	912	62.4	73.7	50.3	37.1	53.1	46.9
15	Kharia	41247	1019	990	65.9	73.0	58.9	50.6	53.0	47.0
16	Kharwar	46458	964	983	56.4	68.2	44.2	44.2	33.0	67.0
17	Khond	180	939	778	62.4	76.0	48.4	46.6	44.7	55.3
18	Kisan	7638	974	989	49.5	60.2	38.5	53.8	40.9	59.1
19	Kora	7733	989	955	55.5	68.5	42.4	42.7	40.5	59.5
20	Korwa	7462	978	1002	37.9	45.8	29.7	51.0	25.6	74.4
21	Lohra	43517	977	962	56.2	67.1	45.1	46.0	49.8	50.2
22	Mahli	34509	992	983	54.2	66.0	42.4	48.0	56.1	43.9
23	Mal Paharia,	30235	1003	997	39.6	49.1	30.2	49.3	45.0	55.0
24	Munda	248747	1001	973	62.6	72.9	52.4	48.0	53.2	46.8
25	Oraon	324826	1007	967	67.0	75.9	58.1	45.4	53.3	46.7
26	Pahariya	5725	958	988	33.1	41.5	24.3	45.7	26.2	73.8
27	Santhal	569996	1009	975	50.8	62.9	39.0	48.1	39.6	60.4
28	Sauria Paharia	10215	1012	1034	39.7	48.9	30.6	51.6	40.4	59.6
30	Savar	2752	992	1019	33.7	43.3	24.0	48.2	30.8	69.2
30	Bhumij	48610	996	968	56.7	70.4	43.0	46.3	38.9	61.1
31	Karwar	1874	995	981	64.3	76.9	51.7	51.4	53.5	46.5
32	Kol	10163	982	1013	47.7	60.3	34.8	44.6	36.2	63.8

Source: Census 2011

Literacy And Educational Needs

The data from the Table 15.9 reflects the overall low literacy rates among the Scheduled Tribes in the state. The highest literacy rate among STs in the state is recorded for the Oraon, Dhangar tribe and is 67.0%. This is quite low as compared to the national average of 74.04% in 2011. 10 out of the 32 listed Scheduled Tribes of the state recorded a literacy rate of less than 50%. While the national average of male literacy rate is 82.14%, amongst the Scheduled Tribes of Jharkhand, the highest recorded male literacy rate is 76.9% found among the Karwar tribes. A major cause of concern is the very low female literacy rate of the Scheduled Tribes in the state. 25 out of the 32 listed Scheduled Tribes of Jharkhand have a female literacy rate of less than 50%. Even among tribes like the Karwar, one notices a considerable difference between the male and female literacy rates. The highest tribal female literacy rate is 58.1%, which is very

low compared to the national average female literacy rate of 65.46%. Similarly, only 7 out of the 32 Scheduled Tribes of the state have a worker participation rate of more than 50%.

Table 15.9: Deprivation in terms of Literacy among SCs and STs of Jharkhand

Communi-ty	Total House-holds	Total SC/ ST House-holds	% of SC/ ST House-holds	No literate adult Above 25 years
SC	5044234	653283	12.95	41.03
ST	5044234	1468637	29.12	33.95

Source: Socio- Economic and Caste Census, 2011

Despite the fact that the literacy level is rising over the decades, the underprivileged communities are still far from achieving satisfactory cultural capital (education), which can be deduced from the fact that about 41% of SC households of the state do not have a literate adult, while about 34% of ST households have no literate adults. Here,

the level of educational deprivation seems to be greater among the SCs. In the section on government schemes, one sees how the state is constantly striving to attain these objectives.

Table 15.10: Comparison of Scheduled Caste and Scheduled Tribes population of Jharkhand as per Residence

State	Scheduled Caste Population 2011			Scheduled Tribe Population 2011		
	Total	Rural	Urban	Total	Rural	Urban
Jharkhand	3,985,644	2,043,458	1,942,186	8,645,042	7,868,150	777,892

Source: Census 2011

Tribal Rural- Urban Divide

While in the case of the Scheduled Castes community, one does not notice a very large difference in terms of residence (RURAL-URBAN DIVIDE), but, in the case of the Scheduled Tribes, one can clearly see the huge

gap in terms of residence and conclude that the Tribes are predominantly rural. Table 15.11 further clarifies that between 2001 and 2011, while there has been a marginal rise of 0.4% in the rural based tribal population, urbanization among the tribes has not occurred over the decade

Table 15.11: Comparison of Scheduled Tribes population of Jharkhand as per decadal change in Residence

State	Percentage of Scheduled Tribes 2001			Percentage of Scheduled Tribes 2011		
	Total	Rural	Urban	Total	Rural	Urban
Jharkhand	26.3	31	9.8	26.2	31.4	9.8

Source: Census 2011

Income, Livelihood and Assets

The results of the Socio- Economic and Caste Census conducted in 2011 clearly establish the fact that around 82% of the Scheduled Caste households and about 80% of the Scheduled

Tribe households of the state earn an income less than Rs. 5000 per month.

Table 15.12: Monthly household Income of Scheduled Castes in Jharkhand

State	Total no of Households	Total no of SC households	Percentage of SC households	% of Households with monthly Income of highest earning household member SC HH		
				<5000	5000-10,000	>10,000
Jharkhand	5044234	653283	12.95	82.12	11.04	6.83

Source: Socio- Economic and Caste Census, 2011

Table 15.13: Monthly household Income of Scheduled Tribes in Jharkhand

State	Total no of households	Total no of ST households	Percentage of ST households	% of households with a monthly Income of the highest earning household member ST HH		
				<5000	5000-10,000	>10,000
Jharkhand	5044234	1468637	29.12	80.65	14.12	5.14

Source: Socio- Economic and Caste Census, 2011

Cultivation and manual labour seem to prevail as the dominant sources of livelihood among the underprivileged SCs and STs of Jharkhand. Another important point to note is that since 48.73% of the SC population is based in urban areas, hence, a greater proportion of SCs

(68.2%) are engaged in manual casual labour as a source of livelihood.

Only 8.2% of the SC households in Jharkhand have a salaried job; while the figure is even lower for the ST households, among whom only 6.08% have a salaried job.

Table 15.14: Source of Monthly household Income among SCs and STs in Jharkhand

Community	Total no of households	Total no of SC/ST HHs	% of SC/ST HHs	% of SC/ST HHs with Income Source					
				Cultivation	Manual Casual	Part Time Or Full Time Domestic service	Foraging Rag Picking	Non-Agricultural Own Account Enterprise	others
SC	5044234	653283	12.95	15.6	68.2	3.7	0.5	0.7	11.2
ST	5044234	1468637	29.12	42.55	44.68	4.13	0.55	0.65	7.35

Source: Socio- Economic and Caste Census, 2011

Table 15.15: Percentage of SC/ST Households with Salaried Jobs in Jharkhand

Community	Total no of Households	Total no of SC/ST households	Percentage Of SC/ST households	Number of Households with salaried Jobs In:		
				Govt.	Public Sector	Private Sector
SC	5044234	653283	12.95	5.1	1.6	1.5
ST	5044234	1468637	29.12	3.49	0.95	1.64

Source: Socio- Economic and Caste Census, 2011

In terms of Income and asset ownership, both the SCs and the STs of Jharkhand appear deprived communities. The STs of the state are doing marginally better than the SCs with about 15% of STs owning motorised two/three/ four wheelers or fishing boats as compared to ownership among SCs, which is just 12.71%. However, when it comes to government

employment, greater percentages (5.08%) of SCs are employed with the government as compared to the STs (3.49%).

Thus, there is an urgent need to equip the underprivileged communities of Jharkhand with economic capital, which can then help them acquire social and cultural capital.

Table 15.16: Assets and Income of the SCs and STs in Jharkhand

Community	Percentage Of SC/ST households	Households Owning Motorised Two/three/ Four wheelers/ Fishing boats	Households having Kisan Credit Card With a credit Limit of Rs 50,000 and above	Households with any Member as Govt employee	House-Holds With any Member Earning More Than Rs10,000 p. m	House-Holds Paying Income Tax
SC	12.95	12.71	1.40	5.08	6.83	4.84
ST	29.12	14.99	1.78	3.49	5.14	3.31

Source: Socio- Economic and Caste Census, 2011

Housing Facilities

In terms of housing facilities, the level of deprivation appears to be greater among the

SCs of the state as compared to the STs, with about 20% of the SC households of the State living in one room quarter with kucha walls and a kucha roof.

Table: 15.17: Housing Deprivation among the SCs and STs in Jharkhand

Community	Total no of Households	Total no of SC/ST Households	% of SC/ST Households	No of SC/ST Households with Only one room With kucha walls And kucha roof
SC	5044234	653283	12.95	19.62
ST	5044234	1468637	29.12	15.79

Source: Socio- Economic and Caste Census, 2011

Health Facilities

According to Table 15.18, in 2013- 14, among children in different social categories, a higher number of stunted (53.4%), severely stunted

(29.8%), wasted (19.9%), underweight (51.1%), and severely underweight (23.2%) children were found among the STs with a slightly higher percent of children (0.4%) who were severely wasted among the SCs.

Table 15.18: Nutritional Status of Underprivileged Children Aged 0-59 Months

Social Category	Stunted (Height For Age Below 2SD)	Severely Stunted (Height For Age Below 3SD)	Wasted (Weight for Height below 2SD)	Severely Wasted (Weight for Height below 3SD)	Underweight (Weight for Age Below 2SD)	Severely Underweight (Weight for Age below 3SD)
SC	48.4	23.7	15.6	4.8	43.8	18.5
ST	53.4	29.8	15.9	4.4	51.1	23.2
OBCs	45.4	21.3	14.6	3.4	39.1	12.9
Others	38.6	17.1	8.6	1.4	30	8.3

Source: Jharkhand Fact Sheet, Rapid Survey on Children, 2013-14

State of Affairs of Minorities of Jharkhand

Table 15.19 gives us an overview of the status of minorities in Jharkhand. The percentage of literate population is consistently low among the minorities of Jharkhand, with only the Buddhist male population having a literate population of 64.43%. However, the Buddhist female population, on the contrary, has the lowest percentage of literate population among the minorities of Jharkhand. The Christian and the Sikh male population have

lower literacy levels as compared to the other minorities of Jharkhand. On the other hand, the Christian and Sikh female population have higher literacy levels as compared to the other minorities of Jharkhand. The percentage of male working population is low among the Christian minority community as compared to the other communities. When it comes to the female working population, none of the minority communities record a 50% women working population figure. Among the minorities, only the Christian community

records a figure of 45.90% female working population. The female working population figures are alarmingly low among the other communities, which indicate a severe lack of cultural capital, in terms of education among the women belonging to the minority communities. Hence, there is an urgent need to empower women from minority communities with educational facilities and also with income, assets and other livelihood opportunities if we want them to make progress.

While the government is constantly striving

towards bringing inclusive development and making life meaningful and easier for the underprivileged communities of the state along with the others, we are still in our journey and are far from reaching our destination. The successes we have achieved so far are a source of constant motivation to keep moving forward to achieve our goal of empowering the local community; promoting sustainable improvement for livelihood security and an overall improvement in the quality of life of the tribal and other underprivileged communities.

Table 15.19: List of Minorities of Jharkhand with details of Population, literacy and work

Religion	Total Population	Male Population	Female Population	Total Literate Population	% Male Literate Population	% Female Literate Population	Working Population		
							Total Working Population	Male Working Population	Female Working Population
Total	32988134	16930315	16057819	18328069	59.38	40.62	13098274	8424769 (64.32%)	4673505 (35.68%)
Muslim	4793994	2467219	2326775	2575770	58.74	41.26	1668437	1149146 (68.88%)	519291 (31.12%)
Christian	1418608	699902	718706	911083	53.46	46.54	668575	361695 (54.1%)	306880 (45.9%)
Sikh	71422	38189	33233	60196	54.86	45.14	24062	21089 (87.64%)	2973 (12.38%)
Buddhist	8956	5217	3739	6188	64.43	35.57	4164	3131 (75.19%)	1033 (24.81%)

Source: Census, 2011

Welfare Initiatives Taken By the Government Of Jharkhand

In order to achieve the aforementioned goal, the government of Jharkhand has resorted to meaningful policy – making and speedy and targeted implementation of the same to achieve timely and desired results.

Educational

The government of Jharkhand has focussed special attention towards equipping the youth from underprivileged communities with adequate cultural capital in terms of quality education and is running several schemes to fulfil this objective.

Scholarship Scheme: This policy is framed with the objective of providing economic assistance to students belonging to Scheduled Caste, Scheduled Tribe and Other Backward Classes, who might otherwise not have access to education, due to a lack of sufficient economic capital.

Different types of Scholarship are provided under this scheme. They include the following:

- **Pre- Matric Scholarships:** According to this scheme, students of class 1 to class 10 studying in the primary, secondary and senior secondary grades and belonging to economically weaker SC, ST and OBC families, are given scholarships to cover their educational costs.

Table 15.20: Pre- Matric Scholarship for the Underprivileged Students

Sl. No	Name of Scholarship	Amount of Scholarship offered (In Rs)		Duration of Scholarship (within an academic year)
		Hostel	Day Scholar	
1	Primary School (classes 1-4)	150	50	10 Months
2	Secondary School (Classes 5-6)	150	100	10 Months
3	Higher School (Classes 7-10)	200	150	10 Months

Source: Welfare Department, Government of Jharkhand

- **Post- Matric Scholarships:** According to this scholarship scheme, students of colleges and technical educational institutions, both within the state as well as those outside the state are provided scholarship funds.

In order to ensure the timely application submission and further timely disbursement of the scholarship amount, the government has made the application process online, so as to cause minimum inconvenience to the students.

- **Activities Scholarships:** In order to encourage the budding sportsmen and sportswomen from the SC, ST and OBC participating in the various sport activities and competitions, the government is providing them with scholarships.

The government has made a total budgetary allocation of 147 lakh rupees in the 2016-17 budget towards the Activities scholarship.

- **Hostel Facilities:** This policy seeks to ensure that students from different nooks and corners of the state, belonging to Scheduled Caste, Scheduled Tribes, Other Backward Classes and Minority communities are not deprived of educational opportunities in the absence of arrangement for housing. Hence, the government seeks to provide these students with residential- educational facilities, so that the chances of their

acquiring cultural capital are not hampered.

The government has made a total budgetary allocation of 700 lakh rupees in the 2016-17 budget for hostel facilities.

- **Residential Schools:** The government has established and is running 116 residential schooling facilities for the students belonging to Scheduled Caste, Scheduled Tribes, Other Backward Classes and Minority communities. These residential schools not only provide free accommodation, but also provide food, books, stationary, etc. 23 such residential schools have been established for the SCs, 89 for the STs and 4 for the OBCs. Around 20,000 students are enrolled in these residential schools.

The Government supports DAV, Bundu which is running and managing a residential school for the Scheduled Tribe students. More than 300 ST students are drawing the benefits of quality education from this facility.

- **Residential Schools for the Primitive Tribal Groups (PTGs):**

The government is running 8 residential schools for the PTGs with the assistance of non- governmental institutions, in order to empower the children of these communities with cultural capital in the form of education. These residential schools are benefitting around 800 students belonging to the Primitive Tribal Groups.

Table 15.21: List of Residential Schools for PTGs

Sl. No.	Name of District	Name of Residential School	Residential Capacity
1	Ranchi	Residential Senior Secondary School, Jail Road, Ranchi	290
2	Hazaribagh	Residential Senior Secondary School, Hazaribagh	290
3	Palamu	Residential Senior Secondary School, Shahpur	290
4	Dumka	Residential Senior Secondary school, Dumka	290

Source: Department of Welfare, Government of Jharkhand

- **Providing Uniform:** The objective of this scheme is to provide free uniform to students from class 6 to 10, belonging to SC and ST communities.

The government has made a total budgetary allocation of 450 lakh rupees in the Financial Year 2016-17 budget for the same.

- **Cycle Distribution Scheme:** This scheme was started by the state government keeping in mind the two reasons why the students of far off village rural areas do not continue with their higher studies: (i) the distance between the school & their house being too far, the family members have difficulties in sending their wards to school. (ii) After passing the middle level school maximum students from villages begin to discontinue their studies due to lack of transportation facilities. So to encourage the students belonging to scheduled caste (SC), scheduled tribe (ST) and Other Backward Classes (OBC) communities, to have access to higher education, this scheme is being implemented. About 5,94,333 students are benefitting from this scheme.
- **Reimbursing Examination Fee:** Under this scheme, the government reimburses the Jharkhand Education Board the amount which was lost to the Board due to the discount offered in the examination fee for secondary and

senior- secondary board examinations, to the students. This is done with the objective of ensuring that students from the underprivileged communities are not deprived of the opportunity of taking the examination due to the inability in paying the examination fee.

- **University Polytechnic:** In order to develop technical education skills in the Scheduled Tribe students, the government is opening a university polytechnic centre in BIT Mesra, Ranchi. It would include the following branches of engineering diploma studies:
 1. Automobile engineering
 2. Electronic engineering
 3. Computer Science
 4. Mechanical Engineering
 5. Medical Lab Training
 6. Electrical Engineering
- **Free Education and Food for Pahariya tribal Students in Pahariya Schools:** Keeping in mind the low literacy rates of the Pahariya tribes, the Welfare Department of the Government of Jharkhand has formulated a scheme according to which Pahariya tribal students enrolled in 32 Pahariya schools would be provided with free education, educational amenities and

food. Around 350 Pahariya students are enrolled in these schools and are drawing the benefits of this scheme.

- **Providing School Bags, Sweaters and School Shoes in Residential Schools:** A total of 95 lakh rupees was allocated in order to provide students of residential schools, belonging to the Scheduled Caste, Scheduled Tribe and Other Backward Classes with free school bags, school shoes and sweaters, so as to encourage education and enrolment among them. More than 20,000 students from underprivileged communities are benefitting from this scheme.
- **Professional Training:** The Government in collaboration with IIT is offering professional training in various trades to the unemployed youth in the villages of Jharkhand belonging to the Scheduled Tribes, Scheduled Caste, Other Backward Classes and Minority communities. After the completion of training, they are also being offered self-employment opportunities in several institutions. A budgetary allocation of 130 lakh rupees has been made in the financial year 2016-17 for the same.
- **Vocational Training:** The drop-out rate is very high amongst tribal children in general and tribal girls in particular before passing

secondary school. The school drop-outs are identified from the poor households. Agencies such as Divyayan Krishi Vigyan Kendra (DKVK) and PAN-IIT Alumini Reach for India (PARFI) have the capacity to organize vocational training. In this regard 36 PTGs, sub-caste- Paharia, school drop-outs of Amrapara Block of Pakur district have been identified and imparted vocational training in the first batch on Improved Agriculture for 10 days at Divyayan Krishi Vigyan Kendra (DKVK), Morabadi, Ranchi. Altogether 385 tribal youths including 147 PTGs in 10 batches have been imparted training on Improved Agriculture techniques for 10 days at Divyayan Krishi Vigyan Kendra (DKVK), Morabadi, Ranchi.

- **Eklavya and Asharam Vidyalaya:** The Eklavya Model Residential Schools and Ashram schools aim to provide the best opportunities in education to Scheduled Tribe (ST) students which are at par with their non ST counterparts in remote areas. It aims to provide high quality middle and high level education at the doorsteps of the tribal students which will enable them to get enrolled in high and professional educational courses as well as secure jobs in the government, public and private sectors.

Table 15.22: List of Eklavya and Asharam Vidyalayas in Jharkhand

Sl. No	Name of District	Name of Residential School	Residential Capacity
1	Dumka	Eklavya Model Awasiy School, Katijuriya	420
2	Sahibgunj	Eklavya Model Awasiy School, Bhogna Dih Barhet	420
3	Ranchi	Eklavya Model Awasiy School, Salgadih Tamar	420
4	West Singhbhum	Eklavya Model Awasiy School, Tersundari Chaibasa	420
5	Gumla	Ashram Vidyalaya, Ssisai, Samprati Tira	200
6	Saraikela - Kharsanwa	Ashram Vidyalaya, Kuchai	200
7	Jamtara	Ashram Balika Vidyalaya, Jamtara	115

Source: Department of Welfare, Government of Jharkhand

Income, Agriculture and Livelihood

- **Chief Minister Scheme for Manure Security:** Under this scheme, Scheduled Tribe families are provided with 35 kg of manure every month free of cost. Under this program, farmers from more than 1000 villages have been benefitted.
- **Chief Minister Village Development Scheme for the Scheduled Tribes:** The objective of this scheme, which was announced by the honourable Chief Minister on the occasion of the Hul Day and has been implemented since 2015-16; is to ensure the all-round development of the Scheduled Tribes of Jharkhand by connecting them with the educational, social, economic, cultural, health and other developmental schemes of the state. 1000 villages have been chosen as for in the year 2016-17.
- Various vocational training courses have been started by the department to make tribal people employable and enhance their skill level to make them self dependent. These vocational training programmes are conducted by different government agencies which have specialised trainers and infrastructures to conduct the programmes. Some professional courses are directed by Anusuchit Janjati Sahakarita Vikas Nigam (AJSVN) to make the youth get absorbed in the modern tertiary sector jobs. Following are the list of courses that are currently offered by AJSVN.

Bharat Sanchar Nigam Limited has also started technical vocational courses for those Scheduled Tribe and Scheduled Caste youths who had taken admission for B.Tech, B.E. courses in technical institutes but couldn't get placement after completing the courses. The youth are trained under different branches like advance telecommunication, data communication, advance java and database

application, ASP net and web application and SRL database management. The duration of all the courses is of 1 month.

Shilp Vikas Kendra on the other hand provides vocational training programmes pertaining to traditional handicraft works. By doing so, the centre is not only equipping youths with employable skills, but also trying to promote and protect the rare traditional tribal handicraft skills. In the initial phase youth from eight villages have been selected to give training in Jute craft, Leather Craft, Metal Craft, Carpet Weaving and making bamboo furniture.

- **Micro (Sprinkler) Irrigation System:** From past few decades irrigation has been a major concern among tribal farmers. In the absence of a robust irrigation system, most of the farmers are dependent on rain and practise mono cropping. To solve this problem to a certain extent, with the support of the central government, the department of welfare distributes micro sprinkler irrigation systems. It was found that a single unit of irrigation system can suffice 100 acres of agricultural land, benefiting on an average 50 tribal families.
- **Van Bandhu Kalyan Yojna:** It is a strategic policy which aims at creating and enabling environment for a need based and outcome oriented holistic development of the tribal people. It was introduced in October 2014 by the Government of India. This policy envisages ensuring that all the intended benefits of goods and services under various program memes/schemes of the Central as well as state governments actually reach the target groups by convergence of resources through appropriate institutional mechanism. It covers all tribal people and all areas with tribal population across the country.

- **The Strategies include:**
- Strengthening of institutions meant for the delivery of goods and services with adequate administrative, technical and financial powers such as Tribal Welfare Departments as nodal Department, Integrated Tribal Development Agency (ITDA), Integrated Tribal Development Projects (ITDPs) and the creation of new ones where they do not exist etc.
- Convergence of scattered resources and activities being undertaken under various components.

Initially, Littipada block of Pakud District was chosen for a pilot implementation in Jharkhand. With the success of the programme, the State Welfare department has made a proposal to extend this programme to all the tribal dominated districts in 2015-16.

- **Jharkhand Tribal Development and Empowerment Project (JTDEP):** The goal of the JTELP programme is to empower the local tribal community, to promote sustainable improvement for ensuring a security of livelihood and to improve the general quality of life of the tribal and other poor families. Besides strengthening community-based institutions and improving natural resource management as in JTDP, the JTDEP is also emphasizing on productivity-enhancement and up-scaling of proven, market-oriented

production activities. JTELP is seeking to foster convergence with the on-going Tribal and rural development programmes of the Government of India and the government of Jharkhand. JTELP has adopted the “community demand driven” approach, as it has been noticed, based on the experience that the community’s response is always encouraging when the changes proposed are relevant to their needs.

Project interventions have been done in Ranchi, Khunti, Gumla, Simdega and Lohardaga districts in Ranchi Division, West Singhbhum, East Singhbhum and Saraikela-Kharsawan districts in Kolhan Division, Latehar in Palamau Division and Godda, Dumka, Pakur, Sahebganj and Jamtara in Santhal Pargana Division. Overall, the project is covering about 1, 53,333 households, in 1,259 villages in 30 blocks falling under 14 Tribal Sub Plan districts against targeted 1,36,000 HH and 1000 villages. While working with all the households in project villages, STs target has been ensured by choosing Panchayats with higher ST concentration. At least 10% households have been from the Particularly Vulnerable Tribal Groups (PVTGs) as they are the poorest even among the STs. The project target groups include tribal households, including approximately 10,000 particularly vulnerable Tribal Groups (PVTGs) households, women-headed households, and rural youth and Below Poverty Line households within selected Panchayats.

Table 15.23: Interventions under JTELP and the Targeted Groups

Intervention	Target Group
Income generating activities	PVTGs and other very poor tribal households
Integrated Production and Marketing Support	Tribal households and other households meeting the selection criteria (land, Irrigation, etc.) for implementation of activities
Vocational training	Tribal Youth
Community pattas under Forestry (FRA)	Tribal villages situated near Protected forests
Community pattas under Forestry (FRA)	Tribal households meeting the requirement for issuance of individual pattas
Lac Rearing	Tribal Households
Habitat Planning	PVTGs

Source: JTELP Progress Report, JTDS, Department of Welfare, Govt. of Jharkhand

Interventions under JTELP

- Camp for distribution of Solar lamp and Cheques to PVTG beneficiaries: A total of 6000 solar lanterns have been distributed among the poor tribal specially the PVTG beneficiaries in those villages where reach of electricity is nil or negligible. The introduction of solar light has enabled villagers to do household works and helps the children to study in the evening.
- A seed capital of Rs.5000/- was given to the SHGs to boost their corpus so that they could utilize it as a revolving fund and start inter lending. Most of the groups have submitted proposals to utilize the seed capital for inter- lending for the purpose of purchasing seeds, fertilizers etc. for the cultivation in the “Kharif” season.
- The Seed capital provided to youth groups have be used for purchasing sports goods, musical instrument or some kind of agro-equipment which has enabled them to get involved in some kind of constructive work and thus check the out migration of the youth outside the state.
- The most important component of the project is Integrated Natural Resource Management under which a greater amount of fund is allocated. The objective is that without destroying land, water, greenery and forest the environment should be wisely developed, used and conserved.

Box 15.1: Case Study: Successful Implementation of Integrated Natural Resource Management Activity

Name of the Village & Gram Panchayat: Raghunathpur/ Saherpura

Name of the Block & District: Jamtara/ Jamtara

Agriculture in rain-fed conditions in Santhal Paragana, Jharkhand often lagged behind due to a lack of proper irrigation. Farmers follow traditional practices of cultivating a single crop i.e., paddy in small patches of land with water available during the rainy season only. The rest of the year their lands remain unproductive. They suffer acute poverty as their livelihoods get seriously affected due to this situation. They often remain jobless and become victims of distress-migration. Water management is vital in fulfilling the demand of irrigation in rain fed areas and the introduction of fishery can add supplementary income to the marginalized ST farming families of this region. The storage of water in these areas is an integral part of any rain water harvesting system and it is necessary to harvest water from any source e.g. precipitation, perennial sources, roof water etc. in ponds and reservoirs for various domestic and agricultural purposes over a period of time. In order to increase livelihood opportunities as well as agricultural production and reduce migration, small farm-pond excavation was taken up as Entry Point Activity at Raghunathpur village under JTELP with the facilitation of Badlao Foundation on the land of Gopinath Kisku, who is a marginal ST farmer living with 8 family members. His wife Lakhimuni Murmu is an active member of Surajmukhi Mahilal Sabha, which was formed by the JTELP. Before the excavation of pond Gopinath used his 20 decimal lands for cultivating paddy during the rainy season and harvested only 90-100 kg/year paddy, which was insufficient to secure food provisions of his family throughout the year. After implementation of JTELP in 35 project villages, he showed his interest in the gram sabha of Raghunathpur to donate his land to initiate EPA. After its approval in the gram sabha and site verification by the excavation work began. After hearing of this work opportunity, with weekly payment (wage rate of JTELP is 187 INR for 100 cft soil and labourers have to donate 10% of their wages to the Village Development Fund) those people of Raghunathpur, who migrate in

search of work or work as wage labourers under MGNREGA were very happy and started to work on the site from the month of January, 2016. After the completion of excavation work and in the inception of monsoon the pond has filled up (8 feet) with water. Gopinath's wife and other group members of the SHG have introduced 1 kg fingerlings of major carp (rahu, katla, mrigel) in this pond. Gopinath also planted bottle gourd, ridge gourd on the bund of the pond and is raising a nursery of tomatoes to cultivate on 10 decimal land beside the pond. The excavation of farm pond will help Gopinath in getting regular income besides creating productive engagements for his family members. The Introduction of fishery and cultivation of tomato, bottle gourd will enhance the income of his family as well as help to enhance the group saving of Surajmukhi Mahila Sabha. Besides that the fish and vegetable cultivation it will help to add supplementary nutrition to Gopinath's family. As a result of this, their health condition will improve, and medical expenses will come down. The pond will also serve as a good source of irrigation for growing vegetables in the rabi season to enhance the new cash income on the adjoining approximate 2 acres land of 3 households. The pond will also help to mitigate the problem of drinking water for livestock. Increase in crop harvest will result in major changes.

Source: JTELP Progress Report, JTDS, Department of Welfare, Govt. Of Jharkhand

- **Livelihood Support: Income Generation Activities (IGAs):** The livelihood Support component of JTELP has four sub-components namely, support for IGAs, Integrated production and Marketing Support, Vocational Training and Innovative Interventions. The Support has encouraged the underprivileged communities to adopt a second crop, and indulge in various off-farm income generation activities (IGAs) like Pigeon Pie, Chick-pea, Arhar cultivation, Backyard poultry, and piggery, goat-rearing, Lac- rearing etc.
- cultivation, goat rearing, lac rearing, tasar cocoon rearing and mango orchards.
- **Vegetable Clusters:** All kinds of vegetables such as tubers, root crop, green leafy, legumes, cole crops, tomato, and brinjal etc., can be grown. The project assistance by way of labour cost i.e. Rupees Six Hundred thirty six only (Rs 636/-) is being paid to every beneficiary.
- **Tasar Silkworm rearing in forest:** The tribal communities living in remote forested areas, particularly in the different villages of Kutchai Block of Saraikela- Kharsawan district are usually engaged in Tasar cocoon production. The activity is a source of supplementary income for the poor families who are otherwise engaged in small and marginal farming or are migrating to other places in search of livelihood. Altogether 75 farmers from Kutchai Block of Saraikela-Kharsawan district have been identified and imparted training in Tasar Training Institute, at Kharsawan. In the month of February, 2016 they have started the Tasar Cocoon production.

Table 15.24: In FY 2016-17 targets for IGA is as follows:

Activity	No of Units	No of Beneficiaries
Backyard Poultry	60	360
Pig Rearing Poultry	420	3360
Goat Rearing Poultry	90	720

Source: JTELP Progress Report, JTDS, Department of Welfare, Govt. Of Jharkhand

- **Integrated Production and Marketing Support:** The project aims at supporting the up- scaling of market- oriented production enterprises by promoting the viable market-linked production clusters. The enterprises that have been identified are vegetable
- **Mango Orchards:** Mango orchards have been developed in Khunti and Dumka districts. In this regard, 5 farmers from Dari

village were taken to Torpa Block to see the WADI orchard developed by BIRVA funded by NABARD. They also interacted with the beneficiaries and were informed about the advantages of mango orchards and how to dig the pit, and also provide information about pit size, compost and fertilizers etc.

- Lac Rearing: Training programme for 70 Lac rearing farmers has been planned at IINRG, Namkum, Ranchi. The training on Lac rearing was held in two batches i.e. 35 farmers in each batch. The first batch of training was held from 1-5 February, 2016.
- Promotion of homestead nutrition garden- Most of the tribal families own a small piece of land but are unaware of the proper methods of cropping with available resources. Homestead nutrition gardens offer great potential for improving household food security and alleviating micronutrient deficiencies.
- Training on IGA: With the help of Indian Institute of Natural Resins and Gums (IINRG), one day field training has been conducted on “lac” rearing for 40 farmers at Murgidih of Bundu block. Also in Saraikela-Kharswan district 5 days of training have been arranged on “tasar” with the help of Tasar Research and Training Institute for 75 beneficiaries.

Innovative Interventions Under JTELP

Under JTELP there have been innovative interventions on creating awareness about the uses and importance, raising nursery and cultivation of medicinal plants which are extensively used by the people and which are becoming endangered.

Demonstration Unit of Medicinal Plants Garden at JTDS/TRI Campus

Under innovative interventions, one demonstration unit of medicinal plants garden

has been developed at JTDS/TRI. The medicinal garden was inaugurated on 9th June, 2016.

Health Facilities

Health for all is a basic human right and the Government of Jharkhand has undertaken several initiatives to improve the health of its people.

- **Village Hospitals:** In order to address the health requirements and lack of health facilities for the residents of far away villages of Jharkhand, the government has constructed 50 Meso hospitals in 13 ITDA districts. Of these 9 hospitals are being managed by Non- Governmental Organizations.
- **Special Health Scheme for the Pahariya Tribes:** The Welfare Department of the Government has established 18 health centres in remote areas in the Santhal Paragana areas. The doctors visit these health centres once in a week and provide comprehensive treatment to the sick. These health centres also regularly organize check-up camps and visit the residential schools for the thorough check up of students.
- **Ayurvedic Health Centre Scheme for Schedule Tribes:** The government is running 35 Ayurvedic medical centres in the rural areas. Through these centres members of scheduled tribes are given free medicines and medical advice. Every Ayurvedic centre has one Ayurvedic Medical Officer and one Assistant to run the centre.
- **Chief Ministers Special Food Security Scheme for Primitive Tribal Groups:** The department of welfare has started the Chief Ministers Special Food Security Scheme for the primitive Tribal groups. Under this scheme food grains (rice and wheat) are provided to all the families of Primitive Tribes. Under this scheme each family of a Primitive Tribe gets 35 kg of rice per month

at the rate of Rs 1 per Kg.

- **Medical Assistance Scheme:** The welfare department is running a Medical Assistance scheme for the Scheduled Tribes, Scheduled Castes and the Other Backward Classes. As per this scheme, a sum of money is allocated for providing assistance in the treatment expenses of members of these underprivileged communities. A budgetary

allocation of 152 lakh rupees has been made for the same in the financial year 2016-17.

- **Nutrition Program and Malnutrition Treatment Centres:** The Government of Jharkhand has initiated several child nutrition program and set up Malnutrition Treatment Centres (MTCs) to address the severe malnutrition found in the underprivileged communities.

Box 15.2: A toll free Health Helpline

'104-health information helpline' established in Ranchi. The facility provides toll-free number for facilitating quality medical assistance for dealing with the health issues of the people. Moreover, the government is going to use this platform for providing telemedicine facilities between CHCs and other health units.

HOUSING

- **Birsa Munda Awas Yojana:** This scheme was started with 100% grant for providing housing facilities to the primitive Tribes. Under this Scheme a grant of 1 Lakh Rupees is available for the construction of a single house. A budgetary allocation of 700 lakh rupees has been made for the same in the financial year 2016-17.
- **Rajiv Awas Yojana:** RAY was launched in June, 2009 by the Government of India for creating a 'Slum Free India', and approved by the Union Cabinet in June, 2011. The Scheme envisages a complete removal of slums from the Indian Cities and taking appropriate measures for the prevention of future slum mushrooming. Under this

scheme more than 240 new houses have already been completed in Ranchi and in Dhanbad and Chas 1636 houses are under construction. Meanwhile, 14 towns in Jharkhand have been selected for the Prime Minister's "Housing for all" Scheme.

- **Boundary construction for places of Sarna/ Masna/ Jaher:** Sarna, Mansa and Jaher are the religious places of tribal community groups. As these places do not contain any permanent physical structure they are prone to encroachment by other people for different purposes. To protect the religious interests of the tribal communities the department has started to mark these places by constructing boundaries around them.

Box 15.3: Tribal Sub- Plan (TSP); Special Central Assistance (SCA to TSP)

The Tribal Sub-Plan strategy of tribal development is a concept intended to address the issues of backwardness in tribal areas and the tribal population in an integrated way by earmarking funds at least not less than proportionate to their population percentage in the budget plan. It is a methodology to ensure a minimum flow of funds to tribal areas from the Plan for an all-round tribal development. Each department of state government as well as the union government has to earmark funds on this principle. The strategy was first introduced in the 5th Five-Year Plan in the country. Prior to this there were no

principles to measure the flow of funds to tribal areas. The philosophy behind the concept is equitable distribution of resources of the nation for equal development of all sections of the society and to arrest developmental stagnation in the tribal societies. TSP fund has mainly been used for the development of the tribal concentrated areas by developing infrastructure which will benefit the tribal people living there. Program meant for causing human development of the tribal people through enhancing their income and employment opportunities and improving their education, skills and health, and creation and distribution of productive assets to the tribal people. In Jharkhand, a large number of residential schools for the tribal people, hostels for tribal students, Health centres, Anganwadi Centres have been created out of TSP and Article 275 (1) funds. This fund has also been used for the construction of minor irrigation projects, roads, bridges and other infrastructure. It has also been utilised for fencing and the development of tribal cultural centres and centres of tribal worship. A sum of Rs. 11,000.00 Lakh has been earmarked for Tribal Sub Plan during the financial year 2015-16.

SCA TO TSP

The Special Central Assistance (SCA) is provided by the Ministry of tribal Affairs to the State Government as an additive to the State TSP. SCA is Primarily meant for family-oriented income-generation schemes in sectors of agriculture, horticulture sericulture and animal husbandry cooperation. A part of SCA (not more than 30%) is also permitted to be used for the development of infrastructure incidental to such income generating schemes.

SCA is intended to be additive to the State Plan efforts for tribal development and forms part of TSP strategy. The objective of the strategy is two folds:-

Socio-economic development of STs;

Protection of trials against exploitation.

Of the above, SCA primarily funds schemes/projects for the economic development of STs.

SCA is released for the following purposes:

Integrated Tribal Development Project (ITDP) area- contiguous large area in which ST population is 50% or more out of a total population.

Modified Area Development Approach (MADA) pockets the identification of pockets containing 50% or more of ST population out of a total population of 10000 and above, Clusters-identified pockets containing 50% or more ST population out of a total population of 5000.

Primitive Tribes-identified isolated communities among the STs characterized by the low rate of population, pre-agricultural level of technology and extremely low levels of literacy (so far 75 Primitive Tribal Groups (PTGs) have been identified. Displaced tribal population outside (a),(b),(c) and (d) above.

Empowerment And Social Security

- **Chief Minister's Scheduled Tribe Gram Vikas Yojna:** A new scheme was launched by the department of welfare for the social and economic upliftment of the Scheduled Tribe people in the tribal dominated villages of the state. Under this scheme, about 5,755 such villages were marked which had over 80 percent of tribal population. The scheme provides Rs. 1 lakh to a self-help group of that village per year. In addition to this, the scheme will also provide Rs. 2 lakh to five literate unemployed youths of the village for the generation of livelihood opportunities. In 2016-17, a total of 1000 villages have been targeted under the scheme.
- **Forest Rights Act, 2006- Implementation:** Forest Rights Act, 2006 seeks to recognize and vest the forest rights and occupation in forest land among the forest dwelling Scheduled Tribes and other traditional forest dwellers who have been residing in such forests for generations, but whose rights could not be recorded. The act is implemented through the department of tribal welfare as the nodal agency and the department of forest. In Jharkhand, from 2007-08 till March 2016, 53253 claims have been received in which in 43120 case titles for the claimed lands were distributed after scrutiny. Up to now, under the Forest Rights Act, 8789.8 acres of land has been distributed.
- **Scheduled Caste/Scheduled Tribe Relief from Atrocities Scheme:** The purpose of this scheme is to provide relief to the members of SC and ST communities against atrocities directed at them. For this purpose, the government is strictly implementing the Prevention of Atrocities Act against the SCs/STs, 1989. The scheme provides monetary relief ranging from Rs 70,000 to Rs 7 lakh for providing relief against the different types of atrocities.

- **Constitution of Tribal Advisory Council and Tribal Development Council:** To formulate policies targeting the specific grass root level problems of tribal dominated areas, a tribal Advisory Council has been constituted by the department, which will discuss the developmental issues of tribal people and will help the government to formulate policies for the same. In May and August 2015, two meetings were organised which were presided by the Chief Minister of the State. On January 28, 2016 a third meeting of the council was held. In addition to this, for the initiation, supervision and proper implementation of the schemes pertaining to tribal development, a district level body- Tribal Development Council has been constituted.

Interventions To Empower The Minority Communities Of Jharkhand

- **Multi- Sectoral Development Program (MsDP)**
The Multi-sectoral Development Programme (MsDP) was conceived as a special initiative by the Government of India with reference to the Sachar Committee recommendations on Muslim community in India. It is a Centrally Sponsored Scheme (CSS) launched in the year 2008-09 in 90 identified Minority Concentration Districts (MCDs). The programme aims at improving the socio- economic conditions of the minorities and providing basic amenities to them for improving their quality of life and further reducing imbalances in the identified 90 minority concentration areas during the 12th Five Year Plan period. The projects to be taken up under MsDP are related to the provision of better infrastructure for education, skill development, health, sanitation, pucca housing, roads, drinking water, equitable share for minorities in economic activities, improving living conditions of minorities and bringing about communal harmony and

preventing violence- ‘Nai Roshni’, ‘Hamari Dharohar’, Protection of Waqf Monuments, Setting up of National Data Bank (NDB), etc are also schemes for creating income generating opportunities. At present, the scheme focuses on 44 selected blocks, four towns and one cluster village in 16 districts that have over 25 percent minority population. In this financial year, Rs 1000 lakh has been approved for the implementation of the programme under MsDP in the identified blocks in Jharkhand.

Table 15.25: List of Selected MsDP blocks In Jharkhand

Sl. No.	Name of District	Block
1	Giridih	Dhanbad, Gandey
2	Deoghar	Paljoro, Madhupur, Karo
3	Godda	Pathargama, Mahgama
4	Sahebgunj	Barhet, Sahebganj, Mandro, Rajmahal, Udhwa, Pathna, Barharwa
5	Pakur	Littipara, Hiranpur, Pakur, Mahespur
6	Dumka	Shikaripara
7	Ranchi	Kanke, Chanho, Bero, Mandar
8	Lohardaga	Kutto
9	Gumla	Kamdara, Basiya, Chainpur, Dumri, Raidih
10	Garhwa	Garhwa
11	Hazaribagh	Katkamsari
12	Dhanbad	Govindpur
13	Palamu/ Latehar	Mahuwatand
14	Jamtara	Narayanpur
15	Khunti	Torpa, Raniya, Marho
16	Simdega	Simdega, Kurdeg, Bolba, ThethayTangar, Kolebera, Bano

Source: Department of Welfare, Government of Jharkhand

The Ministry of Minority Affairs, Government of India, has further identified 66 Minority Concentrated Towns (MCTs) from 11 States of the country for the implementation of Multi-sectoral Developmental Programme (MsDP). From Jharkhand, four towns have been identified as MCTs. They are Giridih in Giridih District and Bhuli, Jharia and Jorapokhar towns of Dhanbad District.

- **Jharkhand State Haj Committee:** To safeguard the religious interests of the people of the Muslim community, the department supports in organizing Haj, the religious pilgrimage of the Muslims. In this context, under the department notification 1620, in June 2015, a Haj Committee was established which looks after the organisational procedure of the Haj yatra. The Committee in 2015- 16, helped 2,841 people from the state to go for Haj yatra. In the year 2016-17, around 3200 people were facilitated in going for the Haj yatra.
- **Prime Minister’s 15 Point Program:** The program aims at enhancing opportunities for education and ensures equitable share for the minorities in economic activities as well as providing employment through existing and new schemes, enhancing credit support for self-employment and recruitments in state and central Government jobs; the Government has undertaken various initiatives for the welfare of the minorities. Further, state and district level committees have been formed for the purpose of implementation.
- **Jharkhand State Waqf Board:** The tenure of the Jharkhand State Sunni Waqf Board ended in 2013. There exist 14 district level committees to look after the waqf properties.
- **Concrete boundary walls for graveyards:** This scheme for construction of concrete boundaries for graveyards was continued in this fiscal year. Rs 2300 lakh has been allocated in the financial year 2016-17 for the successful implementation of this scheme.
- **Residential facilities for Minority Community Students:** Under this scheme, residential facilities are constructed and managed for the students belonging to the minority communities to aid them in

acquiring education. Rs 360 lakh has been allocated in the financial year 2016-17 for the successful implementation of this scheme.

- **Constructions of Kiosk:** These centres facilitate administrative and economic services to the people from minority communities who live below the poverty line. Rs 160 lakh has been allocated in the financial year 2016-17 for the successful implementation of this scheme.
- **Cycle Distribution Scheme:** Under this scheme, students of the minority community studying in class 8 in government schools and madrasas are distributed cycles free of cost to promote educational achievements in these communities. 43333 cycles were distributed under this scheme in the financial year 2015-16. Rs 3230 lakh has been approved in the financial year 2016-17 for the successful implementation of this scheme.
- **Scholarship:** Scholarships to minority students fall under the category of 100% centrally Sponsored Schemes. Under this, three different types of scholarships are provided. They are:
 1. **Pre- Matric Scholarship:** This Scholarship was started by the Ministry of Minority Affairs, Government of India in the year 2007. This scholarship is offered to the students from minority communities studying in class 1 to 10, and the annual income of parents being less than 1 lakh Rupees. 30% of the funds are reserved for women.
 2. **Post- Matric Scholarship:** This Scholarship was started by the Ministry of Minority Affairs, Government of India in the year 2008. This scholarship is offered to students

from minority communities studying in colleges, and the annual income of parents being less than 2 lakh Rupees. 30% of the funds are reserved for women.

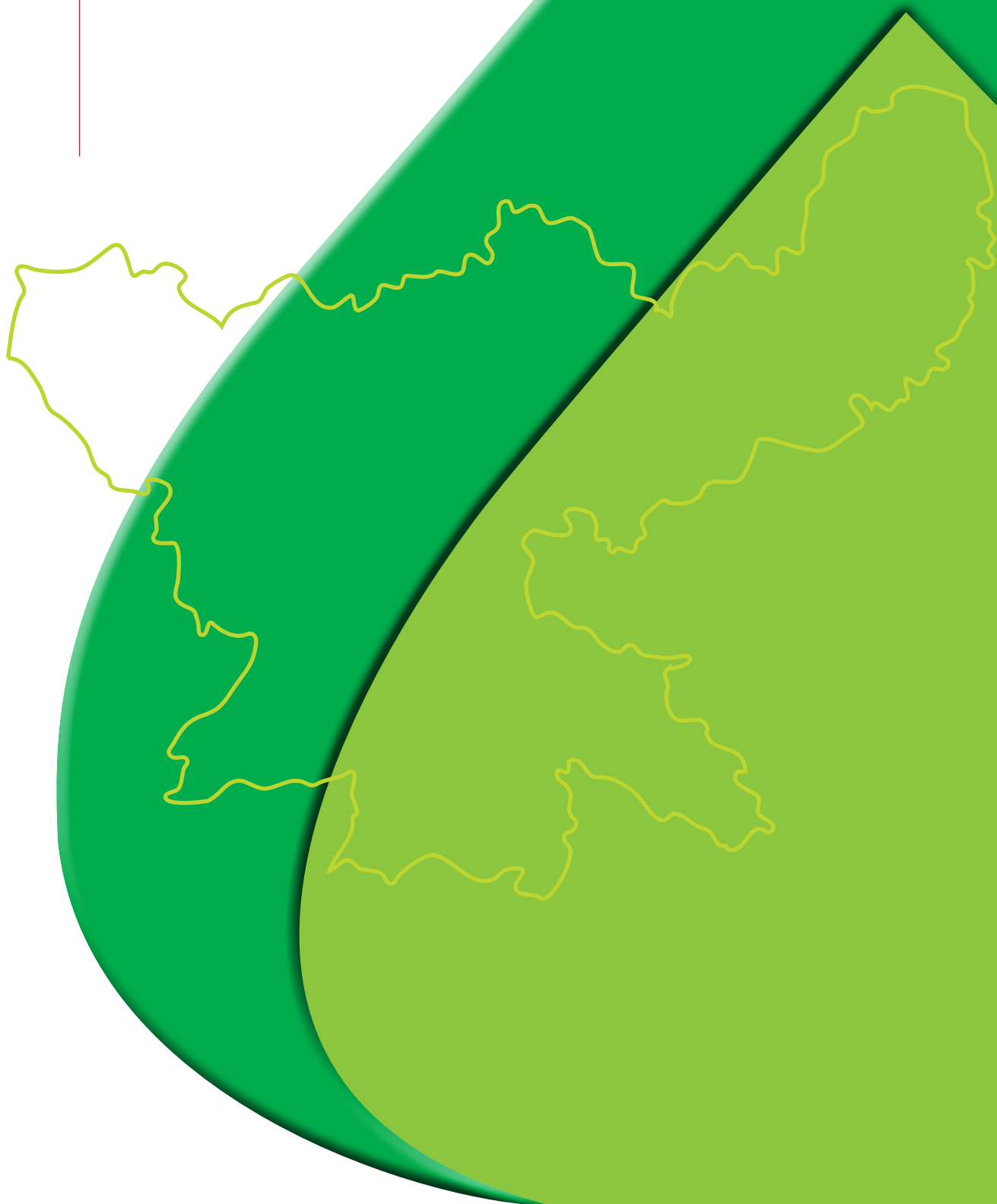
3. **Merit- cum- Means Scholarship:** This scholarship is offered to the students from minority communities studying in technical institutions, and the annual income of parents being less than 2.50 lakh Rupees. 30% of the funds are reserved for women.

Conclusion

To summarise the discussion in the different threads of this chapter of the survey, 'inclusive development' would be possible and meaningful only when development is woven around all sections of the society and in particular the underprivileged sections of the society. The chapter offers a glimpse into the demographic status and the current state of affairs of the underprivileged sections of the society in Jharkhand. It goes on to discuss the various constitutional and legal remedies that have been devised with an objective to empower the underprivileged communities. The chapter also highlights the different program, schemes, remedies which have been framed and are being implemented by the Government of India and in particular by the Government of Jharkhand to bring about an improvement in the condition of the underprivileged communities and to equip them with social, cultural and economic capital, so that they can freely and fully participate in the tasks of development of the state and can benefit from the same. Commendable work has been done in this direction. However, the achievements should not result in complacency. Rather, the State needs to keep striving forward to fulfil the aspirations of all sections of its society, in particular the underprivileged, who have for generations been denied the fruits of growth and development in their own state.

16

FOREST, ENVIRONMENT AND
DISASTER MANAGEMENT



Forest resource has been an important component in the development paradigm of Jharkhand, as a very significant proportion of the population of the State is directly or indirectly dependent on it for their daily chores of life. Tribes and forests have symbiotic relationship. Forests not only provide abode to large tribal population of India, they are key to economic and socio-cultural life of tribes. Tribal communities depend on forests for livelihood and sustenance so forest policies have direct bearing upon tribal development and well being. The rural population is quite high; constituting about 76 percent. Despite the rapid development of mines related industrial sector in the State over the years, the survival of the majority of the poverty stricken rural and tribal population is dependent on the forests as it provides variety of Non-timber Forest Produce (NTFP) to them.

Currently, forests in Jharkhand are spread over 23,478 sq km comprising of 32.94 percent of the State’s total geographical area. The State has been bestowed with rich variety of forests comprising of Dry peninsular Sal Forest, Northern dry mixed Deciduous Forest, Moist Peninsular Sal Forest, Dry Deciduous Scrubs and Dry bamboo brake. According to the IFSR 2015, Dry Peninsular Sal forest (45.03 percent) and Dry mixed Deciduous Forest (41.21) cover most of the forest area of the State and are the home of some of the finest timber producing trees. The State Forest Department has been entrusted with the maintenance and management of forest, forest produce and Wild life in the State. In the recent past, the importance of environment protection

and conservation of natural resources has gained wide attention both at state and national arena. In this perspective, along with departmental activities, public participation has also increased through various NGOs and public forum. In this chapter we will discuss about the current physiographical status of forest, steps taken by the government to maintain and replenish green cover in the state, climatological situation of the state and various mitigation measures. In the last section we will also discuss about the various steps taken by the government to manage disaster phenomenon in the state.

Forest and Tree Cover

Jharkhand has successfully maintained its forest cover over the past decade and the percentage of total geographical area under green cover has been increasing since 2005. Although, the State has lost some of its precious forest cover since its formation, from 2005 the forest cover has slightly increased from 32.20 percent in the year 2005 to 32.94 percent in the year 2015. Since, a large part of demand of industry and people in terms of timber and fuel wood is met from the tree outside the forest cover, it’s important to assess the total tree cover in Jharkhand. It will help us to understand the total green area and can be compared with the required 33% benchmark as per the National Forest Policy 1998. The table below clearly shows that though the forest cover in the State has increased with passing years, the percentage of tree cover has fallen rapidly from 6.29 percent in the year 2003 to 3.49 percent in the year 2015.

Table 16.1: Forest and Tree Cover in the State

Forest and Tree Cover	Area in Square km					
	2003	2005	2009	2011	2013	2015
Area of Forest Cover	23,605 (29.61)	22,591 (28.34)	22,894 (28.72)	22,977 (28.82)	23,473	23,478
Area of Tree Cover	5012 (6.29)	3080 (3.86)	3,032 (3.80)	2,914 (3.66)	2,629	2,783

Forest and Tree Cover	Area in Square km					
	2003	2005	2009	2011	2013	2015
Total area of forest and tree cover	27,728	25,671	25,926	25,891	26,102	26,261
Forest and Tree Cover to the total geographical area of the State	34.78%	32.20%	32.52%	32.48%	32.74%	32.94%
Forest and Tree Cover to the Country's Forest and Tree Cover	3.56%				3.31%	3.31%

Source- India Forest survey report-2015

According to IFSR 2015, a large part of the forest area (48.25 percent) in Jharkhand falls under unrecorded forest area i.e. those forests which are outside the category of reserved or protected forest. It can be clearly observed that both, the forest area under dense and moderately dense forest are high in recorded areas due to the direct supervision of the

Forest Department. On further disintegration the State forest area, it can be found that 75.45 percent of the total forest fall in green wash area and hosts the maximum very dense forest area of the State. Jharkhand also has huge (47.81 percent) open forest area or village forest area which is not very common in other forest states of the country.

Table 16.2: Details of Forest and Tree Cover as per IFSR 2015

Forest Cover Within Recorded forest Area	Area in Sq km	Percentage to total forest area
Very Dense Forest	1406	5.99
Moderately Dense Forest	5187	22.09
Open Forest	5556	23.66
Sub Total	12149	51.75
Forest Cover Outside Recorded Forest Area		
Very Dense Forest	1182	5.03
Moderately Dense Forest	4476	19.06
Open Forest	5671	24.15
Sub Total	11329	48.25
Total forest Cover	23478	
Forest Cover within Green Wash		0.00
Very Dense Forest	2384	10.15
Moderately Dense Forest	7824	33.32
Open Forest	7506	31.97
Sub Total	17714	75.45
Forest cover outside Green Wash area		
Very Dense Forest	204	0.87
Moderately Dense Forest	1839	7.83
Open Forest	3721	15.85
Sub Total	5764	24.55
Total Forest Cover	23478	
Tree Cover	2783	
Total Forest and Tree Cover	26261	
Per Capita Forest and Tree Cover (Ha)		0.08
of state's Geographical Area		32.94%
of India's Forest and Tree Cover		3.31%

Source- India Forest survey report-2015

Large forests are home to rich biodiversity, but the forests of Jharkhand have been distributed geographically into numerous small patches. From the table below it can be observed that about 2133 sq km of the forest is spread over 36,622 very small patches and 1677 sq km

of forest in 598 small patches. The State has three huge forests in Palamu, East Singhbhum, W. Singhbhum, Ranchi and Hazaribagh. These large forests constitute 45.87 percent of the total forest area of the State.

Table 16.3: Forest Cover Informatics in different Patch Size Class

S.No	Patch Size Range in Sq km	No of Patches	Area in Sq km	Percentage
1	>=0.01 to <= 1.0	36,622	2133	9.09
2	>1.0 to <=10	598	1677	7.14
3	>10 to <=100	75	2019	8.6
4	>100 to <=500	18	4682	19.94
5	>500 to <=1000	3	2197	9.36
6	>1000 to <=5000	3	10770	45.87
	Total	37319	23478	100

Source- India Forest survey report-2015

Forest in most of the state are found on hilly and mountainous topology, but in Jharkhand predominantly forests are found in higher plain regions. Out of the total forest cover,

68.3 percent is spread in low altitude zone (0-500m), 30.94 percent in medium altitude zone (500-1000) and only 0.94 percent in high altitude zone (1000-2000m).

Table 16.4: Altitude wise Forest cover in Jharkhand (Area in Square Km)

Altitude Zone(in m)	VDF	MDF	OF	Total
0-500	1021	6681	8293	15995
500-1000	1508	2852	2903	7263
1000-2000	59	130	31	220
Total	2588	9663	11227	23478

Source- India Forest survey report-2015

Forest cover through Normalized Difference Vegetation Index (NDVI) of Jharkhand

In recent years, Remote Sensing and Geospatial technology have helped in providing up to date vegetation maps. These maps not only help in monitoring the vegetation health but also assist in managing the natural resources. One such method which quantifies the vegetation conditions is Normalized Difference Vegetation Index (NDVI). This method helps in examining the changes in vegetation cover and how this

transformation affects the environment. It is most frequently used in monitoring vegetation and drought studies. This index is quantified from the satellite images which have information of wavelengths (Visible and Near Infrared Light) reflected by the land surface. The NDVI ratio is calculated by dividing the difference in the near-infrared (NIR) and red color bands by the sum of the NIR and red colors bands for each pixel in the image as follows.

$$NDVI = \frac{(NIR - RED)}{(NIR + RED)}$$

The NDVI values for vegetation generally range from +1 to -1, the higher index values being associated with greater green leaf area

and biomass. However, no green leaf area gives a value close to zero.

Table 16.5:Vegetation presented by the NDVI

NDVI-Greenness	NDVI Values	Type of Vegetation
Very Low	0.1	Barren area, Sand and Snow
Moderate	0.2 – 0.3	Shrubs and Grassland
Very High	0.6 -0.8	Temperate and Tropical Forest

*Source: (Weier and Herring, 2005 and Wittich and Hansing, 1995)¹

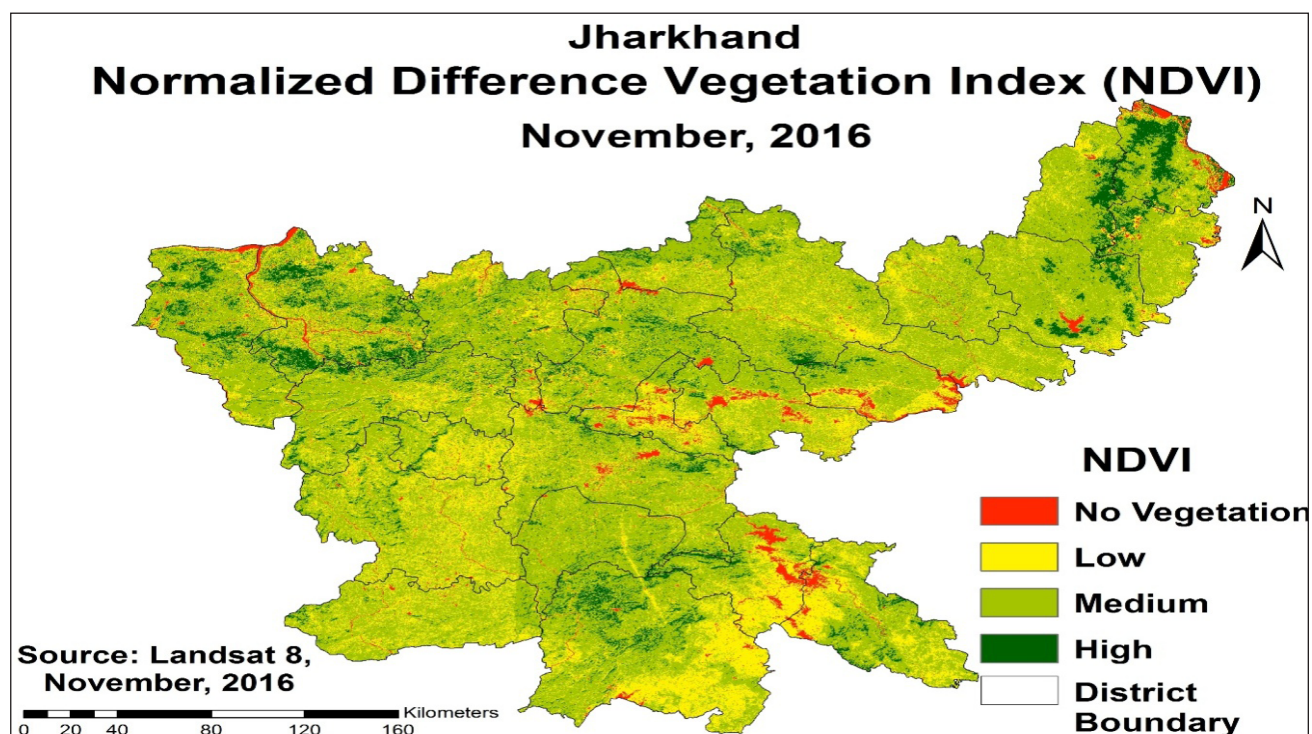
¹ Weier, J., and D. Herring, 2005: Measuring vegetation (NDVI and EVI), NASA Earth Observatory Library. (<http://earthobservatory.nasa.gov/Features/MeasuringVegetation/>)

Wittich, K., and O. Hansing, 1995: Area-averaged vegetative cover fraction estimated from satellite data. Int. J. Biometeor., 38, 209–215, doi:10.1007/BF01245391

To calculate the NDVI for the State of Jharkhand the Landsat 8 data of November 2016 has been

used. The results of current vegetation status are shown in the following map.

Fig: 16.1 Normalized Difference Vegetation Index (NDVI) of Jharkhand, November 2016



Source: Computed from Landsat 8 data of November 2011

The NDVI map of Jharkhand for the latest data available for November 2016 shows 43.8% of the total area of the State with high green leaf cover or greenness. Patches of high greenery is visible in Sahibganj, Garhwa, Palamu and Paschim Singhbhum districts. While 25.9%

of the total area of the State has moderate greenness which corresponds to shrubs and grasslands, about 30% of the State’s area has low or very low vegetation cover.

Table 16.7: Details of Physical achievements in Plantation Schemes from 2013-14 to 2016-17

Sl. No	Name Of Plan	2013-14			2014-15			2015-16			2016-17			
		Ha	Gobian (K.M)	No. Of Planted Plants	Ha	Gobian (K.M)	No. Of Planted Plants	Ha	Gobian (K.M)	No. Of Planted Plants	Ha	Gobian (K.M)	No. Of Planted Plants	
1	Land Protection And Afforestation	3520.450		6237509								1421.000		2367386
2	Urban Forest Plantation		129107	129107		135655			378798		353602			
3	Minor Forest Upgradation													
4	13th Finance Commission Grant Schemes	3841.190		6264720	1738.423		2896213							
			158.37 K.M (Linear)	63350										
5	Plantation On Forest Land(R.D.F)				207.000		207000	7833.000			7833000	3572.260		3572260
6	Plantation On Non-Forest Land				963.000		1604358	1308.900			2180627	242.000		403172
7	Sisal Plantation				100.000		615000	50.000			307500	100.000		615000
8	Lacquer Plantation							550.000			1375000			
9	Tasar							325.000			812500			
10	Forest Survey Action Planning, Research And Evaluation							20.000			33320	30.000		49980
11	Fast Growinf Plant Plantation											1365.000		3412500
12	Plantation Outside Notified Forest Land												192.000	353602
13	Bamboo Gobiuyan Plantation												205627	205627
14	Bamboo/Non Gobiyan/Tall Plant Plantation												99217	99217
Total		7361.640		12694686	3008.423		5458226	10086.900			12895549	6730.260		11078744

Source: Department of Forest Environment and Climate Change, Government of Jharkhand

Table 16.6: NDVI of Jharkhand, November 2016

NDVI Greenness	NDVI Value	% of total Area of the State
No Vegetation / Very Low	< 0.1	19.1
Low	0.1 - 0.2	11.1
Moderate	0.2 - 0.3	25.9
High	0.3 <	43.8

Source: Computed from Landsat 8 data of November 2016

As seen above, Jharkhand is holding 3.31 percent of the total forest and tree cover of India. Thus it's imperative for the state government to conserve, manage the existing forest cover and replenish the lost green cover by implementing innovative afforestation programs. In the state, the Department of Forest in guidance of Ministry of forest and Environment plans and implements number of programs that lead to conservation and replenishment of the green cover.

Plantation scheme (NAP)

National Afforestation program (NAP) was devised under the 10th Five year Plan (2002-07) by subsuming many earlier successful forest conservation schemes like Integrated Afforestation and Eco-development Project Scheme (IAEPS), Area Oriented Fuel wood and Fodder Project Scheme (AOFFPS), Conservation of Non-Timber Forest Produce including Medicinal Plants (NTFPS), and Association of ST and Rural Poor in Regeneration of Degraded Forests (ASTRPS). Its objective is to provide technical support and expedite the process of fund transfer to village level implementing agencies like Joint Forest Management Committee (JFMC) and Eco-Development Committee (EDCs). Thus, it seeks to strengthen the institutional framework of forest conversations in India by decentralization of power to local institutions and promote strong collaboration between Joint Forest Management Committee (JFMC) at the village level, and Forest Development

Agency (FDA) at the forest division level. This scheme is a paradigm shift from the earlier afforestation programmes wherein funds were routed through the State Governments. This decentralized two-tier institutional structure (Forest Development Agencies and Joint Forest Management Committee) allows greater participation of the community, both in planning and implementation, to improve forests and livelihoods of the people living in and around forest areas. The village is reckoned as a unit of planning and implementation and all activities under the programme are conceptualized at the village level. The two-tier approach, apart from building capacities at the grassroots level, significantly empowers the local people to participate in the decision making process.

Till October 2016, a total of 1,10,75,744 plants have already been planted covering an area of 6730.26 Hectares under the plantation scheme. In Jharkhand, some of the major plans under the schemes are Afforestation program, Urban Forest Plantation, Minor Forest Up gradation, Plantation on forest and non forest land, Bamboo Gobian plantation and Plantation of Sisal, Lacquer and Tasar. In 2016-17, the major concentration of the scheme was on Afforestation Program (2367356), Fast growing plants (3412500) and Regeneration category.

Compensatory Afforestation

The Forest (Conservation) Act, 1980 stipulates compensatory afforestation in lieu of the forest lands diverted for non-forestry purposes in order to maintain the forest cover ratio. In response to this, different state governments have started afforestation work especially in degraded forest land. In Jharkhand, a dedicated authority, known as the Compensatory Afforestation Fund Management and Planning Authority or CAMPA, was constituted by the Government of India in July 2004 for the

purpose of monitoring and management of CAMPA money towards compensatory afforestation. Jharkhand CAMPA presently receives money from those user agencies for which the forest lands were diverted for non-forestry activities. The common repository money received is then utilized for activities like development of non-forest lands, carrying out linear plantation, conservation and protection of village forests and creation of infrastructure which can give recurring results in the future.

In the year 2015-16 the department was successful in planting 20,78,05 units of plants covering an area of 1507.62 ha of land. In addition to this, the authority was also successful in creating 1000 gabions of new linear plantation in the financial year.

In the effort of expanding forested areas, the department also planted about 13.34 lakh plants in 97.95 ha non-forested land. Among other works, in the year 2015-16, the authority made an effort to build 287 water harvesting structures and creating permanent nursery in 96 ha land.

Besides undertaking new plantation works, the authority is also responsible for maintaining the works undertaken in the previous financial years. Under this head, the authority undertook maintenance of about 2 crore plants and about 36000 linear plantation gabions. It can be observed, that although, the agency witnessed a fall in the new plantation statistics compared to the previous financial year, it has a huge volume of work in maintaining the old assets which is equally important.

Table 16.8: Physical Achievements of Jharkhand CAMPA during FY 2015-16

S.No	Name of Scheme	Physical Achievement		Remarks
		Area(ha)	No of Plants	
A	Current Works			
1	Compensatory/ Penal Compensatory plantation			
1(i)	Degraded forest land	1507.62	2078705	Plantation work (planting) carried out during FY 2015-16 (against advance work was done in FY 2014-15)
1(ii)	Non-forest land	97.95	133393	
1(iii)	Linear plantation (No of Gabion)	1000	1000	
2	NPV Schemes			
2(i)	Establishment of Natural forest (ha)	0		
2(ii)	Afforestation and Soil conservation (ha)	6976		
2(iii)	Water harvesting structures (nos.)	287		
2(iv)	Permanent Nursery (ha)	96.05		
B	Maintenance Work			
1	Compensatory/ Penal Compensatory plantation			
1(i)	Degraded forest land (ha)	14878.07	20255874	Maintenance of Plantation raised during FY 2011-12, 2012-13, 2013-14 & 2014-15)
1(ii)	Non-forest land (ha)	1053.32	1361671	
1(iii)	Linear plantation (No of Gabion)	36000	36000	
2	NPV schemes			
2(i)	Establishment of Natural forests (ha)	0	0	
2(ii)	Afforestation and Soil conservation (ha)	12786	21093226	

Source: Department of Forest, Environment and Climate Change, Government of Jharkhand

Jan Van Yojna

In a new state like Jharkhand, besides maintaining its identity as a green cover state,

industrial expansion is also necessary. To strike a balance between these two competing goals, the Department of Forest, Government

of Jharkhand, has come up with an innovative program called “Mukhyamantri Jan Van Yojna”. Under this program, the villagers who own farm or homestead land are motivated to plant commercial seeds in their personal land which on one hand will give a steady income to the beneficiaries and on the other hand will reverse the loss of green cover due to industrial expansion. The main objectives of the program are:-

- To Increase the green cover in the State by using the personal land of the villagers
- To increase the ground water level and replenish the aquifers by increasing the absorbability of the soil
- By doing so, it will decrease the stress on the protected forest for maintaining the natural balance
- To facilitate an income generating resource for the villagers who have fallow lands by motivating them to plant commercial seeds.

The Government has started this demand

driven program in a three year phase, where the land owners will be guided for either block plantation or linear plantation. According to the program, the villagers will be provided with both financial and technical support for all the activities starting from digging pit and land levelling to fencing, providing required fertilizers and availability of quality seeds. Under the program the beneficiaries can either plant timber producing trees like Shisham, Sagwan, Gamhar, Mahogany, Clonal eucalyptus, Acacia or fruit bearing plants like mango, Jackfruit, Guava, Lychee and Aawla.

In the second year of the program, the Department has witnessed an overwhelming response from the people. In the year 2016-17, a total of 1595 applications have been received out of which 1292 applications have already been approved which will approximately cover 3895 acers of private land for plantation. Maximum applications came from districts like Palamu (352), SariaKela Kharswan (313) and Godda (251) closely followed by Ramgarh and West Singhbhum.

Table16.9: Physical progress of Jan Van Yojna in 2016-17

Sl. No.	District	Pending Applications	Pending Rakba (Acre)	Approved Applications	Approved Rakba (Acre)
1	Bokaro	21	86	0	0
2	Chatra	1	2	85	174
3	Deoghar	3	3	89	218
4	Dhanbad	2	1	9	72
5	Dumka	0	0	53	116
6	E. Singhbhum	2	5	20	136
7	Garhwa	11	17	95	192
8	Giridih	1	5	53	188
9	Godda	2	251	323	866
10	Gumla	1	3	27	87
11	Hazaribagh	1	3	35	94
12	Jamtara	0	0	127	475
13	Khunti	0	0	5	11
14	Koderma	0	0	19	83
15	Latehar	0	0	234	903
16	Lohardaga	12	28	0	0

Sl. No.	District	Pending Applications	Pending Rakba (Acre)	Approved Applications	Approved Rakba (Acre)
17	Pakur	6	25	0	0
18	Palamu	54	352	0	0
19	Ramgarh	43	189	0	0
20	Ranchi	2	9	80	191
21	Sariakelel Kharswan	88	313	0	0
22	Simdega	0	0	38	89
23	West Singhbhum	53	144	0	0
Total		303	1436	1292	3895

Source: Department of Forest, Environment and Climate Change, Government of Jharkhand

National Mission for Green India

The National Mission for Green India (GIM) is one of the eight Missions outlined under the National Action Plan on Climate Change (NAPCC). It aims at protecting, restoring and enhancing India's diminishing forest cover and responding to climate change by a combination of adaptation and mitigation measures. It envisages a holistic view of greening and focuses on multiple ecosystem services, especially, biodiversity, water, biomass, preserving mangroves, wetlands, critical habitats etc. along with carbon sequestration as a co-benefit. In Jharkhand, 18 villages have been chosen for the first phase of implementation of the mission in Saraikelel-Kharswan district. In these villages holistic development plans will be undertaken in a method of convergence with flagship programs like MGNREGA and CAMPA.

The developmental projects implemented under this mission will entail:-

- Increased forest/tree cover to the extent of 5 million hectare (mha) and improved quality of forest/tree cover of another 5 mha of forest/non-forest lands
- Improved/enhanced eco-system services like carbon sequestration and storage (in forests and other ecosystems), hydrological services and biodiversity; along with provisioning services like

fuel, fodder, and timber and non-timber forest produces (NTFPs)

- Increased forest based livelihood income of about 3 million households

In these 18 villages, the Government has planned to start projects like rain water harvesting, construction of check dams and facilities of building pisciculture and poultry.

Harit Chetna Abhiyan- An initiative taken by Forest Department, Gov. of Jharkhand

To increase the overall density of the forest in the state, Department of Forest, Gov. of Jharkhand, started an initiative Harit Chetna Abhiyan (HCA), a Green Awareness Campaign in selected districts of the state. The initiative aims at convincing those people who previously were involved in felling of forests and poaching of animals, to involve themselves voluntarily in saving the forest and wildlife. The main component of the campaign is "Raksha Bandhan" where villagers collectively agree to protect a part of the forest by tying red ribbons on the trees. They perceive trees to be their family and pledge that they will not disturb the part of the guarded forest with any humane interference. Not only this, through other components of the campaign, people are being made aware about the importance of water conservation, students are made aware about the alarming situation of the environment, youths are empowered about ways of building self-sustainable villages and

overall encouraging a bottom-up planning system for inclusive development of the villages.

Table 16.10: Physical Progress of Forest Rights Act in Jharkhand (Sub Division-Level Committee)

SI. No.	District	Claims received by the Sub Division-Level Committee			
		Total claims received	Claims rejected	Claims forwarded to the District-Level Committee with due recommendation	Total Claims pending
1	Hazaribagh, Koderma, Chatra, Dhanbad, Bokaro, Ramgarh	6411	2194	3422	795
2	Dumka, Godda, Pakur, Sahebganj, Deoghar, Jamtara, Giridih	5804	3734	2070	0
3	West Singhbhum, East Singhbhum, Saraikela-Kharsawan,	7497	898	6599	0
4	Latehar, Garhwa	632	0	632	0
5	Latehar, Garhwa, Daltangang	4994	256	4727	11
6	Ranchi, Khunti, Simdega, Gumla, Lohardaga	11515	434	10352	729
7	Ramgarh, Dhanbad, Bokaro, Giridih East, Grigih West	7698	3755	3854	89
		44551	11271	31656	1624

Source: Department of Forest, Environment and Climate Change, Government of Jharkhand

Forest Rights Act

The Forest Rights Act 2006 has been considered as a milestone in defining the forest-community relationship in India. After independence various Forest Acts were introduced to regulate the forest land and manage the forest resources, but the concept of granting rights to the forest dwellers was introduced for the first time in the Forest Rights Act of 2006. The Act recognises that forest dwelling Scheduled Tribes and other traditional forest dwellers who have been residing in forests for generations as the soulful owner of the forest land and have been using it for their livelihood. The Act aims to address the long standing insecurity of tenurial and access rights of forest dwelling Schedules tribe and traditional forest dwellers. Although, the Welfare Department has been made the nodal agency in resolving the claims made under the Act, the officials of the Forest Department play an

active role in the process by facilitating technical support in verifying the claim etc. As the Nodal Implementation Department, the applications initially go to the Welfare Department and are then marked to the Forest Department and Revenue Department for technical verification. A joint verification of the claimed area is conducted where existence of the land, ownership of the land, viability of distribution and other eligibility provisions under the Act are verified and then land is approved for distribution.

Although, the implementation of the scheme took a substantial time to take off in Jharkhand, from the year 2009, the process has been fast paced in most of the forest districts. In the year 2015-16, a total of 44, 551 claims were made out of which 11, 271 claims were rejected at sub division level after verification of the piece of land. The

highest number of claims came from Ranchi region followed by Bokaro and Jamshedpur. Unexpectedly, the forest dominated Santhal region didn't generate much application for the rights. As can be observed, only 1624 claims are still pending at the sub divisional level, which is much lower than 7,844 pending cases last year. The table below illustrates the status of approval of claims in the State under the FRA Act. It can be seen, that the approval rate of genuine claims are very high in the State.

Although, Jharkhand has started implementing the Act in a much later stage, both the Department have made an effort to resolve the applications very quickly. In the previous Financial Year, the average approval rate of the claims in the State was above 90 percent. While in Palamu region 100 percent claims were approved in a single year, in regions like Bokaro, Dumka and Jamshedpur more than 95 percent claims were approved.

Table 16.11: Percentage of Claims approved under FRA

FRA Regions	Total Claims Received	Percentage of Claims Rejected at SDLC	Number of Genuine Claims	Approved claims as a percentage of genuine claims
RCCF, Hazaribagh	6411	34.22	4217	75.58
RCCF, Dumka	5804	64.33	2070	96.47
RCCF, Singhbhum Jamshedpur	7497	11.98	6599	95.85
CCF and Palamau Tiger Project Daltongani	632	0.00	632	100.00
RCCF, Palamu	4994	5.13	4738	92.47
RCCF, Ranchi	11515	3.77	11081	76.04
RCCF, Bokaro	7698	48.78	3943	97.74

Source: Department of Forest, Environment and Climate Change, Government of Jharkhand

Wildlife and Biodiversity

The forest of Jharkhand is a part of biodiversity rich region of the country. The government is striving hard to conserve wildlife resources. Jharkhand has one national park and eleven wildlife sanctuaries. In addition to this there is one biological park at Chakla, one deer park at Kalamati and one Crocodile Breeding Centre at Muta.

Jharkhand with over 32 percent of its landmass under forest cover hosts to a huge variety of wildlife and biodiversity. It plays a major role in our day-to-day chores. It is realised as a natural resource from which we obtain food, clothing, fuel, habitation, medicines and aesthetic pleasure. To monitor and maintain this invaluable resource in the state, the government established Jharkhand bio

diversity board in the year 2007. Since then, the board has actively undertaken several activities pertaining to sustainable use and preservation of the resource in the state.

Some of the achievements of the biodiversity board in the year 2016-17 are mentioned below:-

- Under the board, biodiversity management committees (BMC) have been formed in almost all the panchayats and Municipal Corporations in phase manner. A total of 337 BMCs have been constituted till November 2016. In addition to this proposals of constituting BMCs in five districts namely Ranchi, Simdega, Latehar, Hazaribagh and East Singhbhum have already been prepared. In 2016-17, a total of 24 workshops

were conducted across the state to build capability and increase efficiency of the BMCs.

- The board also facilitates in preparation of biodiversity registers at the level of panchayats and urban local bodies. In the current financial year 11 such draft registers have already been prepared. For better practise in maintaining registers, a total of 5 trainings and 7 workshops were organised in different forest regions of the state.
- For Sensitisation and awareness creation a documentary film was made in all the local languages which are played at a regular interval in the gram sabhas at panchayats level.

Apart from the abovementioned activities, the board also successfully documented the list of industries using bio resource, list of alien and invasive plant species, and identified the sacred groves of Hazaribagh and Latehar districts. In the current year, the board has also started studies on biodiversity of Dalma and Saranda forest region, so that they can be monitored and preserved at a regular interval.

Eco Sensitive Zones

The National Wildlife Action Plan (NWAP) indicates that the area outside the protected area network is often vital ecological corridor links and must be protected to prevent isolation of fragments of biodiversity which will not survive in the long run. It is found that often the human activities like forest wood collection, waste disposal, and domestic use of water bodies, commercial mining, intensive farming and establishment of other developmental schemes around the protected areas hamper the existence of biodiversity. The main purpose of identifying such areas is to create a kind of “shock absorbers” to the protected areas by regulating and managing the activities around

such areas to prevent ecological damage caused by the developmental activities around the ecological fragile zones. They also act as a transition zone from areas of high protection to areas involving lesser protection.

In Jharkhand, the Dalma forest zone has been identified as ecologically fragile zone as there are many rare species of animals and ecological assets which have national importance. Animals like Asiatic elephants, rattle, mouse deer, wild giant squirrel and snakes like python, cobra are found here. Apart from this, there are many natural water streams which are being eloped due to increasing human interference.

In the Working plan of Jharkhand eco sensitive zone, it is decided that the 5 km circumference area surrounding the forest region will be marked as eco sensitive area and will be prohibited from many human activities. The marked area is spread over 522.98 km² comprising of 136 villages with an estimated population of 2 lakh 34 thousand. Although, the villagers will not be displaced, their activities will be monitored and regulated. The major activities which will be prohibited inside the zone are mining, forest felling, establishment of pollution generating industries, construction of hotels and resorts, intensive farming, commercial water collection, use of polythene etc. The state government expects that from this intervention, natural breeding will take place among birds and animals and as a result the biodiversity will be denser.

Death of Human and Animals

As mentioned earlier a substantial proportion of population of Jharkhand stays in hinterlands of forest areas where they often have to encounter with wild animals. To negate the loss due to such activities on both sides, wildlife board of the state has decided to monitor and maintain such instances. From the table below

we can observe that the adverse results of such encounters have been borne by the people year after year. From 2009 onwards, about 420 people have lost their life due to stampede under elephants. In 2015-16, 66 people died due to such instances. A total of Rs 184.9 lakh

have been given to the families of the casualties as a compensation for their life. In other cases, the villagers also face crop losses as elephants rampant their farm lands. In the year 2015-16, Rs 485.95 lakh has been given to the affected villagers as a compensation for crop losses.

Table 16.12: Year wise death caused by animals and compensation approved

S. No.	Number	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16 (up to 31 st March 2016)
1	Elephants killed by poisoning	-	-	1	-	-	-	2
2	Elephant dying of natural** reasons (Please Specify)	11	10	4	4	-	3	-
3	Elephant dying of Unknown reasons (Please Specify)	-	-	-	-	-	-	-
4	No. of persons killed by elephants	54	69	62	60	56	53	66
5	Amount paid (in Rs. Lakh) on account of ex-gratia for human deaths.	53.93	52.62	67.32	91.17	109.28	107.5	184.9
6	Amount paid (in Rs. Lakh) for crop damage etc as compensation	123.71	74.94	131.89	120.19	275.61	501.57	485.95

Source: Department of Forest, Environment and Climate Change, Government of Jharkhand

Climate Change

With fast paced development process, climate change is one of the biggest threats to the people of the state. IPCC has estimated the degree of threat to life and economic well being associated with each degree rise in the global mean temperature. Over the years, the state has witnessed notable change in weather cycle, erratic rainfall resulting in bad agriculture production and frequent happening of natural disasters like drought and earthquake. These radical changes are strong signals that somewhere we have gone wrong in managing the environment we live in.

Realising the grave threat that is posed to our future generation, the state government in accordance with Inter governmental Pannel on Climate Change (IPCC), framed Jharkhand's

state action plan on climate change. It was envisaged with a vision of 'achieving economic growth objectives and enhancing livelihood opportunities while ensuring environmental sustainability. Supported by UNDP, the state government of Jharkhand initiated the action plan development process in May 2011 with the formation of State Steering Committee and State Advisory Group. The action plan development process included development of sectoral papers identifying issues and constraints and developed climate change responses specific to each of the sectors. The responses included both mitigation and adaptation measures. Public consultation approach included posting the report on the website of SPCB followed by advertisement in local newspapers inviting comments on the report. The refined report was also shared with general public,

industries, state departments through three regional workshops conducted in each of the ecological zones. The workshops were organized in Dec 2013 in the cities of Ranchi, Hazaribag and Jamshedpur.

Activities under the State Action Plan in 2015

- UNDP in partnership with Ministry of Environment, Forest and Climate Change and with support from Global Environment Facility (GEF) has developed a project entitled “Market Transformation and Removal of Barriers for Effective Implementation of the State- Level Climate Change Action Plan” for implementation in Jharkhand and Manipur. In the state of Jharkhand this project is being implemented by UNDP in partnership with Jharkhand Renewable Energy Development Agency (JREDA) and Department of Energy;
- Project Concept Note entitled “Enhancing Climate Resilience of Forests and its Dependent Communities in Two Landscapes of Jharkhand” is submitted to MoEF&CC for funding under National Adaptation Fund for Climate Change. The

concept note subsequently got approved by MoEF&CC and action is being taken to prepare Detailed Project Report;

- State inception workshop was organized by UNDP in collaboration with Department of Forest, Environment and Climate Change, Department of Energy and Jharkhand Renewable Energy Development Agency for launching of UNDP-GEF Project on “Market Transformation and Removal of Barriers for Effective Implementation of the State-Level Climate Change Action Plan”.

Jharkhand State pollution Control Board

Starting as a regulator with the chief instrumentality of “command and control”, Jharkhand State Pollution Control Board has been in the process of re-strategizing its approach, by being pro-active and result oriented. Jharkhand State Pollution Control Board has to cope with a host of challenges facing the State, most of the time, State specific, to maintain the environmental sustainability in the face of global, national and local concerns, particularly in the context with rapid industrial growth of industrial sector.

Table 16.13: Goal and Objectives of JSPCB

S.No	Goals	Objectives
1	Plan & implement comprehensive measures for prevention & abatement of water pollution.	<ol style="list-style-type: none"> 1. To restore wholesomeness of rivers, lakes and water bodies and underground sources. 2. Assessment and reduction of pollution from non-point sources.
2	Plan & implement comprehensive measures for prevention & abatement of air pollution for maintaining National ambient air quality standards..	<ol style="list-style-type: none"> 1. Identifying processes leading to air pollution and suggesting sustainable alternatives. 2. Popularizing CNG/LPG/ renewable energy and getting programmes implemented based on cleaner fuels. 3. Increasing AAQM stations and introducing on-line air quality monitoring. 4. Identify critical areas having industrial air pollution and drawing up action plans to control. 5. Collect and disseminate information relating to air pollution. 6. Implementation of Air Action Plan to make clean city. 7. Develop load based standards for air emission

S.No	Goals	Objectives
3	Plan & implement comprehensive measure for prevention of Land Pollution	<ol style="list-style-type: none"> 1. Inventorisation of dumping sites for Hazardous wastes. 2. Up gradation of the Common Biomedical Waste Treatment Facilities(CBWTFs) 3. Development and up gradation of municipal land fill sites. 4. More effective implementation of Battery Rules, 2001.
4	Adopt & implement appropriate measures for sustainable use of resources.	<ol style="list-style-type: none"> 1. Reduction in water consumption. 2. Rain water harvesting. 3. Reduce use of wood/coal for industrial purpose by switching over to other fuels. 4. Protect and conserve marine environment including migrating birds.
5	Secure better waste management.	<ol style="list-style-type: none"> 1. Hazardous Wastes Management. 2. Prevention of illegal dumping of wastes and carrying out restoration of contaminated land sites. 3. Developing tools for better waste management.
6	Introduce innovative methods for pollution prevention	<ol style="list-style-type: none"> 1. Finalize and implement disaster management plan. 2. Implementation of charter for JSPCB VISION 2012-2017Page 23 of 60 controls. corporate responsibility of environment protection (CREP). 3. Creation of wastes exchange centers. 4. Awards and incentives for promoting pollution abatement. 5. Corporate environmental audit reporting.
7	Inculcate healthy environment regime through mass awareness programmes	<ol style="list-style-type: none"> 1. Competition based sponsored programmes among educational institutions. 2. Seminars on environment related subjects among industries. 3. Sponsored cleanliness competition drives among blocks and panchayats. 4. Weeklong celebration of World Environment Days. 5. Media utilization to promote current environmental issues.

Source: State Pollution Control Board, Government of Jharkhand

Disaster Management

Jharkhand has been affected by different types of Natural and Human Disasters like agricultural drought, mining hazard, lightning and flood. In the past three years, almost all the districts of the State has recursively faced the threat of Draught due to inadequate rainfall. In anticipation of such threats in future, the State has formed Disaster Management Authority at the State level and District Disaster Management Authority in all the 24 Districts under the aegis of the Department of Disaster Management as the nodal agencies of disaster management in Jharkhand. These have been framed to take proactive steps to strengthen the mitigation, preparedness, responses, and recovery and rehabilitation strategies so as to reduce the risk of disasters in the state. The Disaster Management Department has taken several initiatives in order to strengthen the convergence between different line

departments and institutions of excellence in the State to develop sustainable strategy for various disasters in the State.

State Disaster Management Plan focuses on the realistic assessment of the risk hazards, vulnerability status and need for strengthening the disaster specific strategies of the State. It develops roadmap and collective response plan for various disaster based emergency support functions, standard operating procedure, skilled human resources, infrastructure and time bound integration plan for integrating disaster risk reduction strategies with flagship development program.

State Disaster Management Policy

The State Disaster Management Policy takes into account the past lessons and experiences and has been built from what exists at different levels. A holistic and integrated approach

would be evolved with an emphasis on building strategic partnerships at various levels.

The objectives of the policy on disaster management are:-

- Promoting a culture of prevention, preparedness and resilience through knowledge, innovation and education at all levels Encouraging mitigation measures based on technology, traditional wisdom and environmental sustainability.
- Mainstreaming disaster management into the developmental planning process.
- Establishing institutional and techno-legal frameworks to create an enabling regulatory environment and a compliance regime.
- Ensuring efficient mechanism for identification, assessment and monitoring of disaster risks.
- Developing contemporary forecasting and early warning systems backed by responsive and failsafe communication with information technology support.

- Promoting a productive partnership with the media to create awareness and contributing towards capacity development.
- Ensuring efficient response and relief with a caring approach towards the needs of the vulnerable sections of the society.
- Undertaking reconstruction as an opportunity to build disaster resilient structures and habitat for ensuring safer living.
- Promoting productive and proactive partnership with media in disaster management.

Major Hazards affected Districts

Almost all the 24 districts of Jharkhand are affected by different kind of disaster. In the year 2010, all 24 districts of Jharkhand were under drought hazards. 9 different districts of Jharkhand were under forest fire, lightening and mining hazards respectively. While 22 districts were under earthquake hazard zone-IV, III and II.

Table 16.14: Major Hazards affected districts

Name of the Hazards	No. Of districts affected	Name of the district
Drought	All the 24 districts (2010)	All the districts
Flood	1	Sahibganj
Flash Flood	3	East Singhbhum, Saraikela, Ranchi
Forest Fire	9	Garhwa, Palamu, Latehar, Chatra, Hazaribagh, East and West Singhbhum, Simdega and Gumla
Lightening	9	Palamu, Chatra, Latehar, Koderma, Ranchi and Giridh, Hazaribagh, Lohardagga and Dumka
Mining Hazards	9	latehar, Ramgarh , Dhanbad, Lohardagga, Giridh, East and West Singhbhum and Koderma
Earthquake Hazard-		
Zone-IV	2	Godda and Sahibagnj- Partially
Zone - III	14	Godda, Sahibganj, Garhwa, Palamu, chatra, Hazaribagh, Koderma, Giridh, bokaro, dahnbad, Deoghar, Dumka, Pakur and Jamtara
Zone - II	7	Lohardagga, Ranchi, Ramgarh, Khunti, Gumla, East and West Singhbhum

Source: A draft on Jharkhand State Disaster Management Plan 2011. Disaster Management Department, Govt. of Jharkhand

District wise Rural Villages Affected due to Natural Calamity

A total of 20955 villages in the State were affected by natural calamity in Jharkhand

in the year 2015-16. Dumka was the worst affected with 3397 villages affected, followed by 2242 in Ranchi and 1858 in Palamu. The least affected districts were Pakur, Hazaribagh and Bokaro.

Table 16.15: District wise rural villages affected due to natural calamity(2015-16)

District	Number of villages	District	Number of villages
Ranchi	2242	Dumka	3397
Khunti	778	Jamtara	974
Lohardaga	353	Sahibganj	71
Gumla	96	Pakur	35
Simdega	411	Godda	746
Latehar	774	Deoghar	1256
Palamu	1858	Hazaribagh	08
Garhwa	927	Ramgarh	201
West Singhbhum	1019	Chatra	1192
Saraikela-Kharsawan	1157	Koderma	335
East singhbhum	1417	Giridh	504
Dhanbad	1203	Bokaro	01

Source: Disaster Management Department, Govt. of Jharkhand

A total of 220 human lives were lost and 247 livestock perished due to various natural calamities in the State. Of these 220 human lives, 210 human lives were lost due to lightening, 8 human lives due to flood/heavy rains and 1 life each due to fire and hailstorm respectively.

The table below presents district wise loss of human and livestock in the State. Bokaro district experienced maximum loss of 23 human lives, followed by 23 in Gumla and 19 in Deoghar. 48 livestock perished in Gumla district, followed by 32 in Deoghar and 29 in Simdega. Sahibganj is the only district where

there were zero losses of human life and livestock.

Table 16.16: Loss of human life due to natural calamity in Jharkhand (2015-16)

Calamity	Human Lives lost
Drought	-
Fire	01
Lightening	210
Hailstrom/other	01
Flood/Heavy Rains	08
Storm/ Cyclone	-
Total	220

Source: Disaster Management Department, Govt. of Jharkhand

Table 16.17: District wise human life lost(2015-16)

District	Number of human lives lost	Number of livestock perished
Ranchi	17	15
Khunti	8	0
Lohardaga	15	13
Gumla	22	48
Simdega	4	29
Latehar	10	5

District	Number of human lives lost	Number of livestock perished
Palamu	6	4
Garhwa	5	9
West Singhbhum	3	2
Saraikela-Kharsawan	12	6
East singhbhum	7	7
Dumka	7	6
Jamtara	6	2
Sahibganj	0	0
Pakur	3	1
Godda	6	2
Deoghar	19	32
Hazaribagh	14	13
Ramgarh	5	24
Chatra	2	10
Koderma	1	0
Giridh	15	3
Dhanbad	10	1
Bokaro	23	12
Total	220	247

Source: Disaster Management Department, Govt. of Jharkhand

A total of 162 pucca and 6442 kachha homes were damaged due to natural calamity. Of the 162 pucca homes, 14 percent were fully damaged and 85 percent were partially damaged. Whereas of the 6442 kachha houses, 9.8 percent were fully damaged and 90.1 percent were partially damaged.

The table below shows that 8 pucca homes were fully damaged in Jamtara and Dumka districts, followed by 3 in Hazaribagh and 2 in East Singhbhum. In Sahibganj district 207 kachha homes were fully damaged followed by 100 in Dumka and 78 in Ranchi. In east Singhum 2588 kachha homes were partially

damaged followed by 663 in Ranchi and 366 in Hazaribagh.

Garhwa experienced maximum damage of property worth Rs. 3.84 lakhs, followed by Rs. 2.88 lakhs in Simdega. The State experienced a total loss of Rs.10.22 lakhs.

Table 16.18: Residential homes damaged(2015-16)

Type of damage	Pucca	Kachha
Fully	24	635
Partially	138	5807
Total	162	6442

Source: Disaster Management Department, Govt. of Jharkhand

Table 16.19: District wise Residential homes damaged and loss of property (2015-16)

District	Number of blocks affected	Number of homes damaged				Total	Estimated value of damaged residential property (in Rs. Lakhs)	Damage to public property(in Rs. Lakhs)
		Pucca		Kaccha				
		Fully	partially	fully	partially			
Ranchi	18	-	2	78	663	743	24.99	0
Khunti	6	-	10	2	154	166	8.46	0

District	Number of blocks affected	Number of homes damaged				Total	Estimated value of damaged residential property (in Rs. Lakhs)	Damage to public property (in Rs. Lakhs)
		Pucca		Kaccha				
		Fully	partially	fully	partially			
Lohardaga	7	-		2	170	172	60.93	0
Gumla	8	-		1	52	53	2.61	0
Simdega	10	-	5	0	66	71	2.21	2.88
Latehar	4			1	27	28	1.01	0
Palamu	20	-	27	1	161	189	38.15	0
Garhwa	19	1	1	30	12	44	36.59	3.84
West Singhbhum	11	1	3	0	239	243	10.90	0
Saraikela-Kharsawan	9	-	2	0	116	118	6.61	0.05
East Singhbhum	11	2	2	4	2588	2596	0	0
Dumka	10	8	25	100	94	227	17.66	0
Jamtara	6	8	2	22	171	203	16.11	0
Sahibganj	8	-	0	207	103	310	24.76	1.7
Pakur	5	-	1	24	33	58	17.71	0
Godda	9	-	10	49	245	304	0	0
Deoghar	7	-	0	28	95	123	4.16	0
Hazaribagh	11	3	3	20	366	392	10.43	0
Ramgarh	6	-	44	24	178	246	25.18	0
Chatra	12	1	0	1	37	39	14.8	1.75
Koderma	6	1	1	0	18	19	0	0
Giridh	13	-		38	132	170	0	0
Dhanbad	8	-		0	37	37	14.8	0
Bokaro	9	-		3	50	53	3.06	0
Total	233	24	138	635	5807	6604	418.49	10.22

Source: Disaster Management Department, Govt. of Jharkhand

Due to the natural calamities, the State has witnessed Rs. 0.10 crore infrastructural damage (roads, bridges, buildings, industries, power, telecommunication, railways, hospitals) and Rs. 4.18 crore damage in private properties and others.

12.62786 hectares of cropped area of the State was damaged due to natural calamities and Rs. 35296.97 lakhs was the estimated crop loss. Rs. 9774.10 is the estimated crop loss in Palamu district followed by Rs. 3925.940 lakhs in Dumka district and Rs. 2650.00 lakhs in Saraikela-Kharwasana district.

Table 16.20: District wise agricultural damage (2015-16)

District	Cropped area damaged (in hectares)	Estimated crop loss (in lakhs)
Ranchi	2.08786	1798.73
Khunti	0.23802	1618.85
Lohardaga	0.18275	1281.18
Gumla	1.54034	43.71
Simdega	1.00525	468.96
Latehar	0.24882	1649.4
Palamu	1.73600	9774.10
Garhwa	0.67592	5139.49
West Singhbhum	1.50928	109.28
Saraikela-Kharsawan	0.30119	2650.00

District	Cropped area damaged (in hectares)	Estimated crop loss (in lakhs)
East singhbhum	0.893	2106.00
Dumka	0.69765	3925.940
Jamtara	0	192.86
Sahibganj	0	0
Pakur	0	0
Godda	0.01005	80.79
Deoghar	0.15919	345.66
Hazaribagh	0.04368	681.95
Ramgarh	0.05181	356.44
Chatra	0.08649	607.26
Koderma	-	509.45
Giridh	0.48	160.22
Dhanbad	0.16709	1144.97
Bokaro	0.15387	651.73
Total	12.62786	35296.97

Source: Disaster Management Department, Govt. of Jharkhand

Strategies for Integrated Drought Management in Jharkhand

In the year 2015, low rainfall during Kharif season created many problems and challenges for the State. To overcome these challenges at the State level a Task Force was framed. A memorandum was transmitted on 4.12.2105 to the Central Government, which stated an examination of the drought prone area and providing an aid of Rs. 1140.77 crore. Between 18th and 20th December, 2015 a team from centre (IMCT) had visited the State to study the after effect of drought in the State.

Further to overcome the problems of drought, different departments of the State Government were assigned following tasks:

- To minimize the Kharif losses, State came up with an alternative cropping suggestions and making the farmers aware about these practises.
- The State Government has taken up the task of advertising different accidental schemes provided by the State through

various communication channels LAPS and PACS will help in providing fertilizers to the farmers and setting up of 10 quintal godowns in every panchayats.

- State is responsible for effective implementation of MNREGA and employment related schemes at an extensive level.

Preventive Actions taken by the Department

- The State with the support of National Agricultural Drought Monitoring System monitors the early season drought of the State. It is practised as per the Agriculture Drought Manual of the Ministry of Agriculture, Government of India, and 59 AWS was set up by Jharkhand Space Application Centre (JSAC).
- The Department prepares a South West Monsoon response plan with the entire flood affected districts, line department and Inter State Agencies.
- The department is responsible for documenting the dos and don'ts of all the major disasters of the State via print and electronic media.
- They hold the responsibility of disseminating early warning with the support of IMD, Jharkhand.
- A close coordination and monitoring has to be maintained with the Central Water Commission and Water Resource Department of neighbouring states like U.P, M.P, Odisha and West Bengal.
- Awareness campaigns, weather, pattern of crops, lightening etc. are organised.

Long term Measures taken/ proposed by the Department

- A State Disaster Management Plan for all hazard, risk and vulnerability is under process.

- A District Disaster Management Plan for 24 districts is being prepared.
- A Department Disaster Management Plan for all line departments is being prepared
- Conducting joint Mock Drill with the NDRF and the State Fire Services.
- Developing training manuals for the State and disseminating it through various training programs.
- Organising a Mass Awareness Program through Print and Electronic media on community based preparedness on the State specific disaster.

Trainings Conducted by the Department

- Conducting consultation workshops on mainstreaming DRR and CCA with the Health and Family Welfare Department.
- Conducting mainstreaming DRR and CCA of Industrial Sector in Jharkhand
- Conducting training of ward councillors and Ranchi Municipal Corporation officials on fire safety and medical first responder
- Conducting awareness program on urban

community

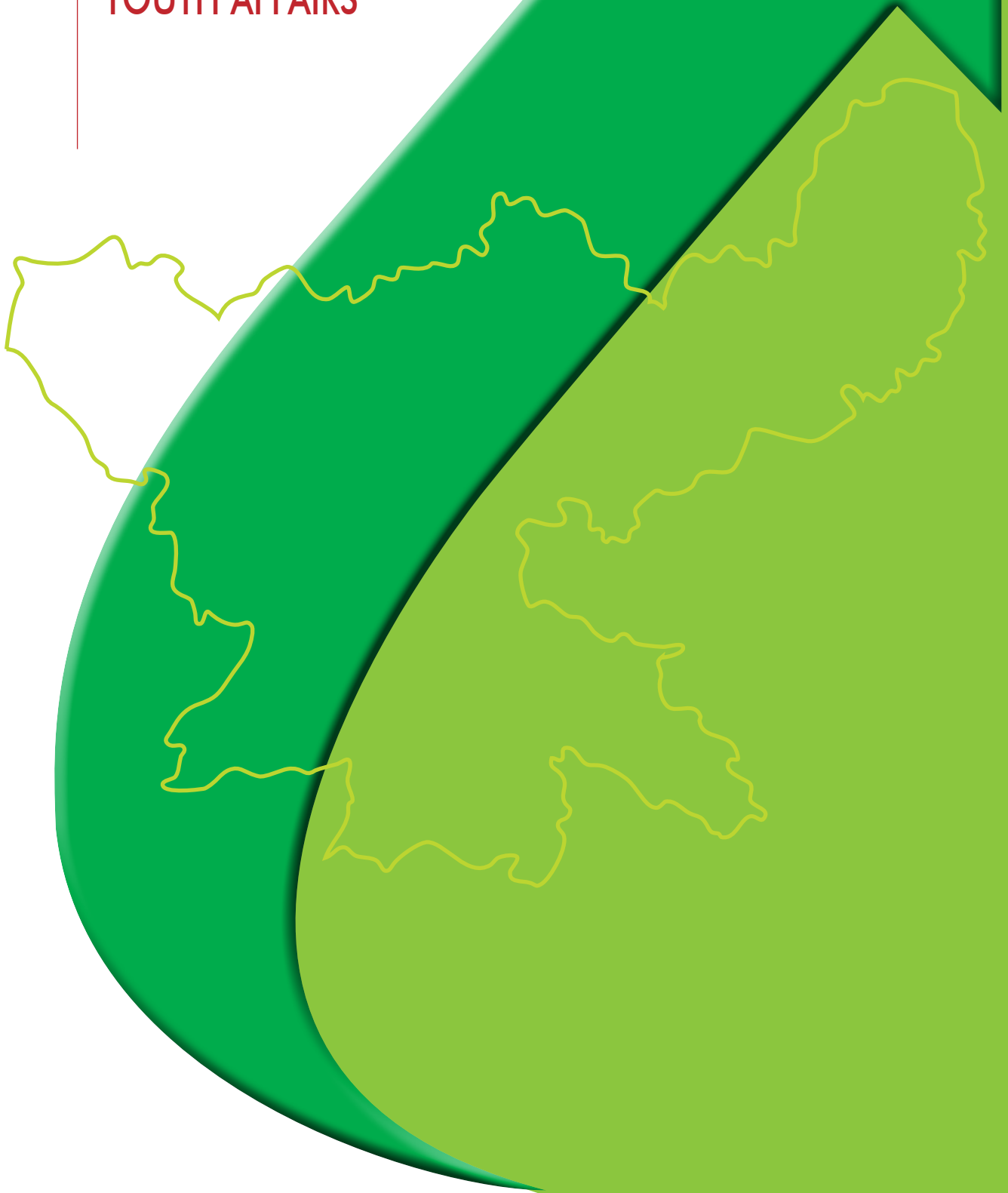
- Conducting mock exercise on earthquake in Ranchi and on Crowd management at Deoghar
- Conducting TOT programme for Government Functionaries/ NGOs/PRIIs and educational Institutions.

Conclusion

Lately, with the realisation of importance of Forest and balanced climatic scenario, issues like maintenance of forest cover, replenishment of green area and regulating environment damaging activities came to the fore. The Department of Forest, Environment and Climate change, Government of Jharkhand is taking utmost steps to address the above said issues with planned and targeted innovative policy formulation. As a result, in the past decade, we have seen positive statistics about forest cover and plantation. The state also witnessed an active disaster mitigation mechanism through the department of Disaster management resulting in lesser casualties this year. With more innovative programs in the pipeline we can hope to see accelerated development in this area in coming years.

17

TOURISM, ART,
CULTURE, SPORTS AND
YOUTH AFFAIRS



Jharkhand has a varied topography with a rich and diverse culture which is unique in its own way. The state is a mix of both tribal and non tribal communities and the true essence of nature can be seen in the art and craft of the state. The state has immense scope for developing tourism as one can find a number of pilgrimage sites, national park, wild life sanctuaries, waterfalls, dams etc. It's the scenic beauty of the state which makes it more attractive. Presently, the government has come up with a three-tier developmental plan to promote Jharkhand as a major tourist-destination. They want to increase the inflow of domestic and foreign tourists, and create employment and investments in the foreign capital of the state.

Jharkhand has always been a healthy soil bastion for sports activities, as it has produced a stream of sports persons who have flourished worldwide by their exemplary feats on and off the ground. To boost sport-related activities in the state, the government has set up a Sports University and Sports Academies. With the continuing schemes and new initiatives, the Department of Tourism, Arts, and Culture, Sports and Youth Affairs is trying to develop this sector in all possible ways.

TOURISM

Tourism is one of the fastest growing industries and unlike many other industries; it is a composite of several service-providers. The participation of private and public agencies makes tourism industry a composite phenomenon. It requires strong cooperation and coordination so as to develop and extend along the lines that will contribute to the overall national development. The government of Jharkhand in consonance with the needs and aspirations of the local populations and entrepreneurs, along with the changes taking place in the global and national tourism scenario, has found it expedient to formulate the tourism policy for promoting tourism for the all round development of the state.

The tourism policy of the state aims in making Jharkhand as one of the most preferred destinations for tourists, both inside and outside the country. The state government has a firm belief that the development of the tourism sector would not only generate immense employment opportunities directly or indirectly but will also contribute in accelerating the economic development. The state government intends to engage the private sector in managing and operating facilities

Box 17.1: Prospects of Strategies in the Focus for Tourism in Jharkhand

Since the creation of Jharkhand, the status of tourism has improved. The continuous efforts of the department have yielded good results. Thus, to make the state a preferred destination for tourists, the following prospects are in focus.

- A detailed survey to be conducted to study the tourism potential of every district of the state.
- Reorganization of circuits for integrated development, publicity, promotion and marketing. Each circuit will have a specific and exclusive marketing strategy and marketing plan.
- Conducting effective mass campaigns for the local community, particularly among the tribal, to create a favourable atmosphere and an affinity towards promoting tourism.
- Taking steps to focus upon ST/SC categories, the handicapped and women and encouraging them to actively participate in the process of development of tourism.
- Organising various tourism-promotional events to attract tourists in the state.

- Up-gradating Tourist Information Centres (TIC) for providing information related to accommodation in hotels, transports facilities etc.
- To ensure total security for the tourists, a State Tourist Friendly Security Force of ex- servicemen is to be introduced, who will be trained in hospitality, communication skills and regulating tourism related activities etc.
- To prevent the exploitation of tourists on the national and state highways and in the various tourist destinations, the Government proposed to classify the dhabas situated on the national and state highways. This classification will be done on the basis of hygienic conditions, parking, quality of food, medical facility etc. the government has planned to encourage ethnic Jharkhand cuisine in such dhabas/ line hotels.
- To provide upto date information about the various tourism related activities, facilities, events etc. through the modern means of communication like web-site, email tourist help-line assistance, mobile messaging service etc. The installation of touch screen kiosks at the various places of public convergence will provide detailed and complete information about the state.
- To promote excellence in tourism, the government will introduce monetary and non- monetary awards for the institutions and individuals contributing in the various sectors of tourism.
- To promote responsible tourism by taking appropriate measures for environmental protection.
- The department has decided to select four to five tourist sites every year and to develop them as tourist destinations on the PPP (Public Private Partnership) mode. These destinations will provide all the facilities to the tourists at one site.

owned by the state. This would not only show case the rich traditional and cultural heritage of the state but will also have a cascading effect in the development of the other sectors. Rightfully, the state government has accorded tourism the status of industry in Jharkhand.

Jharkhand has emerged as one of the preferred tourist destinations. The growth in percentage is the highest in comparison to other states. The sight of pristine forest and pilgrim places are the reasons behind the increase in tourist's inflow in the state. The state has been ranked 17th among the 36 states and union territories for the total tourist inflow, according to the latest figures of the union tourism ministry. The latest batch of official tourism statistics¹ from the government of India, states that Jharkhand has recorded a 40% increase in tourism from 2012 to 2014, with 33.5 million

visitors in 2014, including 154731 foreign tourists, a commendable raise from a miniscule of 3111 foreign visitors in 2001. Ranchi is the most popular destination among tourists. Nevertheless, Jharkhand has emerged as the fastest growing tourist destination in India. The following table (Table 17.1) presents a trend of the total tourist inflow in the state from 2007 to 2015.

Table 17.1: Foreign and Domestic Tourist Flow in Jharkhand from 2007 to 2015

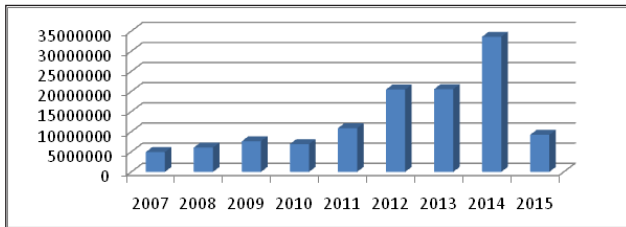
Year	Foreign Tourist	Domestic Tourist	Total Tourist Flow
2007	4004	4906394	4910398
2008	5803	6030028	6035831
2009	13872	7610160	7624032
2010	15695	6885273	6900968
2011	72467	10796286	10868753
2012	31909	20421016	20452925
2013	45995	20511160	20557155

¹ Data adjusted using the information from ministry of tourism.

Year	Foreign Tourist	Domestic Tourist	Total Tourist Flow
2014	154731	33427144	33581875
2015	58568	9145016	9203584

Source: Ministry of Tourism, GoI

Figure 17.1: Total Tourist Flow in Jharkhand from 2007 to 2015



Source: Ministry of Tourism, GoI

Tourism in Jharkhand

Integrated Tourism is a kind of tourism which is explicitly linked to the localities in which it takes place and, in practical terms, has clear connections with the local resources, activities, products, production and service industries, and a participatory local community. There are various tourist circuits, spots and destinations in Jharkhand which provide such kind of tourism and initiatives have been taken to create high quality infrastructures, public and wayside amenities etc. The Jharkhand Tourism Department has taken initiatives to boost the state’s tourism sector.

Eco Tourism

Jharkhand has a forest cover of 33%, where there is immense scope of developing eco-tourism. The lush green jungles, the perennial waterfalls, the terrain, the moderate climate, and the rich wild life makes it an ideal destination for developing eco-tourism activities like forest trails, nature walks, jungle safaris, trekking, rock climbing etc. Many of the beautiful waterfalls like Jonha falls, Sita Dhara, Hundru falls, Dassam falls, Panchghagh and Hirni falls located in very scenic surroundings are important places to discover and enjoy

with a wonderful natural sightseeing.

The Government has proposed to harness the tourism potential of the forests in the state by developing camping sites with basic infrastructure facilities and public convenience services. The private sector will be encouraged for setting up of camping sites at various suitable locations on environment friendly basis. The Government will provide accommodation to the tourists by opening the Forest Rest Houses (FRH) to the public. These Forest Rest Houses would as far as possible be managed through public-private partnership with capable and committed partners having a good track record of promoting eco-tourism. The department has also proposed to develop eco-circuit-connection places within a 250 km radius.

Wildlife Tourism

Wildlife Tourism is the fastest growing sector in the tourism of Jharkhand. The department of tourism is actively working with the department of forest and environment to develop and improve the wild life parks/zoos bird watching towers and other public utility services for tourists. To enjoy wildlife viewing in Jharkhand, the National Park of Betla and Hazaribagh would facilitate the tourists in spotting its wild inhabitants like elephant, panther, leopard, wild boar, tiger, gaur, sloth bears, sambar, chital, nuntjac, nilgai, langur, mouse deer, monkeys, small Indian civet, mongoose, jackals, porcupine and ant eating pangolins.

Wild life tourism is an integral part of eco-tourism. There are a number of sanctuaries, national parks and-wild life reserves, which have been proposed to be utilised for the purpose of promoting eco-tourism.

Adventure Tourism

Adventure travel is a type of niche tourism, an

involving exploration of travel in an unusual, exotic, remote, or wilderness destination. Exploring the Saranda forest of Jharkhand with its extreme denseness poses a severe challenge before adventure-loving travellers. As it is said that in some parts of the forest, not even sunlight can pass through, taking a walk through it is indeed a great challenge, which daredevils will love to accept.

Mining Tourism

Jharkhand has considerable mineral resources and is a major centre for iron ore, coal and copper mining, as well as gold and silver. The state under its new plan for attracting more tourists, intends to redevelop the closed and abandoned mines and promote them as tourist attractions. This will be a different experience for the tourists who visit Jharkhand. The government is already in talks with several

mine operators for the same.

Coal mining major Bharat Coking Coal Limited (BCCL) has prepared a comprehensive plan of packaged tours to monetise a fire zone area in Jharia that once destroyed many mines. The tours would also showcase mining operations. A fire zone area is a place where underground fire rages in a coal mine which also renders the surface area unsafe. Once the fire dies, many of these areas are reclaimed through eco-restoration work. Initially it will be free of cost but depending on the response, it will be made chargeable.

The tours would commence from Koyla Bhawan, the company's headquarters. The first tour would be a day-long site-seeing trip of Lodna fire area and eco restoration works carried out by the company on reclaimed fire land.

Box No. 17.2: Moonidih Mine: A New Tourist Destination in Jharkhand

The BCCL has planned to open the closed moonidih mining area for tourists. The mining tour will include moonidih mechanised mines, night visit of fire areas with trained guides and a trip to see mining, loading and washeries' operations to make people aware of the hard work done by coal miners.

The company also plans to have a separate circuit by tagging a religious location with the tour to attract people in cooperation with the district administration and the tourism department. The site in Lodna area of the fire hit Jharia coalfield was reclaimed under the wet land eco system by developing ponds and parks. The BCCL has also developed green-cover areas at other fire locations too.

Spiritual/ Religious Tourism

Jharkhand has an abundant number of religious places of national importance. The holy city of Deoghar is the abode of Baba Baidyanath, one of the 12 Jyotir Lingas scattered across the country. The most sacred pilgrim place for the Jains, the Parasnath, where 20 out of the 24 Tirthankars attained Mahanirvana, is situated in Jharkhand. One of the most revered shakti sthal- Rajrappa and Ma Bhadrakali Temple are located in the Ramgarh and Chatra districts respectively. A large number of religious tourists visit such sacred shrines in the state,

throughout the year.

Religious destinations, mainly Parasnath, Deoghar, Rajrappa and Ithkhorri have been major attractions among the foreign tourists. Experts' believe that the states formation had seen a major deterrent to the growth of tourism in the state. Some of the major announcements by state government for improving tourism are:

- Jain pilgrimage centre 'Parasnath' in Giridih district would be developed as an international tourist destination on the public-private partnership mode.

- Gaya to Bhadrakali temple in Chatra and Shantiniketan- Tarapith to Maluti in Dumka- would get a makeover.

Rural Tourism

Rural Tourism is a growing phenomenon in Jharkhand as it focuses on the active

participation of the rural lifestyle. Many rural villagers can facilitate tourism because they are hospitable and eager to welcome visitors. The Department of the Tourism of Jharkhand has taken up “Amadubi Village” to unveil the aspects of rural tourism in Jharkhand. The following box story reveals the success of rural tourism in Ghatshila.

Box Story 17.3: Amadubi: An Art Village

A rural tourism centre set up in Amadubi village about 160km from Ranchi received at least 360 visitors from across the state and outside, as part of the Jharkhand tourism department’s initiative with the participation of villagers to promote rural life in the state.

Bullock cart rides and rural delicacies served in earthenware are luring urban tourists to a small village in Ghatshila in Jharkhand’s East Singhbhum. Motivated by the success of the bullock cart ride, they are planning to introduce elephant rides for the tourists. Tribal dance performances are organized by the local tribal people to showcase Jharkhand’s traditional culture and art for the tourists. This initiative led to an upward trend of the inflow of tourists interested in rural tourism.

The Patikar paintings created, (using century old traditional methods, which serve as a backdrop) in the theatrical story-telling performance that commemorate and celebrate local tribal festivals, folklores, beliefs and events.

The village tourism centre has come up as a small museum that showcases rural culture, and art and houses a number of traditional musical instruments and tribal crafts.

In spite of poor transportation the villagers pick visitors from the national highway 33 where the diversion to the village begins. This shows the potential of villagers to combat hurdles faced by rural tourism.

Source: Courtesy Hindustan Times, 29th September, 2016

New Schemes of The Department To Promote Tourism

Mukhya Mantri Tirth Darshan Yojna

The Indian Railway Catering and Tourism Corporation (IRCTC) and Jharkhand Tourism Development Corporation (JTDC) have entered into an understanding of paying all expenses of the pilgrims (BPL senior citizens), who would be availing the special trains provided by the IRCTC. Under this contract, the IRCTC are running two special trains to Puri (Odisha) and ferry a total of 1000 pilgrims every month. The pilgrims, all from BPL families and above

60 years of age are shortlisted by JTDC. The pilgrims are being fed, lodged and taken out for sightseeing by IRCTC while the expenses are being borne by JTDC. The trains have on board paramedics, to take care of their health needs and IRCTC holds the responsibility for arranging hospitals if anyone falls ill. Also, the pilgrimages will be brought under travel insurance.

Within Jharkhand, this train will be taking the pilgrims to Rajrappa, Deoghar, Maluthi, Itkhor, Parasnath Hill and Vasukinath. Outside Jharkhand it will be taking pilgrims to Dwarka and Somnath, Ajmer Sharif, Fatehpur Sikri,

Tirupati, Madurai, Rameshwaram, Jammu and Vaishno Devi, Shirdi and Shani Shingnapur in Nasik, and Velankanni church in Nagapattinam.

The first train from Hatia to Puri ran on November 12th, 2016 and the first trip from all the districts of South Chota Nagpur Division has been completed. The 2nd trip from all the districts of Kolhan Division on 18th November, 2016 was completed and the 3rd trip from all the districts of North Chota Nagpur Division on 24th November, 2016 was completed. The department plans to extend this tour to the other pilgrimage cities of the country in the coming months.

Hunar Se Rojgar

The Government of India, Department of Tourism had launched Hunar Se Rojgar scheme with an objective to reduce the skill-gap that affected the hospitality and the tourism sector. Expression of Interest (EOI) had been invited from various reputed and experienced institutes/organizations for empanelment. Selected firms will be responsible for imparting training for the skill up-gradation of food-production, F&B Services, housekeeping and bakery in line with the scope of services under the scheme of GOI for “Hunar Se Rozgar”.

STATE INITIATIVES

● Tourism Publicity

Publicity will be made through print and electronic media, hoardings, information kiosks, signage, film websites, representation and participation in the national and international tourism fairs and festivals, exhibitions, marts etc. The department has planned for publicity in the following ways:-

- a) The department is participating in the maximum number of tourist fairs/marts organized by the different organisations in the leading city of the country.
- b) The department is organising fair within

the state to promote tourism and to attract tourists from outside the state. The department has decided to organise 10 big fairs, 3 International fair and at least 15 small fairs in the different districts of the state.

- c) It has also proposed to publicise through moveable LED display screens in the different cities of the country.
- d) The department has proposed to participate in the International Tourism Fair like WTM London, ITB Berlin etc.

● Consultancy, Security and other Services

A detailed project report has been proposed which will be including those areas which are required to be developed as potential tourist spots. For this consultancy services will be hired for promoting tourism-related activities, conducting tourist related surveys, studies etc.

● Wayside Amenities

At present day the highways play an integral part in the promotion of tourism. Therefore, an initiative named “Aram” has been initiated. It has been proposed to set up wayside amenities on the national highways and state highways at regular intervals, in which an effort will be made to, promote Public Private Partnerships (PPP).

● Training and Skill Development

Trained manpower is a primary need of the tourism industry because tourists depend on tour operators, travel agents, guides and other tourism functionaries. Thus, the state government is encouraging and supporting the creation of standard training facilities in the non-governmental sector, in addition to those available in the public sector.

● Using IT Facilities

The development and maintenance of the purpose of websites for tourism is also a part of the scheme. In some of the tourist places

like amusement parks etc, a large number of the inflow. Thus the department has proposed to provide WIFI facilities in these places.

- **New Tourist Information Centre (TIC)**

The department has taken the initiative of opening new Tourist Information Centre (TIC) in this financial year in the various important cities of the country with the coordination of Jharcraft.

- **Involving SGHs, NGOs for Maintenance and Management of Tourist Destination**

The state government has evolved a system in which Self Help Groups (SHGs), Non Profit Organisations (NGOs), service providers, voluntary agencies etc. will be involved in the maintenance and management of tourist destinations in the state. The Jharkhand Tourism Development Corporation will play a pivotal role in this regard. A special tourist-friendly force has been proposed in this regard.

- **Up gradation of hotels, tourist complex, TIC and tourist spots**

It has been proposed to upgrade the existing tourist complexes, hotels, TICs and tourist spots so as to provide better facilities to the tourists. There are various tourist circuits, spots and destinations in Jharkhand which require a high quality infrastructure, public and wayside amenities etc.

- **Land Acquisition/Purchase/Transfer for Developing Tourist Spots**

To provide quality tourist facilities at the various tourist spots in the state, the availability of land is the most critical aspect. Thus, it has proposed to acquire/ purchase/ transfer such lands in this regard.

ART AND CULTURE

Arts and craft play a significant part in the cultural heritage of Jharkhand. The Archaeological survey of India has revealed

many antiquities dating back to the catholic period, temple sites, rock-paintings, carvings, inscriptions, engravings, pottery, paintings and sculptures have been located at Khandhar, Isko, Banda, Barakatta, Kanharbari, Badam, Ramgarh, Itkhori and the Satpahar sites of Jharkhand. Most of the art forms of the state are named after the tribes with which they are associated with, as each tribe has a unique form of expressing its art.

Since Jharkhand participates in all the festivals taking place in the country. So the festivals celebrated in Jharkhand embody the robust and composite cultural heritage of our nation. The government is trying all possible ways to protect the cultural heritage of the state and its traditions. Jharkhand Kala Mandir, (Ranchi and Dumka), Government Chhau Dance Centre, Saraikela and Manubhum Chhau Kala Kendra, Silli are the government institutions that have been proposed to facilitate activities in the field of art and culture.

The following programmes have been proposed for the cultural activities in the state and district levels:

- To organise Saniparab at the district level every Saturday
- To organise Subah-Sabere at the state level and the district level
- Cultural programmes in the different traditional melas of the state
- Interstate-cultural exchange programme
- Cultural programme in the different districts on different occasion
- Organising mahotsav in the different districts of state
- Cultural programme and exhibitions on the occasion of Republic and Independence day
- To organise state level musical programme
- To organise different Jayanti Samarohs

- Cultural programme at a short notice
- State Foundation day festival

Some of the highlighted schemes to promote art and culture in Jharkhand are:

Guru Shishya Parampara: Reviving the rare art form of Jharkhand

This is a scheme that has been introduced to revive the rare art forms of Jharkhand. The prominent traditional cultural gurus of the rare art forms of the state will be located and will be given the responsibilities to train a certain number of tribal disciples in that particular art form. For this purpose the gurus will be given some honorarium and the tribal disciples will be given some incentives.

Regional and Tribal Language and Cultural Growth Centre

Nine regional and tribal languages are popular in Jharkhand and these are Ho, Mundari, Santhali, Kurukh, Oraon, Kurmali, Panchpargania etc. The department has proposed to encourage the growth of these regional languages and start growth centres under this scheme. A Ho regional language and cultural growth centre is working at Chaibasa and other centres are under process.

Cultural Welfare Scheme and Cultural Publications

The following works have been prepared for the welfare and protection of artists under the scheme:

- Cultural Honour to Eminent Personalities
- Workshop on Visual Arts, Literature and Drama
- Medical Grants to Artists
- Monthly pension to ill/ old age artists
- To prepare documentary films on the subject of Jharkhand culture

- Cultural publications
- Organising quarterly solo art exhibitions

Box No. 17.4: The Confluence of Northeast Art and Culture

Under the joint efforts of the Department of Tourism, Art, Culture, Sports and Youth Affairs of Jharkhand Government and the Centre of culture of Eastern region of Government of India, the 'Northeast Fair' was organised. This Octave of culture was organised with an aim to establish the connection of the eastern part with the whole country. The north eastern states who participated in this fair were Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura. Jharkhand's culture is very similar to the culture of north-east state and by organising this fair it tried to give a platform to the north-east states to exhibit their culture, tradition and heritage.

The cultural programme began with a folk dance of Manipur. Then fusion of Satriya and Kathak was presented by Assam and So Guntala Gang Makarsa by Arunachal Pradesh and Cherao by Mizoram. Artists of Assam presented Bihu, Lalilunga and Tiwa. Hojagiri dance was presented by the artists from Tripura and Sangini by the artists from Sikkim.

It is for the first time that the audience got a chance to experience the spectacular performances of these artists. This cultural fair was organised with a motive to celebrate and strengthen the culture and artwork of our country.

Source: Courtesy Prabhat Khabar, 4th December 2016

Archaeological Programmes

In this activity a village-to-village archaeological survey and exploration, archaeological awareness chain programme, national level archaeological conference, archaeological study tour and exploration cum training programme, archaeological excavations etc.

will be included. The establishment of Heritage Park is also to be taken up in which the models of prominent archaeological monuments will be established in a park for the tourists and other people.

Art Gallery, Audrey House, Ranchi

Audrey House is one of the few surviving heritage buildings of Ranchi. The building has a high architectural value nationally and internationally. This infrastructure has been proposed to be used as Art Gallery and a performing art centre for the upcoming artists. The building has been given a new lease of life by the potters of the Mahuadar block of Latehar district. The potters took up the mammoth task of making and baking over seven lakh pieces of 'khapra' to ensure that the building aesthetic significance is preserved. The renovated Audrey House, a 162-year-old colonial building on the Raj Bhawan premises, will be inaugurated by the President of India Pranab Mukherjee during his visit to Jharkhand on January 9.

Development of Museum Activity

In this activity a two day seminar and compactions for the student and work shop will be conducted at Hazaribagh, Itkhori, Patkum (Chandil), Dumka and others places in the state. In addition a three-day National Seminar on Museum activity will be conducted.

Construction, Security and Maintenance of Cultural Building, Museum and MCC

- Akhara and Dhumkuria Bhawan are like cultural centres in the villages of Jharkhand where villagers perform their dance and song. Under this scheme, these centres will be established and renovated. Some eminent artists who have worked in the field of art and culture but haven't been honoured will be given recognition through installation of statue and award.

- It has been proposed to develop museums in Gomoh, Karma Tand (Jamtara), Ramgarh, Giridh etc. which are related to the national Independence Movement.
- Multipurpose Cultural Complex at Ranchi has been completed and a fund has been proposed for its maintenance and security. Dr. Ram Dayal Munda, Kala Bhawan has been also completed and a fund has been proposed for its maintenance and security. Funds have been also allocated for centres like in Dumka, Silli and Saraikela.
- The maintenance of the State Museum in Ranchi also comes under this head and construction of some new museums has also been proposed.

State/District Level Kala Sanskriti Parishad

To promote and to protect the traditional and contemporary culture and arts forms as well as artists, new schemes of State/District Level Kala Sanskriti Parishad have been being proposed.

Box No. 17.5: National Tribal Carnival

Jharkhand participated in the 1st National Tribal Carnival held on 25th October, 2016 in New Delhi. It was a four day carnival. Tribal artists from the different regions of the country participated in this carnival. This carnival was to celebrate the art, craft, culture and cuisine of the different tribal groups of India. Jharkhand presented its traditional dance and song on the 2nd day of the carnival. Mardana, Jhumar, Paika, Chhau, Karsa, Nagpuri, Santhali, Khariya, Mundari etc were performed by the Jharkhand artists. Everybody was mesmerised by the spectacular performances by these artists. The outstanding creations by the tribal artists of Jharkhand were also the centres of attraction.

Cultural Consultancy Activity

To promote and to protect traditional and contemporary culture and arts forms, some prominent consultants have been proposed to be engaged.

Construction and Establishments of Rabindra Bhawan Auditorium

This is a scheme for the establishment of Rabindra Bhawan Auditorium under the Ministry of Culture, Govt. of India. An amount of Rs. 15.00 crore is released for this scheme by the centre. Its auditorium will solve the problem of organising and setting up various cultural events in the state.

Encouraging Film Industry in Jharkhand

The state government has passed the film policy in the state. This policy has been encouraged by many famous film personalities as a result of which many movies shooting has been done and is also going on in the state. The development of the film city in Patratu has been planned by the state government and the department has started a working in this regard.

SPORTS AND YOUTH AFFAIRS

The state has a unique and glorious sports tradition. Jharkhand sportspersons are known for their performances and achievements in the discipline of archery, hockey, cricket, athletics, kho-kho and football. Jharkhand is the home of the celebrated hockey wizard and captain of the first Olympic gold winning Indian team, Jaipal Singh Munda.

The youth constitute the most creative segment of a society. Their role and contribution are vital to Jharkhand. In order to promote sports and youth activities, and to nurture the budding talents of the youth at a young age, the state has taken the initiative in organising different sports competitions at panchayat,

block and district levels. In November, 2013 the Department successfully hosted the 7th National School Games Championships. The players of Jharkhand bagged 23 gold, 17 silver and 13 bronze medals. In January 2015 the department hosted a National level School games championship of Hockey and Athletics.

Sports Academies

Sports Academies are a unique concept and one of its kinds. It will provide a unique opportunity to the children of Jharkhand to embrace their love for sports. These Sports Academies are going to be professionally managed with special emphasis on skill development and concentration on scientific methodology to develop world class players from amongst the students.

A dedicated team of officials, sports men, volunteers and industry experts are working together. The arduous task of scouting for talent from across the 24 districts of Jharkhand was carried out. Around 12,000 applications were received at the office of various coalfields and at Mega Sports Complex, Ranchi. After a scrutiny of the applications, around 5000 children were called to participate in the open competition held in the various districts of Jharkhand. Those children who could not fill up and submit their forms earlier were also invited to appear for the tests on the site itself.

A detailed report was thereafter prepared with a list of Top 413 students based strictly on merit and performance duly depicting the marks obtained in the various tests in Phase-I. In Phase -II these students were thereafter invited for another set of Tests (set of battery tests) at the Mega Sports Complex, Khelgaon, Ranchi. Finally on 1st July 2016 Jharkhand State Sports Promotion Society (JSSPS) commissioned the 1st batch of the Sports Academy. 78 Children (54 Boys and 24 Girls) have been selected for this ambitious project of the society.

The Society has successfully archived the entire data so populated from the Tests with individual filing and marking system to check bench-marking for future references. The entire test (phase- I & II) was video graphed.

The segregation of the children in the respective Sports Academies will take place only after the international coaches carry out the pre-conditioning and training of these children. It is estimated that Sports wise distribution of these Children shall take place after 6 months of its inception. The children at the Sports Academy are being given basic foundation training in general fitness, mannerisms and general courtesies. All the children of the Sports Academy have been given admission in DAV Nandraj Public School, Bariatu. These children have been provided with a Sports Kit, school books, uniforms, stationeries articles and so on. The JSSPS will soon seek proposals from reputed schools for the commencement of operations in the premises of Khelgaon for the academic year 2017-18 onwards.

The successful operation of the Sports Academy hallmarks the dedicated efforts of effective machinery created by a joint venture of the state govt of Jharkhand and Central Coalfields Ltd. As part of the MoU signed, 07 Sports Academies was required to be operational in one year. JSSPS was successful in opening 08 Sports Academies (i.e. Badminton, Hockey, Football, Wrestling, Archery, Swimming, Volleyball and Athletics) and have been made operational, meeting the deadline in a cost effective and ergonomic manner.

Sports University

In its pursuance of the State resolution of Department of Tourism, Art, Culture, Sports & Youth Affairs, Govt. of Jharkhand has established a sports university to promote the state sports in association with CCL, Ranchi.

The proposed sports university is a joint

venture of the central coalfields limited and the government of Jharkhand. It will be set up at the mega sports complex in Hotwar and become functional by 2018. The proposed sports University will be governed by the Memorandum of Association, Memorandum of Understanding and Sankalp of State Govt. of Jharkhand. The University will offer the state the facilities to enhance the physical, psychological, spiritual and intellectual development of young sports person. It would serve as a key institution for the promotion and development of sports in the state.

Box 17.6: Kamal Club

To develop the talent among the youths of the rural areas of Jharkhand, Kamal Club has been formed. These clubs would be set up in the 264 blocks and 4402 panchayats of Jharkhand. This club will be developed to organise events at the international level football competition. All kind of facilities with the latest technology will be provided there. At first a panchayat level Kamal Club will be formed which will remain active for the next 2 years. Then rural level officers will be recruited. The panchayat level committee will help in forming the block level committee and the block level committee will then help in forming the district level committee. All these committees will be monitored from the headquarters.

State Continuing Schemes

• Sports Welfare Fund

The state government every year provides financial assistance to the sports persons who are financially weak. State also give cash prizes as rewards to the sports persons on the basis of their achievements in the national and international sports events. It has been proposed to make an enhancement in the cash amounts for the different levels of competitions. The state policy also provides for priority in the recruitment of personnel on the basis of sports quota.

- **Sports Training Centre/ Sports Kit**

It has been proposed to organise sports workshops for coaches with the help of NIS, Patiala and other Institutes of repute and also organise seminars on relevant subjects. The state also distributes sports equipment to sport persons/associations and winner teams of School Level Subrato Mukherjee Cup Football/Nehru Hockey/ CM and SM Cup Football/ Inter School Sports Tournaments.

- **Youth Activities/Yuva Aayog**

Every year Yuva Mahotsava is organised by the state at the national level in which participants from all over the state are invited. Youth festivals at the district and state level will be organised to promote local activities and to help them in participating at state/international level youth festivals.

Grameen Kishore-Kishori Vikash Kendra Yojna was initiated by the government of Jharkhand in 2011-12. It was re launched as Kishore Kishori Yojna – Main Hoon Chmapion Scheme in 2014-15. Under this scheme, it has been proposed to use the village level youth clubs as ‘means of change’ as a tool for bringing a change in the area. UNICEF is providing the technical input and the scheme is being implemented with the help of Nehru Yuva Kendra (NYK). Twelve districts have been selected and in the coming year it is proposed to initiate the scheme in all the districts of the state.

- **Organizing International to Block Level Sports Competition and Adventure Sports**

For promoting sports activities, the state government will support in organising state, national and international level competitions in the state which include Rajiv Gandhi Khel Abhiyan. The department organises school-level competitions in the state, Subrato Mukherjee Cup Football Tournaments, Nehru Hockey Tournament, sports competition, in different school and women sports festival or games.

The department also organises sports competitions on the eve of the Independence Day, Republic Day, State Foundation Day, Inter Boarding Centre, National Sports Day, on 3rd January the birthday of Jaipal Singh, and sports competition for ex- freedom fighters as well as other sports activities.

There is a vast scope for adventure sports in Jharkhand. The department is taking initiatives in identifying and promoting adventure sports in different districts of the state. It is also trying to revive all traditional sports events and disciplines.

- **Grants to Sports Promoting Activities and Consultancy**

It has been proposed to give assistance in the form of grants to the various sports associations. These associations organise different sports competitions but are not financially equipped in conducting district/state/national level competitions. So, this help has been proposed.

Sports Authority of Jharkhand is an autonomous body created by the government of Jharkhand whose major responsibility is to look after the Mega Sports Complex in Hotwar, Silli and Morabadi and to organise events for the proper utilization of such assets. Thus an amount has been proposed to meet the operations and maintenance cost of this sports complex.

Sports Universities and Centre of Excellence have been set up on PPP basis. For this an agreement under PPP has been done with Central Coalfield Limited. At present this University is monitored by Jharkhand State Promotion Society.

- **Training Workshop Study and Tour**

In the national perspective and vision, orientation and exposure of staff, officers, and officials of various sports associations, Kridashree, sports persons and artists are

essential for a better working culture and also for providing professional expertise. For achieving such an objective, it has been proposed to visit different national and international level competitions and infrastructures in India and abroad. A tour is to be organised in the renowned institutions of India and abroad to help in development of facilities in the established sports academies and universities in the state. Apart from this, short term training, workshops under various projects of sports, art, culture and youth activities has been proposed.

- **Construction, Preservation and Renovation of Stadium, Sports/ Youth Hostel, NCC Building and Sports Infrastructure**

The state government has aimed at building a stadium and sports infrastructure facilities in every block and district of Jharkhand. It has been proposed to set up at least three more turf grounds to strengthen the infrastructure related to hockey. The state will create integrated sports complex at the district level and multipurpose indoor/outdoor stadium at the district/block level.

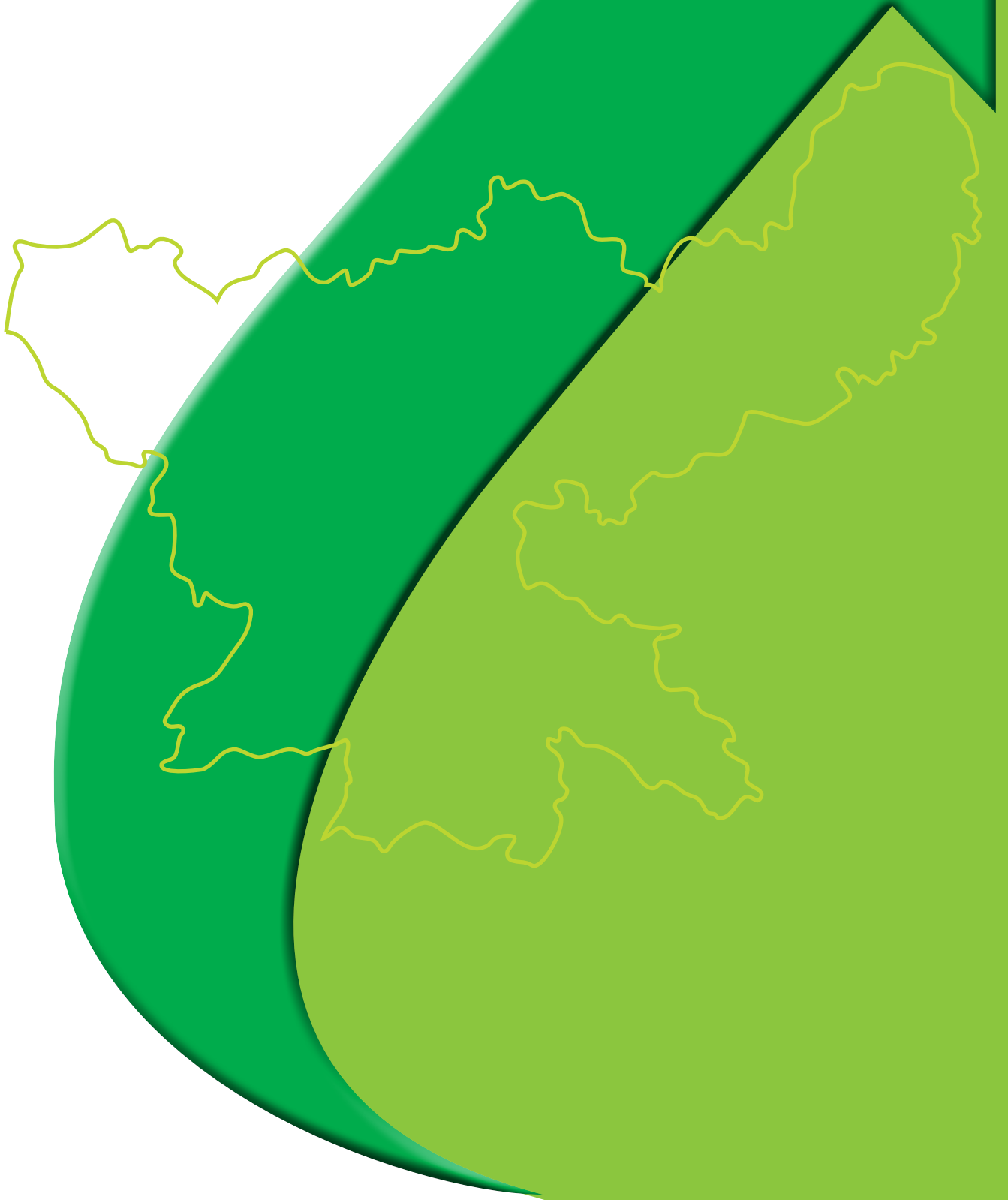
In the rural areas, playgrounds will be developed under MNREGA schemes. The department will take up the works to strengthen the facilities like, stands, drinking water facility, wash room facility, change room for players and visitors in these playgrounds.

The infrastructure which was developed during the 34th National Games demands maintenance. Along with that some new complexes, stadia and hostels were built or are being built. So, the department has undertaken the responsibility of annual repair, maintenance and renovation work.

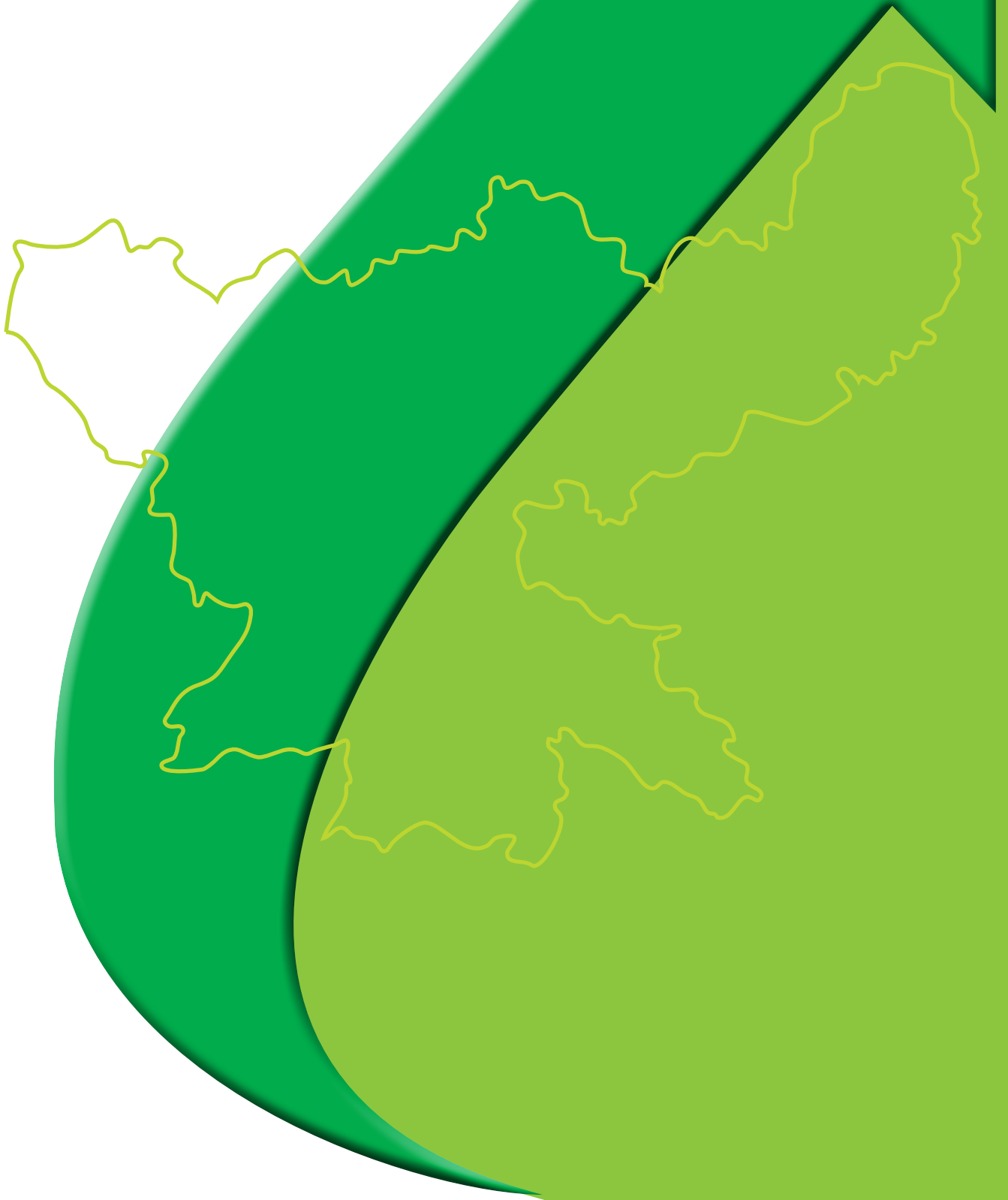
CONCLUSION

The state is blessed with immense biodiversity, moderate climate, pilgrimage sites and ethnic aspects. The department with its new initiatives is making an efficient effort towards betterment. Thus, Jharkhand can hope to become one of the growing tourist, art, culture and sports centres of the country. However, it will depend upon on a combination of good facilities, well-trained service providers and improve in the law and order situation.

APPENDICES



APPENDICES



**Appendix 1.1: Gross State Domestic Product of Jharkhand at Factor Cost
By Industry of Origin at Current Prices (2011-12)**

(Rs. In Lakh)

S. No.	Sector / Sub-Sector	2011-12	2012-13	2013-14	2014-15(P)	2015-16(A)
1.	Agriculture, forestry and fishing	2233546	2550211	2844224	3211065	3632150
1.1	Crops	1342099	1611776	1812103	2094466	2431179
1.2	Livestock	477585	459416	493408	562503	594001
1.3	Forestry and logging	357560	399912	438925	445149	478733
1.4	Fishing and aquaculture	56302	79107	99788	108947	128237
2.	Mining and quarrying	1620374	1879069	1858615	2037289	2199381
	Primary	3853920	4429280	4702839	5248354	5831531
3.	Manufacturing	3016583	3797607	3660373	4114148	4569985
4.	Electricity, gas, water supply & other utility services	241235	302773	335541	337489	379501
5.	Construction	1439526	1455717	1699296	1789834	1927075
	Secondary	4697344	5556097	5695210	6241471	6876561
6.	Trade, repair, hotels and restaurants	1152143	1383070	1595751	1991359	2387496
6.1	Trade & repair services	1065983	1272474	1479141	1840196	2204400
6.2	Hotels & restaurants	86160	110596	116610	151163	183096
7.	Transport, storage, communication & services related to broadcasting	975954	1148809	1325607	1470022	1690746
7.1	Railways	297906	362089	404019	472702	551345
7.2	Road transport	458247	530804	608092	649648	729492
7.3	Water transport					
7.4	Air transport	1373	2448	3362	6716	11455
7.5	Services incidental to transport	22315	26547	27554	17436	16136
7.6	Storage	384	388	378	306	284
7.7	Communication & services related to broadcasting	195729	226533	282202	323214	382034
8.	Financial services	414386	462493	509609	551441	606546
9.	Real estate, ownership of dwelling & professional services	1101151	1290003	1450196	1656784	1898288
10.	Public administration	981782	927373	928783	1088325	1126349
11.	Other services	736279	885544	1045235	1375410	1690431
	Tertiary	5361695	6097292	6855181	8133341	9399856
12.	TOTAL GVA at basic prices	13912959	16082669	17253230	19623166	22107948
13.	Taxes on Products	1511500	1822100	1992669	2499171	2499171
14.	Subsidies on products	332700	432400	389228	411619	411619
15.	Gross State Domestic Product	15091759	17472369	18856671	21710718	24195500
16.	Population ('00)	333020	338480	344020	349660	355380
17.	Per Capita GSDP (Rs.)	45318	51620	54813	62091	68083

Source: Directorate of Economics & Statistics, Planning cum Finance Dept., Govt. of Jharkhand,
Note - P-Provisional, Q-Quick, Pr-Projected, A-Advance

Appendix 1.2: Percentage Change over previous year in GSDP current Prices (Based on Base Year 2011-12)

S. No.	Sector / Sub-Sector	2012-13	2013-14	2014-15(P)	2015-16(A)	CAGR	AAGR
1.	Agriculture, forestry and fishing	14.18	11.53	12.9	13.11	12.93	12.93
1.1	Crops	20.09	12.43	15.58	16.08	16.01	16.05
1.2	Livestock	-3.8	7.4	14	5.6	5.60	5.80
1.3	Forestry and logging	11.84	9.76	1.42	7.54	7.57	7.64
1.4	Fishing and aquaculture	40.5	26.14	9.18	17.71	22.85	23.38
2.	Mining and quarrying	15.97	-1.09	9.61	7.96	7.94	8.11
	Primary	14.93	6.18	11.6	11.11	10.91	10.95
3.	Manufacturing	25.89	-3.61	12.4	11.08	10.94	11.44
4.	Electricity, gas, water supply & other utility services	25.51	10.82	0.58	12.45	11.99	12.34
5.	Construction	1.12	16.73	5.33	7.67	7.56	7.71
	Secondary	18.28	2.5	9.59	10.18	10.00	10.14
6.	Trade, repair, hotels and restaurants	20.04	15.38	24.79	19.89	19.98	20.03
6.1	Trade & repair services	19.37	16.24	24.41	19.79	19.92	19.95
6.2	Hotels & restaurants	28.36	5.44	29.63	21.12	20.74	21.14
7.	Transport, storage, communication & services related to broadcasting	17.71	15.39	10.89	15.02	14.73	14.75
7.1	Railways	21.54	11.58	17	16.64	16.64	16.69
7.2	Road transport	15.83	14.56	6.83	12.29	12.33	12.38
7.3	Water transport	0	0	0	0	0	0
7.4	Air transport	78.3	37.34	99.76	70.56	69.95	71.49
7.5	Services incidental to transport	18.96	3.79	-36.72	-7.46	-7.79	-5.35
7.6	Storage	1.04	-2.58	-19.05	-7.19	-7.26	-6.94
7.7	Communication & services related to broadcasting	15.74	24.57	14.53	18.2	18.20	18.26
8.	Financial services	11.61	10.19	8.21	9.99	9.99	10.00
9.	Real estate, ownership of dwelling & professional services	17.15	12.42	14.25	14.58	14.59	14.60
10.	Public administration	-5.54	0.15	17.18	3.49	3.49	3.82
11.	Other services	20.27	18.03	31.59	22.9	23.09	23.20
	Tertiary	13.72	12.43	18.65	15.57	15.07	15.09
12.	TOTAL GVA at basic prices	15.59	7.28	13.74	12.66	12.27	12.32
13.	Taxes on Products	20.55	9.36	25.42	0	13.40	13.83
14.	Subsidies on products	29.97	-9.98	5.75	0	5.47	6.43
15.	Gross State Domestic Product	15.77	7.92	15.14	11.44	12.52	12.57
16.	Population ('00)	1.64	1.64	1.64	1.64	1.64	1.64
17.	Per Capita GSDP (Rs.)	13.91	6.19	13.28	9.65	10.71	10.76

Source: Directorate of Economics & Statistics, Planning cum Finance Dept., Govt. of Jharkhand
Note - P-Provisional, Q-Quick, Pr-Projected, A-Advance, CAGR = Compound Annual Growth Rate, AAGR= Average Annual Growth Rate

Appendix 1.3: Percentage Distribution of GSDP by Industry current Prices (Based on Base Year 2011-12)

S. No.	Sector / Sub-Sector	2011-12	2012-13	2013-14	2014-15(P)	2015-16(A)
1.	Agriculture, forestry and fishing	14.80	14.60	15.08	14.79	15.01
1.1	Crops	8.89	9.22	9.61	9.65	10.05
1.2	Livestock	3.16	2.63	2.62	2.59	2.46
1.3	Forestry and logging	2.37	2.29	2.33	2.05	1.98
1.4	Fishing and aquaculture	0.37	0.45	0.53	0.50	0.53
2.	Mining and quarrying	10.74	10.75	9.86	9.38	9.09
	Primary	25.54	25.35	24.94	24.17	24.10
3.	Manufacturing	19.99	21.73	19.41	18.95	18.89
4.	Electricity, gas, water supply & other utility services	1.60	1.73	1.78	1.55	1.57
5.	Construction	9.54	8.33	9.01	8.24	7.96
	Secondary	31.13	31.80	30.20	28.75	28.42
6.	Trade, repair, hotels and restaurants	7.63	7.92	8.46	9.17	9.87
6.1	Trade & repair services	7.06	7.28	7.84	8.48	9.11
6.2	Hotels & restaurants	0.57	0.63	0.62	0.70	0.76
7.	Transport, storage, communication & services related to broadcasting	6.47	6.58	7.03	6.77	6.99
7.1	Railways	1.97	2.07	2.14	2.18	2.28
7.2	Road transport	3.04	3.04	3.22	2.99	3.01
7.3	Water transport	0.00	0.00	0.00	0.00	0.00
7.4	Air transport	0.01	0.01	0.02	0.03	0.05
7.5	Services incidental to transport	0.15	0.15	0.15	0.08	0.07
7.6	Storage	0.00	0.00	0.00	0.00	0.00
7.7	Communication & services related to broadcasting	1.30	1.30	1.50	1.49	1.58
8.	Financial services	2.75	2.65	2.70	2.54	2.51
9.	Real estate, ownership of dwelling & professional services	7.30	7.38	7.69	7.63	7.85
10.	Public administration	6.51	5.31	4.93	5.01	4.66
11.	Other services	4.88	5.07	5.54	6.34	6.99
	Tertiary	35.53	34.90	36.35	37.46	38.85
12.	TOTAL GSDP at basic prices	92.19	92.05	91.50	90.38	91.37
13.	Taxes on Products	10.02	10.43	10.57	11.51	10.33
14.	Subsidies on products	2.20	2.47	2.06	1.90	1.70
15.	Gross State Domestic Product	100.00	100.00	100.00	100.00	100.00

Source :Directorate of Economics & Statistics, Planning cum Finance Dept., Govt. of Jharkhand

Note - P-Provisional, Q-Quick, Pr-Projected, A-Advance

**Appendix 1.4: Gross State Domestic Product of Jharkhand at Factor Cost
By Industry of Origin at Constant Prices (2011-12)**

S. No.	Sector / Sub-Sector	2011-12	2012-13	2013-14	2014-15(P)	2015-16(A)
1.	Agriculture, forestry and fishing	2233546	2364954	2321295	2433756	2739271
1.1	Crops	1342099	1498008	1430467	1526077	1771414
1.2	Livestock	477585	445735	461145	475380	502000
1.3	Forestry and logging	357560	361880	365303	366931	394614
1.4	Fishing and aquaculture	56302	59331	64380	65368	71243
2.	Mining and quarrying	1620374	1730483	1720631	1983916	2141761
	Primary	3853920	4095437	4041926	4417672	4881032
3.	Manufacturing	3016583	3614824	3356361	3716292	4181247
4.	Electricity, gas, water supply & other utility services	241235	286345	291006	292750	329192
5.	Construction	1439526	1344315	1484303	1523709	1691220
	Secondary	4697344	5245484	5131670	5532751	6201659
6.	Trade, repair, hotels and restaurants	1152143	1287305	1400566	1706315	2104622
6.1	Trade & repair services	1065983	1184361	1298228	1576790	1943220
6.2	Hotels & restaurants	86160	102944	102338	129525	161402
7.	Transport, storage, communication & services related to broadcasting	975954	1076288	1180454	1259298	1467070
7.1	Railways	297906	345399	374927	403702	470865
7.2	Road transport	458247	490939	535722	556658	643061
7.3	Water transport					
7.4	Air transport	1373	1285	2256	5754	10098
7.5	Services incidental to transport	22315	25425	18495	14940	14223
7.6	Storage	384	369	332	261	251
7.7	Communication & services related to broadcasting	195729	212871	248722	277983	328572
8.	Financial services	414386	453306	466489	504239	554627
9.	Real estate, ownership of dwelling & professional services	1101151	1189599	1249340	1432194	1690618
10.	Public administration	981782	859075	801042	891318	922459
11.	Other services	736279	824103	900892	1106486	1292786
	Tertiary	5361695	5689676	5998783	6899850	8032182
12.	TOTAL GSVA at basic prices	13912959	15030597	15172379	16850273	19114873
13.	Taxes on Products	1511500	1697187	1751335	2153530	2153530
14.	Subsidies on products	332700	402757	342088	354691	354691
15.	Gross State Domestic Product	15091759	16325027	16581626	18649112	20913712
16.	Population ('00)	333020	338480	344020	349660	355380
17.	Per Capita GSDP (Rs.)	45318	48230	48200	53335	58849

Source: Directorate of Economics & Statistics, Planning cum Finance Dept., Govt. of Jharkhand,

Note - P-Provisional, Q-Quick, Pr-Projected, A-Advance

Appendix 1.5: Percentage Change over previous year in GSDP Constant Prices (2011-2012)

S. No.	Sector / Sub-Sector	2012-13	2013-14	2014-15(P)	2015-16(A)	CAGR	AAGR
1	Agriculture, forestry and fishing	5.88	-1.85	4.84	12.55	5.2	5.4
1.1	Crops	11.62	-4.51	6.68	16.08	7.2	7.5
1.2	Livestock	-6.67	3.46	3.09	5.60	1.3	1.4
1.3	Forestry and logging	1.21	0.95	0.45	7.54	2.5	2.5
1.4	Fishing and aquaculture	5.38	8.51	1.53	8.99	6.1	6.1
2	Mining and quarrying	6.80	-0.57	15.30	7.96	7.2	7.4
	Primary	6.27	-1.31	9.30	10.49	6.1	6.2
3.	Manufacturing	19.83	-7.15	10.72	12.51	8.5	9.0
4.	Electricity, gas, water supply & other utility services	18.70	1.63	0.60	12.45	8.1	8.3
5.	Construction	-6.61	10.41	2.65	10.99	4.1	4.4
	Secondary	11.67	-2.17	7.82	12.09	7.2	7.4
6.	Trade, repair, hotels and restaurants	11.73	8.80	21.83	23.34	16.3	16.4
6.1	Trade & repair services	11.11	9.61	21.46	23.24	16.2	16.4
6.2	Hotels & restaurants	19.48	-0.59	26.57	24.61	17.0	17.5
7.	Transport, storage, communication & services related to broadcasting	10.28	9.68	6.68	16.50	10.7	10.8
7.1	Railways	15.94	8.55	7.67	16.64	12.1	12.2
7.2	Road transport	7.13	9.12	3.91	15.52	8.8	8.9
7.3	Water transport	0.00	0.00	0.00	0.00	0.0	0.0
7.4	Air transport	-6.41	75.56	155.05	75.50	64.7	74.9
7.5	Services incidental to transport	13.94	-27.26	-19.22	-4.80	-10.6	-9.3
7.6	Storage	-3.91	-10.03	-21.39	-3.83	-10.1	-9.8
7.7	Communication & services related to broadcasting	8.76	16.84	11.76	18.20	13.8	13.9
8.	Financial services	9.39	2.91	8.09	9.99	7.6	7.6
9.	Real estate, ownership of dwelling & professional services	8.03	5.02	14.64	18.04	11.3	11.4
10.	Public administration	-12.50	-6.76	11.27	3.49	-1.5	-1.1
11.	Other services	11.93	9.32	22.82	16.84	15.1	15.2
	Tertiary	6.12	5.43	15.02	16.41	10.6	10.7
12	TOTAL GVA at basic prices	8.03	0.94	11.06	13.44	8.3	8.4
13	Taxes on Products	12.28	3.19	22.97	0.00	9.3	9.6
14	Subsidies on products	21.06	-15.06	3.68	0.00	1.6	2.4
15	Gross State Domestic Product	8.17	1.57	12.47	12.14	8.5	8.6
16	Population ('00)	1.64	1.64	1.64	1.64	1.6	1.6
17	Per Capita GSDP (Rs.)	6.43	-0.06	10.65	10.34	6.7	6.8

Source: Directorate of Economics & Statistics, Planning cum Finance Dept., Govt. of Jharkhand.

Note - P-Provisional, Q-Quick, Pr-Projected, A-Advance

Appendix 1.6: Percentage Distribution of GSDP by Industry constant Prices (Based on Base Year 2011-12)

S. No.	Sector / Sub-Sector	2011-12	2012-13	2013-14	2014-15(P)	2015-16(A)
1	Agriculture, forestry and fishing	14.80	14.49	14.00	13.05	13.10
1.1	Crops	8.89	9.18	8.63	8.18	8.47
1.2	Livestock	3.16	2.73	2.78	2.55	2.40
1.3	Forestry and logging	2.37	2.22	2.20	1.97	1.89
1.4	Fishing and aquaculture	0.37	0.36	0.39	0.35	0.34
2	Mining and quarrying	10.74	10.60	10.38	10.64	10.24
	Primary	25.54	25.09	24.38	23.69	23.34
3.	Manufacturing	19.99	22.14	20.24	19.93	19.99
4.	Electricity, gas, water supply & other utility services	1.60	1.75	1.75	1.57	1.57
5.	Construction	9.54	8.23	8.95	8.17	8.09
	Secondary	31.13	32.13	30.95	29.67	29.65
6.	Trade, repair, hotels and restaurants	7.63	7.89	8.45	9.15	10.06
6.1	Trade & repair services	7.06	7.25	7.83	8.46	9.29
6.2	Hotels & restaurants	0.57	0.63	0.62	0.69	0.77
7.	Transport, storage, communication & services related to broadcasting	6.47	6.59	7.12	6.75	7.01
7.1	Railways	1.97	2.12	2.26	2.16	2.25
7.2	Road transport	3.04	3.01	3.23	2.98	3.07
7.3	Water transport	0.00	0.00	0.00	0.00	0.00
7.4	Air transport	0.01	0.01	0.01	0.03	0.05
7.5	Services incidental to transport	0.15	0.16	0.11	0.08	0.07
7.6	Storage	0.00	0.00	0.00	0.00	0.00
7.7	Communication & services related to broadcasting	1.30	1.30	1.50	1.49	1.57
8.	Financial services	2.75	2.78	2.81	2.70	2.65
9.	Real estate, ownership of dwelling & professional services	7.30	7.29	7.53	7.68	8.08
10.	Public administration	6.51	5.26	4.83	4.78	4.41
11.	Other services	4.88	5.05	5.43	5.93	6.18
	Tertiary	35.53	34.85	36.18	37.00	38.41
12	TOTAL GVA at basic prices	92.19	92.07	91.50	90.35	91.40
13	Taxes on Products	10.02	10.40	10.56	11.55	10.30
14	Subsidies on products	2.20	2.47	2.06	1.90	1.70
15	Gross State Domestic Product	100.00	100.00	100.00	100.00	100.00

Source: Directorate of Economics & Statistics, Planning cum Finance Dept., Govt. of Jharkhand,
Note - P-Provisional, Q-Quick, Pr-Projected, A-Advance

Appendix 1.7: Net State Domestic Product Of Jharkhand At Factor Cost
By Industry of Origin at Current Prices (New Series)

S. No.	Sector / Sub-Sector	2011-12	2012-13	2013-14	2014-15(P)	2015-16(A)
1.	Agriculture, forestry and fishing	2100329	2395965	2664249	3005695	3426780
1.1	Crops	1227605	1479511	1656232	1914442	2251155
1.2	Livestock	469404	450789	483948	552526	584024
1.3	Forestry and logging	353636	395436	433972	440636	474220
1.4	Fishing and aquaculture	49684	70229	90097	98091	117381
2.	Mining and quarrying	1424784	1651034	1591597	1717603	1879695
	Primary	3525113	4046999	4255846	4723298	5306475
3.	Manufacturing	2740497	3562247	3390423	3818462	4274299
4.	Electricity, gas, water supply & other utility services	160289	198000	222036	218488	260500
5.	Construction	1371583	1378972	1596103	1682060	1819301
	Secondary	4272369	5139219	5208562	5719010	6354100
6.	Trade, repair, hotels and restaurants	1098375	1314047	1514561	1890885	2287022
6.1	Trade & repair services	1016218	1208962	1418108	1767300	2131504
6.2	Hotels & restaurants	82157	105085	96453	123585	155518
7.	Transport, storage, communication & services related to broadcasting	813647	966004	1080797	1186198	1406922
7.1	Railways	237638	293142	321544	378127	456770
7.2	Road transport	392312	456846	520538	564238	644082
7.3	Water transport					
7.4	Air transport	1373	2448	1643	5376	10115
7.5	Services incidental to transport	22315	26547	23837	15343	14043
7.6	Storage	329	336	320	256	234
7.7	Communication & services related to broadcasting	159680	186685	212915	222858	281678
8.	Financial services	407843	454300	501096	541390	596495
9.	Real estate, ownership of dwelling & professional services	992301	1163065	1323500	1512842	1754346
10.	Public administration	757532	721118	726761	869996	908020
11.	Other services	692367	835956	988477	1307464	1622485
	Tertiary	4762065	5454490	6135192	7308775	8575290
12.	TOTAL NSVA at basic prices	12559547	14640708	15599600	17751083	20235865
13.	Taxes on Products	1511500	1822100	1992669	2499171	2499171
14.	Subsidies on products	332700	432400	389228	411619	411619
15.	Net State Domestic Product	13738347	16030408	17203041	19838635	22323417
16.	Population ('00)	333020	338480	344020	349660	355380
17.	Per Capita NSDP (Rs.)	41254	47360	50006	56737	62816

Source: Directorate of Economics & Statistics, Planning cum Finance Dept., Govt. of Jharkhand,
Note - P-Provisional, Q-Quick, Pr-Projected, A-Advance

Appendix 1.8: Percentage change Over Previous Year in NSDP Current Prices (Based on Base Year 2011-12)

S. No.	Sector / Sub-Sector	2012-13	2013-14	2014-15 (P)	2015-16 (A)	CAGR	AAGR
1	Agriculture, forestry and fishing	14.08	11.20	12.82	14.01	13.02	13.02
1.1	Crops	20.52	11.94	15.59	17.59	16.37	16.41
1.2	Livestock	-3.97	7.36	14.17	5.70	5.61	5.82
1.3	Forestry and logging	11.82	9.75	1.54	7.62	7.61	7.68
1.4	Fishing and aquaculture	41.35	28.29	8.87	19.67	23.98	24.54
2.	Mining and quarrying	15.88	-3.60	7.92	9.44	7.17	7.41
	Primary	14.80	5.16	10.98	12.35	10.77	10.82
3.	Manufacturing	29.99	-4.82	12.62	11.94	11.75	12.43
4.	Electricity, gas, water supply & other utility services	23.53	12.14	-1.60	19.23	12.91	13.32
5.	Construction	0.54	15.75	5.39	8.16	7.32	7.46
	Secondary	20.29	1.35	9.80	11.10	10.43	10.64
6.	Trade, repair, hotels and restaurants	19.64	15.26	24.85	20.95	20.12	20.17
6.1	Trade & repair services	18.97	17.30	24.62	20.61	20.34	20.37
6.2	Hotels & restaurants	27.91	-8.21	28.13	25.84	17.30	18.42
7.	Transport, storage, communication & services related to broadcasting	18.73	11.88	9.75	18.61	14.67	14.74
7.1	Railways	23.36	9.69	17.60	20.80	17.75	17.86
7.2	Road transport	16.45	13.94	8.40	14.15	13.20	13.23
7.3	Water transport	0.00	0.00	0.00	0.00	0.00	0.00
7.4	Air transport	78.30	-32.88	227.21	88.15	64.75	90.19
7.5	Services incidental to transport	18.96	-10.21	-35.63	-8.47	-10.93	-8.84
7.6	Storage	2.13	-4.76	-20.00	-8.59	-8.17	-7.81
7.7	Communication & services related to broadcasting	16.91	14.05	4.67	26.39	15.25	15.51
8.	Financial services	11.39	10.30	8.04	10.18	9.97	9.98
9.	Real estate, ownership of dwelling & professional services	17.21	13.79	14.31	15.96	15.31	15.32
10.	Public administration	-4.81	0.78	19.71	4.37	4.63	5.01
11.	Other services	20.74	18.25	32.27	24.09	23.73	23.84
	Tertiary	14.54	12.48	19.13	17.33	15.84	15.87
12	TOTAL NSVA at basic prices	16.57	6.55	13.79	14.00	12.66	12.73
13	Taxes on Products	20.55	9.36	25.42	0.00	13.40	13.83
14	Subsidies on products	29.97	-9.98	5.75	0.00	5.47	6.43
15	Net State Domestic Product	16.68	7.32	15.32	12.52	12.90	12.96
16	Population ('00)	1.64	1.64	1.64	1.64	1.64	1.64
17	Per Capita NSDP (Rs.)	14.80	5.59	13.46	10.71	11.08	11.14

Source: Directorate of Economics & Statistics, Planning cum Finance Dept., Govt. of Jharkhand,
Note - P-Provisional, Q-Quick, Pr-Projected, A-Advance

Appendix 1.9: Percentage Distribution of NSDP by Industry Current Prices (Based on Base Year 2011-12)

S.No.	Sector / Sub-Sector	2011-12	2012-13	2013-14	2014-15(P)	2015-16(A)
1	Agriculture, forestry and fishing	15.29	14.95	15.49	15.15	15.35
1.1	Crops	8.94	9.23	9.63	9.65	10.08
1.2	Livestock	3.42	2.81	2.81	2.79	2.62
1.3	Forestry and logging	2.57	2.47	2.52	2.22	2.12
1.4	Fishing and aquaculture	0.36	0.44	0.52	0.49	0.53
2.	Mining and quarrying	10.37	10.30	9.25	8.66	8.42
	Primary	25.66	25.25	24.74	23.81	23.77
3.	Manufacturing	19.95	22.22	19.71	19.25	19.15
4.	Electricity, gas, water supply & other utility services	1.17	1.24	1.29	1.10	1.17
5.	Construction	9.98	8.60	9.28	8.48	8.15
	Secondary	31.10	32.06	30.28	28.83	28.46
6.	Trade, repair, hotels and restaurants	7.99	8.20	8.80	9.53	10.24
6.1	Trade & repair services	7.40	7.54	8.24	8.91	9.55
6.2	Hotels & restaurants	0.60	0.66	0.56	0.62	0.70
7.	Transport, storage, communication & services related to broadcasting	5.92	6.03	6.28	5.98	6.30
7.1	Railways	1.73	1.83	1.87	1.91	2.05
7.2	Road transport	2.86	2.85	3.03	2.84	2.89
7.3	Water transport	0.00	0.00	0.00	0.00	0.00
7.4	Air transport	0.01	0.02	0.01	0.03	0.05
7.5	Services incidental to transport	0.16	0.17	0.14	0.08	0.06
7.6	Storage	0.00	0.00	0.00	0.00	0.00
7.7	Communication & services related to broadcasting	1.16	1.16	1.24	1.12	1.26
8.	Financial services	2.97	2.83	2.91	2.73	2.67
9.	Real estate, ownership of dwelling & professional services	7.22	7.26	7.69	7.63	7.86
10.	Public administration	5.51	4.50	4.22	4.39	4.07
11.	Other services	5.04	5.21	5.75	6.59	7.27
	Tertiary	34.66	34.03	35.66	36.84	38.41
12	TOTAL NSVA at basic prices	91.42	91.33	90.68	89.48	90.65
13	Taxes on Products	11.00	11.37	11.58	12.60	11.20
14	Subsidies on products	2.42	2.70	2.26	2.07	1.84
15	Net State Domestic Product	100.00	100.00	100.00	100.00	100.00

Source: Directorate of Economics & Statistics, Planning cum Finance Dept., Govt. of Jharkhand,
Note - P-Provisional, Q-Quick, Pr-Projected, A-Advance

Appendix 1.10: Net State Domestic Product of Jharkhand at Factor Cost By Industry of Origin at Constant (2011-2012) Prices

(Rs. In Lakh)

S. No.	Sector / Sub-Sector	2011-12	2012-13	2013-14	2014-15(P)	2015-16(A)
1.	Agriculture, forestry and fishing	2100329	2221943	2166800	2266774	2572289
1.1	Crops	1227605	1375517	1297247	1380658	1625995
1.2	Livestock	469404	437744	452760	466788	493408
1.3	Forestry and logging	353636	357726	360916	363059	390742
1.4	Fishing and aquaculture	49684	50956	55877	56269	62144
2.	Mining and quarrying	1424784	1513376	1476089	1701224	1859069
	Primary	3525113	3735319	3642889	3967998	4431358
3.	Manufacturing	2740497	3388295	3103621	3444791	3909746
4.	Electricity, gas, water supply & other utility services	160289	185362	184541	183335	219777
5.	Construction	1371583	1271097	1387201	1425414	1592925
	Secondary	4272369	4844754	4675363	5053540	5722448
6.	Trade, repair, hotels and restaurants	1098375	1222203	1326563	1617235	2015542
6.1	Trade & repair services	1016218	1124458	1242713	1512281	1878711
6.2	Hotels & restaurants	82157	97745	83850	104954	136831
7.	Transport, storage, communication & services related to broadcasting	813647	901861	951326	998012	1205784
7.1	Railways	237638	280740	299653	319162	386325
7.2	Road transport	392312	420137	454700	478752	565155
7.3	Water transport					
7.4	Air transport	1373	1285	659	4526	8870
7.5	Services incidental to transport	22315	25425	14995	13022	12305
7.6	Storage	329	320	279	217	207
7.7	Communication & services related to broadcasting	159680	173954	181040	182333	232922
8.	Financial services	407843	445363	458389	494916	545304
9.	Real estate, ownership of dwelling & professional services	992301	1070974	1136212	1307672	1566096
10.	Public administration	757532	660874	612617	692410	723551
11.	Other services	692367	776851	848327	1045212	1231512
	Tertiary	4762065	5078126	5333434	6155457	7287789
12.	TOTAL NSVA at basic prices	12559547	13658199	13651686	15176995	17441595
13.	Taxes on Products	15111500	1697187	1751335	2153530	2153530
14.	Subsidies on products	332700	402757	342088	354691	354691
15.	Net State Domestic Product	13738347	14952629	15060933	16975834	19240434
16.	Population ('00)	333020	338480	344020	349660	355380
17.	Per Capita NSDP (Rs.)	41254	44176	43779	48550	54140

Source: Directorate of Economics & Statistics, Planning cum Finance Dept., Govt. of Jharkhand,
Note - P-Provisional, Q-Quick, Pr-Projected, A-Advance

Appendix 1.1.1: Percentage Change Over Previous Year in NSDP Constant Prices (2011-12)

S. No.	Sector / Sub-Sector	2012-13	2013-14	2014-15(P)	2015-16(A)	CAGR	AAGR
1	Agriculture, forestry and fishing	5.79	-2.48	4.61	13.48	5.2	5.4
1.1	Crops	12.05	-5.69	6.43	17.77	7.3	7.6
1.2	Livestock	-6.74	3.43	3.10	5.70	1.3	1.4
1.3	Forestry and logging	1.16	0.89	0.59	7.62	2.5	2.6
1.4	Fishing and aquaculture	2.56	9.66	0.70	10.44	5.8	5.8
2	Mining and quarrying	6.22	-2.46	15.25	9.28	6.9	7.1
	Primary	5.96	-2.47	8.92	11.68	5.9	6.0
3	Manufacturing	23.64	-8.40	10.99	13.50	9.3	9.9
4	Electricity, gas, water supply & other utility services	15.64	-0.44	-0.65	19.88	8.2	8.6
5	Construction	-7.33	9.13	2.75	11.75	3.8	4.1
	Secondary	13.40	-3.50	8.09	13.24	7.6	7.8
6	Trade, repair, hotels and restaurants	11.27	8.54	21.91	24.63	16.4	16.6
6.1	Trade & repair services	10.65	10.52	21.69	24.23	16.6	16.8
6.2	Hotels & restaurants	18.97	-14.22	25.17	30.37	13.6	15.1
7.	Transport, storage, communication & services related to broadcasting	10.84	5.48	4.91	20.82	10.3	10.5
7.1	Railways	18.14	6.74	6.51	21.04	12.9	13.1
7.2	Road transport	7.09	8.23	5.29	18.05	9.6	9.7
7.3	Water transport	0.00	0.00	0.00	0.00	0.00	0.00
7.4	Air transport	-6.41	-48.72	586.80	95.98	59.4	156.9
7.5	Services incidental to transport	13.94	-41.02	-13.16	-5.51	-13.8	-11.4
7.6	Storage	-2.74	-12.81	-22.22	-4.61	-10.9	-10.6
7.7	Communication & services related to broadcasting	8.94	4.07	0.71	27.75	9.9	10.4
8	Financial services	9.20	2.92	7.97	10.18	7.5	7.6
9	Real estate, ownership of dwelling & professional services	7.93	6.09	15.09	19.76	12.1	12.2
10	Public administration	-12.76	-7.30	13.02	4.50	-1.1	-0.6
11	Other services	12.20	9.20	23.21	17.82	15.5	15.6
	Tertiary	6.64	5.03	15.41	18.40	11.2	11.4
12	TOTAL NSVA at basic prices	8.75	-0.05	11.17	14.92	8.6	8.7
13	Taxes on Products	12.28	3.19	22.97	0.00	9.3	9.6
14	Subsidies on products	21.06	-15.06	3.68	0.00	1.6	2.4
15	Net State Domestic Product	8.84	0.72	12.71	13.34	8.8	8.9
16	Population ('00)	1.64	1.64	1.64	1.64	1.6	1.6
17	Per Capita NSDP (Rs.)	7.08	-0.90	10.90	11.51	7.0	7.1

Source: Directorate of Economics & Statistics, Planning cum Finance Dept., Govt. of Jharkhand,
Note - P-Provisional, Q-Quick, Pr-Projected, A-Advance

Appendix 1.12: Percentage Distribution of NSDP by Industry Current Prices (Based on Base Year 2011-12)

S.No.	Sector / Sub-Sector	2011-12	2012-13	2013-14	2014-15(P)	2015-16(A)
1	Agriculture, forestry and fishing	15.29	14.86	14.39	13.35	13.37
1.1	Crops	8.94	9.20	8.61	8.13	8.45
1.2	Livestock	3.42	2.93	3.01	2.75	2.56
1.3	Forestry and logging	2.57	2.39	2.40	2.14	2.03
1.4	Fishing and aquaculture	0.36	0.34	0.37	0.33	0.32
2	Mining and quarrying	10.37	10.12	9.80	10.02	9.66
	Primary	25.66	24.98	24.19	23.37	23.03
3	Manufacturing	19.95	22.66	20.61	20.29	20.32
4	Electricity, gas, water supply & other utility services	1.17	1.24	1.23	1.08	1.14
5	Construction	9.98	8.50	9.21	8.40	8.28
	Secondary	31.10	32.40	31.04	29.77	29.74
6	Trade, repair, hotels and restaurants	7.99	8.17	8.81	9.53	10.48
6.1	Trade & repair services	7.40	7.52	8.25	8.91	9.76
6.2	Hotels & restaurants	0.60	0.65	0.56	0.62	0.71
7.	Transport, storage, communication & services related to broadcasting	5.92	6.03	6.32	5.88	6.27
7.1	Railways	1.73	1.88	1.99	1.88	2.01
7.2	Road transport	2.86	2.81	3.02	2.82	2.94
7.3	Water transport	0.00	0.00	0.00	0.00	0.00
7.4	Air transport	0.01	0.01	0.00	0.03	0.05
7.5	Services incidental to transport	0.16	0.17	0.10	0.08	0.06
7.6	Storage	0.00	0.00	0.00	0.00	0.00
7.7	Communication & services related to broadcasting	1.16	1.16	1.20	1.07	1.21
8	Financial services	2.97	2.98	3.04	2.92	2.83
9	Real estate, ownership of dwelling & professional services	7.22	7.16	7.54	7.70	8.14
10	Public administration	5.51	4.42	4.07	4.08	3.76
11	Other services	5.04	5.20	5.63	6.16	6.40
	Tertiary	34.66	33.96	35.41	36.26	37.88
12	TOTAL NSVA at basic prices	91.42	91.34	90.64	89.40	90.65
13	Taxes on Products	11.00	11.35	11.63	12.69	11.19
14	Subsidies on products	2.42	2.69	2.27	2.09	1.84
15	Net State Domestic Product	100.00	100.00	100.00	100.00	100.00

Source: Directorate of Economics & Statistics, Planning cum Finance Dept., Govt. of Jharkhand,
Note - P-Provisional, Q-Quick, Pr-Projected, A-Advance

Appendix 1.13: Gross State Domestic Product (GSDP) at Current Prices (2011-12)

(Figures in Rs. Billion)

States	2011-12	2012-13	2013-14	2014-15	2015-16
Andaman & Nicobar	4558.78	5107.31	5563.98	6025.32	-
Andhra Pradesh	349580.63	379033.81	432072.95	493895.99	557646.25
Arunachal Pradesh	10856.75	12391.91	14214.54	16118.13	19122.89
Assam	135852.71	150024.24	166754.50	186691.49	-
Bihar	241903.65	276770.14	320463.47	397499.69	469803.52
Chandigarh	18731.23	21560.67	24891.99	29196.17	-
Chhattisgarh	148429.83	167460.59	186655.02	210812.59	-
Delhi	303671.41	343000.36	380463.82	420548.34	-
Goa	39291.74	35400.29	38224.45	40755.55	-
Gujarat	541771.46	632782.65	717974.09	794562.53	-
Haryana	277291.57	323269.61	364676.73	403986.26	-
Himachal Pradesh	69402.80	78623.61	88832.51	97164.56	-
Jammu & Kashmir	74449.98	82490.33	92559.31	97781.51	-
Jharkhand	139129.59	160826.69	178240.80	200512.21	-
Karnataka	551091.88	629873.57	730418.32	830914.94	-
Kerala	336293.09	381282.87	426388.31	477815.62	-
Madhya Pradesh	301580.46	363681.07	401155.62	451129.98	501667.73
Maharashtra	1137015.95	1283878.90	1452765.47	1578346.65	-
Manipur	12224.13	13237.43	15438.26	-	-
Meghalaya	18759.40	20559.60	22632.84	24134.09	26273.21
Mizoram	7430.08	8513.15	9970.43	11545.19	-
Nagaland	12066.53	13961.53	16321.07	18008.78	-
Orissa	215719.90	244667.07	265751.66	294951.28	314578.74
Pondicherry	14812.01	16471.45	18458.57	20769.57	-
Punjab	253774.29	280837.82	311582.29	339187.89	-
Rajasthan	416762.09	471150.41	522880.19	581583.86	-
Sikkim	-	-	-	-	-
Tamil Nadu	693445.72	781430.99	904240.31	1023738.11	-
Telangana	338316.68	377773.79	429360.51	481629.08	533644.25
Tripura	-	-	-	-	-
Uttaranchal	109169.94	125055.31	139005.26	155058.60	174628.91
Uttar Pradesh	682593.92	774845.71	869336.26	957545.27	-
West Bengal	-	-	-	-	-

Source: <https://www.rbi.org.in/>

Appendix 1.14: Gross State Domestic Product (GSDP) at Constant Prices (2011-12)

(Figures in Rs. Billion)

States	2011-12	2012-13	2013-14	2014-15	2015-16
Andaman & Nicobar	4558.78	4791.83	5069.60	5423.44	-
Andhra Pradesh	349580.63	350042.73	380279.76	412187.75	455483.66
Arunachal Pradesh	10856.75	11130.85	12238.92	12982.18	13814.11
Assam	135852.71	136309.67	144848.33	149918.49	-
Bihar	241903.65	250938.34	266593.32	306480.05	337472.83
Chandigarh	18731.23	20203.32	21973.94	24736.11	-
Chhattisgarh	148429.83	156823.03	166199.33	179188.06	-
Delhi	303671.41	320967.23	332880.66	359875.81	-
Goa	39291.73	36482.24	36525.45	39152.13	-
Gujarat	541771.46	595429.11	646296.54	694252.51	-
Haryana	277291.57	296718.07	313183.81	335763.27	-
Himachal Pradesh	69402.80	74121.24	79308.39	85191.71	-
Jammu & Kashmir	74449.98	76366.16	81782.97	81041.01	-
Jharkhand	139129.59	150305.97	157562.54	172932.33	-
Karnataka	551091.88	582676.44	624949.56	672687.38	-
Kerala	336293.09	356354.73	371809.27	394867.97	-
Madhya Pradesh	301580.46	336581.90	344337.20	367643.95	404967.55
Maharashtra	1137015.95	1204359.08	1272084.17	1343528.53	-
Manipur	12224.13	12436.83	13708.89	-	-
Meghalaya	18759.39	19362.86	20264.68	20804.02	21915.21
Mizoram	7430.08	7920.12	8773.75	9512.66	-
Nagaland	12066.53	12757.51	13880.91	14880.33	-
Orissa	215719.90	223936.02	234658.92	247910.20	262383.20
Pondicherry	14812.01	15086.43	15870.50	17557.88	-
Punjab	253774.29	265401.16	279109.93	290316.71	-
Rajasthan	416762.09	434081.91	460152.20	487603.24	-
Sikkim	-	-	-	-	-
Tamil Nadu	693445.72	724675.21	796695.05	861568.89	-
Telangana	338316.68	346195.91	367755.73	395299.76	427129.03
Tripura	-	-	-	-	-
Uttaranchal	109169.94	117499.76	125965.20	135311.79	145760.04
Uttar Pradesh	682593.92	710974.89	739495.00	782953.54	-
West Bengal	-	-	-	-	-

Appendix: 2.1: Budget at a glance

(Rs. In crore)

Sl. No	Sources	2014-15 (A)	2015-16 (A)	2016-2017 (B.E)
1.	Revenue Receipts	31564.56	40638.35	55756.42
2.	Tax Revenue	19836.82	27447.70	35528.66
(a)	State's share of Central Taxes	9487.01	15968.75	18478.66
(b)	State's Own Taxes	10349.81	11478.95	17050.00
3.	Non-Tax Revenue	11727.74	13190.65	20227.76
(a)	State's Own Non-Taxes	4335.06	5853.01	8425.76
(b)	Grants-in-Aid from GOI	7392.68	7337.64	11802.00
4.	Capital Receipts	8476.94	13798.93	7746.27
(a)	Recoveries of Loans	33.06	31.06	46.27
(b)	Other Receipts	0.00	0.00	0.00
(c)	Borrowing and Other Liabilities	8443.88	13767.87	7700.00
5.	Total Receipts (1+4)	40041.50	54437.28	63502.69
6.	Non-Plan Expenditure	21296.12	23150.20	26437.34
7.	On Revenue Account of Which	19358.98	20759.81	24235.73
(a)	Interest Payments	2929.15	3320.08	4180.43
(b)	Salary	7381.55	8177.92	10197.45
(c)	Pension	3465.32	3990.01	4789.69
8.	On Capital Account of Which	1937.14	2390.40	2201.61
(a)	Internal Debt of the State	1721.71	2079.42	1860.38
(b)	Loans and Adv. from GOI	158.17	166.51	206.78
(c)	Capital Expenditure	22.82	72.23	25.05
(d)	Loans and Advances	34.44	72.23	109.40
9.	Plan Expenditure	18745.38	31287.08	37065.35
(a)	On Revenue Account	12435.92	15793.03	24526.19
(b)	of which, Grants for creation of Capital Assets	3652.09		6494.51
(c)	On Capital Account	6309.46	15494.05	12539.16
10.	Total Expenditure (6+9)	40041.50	54437.28	63502.69
(a)	Revenue Expenditure (7+9a)	31794.90	36552.83	48761.92
(b)	Capital Expenditure (8+9b)	8246.60	17884.45	14740.77
11.	Revenue Deficit (10a-1)	230.34	-4085.52	-6994.50
	% of GSDP *	0.12	-1.80	-2.69
12.	Effective Revenue Deficit (11-9b) @	-3421.75	-4085.52	-13489.01
	% of GSDP *	-1.73	-1.80	-5.18
13.	Fiscal Deficit {10-(1+4a+4b+8a+8b)}	6564.00	11521.94	5632.84
	% of GSDP §	3.32	5.09	2.16
14.	Primary Deficit (13-7a)	3634.85	8201.86	1452.41
	% of GSDP	1.84	3.62	0.56
	GSDP	197514.31	226404.91	260185.41
	% of Non-Plan Expenditure	53.19	42.53	41.63
	% of Salary of Non-Plan	34.66	35.33	38.57
	% of Interest Payment of Non-Plan	7.32	6.10	6.58
	% of Pension of Non-Plan	8.65	7.33	7.54

Source: Department of Finance, Govt. of Jharkhand,
Note: Negative – Deficit means surplus

Appendix: 2.2: Year Wise Debt Position

(Rs. In Crore)

Year (Actual)	GOI	Borrowing from RBI	Power Bond/Bond	Negotiated Loan	Ways & Means & Advances	NSSF Fund	GPF Provident Fund	Reserve Funds	Deposits	Gross Borrowing (2 to 10)	Repayment (-)	Net Borrowing	Borrowing Ceiling	Cumulative Debt	GSDP	% of Net Borrowing of GDP	Total Debt / GDP Ratio
1	2	3	4	5	6	7	8	9	10	11 = (2 to 10)	12	13	14	15	16	17	18
15.11.2000 (Balance)												5961.94		5961.94			
2000-01	143.20	122.61	0.00	0.00	52.05	0.00	125.79		233.44	677.09	400.85	276.24	828.49	6238.18	27616.38	1.00%	22.59%
2001-02	388.93	370.28	0.00	0.00	11.92	826.18	169.59		947.92	2714.82	1148.63	1566.19	986.30	7804.37	32876.64	4.76%	23.74%
2002-03	407.72	454.97	0.00	1.24	0.00	1025.31	411.16		1125.15	3425.55	2306.60	1118.95	1315.07	8923.32	43835.51	2.55%	20.36%
2003-04	471.54	574.90	0.00	0.00	320.93	1375.89	367.96		1230.72	4341.94	2695.78	1646.16	1584.42	10569.48	52813.87	3.12%	20.01%
2004-05	513.36	564.66	0.00	899.06	0.00	1593.02	254.61		1173.85	4998.56	2056.35	2942.21	1792.73	13511.69	59757.72	4.92%	22.61%
2005-06	5.78	364.12	0.00	1496.91	0.00	1633.81	408.77		1373.16	5282.55	1434.17	3848.38	1827.02	17360.07	60900.54	6.32%	28.51%
2006-07	16.85	400.52	0.00	192.87	229.75	1255.75	453.05		1608.04	4156.83	2099.53	2057.30	2008.04	19417.37	66934.75	3.07%	29.01%
2007-08	13.99	1192.51	0.00	617.96	0.00	198.19	478.77		3379.33	5880.75	3683.54	2197.21	2518.49	21614.58	83949.59	2.62%	25.75%
2008-09	2.58	1486.00	0.00	769.96	0.00	178.02	584.46	13.20	4175.32	7209.54	4740.14	2469.40	2633.82	24083.98	87793.93	2.81%	27.43%
2009-10	-10.03	1843.98	0.00	672.38	0.00	863.11	686.66	489.35	4075.38	8620.83	5539.79	3081.04	3018.62	27165.02	100620.68	3.06%	27.00%
2010-11	131.95	500.00	0.00	586.73	0.00	1227.83	571.73	0.31	3558.07	6576.62	5086.58	1490.04	3466.05	28655.06	115535.14	1.29%	24.80%
2011-12*	32.53	1254.05	0.00	873.98	229.19	281.48	613.38	138.58	5138.27	8561.46	6552.75	2008.71	3915.16	30663.77	130505.32	1.54%	23.50%
2012-13	238.65	3600.00	0.00	770.33	368.79	221.23	667.69	279.81	8571.31	14717.81	10512.59	4205.22	4876.71	34868.99	162557.14	2.59%	21.45%
2013-14	106.15	2950.00	0.00	1031.56	315.58	299.62	760.20	293.19	7084.37	12840.66	10115.80	2724.86	5586.59	37593.84	186219.75	1.46%	20.19%
2014-15	153.21	4950.00	0.00	814.23	0.00	772.68	842.56	307.85	11968.04	19808.57	13833.32	5975.25	6393.00	43569.09	197514.31	3.03%	22.06%
2015-16	165.02	5350.00	5553.37	1044.71	0.00	1131.55	830.10	521.68	19246.91	33843.34	20881.94	12961.40	6360.00	56530.49	226404.91	5.72%	24.97%
2016-17 (BE)	500.00	5452.00	0.00	1610.00	0.00	138.00	885.40	0.00	13111.16	21696.56	15440.12	6256.44	7993.00	62786.93	260185.41	2.40%	24.13%
Total	3281.43	31430.60	5553.37	11381.91	1528.21	13021.67	9111.88	2043.97	88000.45	165353.48	108528.49	62786.93					

Source: Department of Finance, Govt. of Jharkhand

Appendix: 2.3: Outlay and Expenditure 2016-17 (31st Dec, 2016)

(Rs. In Crore)

Sl. no.	Name of the Departments		Outlay	Exp.	% Exp.
1	Agriculture, Animal Husbandry and Cooperative	Agriculture	1638.26	409.99	25.03
		AH	196.36	27.73	14.12
		Dairy	312.00	94.33	30.23
		Fisheries	118.18	70.32	59.50
		Cooperative	150.00	151.31	100.87
		Sub -Total	2414.80	753.68	31.21
2	Building Construction	Building Construction	460.00	226.70	49.28
3	Commercial Taxes	Commercial Taxes	5.00	0.22	4.40
4	Drinking Water & Sanitation	Drinking Water	1250.00	758.60	60.69
5	Energy	Energy	2249.17	845.42	37.59
6	Excise & Prohibition	Excise & Prohibition	15.00	0.00	0.00
7	Food, Public Distribution & Consumer Affairs	Food & Civil Supplies	1350.00	490.52	36.33
8	Forests, Environment & Climate Change	Forests and Environ.	389.38	104.29	26.78
9	Health, Medical Edu. and Family Welfare	Health, Medical Edu. and Family Welfare	2100.00	726.29	34.59
10	Higher and Technical Education	Science & Tech	145.00	141.38	97.50
		Higher Education	280.00	38.11	13.61
		Sub -Total	425.00	179.49	42.23
11	Home, Jail and Disaster Mgmt.	Home	186.00	23.73	12.76
		Disaster Mgmt.	0.10		
		Sub -Total	186.10	23.73	12.75
12	Industries, Mines & Geology	Industries	375.00	105.01	28.00
		Mines and Geology	21.45	2.80	13.05
		Sub -Total	396.45	107.81	27.19
13	Information Technology & e-governance	Information Technology	180.00	38.63	21.46
14	Information & Public Relation	Information & Public Relation	60.00	32.86	54.77
15	Labour Employment, Training and Skill Dev.	Labour & Employment	155.00	28.28	18.25
16	Personnel, Adm. Reforms and Rajbhasha	Personnel, administrative Reforms and Rajbhasha	10.00	0.22	2.20
17	Planning-cum-Finance	Planning & Dev.	336.40	82.51	24.53
18	Revenue, Registration and Land Reforms	Revenue and Land Reforms	57.71	22.69	39.32
19	Road Construction	Road Construction	4000.00	3093.07	77.33
20	Rural Development	Rural Development	4711.65	2674.11	56.76
		Rural Works	2300.00	2597.85	112.95
		Panchayati Raj	190.25	132.12	69.45
		Sub -Total	7201.90	5404.08	75.04
21	School Education & Literacy	Human Resource Dev.	4250.00	1943.85	45.74
22	Tourism, Arts Culture, Sports & Youth Affairs	Tourism	120.00	16.92	14.10
		Arts & Culture	100.00	8.39	8.39
		Sub -Total	220.00	25.31	11.50
23	Transport	Transport	150.00	141.63	94.42
		Civil Aviation	100.00	87.50	87.50
		Sub -Total	250.00	229.13	91.65
24	Urban Development & Housing	Urban Development	1950.00	1135.03	58.21
		Housing	50.00	0.50	1.00
		Sub -Total	2000.00	1135.53	56.78
25	Water Resources	Water Resources	1837.00	858.89	46.76
26	Welfare	Welfare	1600.00	600.29	37.52
27	Women, Child Dev. & Social Security	Social Welfare	3275.00	1477.44	45.11
		Total	36673.91	19189.53	52.32

Source: Department of Finance, Government of Jharkhand

Appendix 3.1: Recovery Position of Bank Advances (End-September 2016)

(Amount In Lakhs)

	Priority Sector Recovery Position															
	Agriculture				MSE				OPS				Government Sponsored Schemes			
	Demand	Recovery	Percentage		Demand	Recovery	Percentage		Demand	Recovery	Percentage		Demand	Recovery	Percentage	
Sep-14	266889.77	161080.59	60.35	479432.37	273176.97	56.98	106209.63	61782.11	58.17	42167.05	15111.32	35.84	43208.46	15936.99	36.88	
Dec-14	265392.72	172625.82	65.05	494646.68	280591.39	56.73	108636.30	61011.36	56.16	43208.46	15936.99	36.88	43208.46	15936.99	36.88	
Mar-15	269482.12	173832.02	64.51	497658.86	279203.96	56.10	110512.85	62257.24	56.33	43559.20	16106.99	36.98	43559.20	16106.99	36.98	
Jun-15	285830.90	117161.43	40.99	467263.87	251399.76	53.80	118761.47	62225.39	52.40	44040.58	14755.03	33.50	44040.58	14755.03	33.50	
Sep-15	285864.18	137689.02	48.17	418238.97	253986.87	60.73	121300.20	73125.51	60.28	44354.15	15310.47	34.52	44354.15	15310.47	34.52	
Sep-16	315049.73	142292.46	45.17	521204.87	240875.92	46.22	463876.03	218158.70	47.03	-	-	-	-	-	-	

Source: SLBC Jharkhand.

Appendix 3.2: Financial Inclusion (End-September 2016)

(Amount In Lakhs)

	A) Total No of Villages Alloted For FI	(B) Covered Through Bca/Csc Out of (A)				(C) Covered Through Branch Out of (A)				(D) Total Usb				(E) Total No of Debit Card Issued	(F) Total Aadhar No Seeded SbA/C
		As on 31st March of Last Financial Year	Dur- ing The Current Financial Year	Total Since Inception		As on 31st March of Last Financial Year	Dur- ing The Current Financial Year	Total Since Inception		As on 31st March of Last Financial Year	Dur- ing The Current Financial Year	Total Since Inception			
		Banks With Lead Bank	10108	5820	1621	7406	631	83	714	231	256	487	4299557		
Other Public Sec- tor Banks	2779	2256	269	2266	43	20	63	184	106	290	1554116	1588879			
Other Public Sec- tor Banks New	515	156	266	413	147	67	167	99	4	103	445349	367628			
Idbi	24	0	0	24	0	0	0	0	0	0	225267	66286			
Private Sec- tor Banks	3	2	2	3	1365	4450	5815	0	0	0	20963	13883			
Comc. Banks Total	13429	8234	2158	10112	2186	4620	6759	514	366	880	6545252	6523950			
Regional Rural Banks [Rrbs]	7859	3780	1314	5094	2298	0	2298	159	236	395	689755	838144			
Total	21288	12014	3472	15206	4484	4620	9057	673	602	1275	7235007	7362094			

Source: SLBC Jharkhand

Appendix 3.3: District wise Financial Inclusion (As on 30th September 2016)

(Amt. in lacs)

District Name	A) Total No of Villages Alloted For FI	(B) Covered Through Bca/Gsc Out of (A)			(C) Covered Through Branch Out of (A)			(D) Total Usb			(E) Total No of Debit Card Issued	(F) Total Aadhar No Seeded SbA/C
		As on 31st March of Last Financial Year	Dur- ing The Current Financial Year	Total Since Inception	As on 31st March of Last Financial Year	Dur- ing The Current Financial Year	Total Since Inception	As on 31st March of Last Financial Year	Dur- ing The Current Financial Year	Total Since Inception		
Bokaro	465	299	73	319	1427	4454	5880	28	35	63	474512	339470
Chatra	1068	486	6	492	27	2	29	35	10	45	306965	210996
Deochar	2158	552	932	1472	692	1	668	22	5	27	313596	435135
Dhanbad	915	746	174	881	98	6	104	42	43	85	864813	718896
Dumka	1314	460	452	905	450	1	451	20	39	59	220604	293015
E. Singhbhum	1224	1044	93	1137	74	4	75	15	3	18	463792	574218
Garhwa	144	182	0	182	15	0	15	11	106	117	342914	352780
Giridih	2059	1417	448	1845	77	9	86	44	15	59	388368	420736
Godda	722	281	140	408	344	19	363	33	27	60	206656	283627
Gumla	1292	881	49	912	45	4	49	73	12	85	261664	212132
Hazaribagh	762	448	40	474	42	5	47	68	40	108	413694	371872
Jamtara	573	236	24	253	308	5	313	1	16	17	135517	222230
Khunti	472	359	29	389	8	19	27	5	2	7	91646	123541
Koderma	661	139	8	148	23	2	25	56	13	69	157332	114701
Latehar	401	151	105	256	139	1	140	3	30	33	117193	195050
Lohardaga	154	138	4	138	1	1	2	3	1	4	107683	97329
Pakur	438	281	35	312	131	5	136	2	3	5	143844	230701
Palamau	995	362	606	968	64	3	65	21	96	117	398740	443553
Ramgarh	438	145	19	144	37	3	46	46	22	68	185433	150095
Ranchi	1477	1146	36	1157	152	21	168	43	25	68	738276	610483
Sahibganj	723	418	151	564	185	42	227	13	40	53	251841	337809
Saraikela	913	565	23	565	65	5	54	40	6	46	211787	250379
Simdega	591	187	15	187	45	2	47	19	9	28	159397	139373
W. Singhbhum	1329	1091	10	1098	35	6	40	30	4	34	278740	233973
Total	21288	12014	3472	15206	4484	4620	9057	673	602	1275	7235007	7362094

Source: SLBC/Jharkhand

Appendix 3.4: District wise NPA Position (As on 30th September 2016)

(Amt. in lacs)

Sl. No.	DISTRICTS	AGRICULTURE		MSE		OPS		TOTAL PS		NPS		TOTAL NPA	
		AC	AMT	AC	AMT	AC	AMT	AC	AMT	AC	AMT	AC	AMT
1	Bokaro	5611	3544.56	4498	18584.75	858	2807.82	11099	23821.44	2437	2629.25	13862	27149.20
2	Chatra	3515	1642.77	2249	1544.55	543	371.19	6310	3579.28	625	314.30	7086	4011.42
3	Deoghar	9252	4849.59	4147	8753.20	1546	1683.34	14264	15304.97	1457	4096.51	15930	20551.28
4	Dhanbad	4309	4650.01	7119	18833.36	3606	5008.86	14384	27218.90	3917	4704.21	18818	35839.47
5	Dumka	4909	2111.53	2889	3117.62	1631	859.81	9515	5990.40	1760	1010.35	11136	7174.25
6	E.Singhbhum	8271	4090.26	6360	35413.62	1806	4210.21	16215	44366.82	3385	21020.72	20083	69929.02
7	Garhwa	3234	1874.74	2076	2276.25	534	513.88	5711	4078.68	442	305.80	6506	5681.67
8	Giridih	11419	4522.82	7432	4666.02	690	622.98	18990	8912.01	1837	6460.46	20965	15273.62
9	Godda	3086	1531.02	1820	2001.87	467	287.94	5385	3820.83	739	264.48	6028	4483.78
10	Gumla	9860	4515.30	3381	5843.28	765	463.63	14113	10140.88	1375	1036.29	15595	9759.30
11	Hazaribagh	6559	3835.56	2964	7044.69	1428	1254.85	10847	11554.57	1757	2284.76	12707	15726.30
12	Jamtara	5608	1110.09	2018	1584.55	364	252.65	7899	2946.67	702	198.27	8586	3115.59
13	Khunti	10300	1454.35	1219	2331.67	371	201.91	11898	3895.86	484	577.06	12935	3328.41
14	Koderma	2859	1087.52	1184	2461.92	312	590.41	4121	3677.15	743	810.33	5154	5127.57
15	Latehar	4042	2191.78	2421	2727.81	620	209.78	6970	5122.27	1389	412.77	8992	3929.70
16	Loherdaga	9066	5016.89	1834	4370.86	531	310.92	11354	9692.32	1242	412.09	11656	7721.75
17	Pakur	2518	1067.82	1859	1049.88	288	201.87	4619	2218.67	877	359.41	5488	2553.96
18	Palamau	9089	4018.67	6360	5316.39	1308	1008.10	16614	9865.26	849	565.04	17505	12537.24
19	Ramghar	4309	2384.23	1724	11591.58	865	961.95	6617	14547.84	1000	1962.72	7659	12469.79
20	Ranchi	21492	15395.48	10969	49328.54	3337	5077.50	34073	67055.35	8260	26824.98	44912	153469.11
21	Sahibganj	3519	1254.86	4088	1665.28	688	503.50	9013	3336.62	822	399.30	9141	3499.71
22	Saraikeela	7114	3541.35	2568	8648.88	393	735.03	9650	12322.88	780	1130.13	10793	12143.93
23	Simdega	5692	2181.72	1908	2691.88	478	431.24	7683	4828.54	1513	868.78	10345	5302.44
24	WSinghbhum	15161	4656.21	4551	8916.46	991	869.01	19981	13549.23	1861	1523.68	22157	12472.37
	TOTAL	170794	82529.13	87638	210764.91	24420	29438.38	277325	311847.44	40253	80171.69	324039	453250.88

Source: SLBC, Jharkhand

Appendix 3.5: District wise Status of Progress on NULM (As on 30th September 2016)

(Amt. in lacs)

Sl. No.	District	Target for AFY - 2016-17		Applications Received		Applications sanctioned		Applications Rejected		Applications pending	
		NO.	AMT.	NO.	AMT.	NO.	AMT.	NO.	AMT.	NO.	AMT.
1	Bokaro	664	0	61	36.65	6	4	1	0.3	54	32.35
2	Chatra	135	0	0	0	0	0	0	0	0	0
3	Deochar	697	0	0	0	0	0	0	0	0	0
4	Dhanbad	3259	2848.02	121	90.13	0	0	0	0	121	90.13
5	Dumka	174	261	15	4.46	9	2.67	6	1.78	0	0
6	East-Singhbhum	2639	1658	67	82	27	22.5	0	0	40	59.5
7	Garhwa	42	0	0	0	0	0	0	0	0	0
8	Giridih	309	0	81	0	6	0	54	0	21	0
9	Godda	131	0	13	7.5	0	0	0	0	13	7.5
10	Gumla	139	139	0	0	0	0	0	0	0	0
11	Hazaribagh	534	0	86	0	36	43.9	16	0	34	0
12	Jamtara	188	376	47	94	29	30	17	34	1	2
13	Koderma	303	0	0	0	0	0	0	0	0	0
14	Khunti	98	0	78	0	9	4.5	11	0	58	0
15	Latehar	73	0	0	0	0	0	0	0	0	0
16	Lohardaga	155	310	65	0	0	0	0	0	65	0
17	Pakur	124	0	0	0	0	0	0	0	0	0
18	Palamou	483	0	293	190.25	44	26.51	116	79.69	133	84.05
19	Rangarh	348	0	93	0	34	0	23	0	36	0
20	Ranchi	2946	0	16	0	0	0	0	0	16	0
21	Sahibganj	78	0	12	10.7	2	1	0	0	10	8.7
22	Seraikela	0	0	234	117	0	0	0	0	234	117
23	Simdega	94	188	94	188	11	22	3	6	80	160
24	West-Singhbhum	0	0	0	0	0	0	0	0	0	0
	TOTAL	13613	5780.02	1376	820.69	213	157.08	247	121.77	916	561.23

Source: SLBC, Jharkhand

**Appendix 3.6: Statement on Issue of Rupay Cards in KCC Accounts
(As of 30th September 2016, Since Beginning)**

S. No.	Name of the Bank	No of KCC Issued	Total Sanctioned Amount (in Lacs)	No of Rupay Cards Issued
1	Allahabad Bank	135534	29841.20	108428
2	Bank Of India	354627	111624.06	211562
3	Bank Of Baroda	13728	3907.12	7389
4	Canara Bank	9776	4595.00	5109
5	Central Bank Of India	41628	18634.82	28524
6	Corporation Bank	900	49.39	469
7	Federal Bank	112	216.76	2686
8	Indian Overseas Bank	2947	799.68	2947
9	Jharkhand Gramin Bank	120698	35225.31	52323
10	Oriental Bank Of Commerce	1564	691.52	915
11	State Bank Of India	460576	323228.00	206712
12	Syndicate Bank	5452	1698.00	2560
13	UCO Bank	13278	4181.00	7967
14	Union Bank Of India	39397	11249.39	23792
15	United Bank	36722	9145.06	1850
16	Vananchal Gramin Bank	216313	878.00	78634
17	Vijaya Bank	331	198.21	268
18	Corporation Bank	451	121.00	317
19	Dena Bank	1498	3126.00	568
20	HDFC Bank Ltd	4150	2785.85	4150
21	ICICI Bank	432	174.52	0
22	IDBI Bank	6723	31.70	3118
23	Punjab National Bank	40586	16276.00	19803
24	Andhra Bank	259	109.04	160
	Total	1507682	578786.63	770251

Source: SLBC, Jharkhand

Appendix 4.1: District wise employment generated

District	No. of Registered		No. of deleted Job card in current YR		Job Card Issued	Employment demanded		Employment offered		Employment Provided			No. of Mus-ter Roll	No. of Families Completed 100 days	On Going works
	Household	Persons	Household	Persons		Household	Persons	Household	Persons	Household	Persons	Persondays			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Bokaro	181048	317013	2412	5669	175766	61556	82377	61451	82220	50985	65574	1921436	48880	593	5847
Chatra	169960	263344	1372	3607	162371	82335	122587	82279	122496	68273	100614	3000937	63769	2315	9219
Deoghar	192746	383637	2434	7735	182356	95723	125267	95707	125243	82027	102501	3503968	96947	819	10324
Dhanbad	157806	211794	9113	14998	156708	66761	83069	66597	82867	51545	62067	1548872	40650	202	8782
Dumka	186427	381573	16433	60418	178983	91395	140037	91307	139875	73897	105891	2666200	55130	686	14432
East Singhbhum	199614	480401	5378	18232	194155	69673	108496	69640	108446	58035	83427	1683872	56834	534	5900
Garhwa	188872	383193	11858	37716	168557	117019	191302	116920	191099	89647	137123	3490691	46988	510	10534
Giridih	214993	434862	3495	17080	210773	119411	186074	119383	186011	99579	146318	4178121	105697	2092	9595
Godda	189623	406448	2478	9463	178116	61553	93705	61550	93703	52314	77668	2138614	51562	887	6798
Gumla	185365	408216	1475	6909	185047	67628	97035	67566	96944	56721	76628	1731916	51043	518	11336
Hazaribagh	198286	355683	1717	11137	187070	86534	132118	86478	132029	74022	108194	2956759	52402	1748	7711
Jamtara	114930	210763	992	4178	111303	51117	72131	51114	72127	46073	62594	1708644	46882	921	5491
Khunti	107838	211467	2484	10444	106618	42499	57275	42497	57266	35595	45865	1111552	29313	317	6280
Koderma	59674	102054	559	1290	56782	30469	44782	30460	44767	25811	36677	1042237	18689	378	2901
Latehar	115910	227655	11368	52998	105076	64911	109365	64893	109325	56353	92566	2312561	52171	731	7228
Lohardaga	71038	184402	137	2845	70889	30517	55111	30516	55107	26061	41925	823362	14865	441	3643
Pakur	147750	297094	942	6210	145452	66386	103454	66375	103435	53768	81373	2073545	50522	850	6254
Palamu	227208	408874	2886	7500	206546	104144	149353	104122	149308	83899	115964	2514069	55351	314	7617
Ramgarh	73883	155835	694	2711	71053	23445	39233	23427	39206	19731	29422	773397	20343	323	2865
Ranchi	326233	728452	476	3721	315733	100384	143383	100364	143356	88764	121089	2845632	74823	1140	8073
Sahebganj	124818	190898	6497	13743	121610	76077	100324	76059	100295	65707	84188	2067849	38536	225	2622
Saraikela Kharsawan	149709	303258	979	4083	148521	66758	106554	66744	106527	52256	75888	1842376	41294	1007	8459
Simdega	106488	254713	4047	21676	102815	51263	97283	51247	97250	39151	65887	1328355	39148	642	6581
West Singhbhum	270887	583845	4241	20326	258491	86830	119832	86819	119798	70507	93799	1943560	48221	458	7504
Total	3961106	7885474	94467	344689	3800791	1714388	2560147	1713515	2558700	1420721	2013242	51208525	1200060	18651	175996

Source: <http://www.nrega.nic.in/>

Appendix 4.2: District wise Households completing 100 days

S. No	District	Household Employed	Person days Generated
1	Bokaro	593	59472
2	Chatra	2315	234431
3	Deoghar	814	82238
4	Dhanbad	202	20365
5	Dumka	686	69989
6	East Singhbhum	534	54246
7	Garhwa	501	52030
8	Giridih	2092	212255
9	Godda	887	89712
10	Gumla	518	52323
11	Hazaribagh	1748	176476
12	Jamtara	921	92929
13	Khunti	317	32220
14	Koderma	378	38208
15	Latehar	731	73896
16	Lohardaga	441	44610
17	Pakur	850	86461
18	Palamu	314	31743
19	Ramgarh	323	32535
20	Ranchi	1140	114845
21	Sahebganj	225	22786
22	Saraikela Kharsawan	1007	102299
23	Simdega	642	64689
24	West Singhbhum	458	46367
	Total	18637	1887125

Source: <http://www.nrega.nic.in>

Appendix 5.1: Projected Slum Population in Jharkhand

Year	Slum Population
2011-12	931912
2012-13	948949
2013-14	966239
2014-15	983530
2015-16	1001202
2016-17	1019382
2017-18	1036673

Source: Ministry of Housing & Urban Poverty Alleviation

Appendix 5.2: Projected Total and Urban Population in Jharkhand

Year	Total Population	Urban Population	% Urban Population
2001 -02	26946	5994	22.2
2002 -03	27443	6133	22.3
2003 -04	27922	6269	22.5
2004 -05	28388	6403	22.6
2005 -06	28846	6536	22.7
2006 -07	29299	6669	22.8
2007 -08	29745	6802	22.9
2008 -09	30181	6933	23.0
2009 -10	30611	7064	23.1
2010 -11	31040	7196	23.2
2011 -12	31472	7330	23.3
2012 -13	31904	7464	23.4
2013 -14	32334	7600	23.5
2014 -15	32766	7736	23.6
2015 -16	33203	7875	23.7
2016 -17	33652	8018	23.8
2017 -18	34069	8154	23.9
2018 -19	34483	8291	24.0
2019 -20	34887	8426	24.2
2020 -21	35278	8560	24.3
2021 -22	35652	8690	24.4
2022 -23	36018	8819	24.5
2023 -24	36375	8946	24.6
2024 -25	36718	9072	24.7
2025 -26	37046	9194	24.8
2026 -27	37356	9313	24.9

Source: Census of India, RGI

Appendix 6.1: District wise Comparative Report

Sl. No	District	No. of Artificial Insemination				No. of Treatment Animal				Number of castration				No. of vaccinations			
		Target	Achievement 2013-14	Achievement 2014-15	Achievement 2015-16	Target	Achievement 2013-14	Achievement 2014-15	Achievement 2015-16	Target	Achievement 2013-14	Achievement 2014-15	Achievement 2015-16	Target	Achievement 2013-14	Achievement 2014-15	Achievement 2015-16
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1	Ranchi	13824	48589	54388	61790	144000	252605	223851	325260	27500	18971	18994	24206	273600	428235	271396	269753
2	Khuti	9216	0	9184	9063	96000		51849	87495	18350	4886	4886	6182	182400		79742	100167
3	Gumla	7200	8457	11202	12489	78000	110412	80747	82421	15290	4704	4143	4751	260500	242770	179074	129344
4	Lohardagha	5280	14825	19103	21778	58000	42648	43404	42649	7640	2045	2230	2418	101500	142770	67195	41296
5	Simdegha	5760	2427	3350	3692	58000	24628	31358	62236	9680	909	1223	3017	209500	79635	75638	163357
6	Chaibasa	14400	5143	6655	8074	155000	100982	150469	162805	11970	7956	161397	13866	219500	241944	187693	128069
7	Jamshedpur	10560	15974	24859	25839	108000	76540	94151	123679	18340	6645	8719	11050	200500	243053	135970	99443
8	Saraikela	8160	10365	13911	17558	86000	71162	82987	95492	15290	5896	6389	8034	155500	147951	113102	95724
9	Palamu	7680	43312	56883	57606	90000	26213	36747	63241	10700	1880	2944	2862	272500	75737	200194	48236
10	Gadhwa	8160	26242	35211	38389	85000	55378	39487	46014	9680	3599	3981	4296	201000	104329	112897	52002
11	Lathehar	6240	10881	14508	14457	66000	45752	41693	36843	7640	4362	3079	2665	163000	73802	115229	83192
12	Hazaribagh	8736	43351	38352	43979	84500	119576	77578	73790	9930	5002	4943	4345	191750	209066	96414	86031
13	Ramgarh	4704	0	15564	17543	45500		42453	41890	5350		2572	2556	103250		71807	53397
14	Kodermah	3840	13567	17985	2323	30000	42235	40485	34319	3820	1765	1853	1580	100500	70112	85150	69145
15	Chatra	5280	19250	22903	25094	60000	42517	27773	23547	6370	1586	703	722	195000	115687	77407	37806
16	Dhanbad	9600	26572	35091	37799	105000	123630	117974	104878	11970	3763	4779	4807	207000	175427	158316	107555
17	Bokaro	8640	20447	28832	30314	80000	68980	63900	55706	9680	3512	3624	2672	202000	71745	106374	88780
18	Gridih	12000	26292	34191	42230	120000	54528	56970	80813	14000	3275	3549	5895	331500	147334	175328	101025
19	Dumka	10080	18727	23680	24787	107000	49584	47963	65030	12230	4498	3712	4760	287000	179860	100309	103032
20	Jamatadh	4800	9622	14143	14639	40000	39219	34827	36950	5600	2363	2302	2047	174500	103783	81259	59584
21	Sahebganj	9600	15777	18881	18866	90000	60856	59775	62515	11460	5719	6963	6468	147000	91704	91135	59559
22	Pakudh	6240	6484	7908	7804	64000	52466	59593	59014	9680	3947	5516	5543	158000	104984	94649	53444
23	Devgarh	7200	28960	39127	43099	75000	71797	73331	77654	8660	3245	3936	5460	220000	186346	109958	75910
24	Godha	7200	29738	36143	41816	75000	43961	37214	97026	9170	2626	2203	5122	193000	147972	53079	105234
	Total	194400	445002	582054	642028	2000000	1575669	1616579	1941267	270000	98268	264640	135324	4750000	3384246	2839315	2211085

Source: Agriculture, Animal Husbandry & Co-operative Dept. (Agriculture)

Appendix 6.2: Fertilizer Status in Jharkhand for Last 8 Years

Unit- tonne

Year	Kharif				Rabi		
	Product	Requirement	Supply	Consumption	Requirement	Supply	Consumption
2009-10	UREA	135000	95503	90422	70000	52216	59933
	DAP	75000	47190	46516	40000	34910	35517
	MOP	10000	3783	6367	5000	10898	10898
	COMPLEX	30000	28537	26367	25000	40531	42155
2010-11	UREA	140000	85443	85419	70000	55315.35	50284.1
	DAP	70000	52002	44618	40000	13538.65	20242
	MOP	11000	52002	4117	5000	3427.25	1597.55
	COMPLEX	40000	22335	21871	45000	13505	13674.4
2011-12	UREA	160000	124464	128088	100000	652064	64176.6
	DAP	80000	44559	40974	45000	16600	12295.7
	MOP	20000	-	1830	14000	0	0
	COMPLEX	38000	28144.5	25852.45	70000	16230	12084.6
2012-13	UREA	170000	125894	119145	100000	79426.9	72250.9
	DAP	80000	36280	24457	45000	27778.2	27673.2
	MOP	20000	2267	2267	15000	255	255
	COMPLEX	40000	20782	18432	65000	9586	9579.4
	SSP	40000	833	830	24000	3034.05	2999.1
2013-14	UREA	160000	119055.9	111316.55	100000	48489.95	51241.8
	DAP	50000	18769.55	12271.35	40000	10594.85	16501.4
	MOP	15000	3277.55	678	10000	2599.55	2599.55
	COMPLEX	35000	11400.45	9997.7	40000	4790.35	2952.5
	SSP	20000	1050.7	828.5	75000	1701.6	1701.5
2014-15	UREA	160000	108030.1	108030.1	100000	72148.85	72148.2
	DAP	45000	2175661	20374.16	30000	6743.85	6213.95
	MOP	10000	629.15	624.55	6000	4.6	4.6
	COMPLEX	35000	15245.15	14924.9	20000	11313.1	10192.91
	SSP	61760	2706.75	2443.75	50000	1141.9	1140.95
2015-16	UREA	125000	145592.4	145201.5	120000	21024.8	13285.2
	DAP	45000	54901.45	46702.18	60000	13541.24	2857.44
	MOP	10000	2944.55	2670.8	6000	273.75	186.5
	COMPLEX	35000	34731.35	26700.95	50000	8116.55	1249.2
	SSP	61760	2185	1972.5	30000	212.5	110
2016-17 Up to 31.10.2016	UREA	200000	162803.75	156807.1	100000	21682.05	6966.45
	DAP	70000	47698.15	34121.5	25000	18327.35	2425.75
	MOP	10000	3089.35	1265.2	3000	1265.2	400
	COMPLEX	50000	13429	8151.35	7500	5923.05	892.1
	SSP	25000	688	351.65	30000	456.35	336.35

Source: Agriculture, Animal Husbandry & Co-operative Dept. (Agriculture)

Appendix 6.3: Production of food grains and major non-food grain crops

YEAR	RICE	WHEAT	COARSE CEREALS	PULSES	FOOD-GRAINS	OILSEED	SUGER-CANE
2000-01	1644.7	103.6	166.7	96	2011	28	144.9
2001-02	1821.7	115.4	261.8	43.3	2242.2	28	144.9
2002-03	1381	104	274.7	133.5	1893.2	2.1	140.6
2003-04	2310	118	342	135	2905	8	136
2004-05	1677	150	324.1	160	2311.1	7	141.6
2005-06	1558	77.7	259.6	172.3	2067.6	8.5	142
2006-07	2967.8	128.9	332	258.1	3686.8	50	142
2007-08	3336.4	139.9	386.4	301.8	4164.5	68.8	150
2008-09	3420.2	153.9	333.9	280.7	4188.7	73.2	348.8
2009-10	1538.4	173.2	216.9	223.7	2152.2	79.5	447
2010-11	1110	158.4	278.5	329.6	1876.6	113.7	457.3
2011-12	3130.6	302.6	330.1	412	4175.3	155.5	457.3
2012-13	3164.9	319.5	463.8	609.3	4557.5	197.2	461.9
2013-14	2810.6	370.4	526.1	578.6	4285.7	182.9	462.8
2014-15	3319.7	330.4	487.7	597.1	4734.9	174.5	469.8

Source: Agricultural Statistics at a Glance, Ministry of Agriculture & Farmers Welfare, Govt. of India

Appendix 6.4: Milk Production (Thousand MT)

SL. No.	Districts	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
1	2	3	4	5	6	7	8	9
1	Bokaro	65.8077	70.7502	70.9906	75.6181	76.5023	84.5400	101.5701
2	Chatra	79.6888	84.3379	85.6673	89.9076	90.9014	87.9100	86.8896
3	Deoghar	83.6902	89.1832	91.2283	97.5582	98.8169	99.5900	110.1496
4	Dhanbad	84.3630	91.0955	90.3687	95.5199	96.5273	109.9500	130.1698
5	Dumka	78.5562	83.2638	86.3921	93.1135	94.4310	90.8200	86.5392
6	Garhwa	77.4148	81.9034	83.1240	87.0705	88.0160	84.8000	79.3958
7	Giridih	112.5312	119.7947	122.4975	131.0252	132.7140	134.3400	128.1760
8	Godda	76.3873	80.6909	82.2006	86.3262	87.2963	83.2200	74.7628
9	Gumla	64.7833	67.9848	70.0754	74.4362	75.3768	70.9300	66.8896
10	Hazaribagh	79.8046	84.9038	86.3121	92.0282	93.1639	96.4500	101.2033
11	Jamtara	39.0097	41.4874	43.0513	46.6220	47.2996	46.4200	47.2305
12	Khunti	26.6581	28.2068	28.9632	30.9501	31.3515	30.9500	31.1076
13	Kodarma	30.6142	32.7087	33.1037	35.1511	35.5675	36.9700	37.4034
14	Latehar	42.3433	44.5837	45.2944	47.4021	47.9137	45.8700	39.0422
15	Lohardaga	19.4750	20.7823	21.0120	22.4246	22.6973	24.3400	25.5887
16	Pakur	48.3473	50.8693	52.3906	55.4948	56.1837	52.2000	49.0019
17	Palamu	104.9233	110.7022	112.6291	117.6121	118.8735	111.0700	94.3164
18	W. Singhbhum	33.0250	34.6476	36.0375	39.1831	39.7630	39.7200	42.1477
19	E. Singhbhum	60.8504	66.0418	65.7393	70.8027	71.6655	86.2100	116.7344
20	Ramgarh	30.4505	32.6574	32.4169	34.2728	34.6335	39.6200	45.8900
21	Ranchi	102.0192	109.5733	108.4639	114.5902	115.7599	136.6000	179.4398
22	Sahebganj	59.5909	63.4162	64.1403	67.5327	68.3019	66.3600	62.6320
23	Saraikela-Kharsawan	30.8108	32.5376	33.7685	36.7276	37.2705	37.6200	40.4513
24	Simdega	31.8552	33.5205	35.1128	38.2196	38.8030	37.2300	35.6440
	Total	1463.0000	1555.6428	1580.9800	1679.5892	1699.8300	1733.7300	1812.3757

Source: Agriculture, Animal Husbandry & Co-operative Dept.(Agriculture)

Appendix 6.5: Eggs Production (Lakh No.)

SL. No.	Districts	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
1	2	3	4	5	6	7	8	9
1	Bokaro	152.5408	159.0438	164.3935	181.4667	183.4258	168.6100	191.8581
2	Chatra	82.1289	89.2996	89.8859	82.6456	94.7754	104.2800	122.5647
3	Deoghar	111.5093	117.6321	122.4334	117.7933	122.5791	133.8000	140.8777
4	Dhanbad	181.9479	193.7195	199.0177	188.1520	205.6241	219.3200	224.0323
5	Dumka	192.8720	203.8789	210.2396	211.5412	221.3134	227.9900	234.0211
6	Garhwa	66.9091	72.6975	73.0006	69.4596	78.5797	84.5900	88.6579
7	Giridih	165.5390	175.8591	181.3808	177.1371	185.8552	200.4000	199.8807
8	Godda	115.4938	122.2366	126.0693	124.1685	131.4983	137.6400	131.5903
9	Gumla	186.8099	195.2027	205.8266	201.0026	199.7667	219.0700	236.9072
10	Hazaribagh	150.6673	163.1651	165.5152	149.1176	169.5341	190.0900	224.1813
11	Jamtara	120.4961	125.9532	130.6476	132.3569	139.8233	133.5900	130.8440
12	Khunti	119.6899	126.3001	131.3200	130.1569	132.6364	142.6900	144.5263
13	Kodarma	34.0027	35.8659	36.9406	40.3171	39.9636	40.2000	46.3216
14	Latehar	73.6741	78.5636	80.7509	77.2523	82.7629	90.0800	101.3587
15	Lohardaga	79.0645	85.0248	86.4371	81.4923	90.6968	98.5300	116.4850
16	Pakur	213.6155	223.3782	229.8841	249.0191	258.6697	233.0000	250.9225
17	Palamu	98.5522	110.5495	107.4039	91.4277	119.5329	133.3500	139.6788
18	W. Singhbhum	491.3658	513.9585	538.3129	534.5517	542.2851	565.6800	551.5158
19	E. Singhbhum	293.0077	305.9640	319.6567	324.5734	330.1990	345.4200	325.3945
20	Ramgarh	59.9782	96.0858	98.8900	92.7215	99.6929	112.0100	113.8047
21	Ranchi	377.6032	400.4848	412.5273	407.7610	429.6040	451.6600	484.6816
22	Sahebganj	151.7800	160.1180	166.1722	162.9232	169.4004	182.0700	189.8578
23	Saraikela- Kharsawan	227.3558	236.8936	248.9570	246.7449	250.1784	267.4400	264.7419
24	Simdega	153.3960	161.2892	168.8171	165.1720	166.3926	181.6600	178.1364
	Total	3899.9997	4153.1640	4294.4800	4238.9542	4444.7898	4663.1700	4832.8409

Source: Agriculture, Animal Husbandry & Co-operative Dept. (Agriculture)

Appendix 6.6: Meat Production (Thousand MT)

SL. No.	Districts	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
1	2	3	4	5	6	7	8	9
1	Bokaro	1.4564	1.3870	1.4673	1.3936	1.3693	1.3800	2.5713
2	Chatra	2.0100	1.8371	1.9046	1.9202	1.7240	1.8800	1.1238
3	Deoghar	1.8473	1.7320	1.8173	1.6429	1.4104	1.5100	1.3893
4	Dhanbad	1.7272	1.6194	1.7023	1.6614	1.4758	1.5700	2.8556
5	Dumka	3.1028	2.8164	2.9177	2.9483	2.5750	2.5900	1.6496
6	Garhwa	1.5882	1.4736	1.5421	1.4657	1.4578	1.6700	1.5602
7	Giridih	2.6261	2.4841	2.6132	2.3817	2.1333	2.2500	1.8535
8	Godda	1.6823	1.5748	1.6503	1.6004	1.3796	1.5100	0.9124
9	Gumla	2.4380	2.3049	2.4265	2.3715	2.1917	2.2100	1.8303
10	Hazaribagh	2.4907	2.4144	2.5731	2.6453	5.5844	5.6350	6.5914
11	Jamtara	1.3202	1.2274	1.2871	1.2431	1.1491	1.1600	1.0456
12	Khunti	1.3204	1.2287	1.2893	1.2062	1.0936	1.2100	2.4754
13	Kodarma	0.4991	0.4791	0.5065	0.4453	0.4061	0.4300	0.4980
14	Latehar	1.5449	1.4171	1.4719	1.4951	1.3157	1.3600	1.5978
15	Lohardaga	0.7112	0.6814	0.7218	0.7029	0.6498	0.6920	0.5905
16	Pakur	2.8865	2.6142	2.7058	2.7549	2.4045	2.4200	1.8661
17	Palamu	1.9031	1.7519	1.8247	1.7355	1.5732	1.6800	1.3674
18	W. Singhbhum	2.9561	2.8259	3.0037	2.8114	2.3476	2.4300	2.1864
19	E. Singhbhum	2.2314	2.1222	2.2488	2.0708	2.1763	2.2800	2.6479
20	Ramgarh	1.1144	1.0495	1.1033	1.0908	1.0482	1.2900	2.1262
21	Ranchi	3.4711	3.2862	3.4642	3.3366	5.1697	5.3400	7.8373
22	Sahebganj	1.9739	1.8169	1.8910	1.9147	1.6744	1.6900	1.4524
23	Saraikela- Kharsawan	1.7446	1.6583	1.7583	1.6422	1.3993	1.4200	1.9054
24	Simdega	2.1151	1.9625	2.0495	2.0370	1.7612	2.2600	0.7780
Total		46.7610	43.7647	45.9403	44.5175	45.4700	47.0670	50.7118

Source: Agriculture, Animal Husbandry & Co-operative Dept. (Agriculture)

Appendix 6.7: Wool Production (Thousand Kg)

SL. No.	Districts	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
1	2	3	4	5	6	7	8	9
1	Bokaro	4.9498	5.4350	7.3403	5.7830	5.6825	5.9400	5.7476
2	Chatra	0.0733	0.0804	0.1086	0.0856	0.0841	0.0852	0.0000
3	Deoghar	6.2309	6.8416	9.2401	7.2797	7.1532	7.1720	7.7267
4	Dhanbad	5.9180	6.4981	8.7761	6.9142	6.7942	6.9100	7.0843
5	Dumka	9.5079	10.4398	14.0997	11.1083	10.9152	11.4200	10.8116
6	Garhwa	7.3825	8.1061	10.9478	8.6252	8.4752	8.7700	9.1167
7	Giridih	3.4791	3.8201	5.1592	4.0647	3.9940	4.3100	4.5842
8	Godda	1.1313	1.2422	1.6777	1.3217	1.2988	1.3210	1.6772
9	Gumla	1.1537	1.2668	1.7109	1.3479	1.3245	1.3340	0.7104
10	Hazaribagh	0.5193	0.5702	0.7701	0.6068	0.5962	0.6210	0.7920
11	Jamtara	7.3218	8.0395	10.8579	8.5543	8.4059	8.6310	9.4532
12	Khunti	9.1346	10.0300	13.5461	10.6722	10.4867	10.7220	11.4343
13	Kodarma	0.1841	0.2021	0.2730	0.2151	0.2113	0.2210	0.2505
14	Latehar	0.0362	0.0397	0.0536	0.0422	0.0415	0.0421	0.0000
15	Lohardaga	0.5028	0.5521	0.7456	0.5874	0.5772	0.5841	0.2287
16	Pakur	8.7499	9.6075	12.9759	10.2227	10.0450	10.2554	10.3306
17	Palamu	6.3417	6.9633	9.4044	7.4092	7.2804	7.6420	7.2642
18	W. Singhbhum	23.3628	25.6527	34.6457	27.2953	26.8209	27.8262	26.7147
19	E. Singhbhum	16.4460	18.0579	24.3884	19.2142	18.8802	19.3210	23.4419
20	Ramgarh	0.6502	0.7140	0.9642	0.7597	0.7465	0.8430	0.3934
21	Ranchi	6.4052	7.00330	9.4985	7.4833	7.3532	7.4520	7.5497
22	Sahebganj	1.0578	1.1615	1.5687	1.2359	1.2144	1.2420	0.5359
23	Saraikela- Kharsawan	13.9673	15.3363	20.8127	16.3184	16.0347	16.2110	17.4522
24	Simdega	1.4936	1.6400	2.2150	1.7450	1.7147	1.8890	2.5183
	Total	135.9998	212.3299	201.7802	158.8920	156.1305	160.7650	165.8183

Source: Agriculture, Animal Husbandry & Co-operative Dept. (Agriculture)

Appendix 6.8: Total Area and Classification of Area in each District of Jharkhand State for the Year Ending 2013-14 (Hectare)

District	Reporting Area for LUS	Classification of Reporting Area										Net Area Sown	Cropped Area	Area Sown More Than Once	
		Not Available for Cultivation				Other Uncultivated Land Excluding Fallow Land				Fallow Land					
		Forests	Area Under Non Agricultural Uses	Barren and Unculturable Land	Total	Permanent Pasture and Other Grazing Land	Land Under Misc. Tree Crops and Groves not Included in Net Area Sown	Culturable Waste Land	Total	Fallow Lands Other Than Current Fallows	Current Fallow				Total
Bokaro	288992	74182	30946	40311	71257	4857	5409	10547	20813	43703	45666	89369	33371	37083	3712
Chatra	382050	216914	18938	10066	29004	1316	1730	3977	7023	41179	75832	117011	12098	39625	27527
Deoigarh	243695	19399	22541	17556	40097	11084	2230	19972	33286	48652	66205	114857	36056	39655	3599
Dhanbad	204161	18927	48563	31102	79665	482	2152	11378	14012	46603	30707	77310	14247	14864	617
Dumka	377523	48871	32237	25642	57879	18382	5895	22229	46506	54410	104672	159082	65185	86274	21089
East Singhbhum	556697	124846	138649	46763	185412	2242	5416	40156	47814	37032	84777	121809	76816	79722	2906
Garhwa	428826	191161	24957	26867	51824	2965	3050	9780	15795	54532	61207	115739	54307	81336	27029
Giridih	493248	158533	32666	38463	71129	12824	9582	21991	44397	52313	109672	161985	57204	95872	38668
Godda	231842	23671	20661	17675	38336	6256	8593	9257	24106	22256	73309	95565	50164	86264	36100
Gumla	534318	135341	24203	35945	60148	1108	2388	31463	34959	66427	115074	181501	122369	127923	5554
Hazaribagh	431315	203673	24236	19952	44188	4186	4257	7874	16317	58258	60814	119072	48065	49634	1569
Jamtara	180704	14042	22299	7772	30071	14242	1710	14818	30770	43703	19513	63216	42605	42639	34
Khunti	261088	45535	18314	19531	37845	1265	370	12993	14628	45749	49391	95140	67940	85327	17387
Koderma	156999	59353	8596	9765	18361	1855	1308	3331	6494	27939	21488	49427	23364	25482	2118
Latehar	383490	195018	12918	24196	37114	1261	3270	13469	18000	39597	39915	79512	53846	56897	3051
Loahardaga	153621	44355	9689	10145	19834	25	2078	7324	9427	22537	17000	39537	40468	53047	12579
Pakur	180557	14683	16808	10846	27654	6860	4165	10735	21760	37882	48615	86497	29963	34966	5003
Palamu	460431	169819	31819	26611	58430	2577	3210	5719	11506	38183	74706	112889	107787	122044	14257
Ramgarh	139998	42276	17919	12995	30914	2339	887	1738	4964	24149	29094	53243	8601	15671	7070
Ranchi	497306	99584	41000	28535	69535	1899	3852	19332	25083	68168	112807	180975	122129	143669	21540
Sahebganj	198780	28316	20745	10231	30976	4343	3150	8082	15575	44042	39631	83673	40240	44431	4191
Saraikela Kharsawan	237231	64972	21559	16477	38036	3557	3259	11091	17907	13870	29763	43633	72683	74665	1982
Simdega	379434	103674	19701	25228	44929	4172	15301	18113	37586	54806	48009	102815	90430	92948	2518
West Singhbhum	567769	142336	45824	55335	101159	3712	4998	37502	46212	77156	87259	164415	113647	141849	28202
State Total	7970075	2239481	705788	568009	1273797	113809	98260	352871	564940	1063146	1445126	2508272	1383585	1671887	288302

Source: Ministry of Agriculture, Govt. of India

Appendix 9.1: Infrastructural Development & Asset Ownership

District Name	% villages having Paved Road of any of National/State/district other	% of HHs Electricity	% of HHs with Banking Facility	% of households with TV. Computer, telephone. Scooter / Car
Bokaro	43.70	70.18	64.18	86.60
Chatra	38.93	14.94	48.31	70.20
Deoghar	38.38	50.01	49.45	82.00
Dhanbad	51.26	85.58	66.79	87.10
Dumka	34.26	22.76	44.18	73.50
Garhwa	54.98	11.53	39.70	63.90
Giridih	46.87	32.04	56.10	81.80
Godda	37.91	17.22	39.22	68.20
Gumla	38.22	16.78	52.83	79.10
Hazaribagh	40.07	58.72	67.20	83.70
Jamtara	43.62	32.92	45.51	86.10
Khunti	44.69	28.4	44.03	78.40
Kodarma	44.37	54.64	63.94	82.20
Latehar	42.72	28.79	38.43	62.70
Lohardaga	66.48	31.51	57.55	83.00
Pakur	34.01	17.4	31.70	66.30
Palamu	38.22	19.19	50.93	69.20
Pashchimi Singhbhum	41.23	40.67	40.22	70.90
Purbi Singhbhum	37.10	81.44	65.42	88.60
Ramgarh	54.10	84.24	65.24	86.70
Ranchi	41.20	63.02	65.26	87.80
Sahibganj	31.28	15.54	33.27	59.60
Saraikela-Kharsawan	45.20	63.36	60.28	84.50
Simdega	55.90	14.46	43.73	81.10

Source: Census 2011

Appendix 10.1: District wise Main Workers, 2011

District	Rural		Urban		Total				
	Male	Female	Male	Female	Male	Female	Persons		
Garhwa	123,629	38,685	162,314	11,644	1,168	12,812	135,273	39,853	175,126
Chatra	132,848	48,216	181,064	12,705	1,733	14,438	145,553	49,949	195,502
Kodarma	89,403	23,133	112,536	28,478	2,310	30,788	117,881	25,443	143,324
Giridih	284,213	80,818	365,031	43,438	4,443	47,881	327,651	85,261	412,912
Deoghar	180,361	51,501	231,862	57,863	7,421	65,284	238,224	58,922	297,146
Godda	169,410	51,462	220,872	13,028	1,835	14,863	182,438	53,297	235,735
Sahibganj	193,340	89,376	282,716	33,389	6,467	39,856	226,729	95,843	322,572
Pakur	153,155	77,316	230,471	14,717	6,829	21,546	167,872	84,145	252,017
Dhanbad	164,346	30,855	195,201	312,502	39,011	351,513	476,848	69,866	546,714
Bokaro	138,551	27,562	166,113	189,289	24,902	214,191	327,840	52,464	380,304
Lohardaga	59,760	29,670	89,430	11,240	2,331	13,571	71,000	32,001	103,001
Purbi Singhb- hum	135,569	36,931	172,500	309,835	47,243	357,078	445,404	84,174	529,578
Palamu	187,315	52,805	240,120	38,029	5,553	43,582	225,344	58,358	283,702
Latehar	73,668	32,713	106,381	9,216	1,714	10,930	82,884	34,427	117,311
Hazaribagh	205,284	57,992	263,276	56,715	7,325	64,040	261,999	65,317	327,316
Ramgarh	96,026	27,415	123,441	87,111	10,560	97,671	183,137	37,975	221,112
Dumka	153,485	62,720	216,205	18,332	2,942	21,274	171,817	65,662	237,479
Jamtara	80,870	24,193	105,063	15,247	2,124	17,371	96,117	26,317	122,434
Ranchi	284,829	142,396	427,225	269,120	59,831	328,951	553,949	202,227	756,176
Khunti	85,633	56,953	142,586	8,179	2,322	10,501	93,812	59,275	153,087
Gumla	164,065	100,203	264,268	12,002	2,661	14,663	176,067	102,864	278,931
Simdega	97,332	47,697	145,029	8,371	2,110	10,481	105,703	49,807	155,510
Pashchimi Singhbhum	191,394	94,017	285,411	48,450	9,147	57,597	239,844	103,164	343,008
Saraikela- Kharsawan	118,936	38,789	157,725	62,120	8,753	70,873	181,056	47,542	228,598
Jharkhand	3,563,422	1,323,418	4,886,840	1,671,020	260,735	1,931,755	5,234,442	1,584,153	6,818,595

Source: Census of India, 2011

Appendix 10.2: District wise Total (Main + Marginal) Workers, 2011

District	Rural			Urban			Total		
	Male	Female	Persons	Male	Female	Persons	Male	Female	Persons
Garhwa	318,606	231,873	550,479	16,845	4,107	20,952	335,451	235,980	571,431
Chatra	236,023	144,013	380,036	15,190	2,464	17,654	251,213	146,477	397,690
Kodarma	139,982	78,344	218,326	34,011	5,081	39,092	173,993	83,425	257,418
Giridih	572,635	403,901	976,536	51,311	8,430	59,741	623,946	412,331	1,036,277
Deohear	320,165	157,957	478,122	63,526	9,819	73,345	383,691	167,776	551,467
Godda	329,001	205,449	534,450	15,018	2,723	17,741	344,019	208,172	552,191
Sahibganj	256,800	184,466	441,266	38,890	10,046	48,936	295,690	194,512	490,202
Pakur	217,980	162,758	380,738	16,032	7,814	23,846	234,012	170,572	404,584
Dhanbad	285,329	125,886	411,215	373,522	59,767	433,289	658,851	185,653	844,504
Bokaro	276,739	136,074	412,813	230,938	41,617	272,555	507,677	177,691	685,368
Lohardaga	108,219	96,078	204,297	13,386	3,649	17,035	121,605	99,727	221,332
Purbi Singhb- hum	282,989	163,874	446,863	333,260	57,044	390,304	616,249	220,918	837,167
Palamu	420,227	228,504	648,731	52,815	11,629	64,444	473,042	240,133	713,175
Latehar	167,670	130,044	297,714	12,436	3,229	15,665	180,106	133,273	313,379
Hazaribagh	358,174	220,446	578,620	65,298	10,718	76,016	423,472	231,164	654,636
Ramgarh	133,450	62,767	196,217	100,752	15,156	115,908	234,202	77,923	312,125
Dumka	344,707	252,665	597,372	22,401	5,006	27,407	367,108	257,671	624,779
Jamtara	195,029	108,378	303,407	19,711	3,513	23,224	214,740	111,891	326,631
Ranchi	435,412	315,794	751,206	308,555	83,106	391,661	743,967	398,900	1,142,867
Khunti	130,931	115,050	245,981	10,192	3,811	14,003	141,123	118,861	259,984
Gumla	250,720	218,948	469,668	14,054	3,786	17,840	264,774	222,734	487,508
Simdega	149,948	125,306	275,254	9,919	3,472	13,391	159,867	128,778	288,645
Pashchimi Sing- hbhum	337,542	288,911	626,453	55,148	13,262	68,410	392,690	302,173	694,863
Saraikela- Khar- sawan	215,864	135,524	351,388	67,417	11,246	78,663	283,281	146,770	430,051
Jharkhand	6,484,142	4,293,010	10,777,152	1,940,627	380,495	2,321,122	8,424,769	4,673,505	13,098,274

Source: Census of India, 2011

Appendix 10.3: District wise Occupational Distribution (Main+ Marginal Workers), 2011

District	Total				
	CL	AL	HHW	OTH	Total
Garhwa	113,561	328,673	14,487	114,710	571,431
Chatra	119,297	188,513	14,210	75,670	397,690
Kodarma	83,126	64,275	7,934	102,083	257,418
Giridih	369,913	362,610	32,544	271,210	1,036,277
Deoghar	128,656	209,693	39,361	173,757	551,467
Godda	144,603	307,767	18,719	81,102	552,191
Sahibganj	109,975	206,902	43,179	130,146	490,202
Pakur	105,334	150,028	19,471	129,751	404,584
Dhanbad	97,118	103,488	25,889	618,009	844,504
Bokaro	137,521	126,406	21,671	399,770	685,368
Lohardaga	99,780	80,840	4,449	36,263	221,332
Purbi Singhbhum	112,059	209,802	21,438	493,868	837,167
Palamu	133,585	380,976	19,911	178,703	713,175
Latehar	103,693	142,729	9,205	57,752	313,379
Hazaribagh	242,460	172,385	16,150	223,641	654,636
Ramgarh	90,770	46,815	8,336	166,204	312,125
Dumka	193,402	303,084	23,106	105,187	624,779
Jamtara	106,008	135,667	11,547	73,409	326,631
Ranchi	317,487	267,360	38,452	519,568	1,142,867
Khunti	166,290	49,448	9,245	35,001	259,984
Gumla	321,272	97,918	12,771	55,547	487,508
Simdega	158,019	90,232	8,011	32,383	288,645
Pashchimi Singhbhum	244,172	267,475	24,825	158,391	694,863
Saraikela-Kharsawan	116,731	142,966	10,251	160,103	430,051
Jharkhand	3,814,832	4,436,052	455,162	4,392,228	13,098,274

Source: Census of India, 2011

Note: CL: Cultivators; AL: Agriculture Labour; HHW: Household Worker; OTH: Other Workers

Appendix 10.4: District wise Occupational Distribution (Main+ Marginal Workers), 2011

District	Rural					Urban				
	CL	AL	HHW	OTH	Total	CL	AL	HHW	OTH	Total
Garhwa	112,409	323,139	13,833	101,098	550,479	1,152	5,534	654	13,612	20,952
Chatra	118,617	187,692	13,217	60,510	380,036	680	821	993	15,160	17,654
Kodarma	81,418	61,944	6,271	68,693	218,326	1,708	2,331	1,663	33,390	39,092
Giridih	367,029	359,267	29,990	220,250	976,536	2,884	3,343	2,554	50,960	59,741
Deoghar	126,505	206,398	35,658	109,561	478,122	2,151	3,295	3,703	64,196	73,345
Godda	143,085	305,878	18,008	67,479	534,450	1,518	1,889	711	13,623	17,741
Sahibganj	107,463	201,067	39,565	93,171	441,266	2,512	5,835	3,614	36,975	48,936
Pakur	104,921	148,948	17,211	109,658	380,738	413	1,080	2,260	20,093	23,846
Dhanbad	89,935	93,759	13,556	213,965	411,215	7,183	9,729	12,333	404,044	433,289
Bokaro	127,794	117,675	13,598	153,746	412,813	9,727	8,731	8,073	246,024	272,555
Lohardaga	98,886	79,803	3,862	21,746	204,297	894	1,037	587	14,517	17,035
Purbi Singhbhum	110,051	203,367	13,278	120,167	446,863	2,008	6,435	8,160	373,701	390,304
Palamu	131,530	371,453	17,270	128,478	648,731	2,055	9,523	2,641	50,225	64,444
Latehar	102,920	140,645	8,600	45,549	297,714	773	2,084	605	12,203	15,665
Hazaribagh	239,856	169,987	14,177	154,600	578,620	2,604	2,398	1,973	69,041	76,016
Ramgarh	85,136	42,444	5,555	63,082	196,217	5,634	4,371	2,781	103,122	115,908
Dumka	192,177	300,759	21,770	82,666	597,372	1,225	2,325	1,336	22,521	27,407
Jamtara	105,242	134,317	10,864	52,984	303,407	766	1,350	683	20,425	23,224
Ranchi	308,512	251,882	24,155	166,657	751,206	8,975	15,478	14,297	352,911	391,661
Khunti	164,261	48,694	8,570	24,456	245,981	2,029	754	675	10,545	14,003
Gumla	320,041	96,856	11,501	41,270	469,668	1,231	1,062	1,270	14,277	17,840
Simdega	156,159	88,144	7,667	23,284	275,254	1,860	2,088	344	9,099	13,391
Pashchimi Singhbhum	242,874	263,978	22,578	97,023	626,453	1,298	3,497	2,247	61,368	68,410
Saraikela-Kharsawan	115,793	141,206	8,600	85,789	351,388	938	1,760	1,651	74,314	78,663
Jharkhand	3,752,614	4,339,302	379,354	2,305,882	10,777,152	62,218	96,750	75,808	2,086,346	2,321,122

Source: Census of India, 2011

Appendix 10.5: District Wise Occupation Distribution (Rural) of Workers, 2011

District	CL	AL	HHW	OTH	Total
Garhwa	20.4	58.7	2.5	18.4	100
Chatra	31.2	49.4	3.5	15.9	100
Kodarma	37.3	28.4	2.9	31.5	100
Giridih	37.6	36.8	3.1	22.6	100
Deoghar	26.5	43.2	7.5	22.9	100
Godda	26.8	57.2	3.4	12.6	100
Sahibganj	24.4	45.6	9	21.1	100
Pakur	27.6	39.1	4.5	28.8	100
Dhanbad	21.9	22.8	3.3	52	100
Bokaro	31	28.5	3.3	37.2	100
Lohardaga	48.4	39.1	1.9	10.6	100
Purbi Singhbhum	24.6	45.5	3	26.9	100
Palamu	20.3	57.3	2.7	19.8	100
Latehar	34.6	47.2	2.9	15.3	100
Hazaribagh	41.5	29.4	2.5	26.7	100
Ramgarh	43.4	21.6	2.8	32.1	100
Dumka	32.2	50.3	3.6	13.8	100
Jamtara	34.7	44.3	3.6	17.5	100
Ranchi	41.1	33.5	3.2	22.2	100
Khunti	66.8	19.8	3.5	9.9	100
Gumla	68.1	20.6	2.4	8.8	100
Simdega	56.7	32	2.8	8.5	100
Pashchim Singhbhum	38.8	42.1	3.6	15.5	100
Saraikela-Kharsawan	33	40.2	2.4	24.4	100
Jharkhand	34.8	40.3	3.5	21.4	100

Source: Census of India, 2011

Appendix 10.6: District Wise Occupation Distribution (urban) of Workers, 2011

District	CL	AL	HHW	OTH	Total
Garhwa	5.5	26.4	3.1	65.0	100.0
Chatra	3.9	4.7	5.6	85.9	100.0
Kodarma	4.4	6.0	4.3	85.4	100.0
Giridih	4.8	5.6	4.3	85.3	100.0
Deoghar	2.9	4.5	5.0	87.5	100.0
Godda	8.6	10.6	4.0	76.8	100.0
Sahibganj	5.1	11.9	7.4	75.6	100.0
Pakur	1.7	4.5	9.5	84.3	100.0
Dhanbad	1.7	2.2	2.8	93.3	100.0
Bokaro	3.6	3.2	3.0	90.3	100.0
Lohardaga	5.2	6.1	3.4	85.2	100.0
Purbi Singhbhum	0.5	1.6	2.1	95.7	100.0
Palamu	3.2	14.8	4.1	77.9	100.0
Latehar	4.9	13.3	3.9	77.9	100.0
Hazaribagh	3.4	3.2	2.6	90.8	100.0
Ramgarh	4.9	3.8	2.4	89.0	100.0
Dumka	4.5	8.5	4.9	82.2	100.0
Jamtara	3.3	5.8	2.9	87.9	100.0
Ranchi	2.3	4.0	3.7	90.1	100.0
Khunti	14.5	5.4	4.8	75.3	100.0
Gumla	6.9	6.0	7.1	80.0	100.0
Simdega	13.9	15.6	2.6	67.9	100.0
Pashchim Singhbhum	1.9	5.1	3.3	89.7	100.0
Saraikela-Kharsawan	1.2	2.2	2.1	94.5	100.0
Jharkhand	2.7	4.2	3.3	89.9	100.0

Source: Census of India, 2011

Note: CL: Cultivators; AL: Agriculture Labour; HHW: Household Worker; OTH: Other Workers

Appendix 10.7: Economic Well-being

District Name	Average Rural casual wage rate per day	Per-capita value of agricultural output	Monthly per capita consumption expenditure
Bokaro	118	7.40	1147
Chatra	113	27.50	761
Deoghar	103	18.80	1066
Dhanbad	134	0.30	1198
Dumka	107	70.60	893
Garhwa	159	58.90	984
Giridih	146	15.40	907
Godda	123	42.00	833
Gumla	122	17.30	967
Hazaribagh	197	24.10	1147
Jamtara	95	14.40	1013
Khunti		23.60	937
Kodarma	174	10.80	1159
Latehar	119	28.00	1055
Lohardaga	123	40.00	728
Pakur	130	22.50	1039
Palamu	137	57.50	914
Pashchimi Singhbhum	142	2.90	1418
Purbi Singhbhum	135	1.00	1147
Ramgarh	197	11.70	1763
Ranchi	123	15.70	696
Sahibganj	130	19.40	1125
Saraikela-Kharsawan	75	2.20	937
Simdega	73	14.40	1147

Source: NSS 2011-12 Agriculture Census, 2011

Appendix 11.1.1: Literacy Rate by Rural and Urban, District wise, 2011

District	Rural			Urban			Total		
	Male	Female	Person	Male	Female	Person	Male	Female	Person
Garhwa	71.4	46.4	59.3	85.5	68.9	77.7	72.2	47.6	60.3
Chatra	68.7	48.4	58.8	86.9	74.0	80.9	69.9	49.9	60.2
Kodarma	77.8	49.0	63.7	87.5	70.0	79.1	79.8	53.2	66.8
Giridih	75.9	46.4	61.6	85.7	72.7	79.5	76.8	48.7	63.1
Deochar	73.8	46.1	60.5	90.2	77.7	84.4	76.9	51.8	64.9
Godda	66.7	42.5	55.0	87.7	75.9	82.2	67.8	44.1	56.4
Sahibganj	57.0	39.5	48.5	79.5	66.2	73.2	60.3	43.3	52.0
Pakur	55.8	38.8	47.3	71.3	61.5	66.5	57.1	40.5	48.8
Dhanbad	80.5	54.9	68.2	86.1	71.0	79.0	83.8	64.3	74.5
Bokaro	76.4	49.8	63.5	88.8	72.3	81.0	82.5	60.6	72.0
Lohardaga	75.5	54.3	65.0	89.8	80.7	85.4	77.4	57.7	67.6
PurbiSinghbhum	74.7	50.8	62.9	90.6	79.6	85.3	83.8	66.8	75.5
Palamu	72.5	49.2	61.3	87.1	73.3	80.5	74.3	52.1	63.6
Latehar	68.7	46.9	58.0	84.8	71.3	78.3	70.0	48.7	59.5
Hazaribagh	77.9	54.9	66.6	90.6	79.9	85.5	80.0	59.0	69.8
Ramgarh	77.8	55.2	66.8	87.9	73.2	81.0	82.4	63.1	73.2
Dumka	71.7	46.7	59.3	89.2	77.6	83.7	73.0	48.8	61.0
Jamtara	75.0	49.7	62.6	89.2	75.3	82.6	76.5	52.1	64.6
Ranchi	78.6	56.7	67.8	91.2	81.5	86.5	84.3	67.4	76.1
Khunti	72.6	51.4	61.9	89.3	78.0	83.7	74.1	53.7	63.9
Gumla	74.3	54.0	64.2	92.2	83.2	87.8	75.6	55.9	65.7
Simdega	75.0	58.2	66.6	89.2	81.5	85.5	76.1	59.9	68.0
PashchimiSinghbhum	67.7	41.2	54.3	89.3	75.2	82.4	71.1	46.3	58.6
Saraikela-Kharsawan	76.5	50.3	63.5	86.6	73.8	80.5	79.0	55.9	67.7
Jharkhand	72.9	48.9	61.1	88.4	75.5	82.3	76.8	55.4	66.4

Source: Census of India, 2011

Appendix 11.2: Female Literacy Rate and Gross Enrollment Rate (Class VI-VIII)

District Name	Female literacy rate	Gross enrollment rate middle level (Class VI-VIII)
Bokaro	60.63	85.36
Chatra	49.92	70.23
Deoghar	51.8	80.77
Dhanbad	64.29	86.23
Dumka	48.82	80.37
Garhwa	47.58	92.9
Giridih	48.72	70.02
Godda	44.14	78.05
Gumla	55.9	68.8
Hazaribagh	58.95	78.27
Jamtara	52.15	78.62
Khunti	53.69	72.82
Kodarma	53.23	81.26
Latehar	48.68	73.51
Lohardaga	57.69	76.22
Pakur	40.52	54.12
Palamu	52.09	87.9
Pashchimi Singhbhum	46.25	70.47
Purbi Singhbhum	66.81	91.41
Ramgarh	63.09	88.13
Ranchi	67.44	86.63
Sahibganj	43.31	75.16
Saraikela-Kharsawan	55.88	76.89
Simdega	59.92	73.99

Source: Census 2011, DISE-2013-14

Appendix 12.1: District Wise Rural and Urban Population, 2011

District	Total			Rural			Urban		
	Male	Female	Persons	Male	Female	Persons	Male	Female	Persons
	Garhwa	683,575	639,209	1,322,784	646,947	606,167	1,253,114	36,628	33,042
Chatra	533,935	508,951	1,042,886	500,211	479,721	979,932	33,724	29,230	62,954
Kodarma	367,222	349,037	716,259	293,595	281,418	575,013	73,627	67,619	141,246
Giridih	1,258,098	1,187,376	2,445,474	1,149,608	1,087,842	2,237,450	108,490	99,534	208,024
Deoghar	775,022	717,051	1,492,073	638,136	595,576	1,233,712	136,886	121,475	258,361
Godda	677,927	635,624	1,313,551	643,907	605,225	1,249,132	34,020	30,399	64,419
Sahibganj	589,391	561,176	1,150,567	505,892	485,009	990,901	83,499	76,167	159,666
Pakur	452,661	447,761	900,422	418,251	414,659	832,910	34,410	33,102	67,512
Dhanbad	1,405,956	1,278,531	2,684,487	581,956	542,137	1,124,093	824,000	736,394	1,560,394
Bokaro	1,072,807	989,523	2,062,330	554,954	523,732	1,078,686	517,853	465,791	983,644
Lohardaga	232,629	229,161	461,790	203,255	201,124	404,379	29,374	28,037	57,411
Purbi Singhbhum	1,176,902	1,117,017	2,293,919	514,498	504,830	1,019,328	662,404	612,187	1,274,591
Palamu	1,006,302	933,567	1,939,869	887,551	826,315	1,713,866	118,751	107,252	226,003
Latehar	369,666	357,312	726,978	342,566	332,554	675,120	27,100	24,758	51,858
Hazaribagh	890,881	843,614	1,734,495	746,934	712,254	1,459,188	143,947	131,360	275,307
Ramgarh	494,230	455,213	949,443	272,167	258,321	530,488	222,063	196,892	418,955
Dumka	668,514	652,928	1,321,442	620,928	610,336	1,231,264	47,586	42,592	90,178
Jamtara	404,830	386,212	791,042	365,043	350,253	715,296	39,787	35,959	75,746
Ranchi	1,494,937	1,419,316	2,914,253	840,528	816,390	1,656,918	654,409	602,926	1,257,335
Khunti	266,335	265,550	531,885	243,494	243,409	486,903	22,841	22,141	44,982
Gumla	514,390	510,823	1,025,213	481,135	478,997	960,132	33,255	31,826	65,081
Simdega	300,309	299,269	599,578	278,425	278,209	556,634	21,884	21,060	42,944
Pashchimi Singhbhum	749,385	752,953	1,502,338	637,657	646,647	1,284,304	111,728	106,306	218,034
Saraikela-Kharsawan	544,411	520,645	1,065,056	408,848	397,462	806,310	135,563	123,183	258,746
Jharkhand	16,930,315	16,057,819	32,988,134	12,776,486	12,278,587	25,055,073	4,153,829	3,779,232	7,933,061

Source: Census of India, 2011

Appendix 12.2.: Schedule Caste (SC) Population, Rural and Urban, District Wise, 2011

District	Rural			Urban			Total		
	Male	Female	Persons	Male	Female	Persons	Male	Female	Persons
Garhwa	159,417	149,426	308,843	5,896	5,207	11,103	165,313	154,633	319,946
Chatra	168,424	164,007	332,431	4,244	3,878	8,122	172,668	167,885	340,553
Kodarma	47,509	46,376	93,885	7,837	7,281	15,118	55,346	53,657	109,003
Giridih	154,039	147,288	301,327	12,408	11,758	24,166	166,447	159,046	325,493
Deoigarh	82,050	77,027	159,077	16,245	14,714	30,959	98,295	91,741	190,036
Godda	57,502	53,553	111,055	2,333	2,179	4,512	59,835	55,732	115,567
Sahibganj	29,560	27,930	57,490	7,757	7,094	14,851	37,317	35,024	72,341
Pakur	12,698	12,479	25,177	1,654	1,638	3,292	14,352	14,117	28,469
Dhanbad	83,786	79,304	163,090	142,576	131,643	274,219	226,362	210,947	437,309
Bokaro	90,291	85,399	175,690	64,006	59,531	123,537	154,297	144,930	299,227
Lohardaga	6,680	6,355	13,035	1,182	1,113	2,295	7,862	7,468	15,330
Purbi Singhbhum	22,363	22,408	44,771	33,784	32,859	66,643	56,147	55,267	111,414
Palamu	259,749	243,566	503,315	17,370	15,697	33,067	277,119	259,263	536,382
Latehar	73,813	72,400	146,213	4,453	4,244	8,697	78,266	76,644	154,910
Hazaribagh	139,157	133,711	272,868	15,856	14,791	30,647	155,013	148,502	303,515
Ramgarh	25,853	24,374	50,227	29,133	26,996	56,129	54,986	51,370	106,356
Dumka	36,714	34,981	71,695	4,088	3,831	7,919	40,802	38,812	79,614
Jamtara	32,105	30,921	63,026	5,107	4,752	9,859	37,212	35,673	72,885
Ranchi	43,088	41,182	84,270	35,525	33,148	68,673	78,613	74,330	152,943
Khunti	10,799	10,424	21,223	1,424	1,390	2,814	12,223	11,814	24,037
Gumla	14,880	14,626	29,506	1,566	1,387	2,953	16,446	16,013	32,459
Simdega	21,196	21,555	42,751	954	969	1,923	22,150	22,524	44,674
Pashchimi Singhbhum	18,916	19,299	38,215	9,228	9,543	18,771	28,144	28,842	56,986
Saraikela-Kharsawan	21,924	21,759	43,683	6,319	6,193	12,512	28,243	27,952	56,195
Jharkhand	1,612,513	1,540,350	3,152,863	430,945	401,836	832,781	2,043,458	1,942,186	3,985,644

Source: Census of India, 2011

Appendix 12.3: Schedule Tribe (ST) Population, Rural and Urban, District Wise, 2011

District	Rural			Urban			Total		
	Male	Female	Persons	Male	Female	Persons	Male	Female	Persons
	Garhwa	103,494	100,424	203,918	1,005	951	1,956	104,499	101,375
Chatra	22,448	21,850	44,298	693	572	1,265	23,141	22,422	45,563
Kodarma	3,210	2,942	6,152	384	367	751	3,594	3,309	6,903
Giridih	119,085	116,085	235,170	1,561	1,457	3,018	120,646	117,542	238,188
Deochar	88,616	87,524	176,140	2,396	2,426	4,822	91,012	89,950	180,962
Godda	137,352	139,433	276,785	1,158	1,265	2,423	138,510	140,698	279,208
Sahibganj	150,205	151,725	301,930	3,230	3,183	6,413	153,435	154,908	308,343
Pakur	185,652	190,738	376,390	1,315	1,349	2,664	186,967	192,087	379,054
Dhanbad	99,381	98,698	198,079	17,875	17,165	35,040	117,256	115,863	233,119
Bokaro	92,118	90,105	182,223	37,115	36,288	73,403	129,233	126,393	255,626
Lohardaga	123,926	124,546	248,472	6,888	7,374	14,262	130,814	131,920	262,734
Purbi Singhbhum	256,760	258,454	515,214	69,229	69,480	138,709	325,989	327,934	653,923
Palamu	90,870	86,982	177,852	1,707	1,649	3,356	92,577	88,631	181,208
Latehar	162,958	161,065	324,023	3,469	3,604	7,073	166,427	164,669	331,096
Hazaribagh	53,800	53,753	107,553	6,996	7,219	14,215	60,796	60,972	121,768
Ramgarh	73,082	71,402	144,484	28,819	27,863	56,682	101,901	99,265	201,166
Dumka	279,275	286,354	565,629	2,850	2,598	5,448	282,125	288,952	571,077
Jamtara	118,262	118,700	236,962	1,773	1,754	3,527	120,035	120,454	240,489
Ranchi	395,718	394,120	789,838	124,864	127,314	252,178	520,582	521,434	1,042,016
Khunti	184,910	186,559	371,469	8,800	9,357	18,157	193,710	195,916	389,626
Gumla	340,901	341,888	682,789	11,613	12,352	23,965	352,514	354,240	706,754
Simdega	201,913	202,574	404,487	9,633	10,287	19,920	211,546	212,861	424,407
Pashchimi Singhbhum	472,040	481,066	953,106	28,909	29,281	58,190	500,949	510,347	1,011,296
Saraikela-Kharsawan	172,347	172,840	345,187	14,802	14,653	29,455	187,149	187,493	374,642
Jharkhand	3,928,323	3,939,827	7,868,150	387,084	389,808	776,892	4,315,407	4,329,635	8,645,042

Source: Census of India, 2011

Appendix 12.4: Number of Households, Rural and Urban, District Wise, 2011

District	Rural	Urban	Total
Garhwa	241,464	13,233	254,697
Chatra	171,296	10,975	182,271
Kodarma	91,693	24,462	116,155
Giridih	360,709	35,812	396,521
Deoghar	217,783	46,564	264,347
Godda	241,815	11,833	253,648
Sahibganj	196,056	30,967	227,023
Pakur	168,906	13,411	182,317
Dhanbad	211,024	296,040	507,064
Bokaro	206,148	188,770	394,918
Lohardaga	77,536	11,102	88,638
Purbi Singhbhum	218,160	258,771	476,931
Palamu	318,828	39,926	358,754
Latehar	123,316	10,065	133,381
Hazaribagh	255,451	49,298	304,749
Ramgarh	98,829	80,546	179,375
Dumka	257,610	17,409	275,019
Jamtara	140,311	14,964	155,275
Ranchi	326,235	243,209	569,444
Khunti	94,645	9,055	103,700
Gumla	176,633	12,355	188,988
Simdega	110,036	8,252	118,288
Pashchimi Singhbhum	257,294	44,752	302,046
Saraikela-Kharsawan	167,591	53,641	221,232
Jharkhand	4,729,369	1,525,412	6,254,781

Source: Census of India, 2011

Appendix 12.5: Average Household Size, Rural and Urban, District Wise, 2011

District	Rural	Urban	Total
Garhwa	5.2	5.3	5.2
Chatra	5.7	5.7	5.7
Kodarma	6.3	5.8	6.2
Giridih	6.2	5.8	6.2
Deoghar	5.7	5.5	5.6
Godda	5.2	5.4	5.2
Sahibganj	5.1	5.2	5.1
Pakur	4.9	5.0	4.9
Dhanbad	5.3	5.3	5.3
Bokaro	5.2	5.2	5.2
Lohardaga	5.2	5.2	5.2
Purbi Singhbhum	4.7	4.9	4.8
Palamu	5.4	5.7	5.4
Latehar	5.5	5.2	5.5
Hazaribagh	5.7	5.6	5.7
Ramgarh	5.4	5.2	5.3
Dumka	4.8	5.2	4.8
Jamtara	5.1	5.1	5.1
Ranchi	5.1	5.2	5.1
Khunti	5.1	5.0	5.1
Gumla	5.4	5.3	5.4
Simdega	5.1	5.2	5.1
Pashchimi Singhbhum	5.0	4.9	5.0
Saraikela-Kharsawan	4.8	4.8	4.8
Jharkhand	5.3	5.2	5.3

Source: Census of India, 2011

Appendix 12.6: Sex Ratio, Rural and Urban, District Wise, 2011

District	Rural	Urban	Total
Garhwa	937	902	935
Chatra	959	867	953
Kodarma	959	918	950
Giridih	946	917	944
Deoghar	933	887	925
Godda	940	894	938
Sahibganj	959	912	952
Pakur	991	962	989
Dhanbad	932	894	909
Bokaro	944	899	922
Lohardaga	990	954	985
Purbi Singhbhum	981	924	949
Palamu	931	903	928
Latehar	971	914	967
Hazaribagh	954	913	947
Ramgarh	949	887	921
Dumka	983	895	977
Jamtara	959	904	954
Ranchi	971	921	949
Khunti	1000	969	997
Gumla	996	957	993
Simdega	999	962	997
Pashchimi Singhbhum	1014	951	1005
Saraikela-Kharsawan	972	909	956
Jharkhand	961	910	948

Source: Census of India, 2011

Appendix 12.7: Villages having PHCs within 5 km (%) and Infant Mortality Rate

District Name	% villages having PHCs within 5 km	Infant Mortality Rate
Bokaro	18.00	30.30
Chatra	25.13	18.87
Deoghar	17.09	25.64
Dhanbad	33.33	27.03
Dumka	8.85	21.74
Garhwa	9.36	25.64
Giridih	12.74	27.78
Godda	23.20	15.38
Gumla	17.20	20.41
Hazaribagh	22.05	26.32
Jamtara	12.75	21.74
Khunti	14.59	25.00
Kodarma	21.49	27.78
Latehar	21.76	20.00
Lohardaga	22.16	17.54
Pakur	14.67	16.95
Palamu	15.43	20.00
Pashchimi Singhbhum	13.95	32.26
Purbi Singhbhum	15.35	16.95
Ramgarh	31.80	26.32
Ranchi	14.20	25.00
Sahibganj	19.17	16.39
Saraikela-Kharsawan	23.12	32.26
Simdega	10.69	20.41

Source: Census 2011, AHS 2011

Appendix 12.8: Percentage distribution of live births by order of birth, 2004, 2006, 2011 and 2013 , State: Jharkhand

Birth Order	Total	Males	Females	Rural Total	Rural Males	Rural Females	Urban Total	Urban Males	Urban Females
1	2	3	4	5	6	7	8	9	10
2004									
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1	33.6	34.6	32.5	32.5	33.6	31.2	40.3	40.2	40.4
2	24.4	23.7	25.1	24.1	23.3	25.0	26.1	26.3	26.0
3	15.9	14.7	17.3	15.9	14.5	17.5	16.2	16.1	16.4
4	10.9	10.7	11.0	11.1	10.9	11.3	9.7	9.8	9.7
5+	15.2	16.3	14.0	16.5	17.7	15.1	7.6	7.7	7.5
2006									
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1	29.1	27.5	30.8	27.3	25.3	29.5	39.5	39.6	39.3
2	27.3	28.6	25.8	27.2	28.3	26.1	27.6	30.2	24.3
3	18.0	18.6	17.5	18.3	19.0	17.6	16.4	16.4	16.4
4	11.6	11.8	11.4	12.1	12.4	11.7	9.2	8.7	9.8
5+	14.0	13.5	14.4	15.1	15.0	15.1	7.4	5.2	10.2
2011									
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1	35.7	37.5	33.6	35.3	37.0	33.2	38.4	40.4	35.9
2	29.7	28.3	31.4	29.2	27.7	31.1	32.7	31.8	33.7
3	17.4	17.8	17.1	17.3	17.9	16.5	18.6	17.2	20.3
4	8.7	8.5	9.0	9.1	8.9	9.4	6.3	6.2	6.5
5+	8.4	7.9	8.9	9.1	8.6	9.8	4.0	4.3	3.6
2013									
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1	38.4	40.0	36.6	37.1	38.9	35.2	46.3	46.8	45.7
2	29.9	29.8	30.1	29.8	29.6	29.9	31.1	30.8	31.4
3	17.6	16.8	18.5	18.1	17.3	19.0	14.5	13.6	15.5
4	8.8	8.7	9.0	9.4	9.0	9.8	5.4	6.6	4.0
5+	5.2	4.8	5.7	5.6	5.3	6.1	2.7	2.2	3.4

Source: http://www.censusindia.gov.in/vital_statistics/Compendium/Srs_data.html

Appendix 12.9: Annual estimates of Birth rate, Death rate, Natural growth rate, Infant mortality rate, and Total fertility rate by residence, 1999-2013, State: Jharkhand

Year	Birth rate		Death rate		Natural growth rate		Infant mortality rate		Total fertility rate						
	Total	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1999	26.3	28.5	19.0	8.9	9.7	6.4	17.4	18.8	12.6	71	76	48	Not available		
2000	26.5	28.8	19.4	9.0	9.8	6.5	17.5	19.0	12.9	70	74	48	Not available		
2001	26.2	28.3	19.5	8.8	9.7	6.0	17.4	18.6	13.5	62	67	40	Not available		
2002	26.4	28.5	19.0	7.9	8.6	5.8	18.5	19.9	13.2	58	61	38	Not available		
2003	26.3	28.5	18.9	8.0	8.7	5.5	18.3	19.8	13.5	51	54	34	Not available		
2004	26.2	28.1	18.5	8.0	8.7	5.0	18.2	19.4	13.4	49	51	34	3.5	3.9	2.3
2005	26.8	28.8	18.7	7.9	8.4	5.7	18.9	20.4	13.0	50	53	33	3.5	3.9	2.3
2006	26.2	28.0	18.8	7.5	7.9	5.9	18.6	20.1	12.8	49	52	32	3.4	3.7	2.2
2007	26.1	27.8	19.0	7.3	7.6	5.8	18.8	20.1	13.2	48	51	31	3.2	3.5	2.2
2008	25.8	27.5	18.9	7.1	7.5	5.2	18.7	19.9	13.7	46	49	32	3.2	3.5	2.1
2009	25.6	27.1	19.2	7.0	7.4	5.3	18.6	19.7	13.9	44	46	30	3.2	3.4	2.2
2010	25.3	26.7	19.3	7.0	7.4	5.4	18.3	19.3	13.9	42	44	30	3.0	3.2	2.1
2011	24.6	25.9	18.5	6.8	7.2	5.0	17.8	18.7	13.5	37	38	27	2.9	3.2	2.1
2012	24.7	26.1	18.7	6.8	7.1	5.1	17.9	19.0	13.6	38	39	27	2.8	3.0	2.0
2013	24.6	25.9	18.5	6.8	7.2	5.0	17.8	18.7	13.5	37	38	27	2.7	2.9	2.0

Source: http://www.censusindia.gov.in/vital_statistics/Compendium/Srs_data.html

Appendix 12.10: Percentage distribution of current live births by birth interval and birth order, 2004, 2006, 2011 and 2013
State: Jharkhand

Birth interval in months	Total						Birth order								
	Total			Rural			Total			Urban					
	2	3	4	5+	Total	2	3	4	5+	Total	2	3	4	5+	Total
	2004														
10-12	0.4	0.2	0.2	0.3	1.1	0.4	0.3	0.2	0.2	1.2	0.3	0.2	0.3	0.2	1.0
12-18	3.6	1.5	0.7	2.0	7.8	3.4	1.3	0.7	2.1	7.5	4.7	2.5	1.0	1.0	9.3
18-24	4.0	1.9	1.7	2.1	9.7	3.6	1.8	1.6	2.1	9.0	7.0	2.9	2.5	2.0	14.4
24-30	5.6	4.0	1.8	3.6	15.0	5.4	3.8	1.8	4.0	15.0	7.0	5.1	2.0	1.2	15.3
30-36	4.3	2.3	1.7	2.3	10.5	3.9	2.1	1.5	2.3	9.9	6.5	3.7	2.9	1.9	15.0
36+	18.8	14.1	10.2	12.7	55.8	18.9	14.3	10.6	13.6	57.4	18.2	12.8	7.5	6.5	44.9
Total	36.7	24.0	16.4	22.9	100.0	35.7	23.5	16.4	24.4	100.0	43.7	27.3	16.3	12.8	100.0
	2006														
10-12	0.9	1.0	0.1	0.4	2.5	1.0	1.1	0.1	0.5	2.6	0.3	0.5	0.2	0.3	1.3
12-18	4.3	2.1	2.1	1.5	10.0	4.0	2.1	2.1	1.5	9.8	6.0	1.9	1.6	1.5	11.0
18-24	6.1	4.1	1.7	2.6	14.6	6.0	4.3	1.5	2.8	14.7	6.7	2.6	2.8	1.6	13.7
24-30	7.5	3.9	2.2	3.1	16.6	7.4	3.6	2.2	3.2	16.3	8.4	6.0	1.6	2.8	18.9
30-36	4.3	2.7	1.4	1.5	9.8	4.5	2.6	1.3	1.5	9.9	2.8	2.9	1.8	1.6	9.1
36+	15.4	11.8	9.1	10.3	46.6	14.5	11.6	9.4	11.2	46.7	21.4	13.1	7.2	4.4	46.0
Total	38.5	25.5	16.4	19.6	100.0	37.5	25.3	16.6	20.6	100.0	45.6	27.0	15.1	12.2	100.0
	2011														
10-12	0.8	0.3	0.0	0.0	1.1	0.8	0.2	0.0	0.0	1.1	0.3	0.5	0.3	0.0	1.1
12-18	4.8	1.7	1.2	0.7	8.4	4.6	1.7	1.2	0.6	8.2	6.1	1.7	0.9	0.9	9.7
18-24	4.2	2.9	1.0	1.5	9.5	4.0	2.7	0.9	1.5	9.2	5.0	3.8	1.4	1.5	11.8
24-30	7.5	3.8	3.0	2.1	16.4	7.7	3.7	3.1	2.3	16.8	6.6	4.3	1.9	1.1	13.9
30-36	5.0	3.6	1.8	1.3	11.8	4.6	3.5	1.9	1.5	11.5	7.7	4.4	1.4	0.3	13.8
36+	24.0	14.7	6.6	7.5	52.8	23.4	14.6	7.0	8.3	53.3	27.3	15.5	4.3	2.6	49.8
Total	46.3	27.0	13.6	13.1	100.0	45.2	26.5	14.2	14.2	100.0	53.1	30.3	10.2	6.5	100.0
	2013														
10-12	1.8	0.3	0.4	0.0	2.5	1.9	0.3	0.4	0.0	2.7	0.6	0.4	0.0	0.4	1.3
12-18	5.9	2.8	0.9	0.8	10.4	6.1	2.7	0.9	0.8	10.5	3.9	3.6	0.9	0.7	9.2
18-24	7.2	4.0	1.3	1.2	13.7	7.4	4.3	1.2	1.3	14.2	6.1	2.2	1.5	0.5	10.4
24-30	9.3	5.7	2.5	1.6	19.1	9.2	5.7	2.6	1.7	19.3	9.7	5.5	1.6	0.9	17.7
30-36	4.6	3.4	1.3	1.1	10.3	4.4	3.5	1.2	1.1	10.2	5.9	2.7	1.7	0.7	11.0
36+	19.7	12.4	8.2	3.8	44.0	18.1	12.3	8.7	4.0	43.2	31.3	12.8	4.4	1.8	50.4
Total	48.4	28.6	14.4	8.5	100.0	47.2	28.8	15.0	9.0	100.0	57.4	27.3	10.1	5.2	100.0

Source: http://www.censusindia.gov.in/vital_statistics/Compendium/Srs_data.html

Note: Total may not add up to 100 due to rounding.

Appendix 12.1.1: Infant mortality indicators by residence from 2004 to 2013

Year	Infant mortality rate			Neo-natal mortality rate			Post-natal mortality rate			Pre-natal mortality rate			Still Birth rate		
	Total	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
2004	49	51	34	25.9	28.0	13.2	23.0	23.5	20.5	19.3	20.6	11.2	1.0	0.0	1.0
2005	50	53	33	28.5	31.2	13.1	21.7	21.9	19.8	22.0	24.0	12.0	0.0	0.0	0.0
2006	49	52	32	28.7	31.3	13.7	20.2	20.4	18.6	23.3	25.4	10.7	1.3	1.5	0.0
2007	48	51	31	28.0	30.2	14.6	20.2	20.8	16.5	24.8	26.8	12.6	0.9	0.9	1.0
2008	46	49	32	25.2	26.9	14.4	21.2	21.8	17.7	26.5	28.9	11.5	1.9	2.1	1.0
2009	44	46	30	28.3	30.8	13.2	15.4	15.2	17.1	26.5	28.6	14.1	2.1	1.9	2.8
2010	42	44	30	29.3	31.9	13.8	12.8	12.3	15.8	27.3	29.4	14.7	1.4	1.5	0.9
2011	37	38	27	28.5	31.2	13.1	10.6	9.9	15.1	25.6	27.7	13.0	0.8	0.8	0.9
2012	38	39	27	27.3	29.8	12.0	10.4	9.7	15.0	23.1	25.4	9.1	0.6	0.7	0.0
2013	37	38	27	25.7	27.8	12.3	11.0	10.4	15.1	21.7	23.5	8.6	0.0	0.0	0.0

Source: http://www.censusindia.gov.in/vital_statistics/Compendium/Srs_data.html

Appendix 13.1: Existing Community Toilet/Public Toilet Status

S. No.	ULBs	Total Number	Total Seats	Functional	Non Functional
1	Adityapur	7	36	5	2
2	Basukinath	9	84	9	0
3	Bishrampur	0	0	0	0
4	Bundu	7	36	5	2
5	Chakradharpur	4	20	4	0
6	Chakuliya	0	0	0	0
7	Chaibasa	8	52	6	2
8	Chas	5	42	5	0
9	chatra	8	52	2	6
10	Chirkunda	4	16	0	4
11	Deoghar	18	306	10	8
12	Dhanbad	43	261	42	1
13	Dumka	10	90	10	0
14	Garhwa	10	47	4	6
15	Giridih	8	62	7	1
16	Godda	5	40	5	0
17	Gumla	1	4	1	0
18	Hazaribag	13	123	12	1
19	Hussainabad	4	28	4	0
20	Jamshedpur	10	46	9	1
21	Jamtara	6	24	3	3
22	Jhumritiliya	4	34	4	0
23	Jugsalia	5	28	5	0
24	Khunti	5	33	5	0
25	Koderma	0	0	0	0
26	Latehar	11	48	6	5
27	Lohardaga	8	57	7	1
28	Madhupur	4	28	4	0
29	Majhiyaon	0	0	0	0
30	Mango	5	24	4	0
31	Medininagar	16	116	13	3
32	Mihijam	1	10	1	0
33	Nagar Untari	4	17	3	1
34	Pakur	6	43	4	2
35	Phusro	4	28	4	0
36	Rajmahal	4	19	3	1
37	Ranchi	53	519	47	6
38	Ramgarh	0	0	0	0
39	Sahibganj	9	65	7	3
40	Seraikela	4	20	2	2
41	simdega	6	36	5	1
	Total	329	2494	267	62

Source: Department of Drinking Water and Sanitation, Govt. of Jharkhand

Appendix 13.2: Status Report of Community Toilet cum Skill Development Centre

S. No.	ULBs	Tender Invited(Y/N)	Status
1	Dhanbad Municipal Corporation	Y	Under Tender Process
2	Hazaribagh Nagar Parisad	N	
3	Chas Nagar Parishad	Y	Construction Started
4	Jhumritilaiya Nagar Parishad	Y	Construction Started
5	Madhupur Nagar Parishad	Y	Construction Started
6	Giridih Nagar Parishad	N	
7	Godda Nagar Panchayat	Y	Construction Started
8	Chirkunda Nagar Panchayat	N	
9	Deoghar Municipal Corporation	Y	Under Tender Process
10	Medininagar Nagar Parishad	Y	Construction Started
11	Koderma Nagar Panchayat	Y	Construction Started
12	Gharwa Nagar Panchayat	Y	Under Tender Process
13	Phusro Nagar Parishad	Y	Under Tender Process
14	Hussainabad Nagar Panchayat	N	
15	Chatra Nagar Parishad	Y	Construction Started
16	Bishrampur Nagar Panachyat	N	
17	Majhiaon Nagar Panchayat	Y	Under Tender Process
18	Ranchi Municipal Corpoaration	Y	Construction Started
19	Jamshedpur NAC	Y	Construction Started
20	Lohardaga Nagar Parishad	Y	Construction Started
21	Pakur Nagar Panchayat	Y	Construction Started
22	Mango Municipality	Y	Construction Started
23	Adityapur Nagar Parishad	Y	Construction Started
24	Jugsalai Municipality	Y	Construction Started
25	Jamtara Nagar Panchayat	N	
26	Gumla Nagar Panchayat	Y	
27	Seraikela Nagar Panchayat	Y	Construction Started
28	Simdega Nagar Panchayat	Y	Under Tender Process
29	Khunti Nagar Panchayat	Y	Construction Started
30	Dumka Nagar Parishad	Y	Under Tender Process
31	Sahebganj Nagar Parishad	Y	Construction Started
32	Chakradharpur Nagar Parishad	Y	Construction Started
33	Latehar Nagar Panchayat	Y	Construction Started
34	Bundu Nagar Panchayat	Y	Under Tender Process
35	Chaibasa Nagar Parishad	Y	Construction Started
36	Basukinath Nagar Panchayat	N	

Source: Department of Drinking Water and Sanitation, Govt. of Jharkhand

Appendix 13.3: Physical Progress of Jalmani Scheme in 2016-17

District Name	No. of Rural Schools			Selected Technology	Major Contaminant(s) Addressed	Unit Cost (in Rs.)	Volume of Water Treated per Day	No. of Students Benefited		
	Total	Require Stand Alone System	Provided With Stand Alone Systems					Boys	Girls	Total
Bokaro	906	47	47	Terafill Water Filter	Iron,E-Coli	4000	0.13	0	0	0
Chatra	1863	290	290	Jalmani Water Purify System Terafill Water Filter	Iron	3200	40			
				Terafill Water Filter	Iron,TDS,Coliform	3050	30	2541	2739	5280
				Terafill Water Filter	Iron,Coliform	4000	13.6			
Deoghar	1301	47	19	Terafill Water Filter	Iron,Coliform	4000	13.6			
Dhanbad	1721	1721	238	Terafill Water Filter Stand Alone Purification	Coliform	4000	13.6	0	0	0
				Terafill Water Filter	Iron,Coliform	4000	13.6			
Dumka	2489	59	0	Terafill Water Filter	Iron,Coliform	4000	13.6	0	0	0
Garhwa	1366	84	84	Terafill Water Filter	Iron,Coliform	4000	13.6	5000	5000	10000
Giridih	3333	71	0	IR P	Iron	0	0	0	0	0
				Terafill Water Filter	Iron,Coliform	4000	13.6			
Godda	1827	47	0	Terafill Water Filter	Iron,Coliform	4000	13.6	0	0	0
Gumla	1565	65	0	Terafill Water Filter	Iron,Coliform	4000	13.6	0	0	0
Hazaribag	1005	330	330	Terafill Water Filter	Iron,Coliform	4000	13.6	1780	820	2600
				Terafill water filter	Iron	3939	30			
Jamtara	1159	24	0	Terafill Water Filter	Iron,Coliform	4000	13.6	0	0	0
Khunti	1044	34	0	Terafill Water Filter	Coliform	4000	13.6	0	0	0
Koderma	699	150	150	Jalmani Water Purify System	Iron	0	0	5445	5729	11174
				Terafill Water Filter	Iron,Coliform	4000	13.6			
Latehar	1029	42	0	Terafill Water Filter	Iron,Coliform	4000	13.6	0	0	0
Lohardaga	313	30	0	Terafill Water Filter	Iron,Coliform	4000	13.6	0	0	0
Pakur	801	36	0	Terafill Water Filter	Iron,Coliform	4000	13.6	0	0	0
Palamu	964	78	78	Terafill Water Filter	Iron,Coliform	4000	13.6	4926	2374	7300
				Aayan exccange Hibrid of multi-pal method	Iron	4000	13.6			
Paschim Singhbhum	1532	88	0	Terafill Water Filter	Iron,Coliform	4000	13.6	0	0	0
Purbi Singhbhum	1966	52	0	Terafill Water Filter	Iron,Coliform	4000	13.6	0	0	0
Ramgarh	668	130	130	Aayan exccange Hibrid of multi-pal method	Fluoride	0	0	1725	825	2550
				Terafill Water Filter	Iron,Coliform	4000	13.6			
				Terafill Water Filter	Iron,E-Coli,Coliform	3050	15			
Ranchi	2187	82	1	Terafill Water Filter	Iron,Coliform	4000	13.6	105	119	224
Sahibganj	1365	54	0	Terafill Water Filter	Coliform	4000	13.6	0	0	0
Sareikela Kharsawan	1615	46	0	Fluoride and Iron	Fluoride	0	0	0	0	0
Simdega	875	100	100	Terafill Water Filter	Coliform	4000	13.6	4883	2092	6975
				FILTRATION	Iron	0	0			
				Terafill Water Filter	Iron	0	0			
	33593	3707	1467			113239	441.53	26405	19698	46103

Source: Department of Drinking Water and Sanitation, Govt. of Jharkhand

Appendix 13.4: Physical progress of Jalmani Scheme from 2008-2014

State Name	No. of Rural schools		Target (Number of schools to be covered)				Achievement (Number of schools covered)							Number of students benefitted		
	Total	Need standalone systems	2008-09	2009-10	Total	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	Total	Boys	Girls	Total	
Andhra Pradesh	43237	2370	3449	6169	9618	375	1845	NR	NR	NR	NR	2220	588670	276000	864670	
Bihar	57408	57408	3831	0	3831	50	4051	NR	NR	54	NR	4155	NR	NR	NR	
Chhattisgarh	41969	1774	964	0	964	NR	60	369	535	NR	NR	964	58753	35295	94048	
Goa	400	400	44	0	44	NR	NR	NR	60	NR	NR	60	NR	NR	NR	
Gujarat	28519	27186	2148	6681	8829	23	3932	5502	1129	NR	NR	10586	1175269	882669	2057938	
Haryana	6836	845	873	0	873	NR	NR	NR	788	NR	NR	788	92989	44825	137814	
Himachal Pradesh	8656	8656	785	2960	3745	39	2749	3245	NR	NR	NR	6033	212358	190914	403272	
Jammu And Kashmir	1097	708	2180	0	2180	NR	NR	NR	100	280	NR	380	13685	9945	23630	
Jharkhand	33593	3707	1253	0	1253	NR	974	493	NR	NR	NR	1467	26405	19698	46103	
Karnataka	46394	9713	2600	3543	6143	NR	4457	6412	NR	NR	NR	10869	1102287	930197	2032484	
Kerala	2362	1005	1282	0	1282	NR	50	NR	658	103	NR	811	97300	75740	173040	
Madhya Pradesh	32018	2734	2734	0	2734	NR	570	2164	NR	NR	NR	2734	215037	138993	354030	
Maharashtra	5247	4399	4174	4174	8348	NR	851	2407	4782	151	41	8232	792214	654921	1447135	
Orissa	23131	9991	1730	1730	3460	NR	1639	1898	NR	NR	NR	3537	199801	191406	391207	
Punjab	15243	2731	817	1905	2722	19	697	1232	817	NR	NR	2765	268587	226912	495499	
Rajasthan	63757	14223	3443	0	3443	NR	34	1491	NR	NR	483	2008	2419385	2413898	4833283	
Tamil Nadu	26734	7727	2074	6426	8500	105	7847	637	NR	NR	NR	8589	433040	377541	810581	
Telangana	27305	1409	NR	0	0	223	1186	NR	NR	NR	NR	1409	383523	180928	564451	
Uttar Pradesh	30428	13784	6892	6892	13784	NR	8288	5496	NR	NR	NR	13784	22576	17517	40093	
Uttarakhand	14042	12676	711	0	711	NR	50	661	207	NR	NR	1205	8014	5039	13053	
West Bengal	76044	9925	3016	3016	6032	NR	731	NR	3034	2622	NR	6387	1396316	1179268	2575584	
Arunachal Pradesh	2169	2169	132	132	264	NR	132	132	NR	NR	NR	264	42853	53262	96115	
Assam	27915	12401	3524	3524	7048	NR	958	6180	NR	NR	NR	7138	308807	169975	478782	
Manipur	2360	2046	276	276	552	NR	102	193	20	NR	NR	315	10400	10685	21085	
Meghalaya	6293	366	278	641	919	NR	261	82	204	213	NR	760	27956	26206	54162	
Mizoram	3523	3523	68	915	983	NR	168	815	NR	NR	NR	983	31735	29596	61331	
Nagaland	1830	1830	248	248	496	NR	115	248	NR	NR	NR	363	18439	18995	37434	
Sikkim	445	445	73	367	440	19	40	123	240	27	NR	449	24011	24672	48683	
Tripura	4031	4031	401	401	802	NR	300	841	85	NR	NR	1226	120255	93949	214204	
Total	632986	220182	50000	50000	100000	853	42087	40621	12659	3450	524	100481	10090665	8279046	18369711	

Source: Department of Drinking Water and Sanitation, Govt. of Jharkhand

Appendix 13.5: States wise IHHL Coverage under SBM (2015-2016)

Sr. No.	State Name	2015	2016
1	A & N Islands	53.77	55.83
2	Andhra Pradesh	43.38	50.19
3	Arunachal Pradesh	68.35	76.3
4	Assam	54.42	62.41
5	Bihar	24.93	26.16
6	Chhattisgarh	50.02	67.07
7	D & N Haveli	0	0
8	Goa	63.59	76.08
9	Gujarat	72.82	88.11
10	Haryana	86.78	88
11	Himachal Pradesh	94.87	100
12	Jammu & Kashmir	33.17	35.83
13	Jharkhand	37.52	46.59
14	Karnataka	56.79	62.11
15	Kerala	96.29	100
16	Madhya Pradesh	42.69	50.29
17	Maharashtra	63.44	71.05
18	Manipur	76.98	84.11
19	Meghalaya	80.19	86.76
20	Mizoram	82.95	85.42
21	Nagaland	66.03	66.75
22	Odisha	28.08	37.67
23	Puducherry	50.01	51.54
24	Punjab	77.93	80.03
25	Rajasthan	54.76	71.05
26	Sikkim	100	100
27	Tamil Nadu	61.98	66.27
28	Telangana	38.13	44.7
29	Tripura	73.96	77.56
30	Uttar Pradesh	42.25	46.03
31	Uttarakhand	80.86	99.48
32	West Bengal	74.26	85.61

Source: www.sbm.gov.in

Appendix 13.6: Ranking of 26 states as per NSSO 2015 survey

Rank	State	Percentage of Households having sanitary toilet	Percentage of people using household / community toilets (out of households having toilets)	Percentage of Households having access to a sanitary toilets and using them
1	Sikkim	98.2	100	98.2
2	Kerala	97.6	98.8	96.4
3	Mizoram	96.2	99.6	95.8
4	Himachal Pradesh	90.4		90.1
5	Nagaland	90.2	98.2	88.6
6	Haryana	90.2	97.4	87.9
7	Punjab	86.7	99.3	86.1
8	Uttarakhand	80.5	99.6	80.2
9	Manipur	75.9	96.2	73.0
10	Meghalaya	66.7	98.4	65.6
11	Assam	66.4	96.4	64.0
12	West Bengal	65.1	97.5	63.5
13	Telangana	61.1	97.8	59.8
14	Gujarat	55.5	96.2	53.4
15	Maharashtra	52.6	95.0	50.0
16	Andhra Pradesh	47.9	97.3	46.6
17	Jammu & Kashmir	47.4	96.9	45.9
18	Karnataka	47.0	94.3	44.3
19	Tamil Nadu	41.0	95.7	39.2
20	Rajasthan	38.0	94.2	35.8
21	Bihar	31.6	94.2	29.8
22	Uttar Pradesh	29.5	92.4	27.3
23	Madhya Pradesh	27.5	90.1	24.8
24	Odisha	26.3	94.2	24.8
25	Chhattisgarh	21.2	94.0	19.9
26	Jharkhand	18.8	94.2	17.7

Source: www.sbm.gov.in

Appendix 13.7: Households having access to toilet and Safe Drinking Water (%)

District Name	% of HHs having access to toilet	% of HHs having access to safe drinking water
Bokaro	33.46	62.30
Chatra	10.11	53.80
Deoghar	16.43	60.00
Dhanbad	39.76	72.40
Dumka	9.85	70.40
Garhwa	7.07	75.30
Giridih	10.80	31.00
Godda	10.50	72.50
Gumla	10.35	33.10
Hazaribagh	19.60	36.50
Jamtara	9.80	72.80
Khunti	8.36	36.10
Kodarma	16.50	44.00
Latehar	10.79	57.30
Lohardaga	14.91	48.90
Pakur	10.19	81.60
Palamu	13.06	73.60
Pashchimi Singhbhum	11.79	71.70
Purbi Singhbhum	49.92	80.30
Ramgarh	32.91	51.10
Ranchi	40.94	59.20
Sahibganj	15.34	72.10
Saraikela-Kharsawan	20.34	76.90
Simdega	8.19	41.50

Source: Census 2011

Appendix 15.1 District wise Spread of Monthly Household Income of SCs and STs

Sl. No.	District Name	Total Households	Total ST Households	Total SC Households	% of ST Households	% of SC Households	% Households with monthly Income of highest earning household member ST HH			% Households with monthly Income of highest earning household member SC HH		
							< 5000	5000 - 10000	> 10000	< 5000	5000 - 10000	> 10000
	All India	179721817	19719299	33154070	10.97	18.45	86.58	8.94	4.48	83.59	11.74	4.67
1	Garhwa	229414	31164	54569	13.58	23.79	89.78	8.43	1.79	86.80	9.90	3.29
2	Chatra	175409	7922	58497	4.52	33.35	82.39	10.22	7.38	91.88	5.93	2.18
3	Kodarma	96609	945	14824	0.98	15.34	90.26	2.96	6.77	81.60	12.74	5.67
4	Giridih	383640	41141	52538	10.72	13.69	93.25	4.57	2.18	82.11	10.67	7.21
5	Deoigarh	216632	33142	30282	15.30	13.98	90.09	6.98	2.94	91.20	5.60	3.20
6	Godda	243676	55081	22079	22.60	9.06	89.09	7.51	3.41	86.85	9.12	4.03
7	Sahibganj	205762	65187	12434	31.68	6.04	90.30	6.77	2.93	89.71	7.12	3.18
8	Pakur	173746	78702	4993	45.30	2.87	94.10	4.38	1.51	92.63	4.93	2.44
9	Dhanbad	260908	37285	40541	14.29	15.54	85.34	6.08	8.58	75.45	7.47	17.08
10	Bokaro	276821	46458	45431	16.78	16.41	82.62	8.19	9.19	82.19	7.18	10.63
11	Lohardaga	79897	48460	3056	60.65	3.82	86.24	9.85	3.91	92.70	4.71	2.59
12	E. Singhbhum	273216	126107	26259	46.16	9.61	70.66	22.81	6.53	48.63	38.48	12.88
13	Palamu	325420	30543	89051	9.39	27.36	78.65	15.13	6.22	85.57	9.37	5.07
14	Latehar	128904	60141	29624	46.66	22.98	91.36	5.12	3.53	94.60	3.65	1.76
15	Hazaribagh	278302	21033	53853	7.56	19.35	81.14	8.95	9.91	84.25	9.88	5.87
16	Ramgarh	155863	36613	17774	23.49	11.40	80.34	5.88	13.78	71.70	6.59	21.71
17	Dumka	262618	121357	16057	46.21	6.11	92.36	4.71	2.94	92.02	4.86	3.12
18	Jamtara	139849	45259	14182	32.36	10.14	91.84	5.95	2.21	88.91	7.59	3.50
19	Ranchi	346242	133072	16013	38.43	4.62	76.83	17.83	5.34	76.91	16.33	6.76
20	Khunti	95140	71400	4840	75.05	5.09	92.85	4.77	2.38	94.15	4.17	1.67
21	Gumla	172479	99915	10427	57.93	6.05	73.20	18.74	8.06	59.83	24.09	16.08
22	Simdega	108003	72374	11844	67.01	10.97	83.63	10.98	5.39	73.57	17.11	9.31
23	W. Singhbhum	247857	154862	15040	62.48	6.07	52.32	40.71	6.96	46.49	43.07	10.45
24	Saraikela-Kharsawan	167827	50474	9075	30.08	5.41	72.88	21.99	5.13	60.62	30.79	8.60
	State Total	5044234	1468637	653283	29.12	12.95	80.65	14.12	5.14	82.12	11.04	6.83

Source: Socio-Economic Caste Census 2011

Appendix 15.2 District wise source of monthly household Income among SCs in Jharkhand

Sl. No.	District Name	Total Households	Total SC Households	% of SC Households	% Households with income source (SC)						
					1 = Cultivation	2=Manual Casual Labour	3=Part-time or Full-Time Domestic Service	4=Foraging Rag Picking	5=Non- agricultural Own Account Enterprise	6=Begging/ Charity/ Alms collection	7=Others
	All India	179721817	33154070	18.45	18.4	67.3	2.2	0.3	1.1	0.4	10.4
1	Garhwa	229414	54569	23.79	18.1	71.2	3.0	0.3	0.5	0.3	6.6
2	Chatra	175409	58497	33.35	17.1	75.9	1.6	0.2	0.1	0.2	4.9
3	Kodarma	96609	14824	15.34	9.0	74.0	1.8	0.6	0.9	0.1	13.6
4	Giridih	383640	52538	13.69	9.2	76.2	1.6	0.3	0.5	0.2	12.0
5	Deoghar	216632	30282	13.98	15.0	71.3	3.1	0.1	0.6	0.2	9.7
6	Godda	243676	22079	9.06	12.8	76.4	2.4	0.1	0.5	0.1	7.6
7	Sahibganj	205762	12434	6.04	7.5	74.8	5.1	0.1	1.0	0.2	11.2
8	Pakur	173746	4993	2.87	15.4	69.0	4.2	0.1	1.8	0.1	9.3
9	Dhanbad	260908	40541	15.54	3.6	67.1	2.9	0.2	0.5	0.4	25.4
10	Bokaro	276821	45431	16.41	6.5	71.8	2.3	0.3	1.6	0.4	17.1
11	Lohardaga	79897	3056	3.82	42.4	49.4	1.4	0.1	0.8	0.1	5.7
12	E. Singhbhum	273216	26259	9.61	11.4	43.2	20.0	3.9	3.3	0.6	17.6
13	Palamu	325420	89051	27.36	12.2	78.8	2.0	0.2	0.3	0.4	6.1
14	Latehar	128904	29624	22.98	35.1	55.6	2.7	0.1	0.6	0.2	5.7
15	Hazaribagh	278302	53853	19.35	13.2	73.1	2.4	0.2	0.5	0.2	10.5
16	Ramgarh	155863	17774	11.40	7.9	59.9	2.4	0.2	1.3	0.2	28.0
17	Dumka	262618	16057	6.11	18.8	72.6	1.4	0.1	0.2	0.3	6.6
18	Jamtara	139849	14182	10.14	17.8	73.7	1.8	0.1	0.3	0.5	5.8
19	Ranchi	346242	16013	4.62	32.5	51.2	3.9	0.5	0.5	0.3	9.1
20	Khunti	95140	4840	5.09	48.1	37.7	4.4	0.2	0.4	0.1	9.1
21	Gumla	172479	10427	6.05	39.9	33.9	9.3	1.8	0.9	0.2	14.1
22	Simdega	108003	11844	10.97	54.6	32.6	5.0	2.3	1.0	0.3	4.3
23	W.Singhbhum	247857	15040	6.07	19.2	44.8	16.0	2.9	1.2	0.3	15.6
24	Saraike- Kharsawan	167827	9075	5.41	18.8	52.9	13.4	2.7	1.8	0.3	10.1
	State Total	5044234	653283	12.95	15.6	68.2	3.7	0.5	0.7	0.3	10.9

Source: Socio-Economic Caste Census 2011

Appendix 15.4 District wise Percentage of Household with Salaried Jobs among SCs in Jharkhand

Sl. No.	District Name	Total Households	Total SC Households	% of SC Households	% Households with salaried jobs in		
					Govt	Public Sector	Private Sector
	All India	179721817	33154070	18.45	4.0	0.9	2.4
1	Garhwa	229414	54569	23.79	3.1	1.2	1.4
2	Chatra	175409	58497	33.35	1.5	0.7	0.4
3	Kodarma	96609	14824	15.34	6.1	0.6	1.8
4	Giridih	383640	52538	13.69	7.8	0.8	1.2
5	Deochar	216632	30282	13.98	3.5	0.4	0.4
6	Godda	243676	22079	9.06	3.6	0.5	0.3
7	Sahibganj	205762	12434	6.04	3.0	0.1	0.2
8	Pakur	173746	4993	2.87	2.8	0.1	0.3
9	Dhanbad	260908	40541	15.54	14.2	4.7	3.1
10	Bokaro	276821	45431	16.41	9.6	2.2	1.7
11	Lohardaga	79897	3056	3.82	3.1	0.2	0.9
12	E. Singhbhum	273216	26259	9.61	2.9	3.4	2.7
13	Palamu	325420	89051	27.36	4.0	0.5	0.8
14	Latehar	128904	29624	22.98	1.9	0.1	0.4
15	Hazaribagh	278302	53853	19.35	4.6	1.1	1.0
16	Ramgarh	155863	17774	11.40	13.7	8.1	3.4
17	Dumka	262618	16057	6.11	3.9	0.2	0.3
18	Jamtara	139849	14182	10.14	4.4	0.7	0.2
19	Ranchi	346242	16013	4.62	4.9	1.5	2.5
20	Khunti	95140	4840	5.09	3.0	0.1	0.4
21	Gumla	172479	10427	6.05	1.5	0.2	0.3
22	Simdega	108003	11844	10.97	1.7	0.2	0.1
23	W. Singhbhum	247857	15040	6.07	2.9	12.4	9.7
24	Saraikele-Khar-sawan	167827	9075	5.41	2.7	1.8	7.5
	State Total	5044234	653283	12.95	5.1	1.6	1.5

Source: Socio-Economic Caste Census 2011

Appendix 15.5 District wise Percentage of household with salaried jobs among STs in Jharkhand

Sl. No.	District Name	Total Households	Total ST Households	% of ST Households	No. of Households with salaried jobs in		
					Govt	Public Sector	Private Sector
	All India	179721817	19719299	10.97	4.37	0.58	1.48
1	Garhwa	229414	31164	13.58	2.08	0.55	0.93
2	Chatra	175409	7922	4.52	5.04	2.32	0.29
3	Kodarma	96609	945	0.98	6.77	0.42	0.53
4	Giridih	383640	41141	10.72	2.41	0.24	0.27
5	Deochar	216632	33142	15.30	3.01	0.34	0.37
6	Godda	243676	55081	22.60	3.27	0.39	0.40
7	Sahibganj	205762	65187	31.68	2.36	0.12	0.20
8	Pakur	173746	78702	45.30	1.72	0.08	0.28
9	Dhanbad	260908	37285	14.29	7.78	1.91	1.09
10	Bokaro	276821	46458	16.78	7.02	3.25	1.67
11	Lohardaga	79897	48460	60.65	4.27	0.33	0.80
12	E. Singhbhum	273216	126107	46.16	2.83	1.39	3.15
13	Palamu	325420	30543	9.39	4.59	0.98	1.12
14	Latehar	128904	60141	46.66	3.53	0.25	0.61
15	Hazaribagh	278302	21033	7.56	6.11	4.21	1.62
16	Ramgarh	155863	36613	23.49	9.10	4.92	2.66
17	Dumka	262618	121357	46.21	3.69	0.23	0.45
18	Jamtara	139849	45259	32.36	2.98	0.53	0.17
19	Ranchi	346242	133072	38.43	4.21	1.05	1.81
20	Khunti	95140	71400	75.05	2.96	0.17	0.46
21	Gumla	172479	99915	57.93	4.75	0.38	0.99
22	Simdega	108003	72374	67.01	2.70	0.27	0.28
23	W.Singhbhum	247857	154862	62.48	1.23	1.41	4.64
24	Saraikela-Kharsawan	167827	50474	30.08	2.60	1.77	7.30
	State Total	5044234	1468637	29.12	3.49	0.95	1.64

Source: Socio-Economic Caste Census 2011

Appendix 15.6 Deprivation Situation among SCs in Jharkhand

Sl. No.	District Name	Total Households	Total SC Households	% of SC Households	No. of Deprived Households with deprivation criteria				
					Only one room with kucha walls and kucha roof	No adult member between age 16 to 59	No literate adult above 25 years	Landless households deriving major part of their income from manual casual labour	
	All India	179721817	33154070	18.45	17.24	4.17	31.15	45.17	
1	Garhwa	229414	54569	23.79	23.07	5.57	46.79	24.39	
2	Chatra	175409	58497	33.35	27.35	3.30	60.23	38.90	
3	Kodarma	96609	14824	15.34	16.21	2.18	37.17	32.12	
4	Giridih	383640	52538	13.69	16.78	1.98	38.13	25.28	
5	Deoghar	216632	30282	13.98	16.56	2.90	43.21	23.76	
6	Godda	243676	22079	9.06	26.78	3.02	47.16	46.36	
7	Sahibganj	205762	12434	6.04	28.73	2.48	50.76	58.82	
8	Pakur	173746	4993	2.87	31.52	2.50	53.03	50.71	
9	Dhanbad	260908	40541	15.54	12.13	1.33	29.15	35.96	
10	Bokaro	276821	45431	16.41	17.96	2.28	33.79	27.68	
11	Lohardaga	79897	3056	3.82	9.91	4.06	35.70	17.93	
12	E. Singhbhum	273216	26259	9.61	8.17	1.95	14.01	20.58	
13	Palamu	325420	89051	27.36	29.15	3.97	51.20	36.56	
14	Latehar	128904	29624	22.98	22.69	3.44	56.71	19.41	
15	Hazaribagh	278302	53853	19.35	16.29	2.47	40.05	27.00	
16	Ramgarh	155863	17774	11.40	7.40	1.68	28.73	28.19	
17	Dumka	262618	16057	6.11	23.76	3.24	39.96	29.63	
18	Jamtara	139849	14182	10.14	23.78	2.45	41.71	34.18	
19	Ranchi	346242	16013	4.62	11.20	3.51	29.77	19.95	
20	Khunti	95140	4840	5.09	16.53	3.86	34.32	19.65	
21	Gumla	172479	10427	6.05	7.97	3.16	20.73	15.87	
22	Simdega	108003	11844	10.97	10.42	4.45	33.07	15.26	
23	W. Singhbhum	247857	15040	6.07	4.86	1.52	9.60	17.46	
24	Saraikela-Kharsawan	167827	9075	5.41	15.88	2.94	21.94	24.99	
	State Total	5044234	653283	12.95	19.62	3.01	41.03	29.77	

Source: Socio-Economic Caste Census 2011

Appendix 15.7 Deprivation Situation among STs in Jharkhand

Sl. No.	District Name	Total Households	Total ST Households	% of ST Households	No. of Deprived Households with deprivation criteria			
					Only one room with kucha walls and kucha roof	No adult member between age 16 to 59	No literate adult above 25 years	Landless households deriving major part of their income from manual casual labour
	All India	179721817	19719299	10.97	22.12	3.74	39.29	29.82
1	Garhwa	229414	31164	13.58	16.20	4.88	40.53	10.37
2	Chatra	175409	7922	4.52	17.42	1.70	39.43	10.19
3	Kodarma	96609	945	0.98	26.35	2.12	50.16	40.32
4	Giridih	383640	41141	10.72	19.51	2.06	52.26	12.20
5	Deoghar	216632	33142	15.30	17.15	2.40	43.63	8.60
6	Godda	243676	55081	22.60	18.34	2.60	47.07	16.97
7	Sahibganj	205762	65187	31.68	30.16	2.30	52.64	18.77
8	Pakur	173746	78702	45.30	32.96	1.78	53.37	15.11
9	Dhanbad	260908	37285	14.29	17.06	1.70	35.75	15.42
10	Bokaro	276821	46458	16.78	17.29	2.01	38.10	12.09
11	Lohardaga	79897	48460	60.65	7.41	2.85	34.33	6.36
12	E. Singhbhum	273216	126107	46.16	13.95	2.15	27.35	20.12
13	Palamu	325420	30543	9.39	19.81	2.62	35.48	10.21
14	Latehar	128904	60141	46.66	14.46	2.89	39.41	6.70
15	Hazaribagh	278302	21033	7.56	13.57	1.86	41.28	10.37
16	Ramgarh	155863	36613	23.49	8.96	2.11	34.78	14.37
17	Dumka	262618	121357	46.21	24.53	2.76	39.35	9.32
18	Jamtara	139849	45259	32.36	21.53	2.64	42.00	8.29
19	Ranchi	346242	133072	38.43	8.90	2.49	25.96	12.12
20	Khunti	95140	71400	75.05	17.13	3.57	31.20	5.83
21	Gumla	172479	99915	57.93	12.23	2.72	26.20	4.66
22	Simdega	108003	72374	67.01	8.49	3.43	25.58	6.24
23	W. Singhbhum	247857	154862	62.48	6.06	1.81	15.93	27.44
24	Saraikela-Kharsawan	167827	50474	30.08	15.76	2.38	25.92	13.94
	State Total	5044234	1468637	29.12	15.79	2.49	33.95	13.23

Source: Socio-Economic Caste Census 2011

Appendix 15.8 Asset and income Situation among SCs in Jharkhand

Sl. No.	District Name	Total Households	Total SC Households	% of SC Households	Households owning motorized two/three/four wheelers/fishing boats	Households having Kisan credit card with the credit limit of Rs.50,000 and above	Households with any member as government employee	Households with any member earning more than Rs. 10,000 p.m	Households paying income tax
	All India	179721817	33154070	18.45	12.62	1.75	3.95	4.67	3.49
1	Garhwa	229414	54569	23.79	7.38	1.49	3.12	3.29	2.07
2	Chatra	175409	58497	33.35	4.30	0.82	1.51	2.18	1.62
3	Kodarma	96609	14824	15.34	9.04	2.19	6.09	5.67	3.94
4	Giridih	383640	52538	13.69	9.29	0.81	7.78	7.21	5.47
5	Deoghar	216632	30282	13.98	6.36	1.10	3.53	3.20	2.44
6	Godda	243676	22079	9.06	7.82	1.38	3.56	4.03	2.41
7	Sahibganj	205762	12434	6.04	4.58	0.85	3.02	3.18	2.24
8	Pakur	173746	4993	2.87	4.75	0.62	2.76	2.44	1.54
9	Dhanbad	260908	40541	15.54	19.32	0.77	14.23	17.08	16.62
10	Bokaro	276821	45431	16.41	15.87	0.51	9.55	10.63	9.54
11	Lohardaga	79897	3056	3.82	8.90	2.29	3.08	2.59	2.45
12	E. Singhbhum	273216	26259	9.61	50.91	4.31	2.93	12.88	3.90
13	Palamu	325420	89051	27.36	6.97	1.56	4.03	5.07	2.87
14	Latehar	128904	29624	22.98	3.89	0.85	1.87	1.76	1.27
15	Hazaribagh	278302	53853	19.35	9.07	0.78	4.60	5.87	4.30
16	Ramgarh	155863	17774	11.40	21.58	0.67	13.65	21.71	21.22
17	Dumka	262618	16057	6.11	5.99	1.63	3.92	3.12	1.95
18	Jamtara	139849	14182	10.14	8.31	0.94	4.37	3.50	3.22
19	Ranchi	346242	16013	4.62	20.16	3.69	4.86	6.76	6.15
20	Khunti	95140	4840	5.09	5.21	0.91	2.98	1.67	1.28
21	Gumla	172479	10427	6.05	34.46	1.13	1.54	16.08	1.05
22	Simdega	108003	11844	10.97	14.94	1.78	1.65	9.31	1.49
23	W.Singhbhum	247857	15040	6.07	48.66	4.63	2.87	10.45	6.35
24	Saraikela-Kharsawan	167827	9075	5.41	29.98	4.03	2.70	8.60	2.37
	State Total	5044234	653283	12.95	12.71	1.40	5.08	6.83	4.84

Source: Socio-Economic Caste Census 2011

Appendix 15.9 Asset and income Situation among STs in Jharkhand

Sl. No.	District Name	Total Households	Total ST Households	% of ST Households	Households owning motorized two/three/four wheelers/fishing boats	Households having kisan credit card with the credit limit of Rs.50,000 and above	Households with any member as government employee	Households with any member earning more than Rs. 10,000 p.m	Households paying income tax
	All India	179721817	19719299	10.97	9.89	1.65	4.37	4.48	3.35
1	Garhwa	229414	31164	13.58	6.73	1.61	2.08	1.79	0.96
2	Chatra	175409	7922	4.52	8.94	0.87	5.04	7.38	6.13
3	Kodarma	96609	945	0.98	6.24	3.07	6.77	6.77	4.87
4	Giridih	383640	41141	10.72	5.64	0.73	2.41	2.18	1.53
5	Deoghar	216632	33142	15.30	6.01	1.05	3.01	2.94	2.31
6	Godda	243676	55081	22.60	9.83	1.65	3.27	3.41	2.55
7	Sahibganj	205762	65187	31.68	3.74	2.03	2.36	2.93	1.73
8	Pakur	173746	78702	45.30	3.41	0.77	1.72	1.51	1.08
9	Dhanbad	260908	37285	14.29	13.76	1.08	7.78	8.58	8.02
10	Bokaro	276821	46458	16.78	17.52	0.81	7.02	9.19	7.20
11	Lohardaga	79897	48460	60.65	8.80	2.62	4.27	3.91	3.69
12	E. Singhbhum	273216	126107	46.16	28.40	1.74	2.83	6.53	3.35
13	Palamu	325420	30543	9.39	15.57	2.01	4.59	6.22	3.17
14	Latehar	128904	60141	46.66	4.85	1.11	3.53	3.53	2.33
15	Hazaribagh	278302	21033	7.56	14.46	0.71	6.11	9.91	8.51
16	Ramgarh	155863	36613	23.49	17.57	0.99	9.10	13.78	13.47
17	Dumka	262618	121357	46.21	6.26	0.64	3.69	2.94	2.11
18	Jamtara	139849	45259	32.36	6.85	0.92	2.98	2.21	2.38
19	Ranchi	346242	133072	38.43	19.19	2.05	4.21	5.34	4.23
20	Khunti	95140	71400	75.05	5.92	1.31	2.96	2.38	1.99
21	Gumla	172479	99915	57.93	22.42	2.03	4.75	8.06	3.27
22	Simdega	108003	72374	67.01	12.65	1.25	2.70	5.39	2.16
23	W. Singhbhum	247857	154862	62.48	30.05	4.42	1.23	6.96	2.87
24	Sarailkela-Kharsawan	167827	50474	30.08	26.68	2.67	2.60	5.13	3.04
	State Total	5044234	1468637	29.12	14.99	1.78	3.49	5.14	3.31

Source: Socio-Economic Caste Census 2011

Appendix 15.10 : Tribal and Urban Population

District Name	Population in Lakhs	Urban (%)	ST%
Bokaro	41.25	47.70	12.40
Chatra	20.86	6.04	4.37
Deoghar	29.84	17.32	12.13
Dhanbad	53.69	58.13	8.68
Dumka	26.43	6.82	43.22
Garhwa	26.46	5.27	15.56
Giridih	48.91	8.51	9.74
Godda	26.27	4.90	21.26
Gumla	20.50	6.35	68.94
Hazaribagh	34.69	15.87	7.02
Jamtara	15.82	9.58	30.40
Khunti	10.64	8.46	73.25
Kodarma	14.33	19.72	0.96
Latehar	14.54	7.13	45.54
Lohardaga	9.24	12.43	56.89
Pakur	18.01	7.50	42.10
Palamu	38.80	11.65	9.34
Pashchimi Singhbhum	30.05	14.51	67.31
Purbi Singhbhum	45.88	55.56	28.51
Ramgarh	18.99	44.13	21.19
Ranchi	58.29	43.14	35.76
Sahibganj	23.01	13.88	26.80
Saraikele-Kharsawan	21.30	24.29	35.18
Simdega	11.99	7.16	70.78

Source: Census 2011

Appendix 16.1: Tree Planting Progress Report

Sl. No	FOREST DIVISION (NAME)	No. OF PLANT TO BE PLANTED (TARGET)				TOTAL NO. OF PLANT PLANTED (ACHIEVEMENT)				PLANT PLANTED (ACHIEVEMENT)
		PLAN ITEM	CAMPA	M.D.A/MANRE GA/RAIN WATER HARVESTING	TOTAL	PLAN ITEM	CAMPA	M.D.A/MANRE GA/RAIN WATER HARVESTING	TOTAL	
A	B	C	D	E	F	G	H	I	J	K
HAZARIBAGH REGION										
1	SOUTH CHATRA	328100	519792		847892	328100	519792	0	847892	100
2	NORTH CHATRA	502600	416500		919100	502600	416500	0	919100	100
3	HAZARIBAGH EAST	194650	871940		1066590	194650	871940	0	1066590	100
4	HAZARIBAGH WEST		1496367		1669217	172850	1496367	0	1669217	100
5	KODERMA	199010	722910		921920	199010	722910	0	921920	100
	TOTAL	1397210	4027509	0	5424719	1397210	4027509	0	5424719	100
BOKARO REGION										
1	GIRIDIH EAST	326270	249900		576170	326270	249900		576170	100
2	GIRIDIH WEST	250520	499800	0	750320	250520	499800	0	750320	100
3	DHANBAD	282810	279020		561830	282810	279020		561830	100
4	BOKARO	323330	1037918		1361248	323330	1037918		1361248	100
5	RAMGARH	198350	151104		349454	198350	151104		349454	100
	TOTAL	1381280	2217742	0	3599022	1381280	2217742	0	3599022	100
MADENINAGAR, PALAMU REGION										
1	MADENINAGAR	141970	149940		291910	141970	149940		291910	100
2	GADHWA NORTH	225700	166600		392300	225700	166600		392300	100
3	GADHWA SOUTH	140100	233240		373340	140100	233240		373340	100
4	LATEHAR	384980	338600		123580	384980	338600		123580	100
	TOTAL	892750	888380	0	1781130	892750	888380	0	1781130	100
JAMSHEDPUR REGION										
1	JAMSHEDPUR	682686	416500		1099186	682686	416500		1099186	100
2	SARAIKELA	503630	249900		753530	503630	249900		753530	100
3	CHAI BASA	229980	83300		313280	229980	83300		313280	100
4	SARANDA	96640			96640	96640			96640	100
5	KOLHAAN	111980	0	0	111980	111980	0	0	111980	100
6	PODAHAAT	111980	60858		172838	111980	60858		172838	100
	TOTAL	1736896	810558	0	2547454	1736896	810558	0	2547454	

DUMKA REGION										
1	DUMKA	431960	388497		820457	431960	388497		820457	100
2	DEVGARH	258560	463710		722270	258560	463710		722270	100
3	GADDA	124980	228510	11320	364810	124980	228510	11320	364810	100
4	JAMATADH	152540	127605		280145	152540	127605		280145	100
5	PAKUDH	82980	195666		278646	82980	195666		278646	100
6	SAHEBGANJ	133484	326527		460011	133484	326527		460011	100
TOTAL		1184504	1730515	11320	2926339	1184504	1730515	11320	2926339	100
RANCHI REGION										
1	LOHERDAGHA	2630	252774		255404	2630	252774		255404	100
2	GUMLA	206000	110000		316000	206000	110000		316000	100
3	SIMDEGA	172980	187000		359980	172980	187000		359980	100
4	KHUTI	53980	267586		321566	53980	267586		321566	100
5	RANCHI	241280	225660		466940	241280	225660		466940	100
TOTAL		676870	1043020	0	1719890	676870	1043020	0	1719890	100
PRASAR VAANIKA, CHOTANGPUR, RANCHI										
1	SA.VA. DIVISION, HAZARIBAGH	268600	554778		823378	268600	554778		823378	100
2	SA.VA. DIVISION, KODERMA	296290	583100		879990	296290	583100		879990	100
3	SA.VA. DIVISION, GADHWA	266630	583100		849730	266630	583100		849730	100
4	SA.VA DIVISION, LATEHAR	432740	583100		1015840	432740	583100		1015840	100
TOTAL		1264860	2304078	0	3568938	1264860	2304078	0	3568938	100
PRASAR VAANIKA, SANTHAL PARGANA, DUMKA										
1	SA.VA DIVISION, DUMKA	283300	583100	53100	919500	283300	583100	53100	919500	100
2	SA.VA DIVISION, DEVGARH	118790	24990		143780	118790	24990		143780	100
TOTAL		402090	608090	53100	1063280	402090	608090	53100	1063280	100
PRASAR VANIKA, CHOTANAGPUR, RANCHI										
1	SA.VA DIVISION, CHAIBASA	997520	583100		920620	997520	583100		920620	100
2	SA.VA DIVISION, ADITYAPUR	294992	499800		794792	294992	499800		794792	100
3	SA.VA DIVISION, SIMDEGA	250910	343200		594110	250910	343200		594110	100
4	SA.VA DIVISION, RANCHI	261942	121640		353582	261942	121640		353582	100
TOTAL		1145364	1547740	0	2693104	1145364	1547740	0	2693104	100
FOREST GUARDIAN, STATE FOREST TREE SCIENCE, RANCHI										
1	WORLD KHAAD PROGRAME DIVISION, DUMKA	127000			127000	127000			127000	100
3	WORLD KHAAD PROGRAME DIVISION, CHAIBASA	125000			175000	125000			175000	100
TOTAL		252000	0	50000	302000	252000	0	50000	302000	100
GROSS TOTAL		10333824	15177632	114420	25625876	10333824	15177632	114420	25625876	100

Source: Forest Environment & Climate Change Department, Govt. of Jharkhand

