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Planning Cum Finance Department  
Finance Division  
Government of Jharkhand

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<b>Acronyms and Abbreviations</b>		
AABY	:	Aam Admi Bima Yojana
AAJ	:	Antyodaya Anna Yojna
ACA	:	Additional Central Assistance
ADB	:	Asian Development Bank
AHP	:	Affordable Housing in Partnership
AIBP	:	Aditayapur Industrial Area Development Authority
AIBP	:	Accelerated Irrigation Benefit Programme
AKM	:	Aajeevika Krushak Mitra
ALIMCO	:	Artificial Limbs Manufacturing Corporation of India
ANBC	:	Adjusted Net Bank Credit
ANM	:	Auxiliary Nurse Midwifery
ANR	:	Aided Natural Regeneration
APMC	:	Agricultural Produce Market Committee
APL	:	Above Poverty Line
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
ATDC	:	Apparel Training & Design Centre
AT&C	:	Aggregate Technical and Commercial
ATS	:	Apprenticeship Training Scheme
AWC	:	Anganwari Centre
BIADA	:	Barhi Industrial Area
BMB	:	Bharatiya Mahila Bank
BMMU	:	Block Mission Management Unit
BPED	:	Bachelors in Physical Education
BPL	:	Below Poverty Line
BSUP	:	Basic Services to Urban Poor
BOT	:	Build Operate And Transfer
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
CCB	:	Central Cooperative Bank
CDLG	:	Capacity Development for Local Governance
CFC	:	Common Facility Centre
CHC	:	Community Health Centres

### Acronyms and Abbreviations

CIDC	:	Construction Industry Development Council
CIF	:	Community Investment Fund
CIL	:	Coal India Limited
CLMS	:	Corporate legal Management System
CMSA	:	Chief Minister's Social Assistance
CPL	:	Commercial Pilot License
CPI	:	Consumer Price Index
CPI-AL	:	Consumer Price Index for Agricultural Labour
CPI-IW	:	Consumer Price Index for Industrial Worker
CPSU	:	Central Public Sector Undertaking
CRF	:	Central Road Fund
CRISIL	:	Credit Rating Information Services of India Limited
CRP	:	Community Resource Person
CSR	:	Corporate Social Responsibility
CSS	:	Centrally Sponsored Schemes
CSO	:	Central Statistical Organisation
CTE	:	Colleges for Teacher Education
CTI	:	Central Training Institute
CTS	:	Craftsman Training Scheme
CWC	:	Child Welfare Committee
CWSN	:	Children with Special Needs (CWSN)
DANIDA	:	Danish International Development Agency
DAP	:	Di Ammonia Phosphate
DBT	:	Direct Benefits Transfer
DCBC	:	District Capacity Building Committee
DCCB	:	District Central Cooperative Banks
DDUGJY	:	Deendayal Upadhyaya Gram Jyoti Yojana
DEO	:	District Education Officer
DGET	:	Directorate General of Employment and Training
DIC	:	District Industries Centre
DIET	:	District Institutes of Education and Training
DISE	:	District Information System for Education
DMMU	:	District Mission Management Unit
DMP	:	Disaster Management Plan
DPAP	:	Drought Prone Areas Programme
DPR	:	Detailed Project Reports
DRS	:	Debt Restructuring Scheme
DSS	:	Direct Subsidy Scheme
DTR	:	Dynamic Thermal Rating
DVC	:	Damodar Valley Corporation

<b>Acronyms and Abbreviations</b>		
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
FCI	:	Food Corporation of India
FRBM	:	Fiscal Responsibility and Budget Management
FDA	:	Forest Development Agencies
FFS	:	Farmers Field School
FPS	:	Fair Price Shop
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
GIZ	:	Gesellschaft für Internationale Zusammenarbeit
GOJ	:	Government of Jharkhand
GOI	:	Government of India
GPF	:	General Provident Fund
GPS	:	Global Positioning System
GSDP	:	Gross State Domestic Product
HIS	:	Hydrologic Information System
HDI	:	Human Development Index
HRD	:	Human Resource Department
HYV	:	High Yield Varieties
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

### Acronyms and Abbreviations

IFAD	:	International Fund for Agricultural Development
IGWDP	:	Indo German Watershed Development Programme
IHHL	:	Individual Household Latrines
IHSDP	:	Integrated Housing and Slum Development Programme
IITF	:	India International Trade Fair
IL&FS	:	Infrastructure Leasing & Finance Company
IMC	:	Institute Management Committee
IMNCI	:	Integrated Management of Neonatal Childhood Illness
IMR	:	Infant Mortality Rate
INM	:	Integrated Nutrients Management
IPM	:	Integrated Pest Management
IRO	:	Internal Resource Organization
ISM	:	Indian Institute of Science
ISFR	:	India State of Forest Survey
ISRO	:	Indian Space Research Organisation
ITDA	:	Integrated Tribal Development Authorities
ITI	:	Industrial Training Institute
IUCD	:	Intra Uterine Contraceptive Device
IUD	:	Intrauterine device
IWMP	:	Integrated Watershed Management Programme
JAC	:	Jharkhand Academic Council
JARDP	:	Jharkhand Accelerated Road Development Plan
JARDCL	:	Jharkhand Accelerated Road Development Co. Ltd
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.
JINFRA	:	Jharkhand Infrastructure Development Corporation
JIP	:	Jharkhand Industrial Policy
JJB	:	Juvenile Justice Board
JLG	:	Joint Liability Groups
JNNURM	:	Jawaharlal Nehru National Urban Renewal Mission
JRHMS	:	Jharkhand Rural Health Mission Society
JSAC	:	Jharkhand Space application centre
JSCB	:	Jharkhand State Co-operative Bank
JSCPS	:	Jharkhand State Child Protection Society

<b>Acronyms and Abbreviations</b>		
JSEB	:	Jharkhand State Electricity Board
JSFDC	:	Jharkhand State Forest Development Corporation
JSLPS	:	Jharkhand State Livelihood Promotion Society
JSRP	:	Jharkhand State Road Project
JSWM	:	Jharkhand State Watershed Mission
JTDC	:	Jharkhand Tourism Development Corporation
JTDS	:	Jharkhand Tribal Development Society
JTDP	:	Jharkhand Tribal Development Program
JTELP	:	Jharkhand Tribal Empowerment & Livelihood Programme
JTRI	:	Jharkhand Tribal Research Institute
JWDS	:	Jharkhand Woman Development Society
JUSNL	:	Jharkhand Urja Sancharan Nigam Ltd
JUUNL	:	Jharkhand Urja Utpadan Nigam Ltd
JUVNL	:	Jharkhand Urja Vikas Nigam Ltd
JHASCOFISH	:	Jharkhand State Co-Operative Fisheries Federation Ltd.
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
MCD	:	Minority Concentration Districts
MCS	:	Model cluster Schools
MDM	:	Mid Day Meal
MDR	:	Major District Roads
MDG	:	Millennium Development Goals
MEC	:	Microenterprise consultant
MECON	:	Metallurgical & Engineering Consultants Limited
MESO	:	Micro Economic Social Organisation
MFI	:	Micro Finance Institution
MFP	:	Minor Forest Produces
MHRD	:	Ministry of Human Resource Development
MHUPA	:	Ministry of Urban Housing and Poverty Alleviation
MGNREGA	:	Mahatma Gandhi National Rural Employment Guarantee Scheme
MIS	:	Management information systems
MMJSSA	:	Mukhya Mantri Janani Shishu Swasthya Abhiyan
MKSP	:	Mahila Kisan Sashaktikaran Pariyojana
MLLY	:	Mukhyamantri Ladli Laxmi Yojna

## Acronyms and Abbreviations

MMP	:	Mission Mode Projects
MMR	:	Maternal Mortality Rate
MMS	:	Mandal Mahila Samakhya
MMU	:	Mobile Medical Unit
MOU	:	Memorandum of Understanding
MoPR	:	Ministry of Panchayati Raj
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
NAPCC	:	National Action Plan for Climate Change
NBFC	:	Non-Banking Financial Companies
NCERT	:	National Council of Educational Research and Training
NCLP	:	National Child Labour Project
NCVT	:	National Council for Vocational Training
NDRF	:	National Disaster Response Force
NeGP	:	National e-Governance Plan
NER	:	Net Enrolment Ratio
NFSA	:	National Food Security Act
NGO	:	Non-Government Organisations
NIRD	:	National Institute of Rural Development
NMR	:	Neonatal Mortality Rate
NPA	:	Non Performing Assets
NPA	:	National Park Authority
NPEGEL	:	National Program for Education of Girls at Elementary Level
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

<b>Acronyms and Abbreviations</b>		
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
NESCL	:	NTPC Electric Supply Company
NWDPRRA	:	National Watershed Development Programme for Rain fed Areas
OBC	:	Other Backward Classes
OFC	:	Optical Fibre Cable
OSP	:	Office of Strategy & Planning
PACS	:	Primary Agricultural Credit Societies
PEAIS	:	Panchayat Empowerment and Accountability Incentive Scheme
PCARDB	:	Primary Cooperative Agriculture and Rural Development Banks
PCC	:	Plain Cement Concrete
PCI	:	Per Capita Income
PCLDB	:	Primary Cooperative Land Development Banks
PDS	:	Public Distribution System
PESA	:	Panchayat Extension to Scheduled Areas
PHC	:	Primary health centres
PIU	:	Project Implementation Unit
PIM	:	Participatory Irrigation Management
PLF	:	Plant Load Factor
PMEGP	:	Prime Minister Employment Generation Programme
PMEYSA	:	Panchayat Mahila Evam Yuva Shakti Abhiyan
PMGSY	:	Pradhan Mantri Gram Sadak Yojna
PMJDY	:	Pradhan Mantri Jan-DhanYojana
PMRY	:	Prime Minister Rozgar Yogna
PMU	:	Project Management Unit
POERI	:	Power over Economic Resources
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
PTG	:	Primitive Tribal Groups
PTI	:	Panchayat Training Institution
PTTC	:	Primary Teachers Training Colleges
PSB	:	Phosphate Solubilizing Bacteria
PSE	:	Pre School Education

### Acronyms and Abbreviations

PVTG	:	Particularly Vulnerable Tribal Groups
PWCS	:	Primary Weavers Cooperative Societies
PWSS	:	Piped Water Supply Scheme
PWD	:	Public Works Department
PYKKA	:	Panchayat Yuva Krida Aur Khel Abhiyan
QCD	:	Quality Control Directorate
QCI	:	Quality Council of India
RAY	:	Rajiv Awas Yojana
REGP	:	Rural Employment Generation Programme
RGPSA	:	Rajiv Gandhi Panchayat Shasaktikaran Abhiyan
RGSY	:	Rashtriya Gram Swaraj Yojana
RIADA	:	Ranchi Industrial Area Development Authority
RIDF	:	Rural Infrastructure Development Fund
RRB	:	Regional Rural Banks
RSETI	:	Rural Self Employment Training Institute
RAPDRP	:	Restructured Accelerated Power Development & Reforms Programme
RBI	:	Reserve Bank Of India
RCD	:	Road Construction Department
RDF	:	Random Decision Forest
REC	:	Renewable Energy Corporation
RFS	:	Rural Franchisee Schemes
RGGVY	:	Rajiv Gandhi Gramin Vidyutikaran Yojna
RIMC	:	Rashtriya Indian Military College
RKVY	:	Rashtriya Krishi Vikas Yojna
RoGP	:	Rate of growth of Population
RoPCI	:	Rate of growth of PCI
RRP	:	Road Requirement Plan
RTE	:	Right to Free and Compulsory Education
RUSA	:	Rashtriya Uchchatar Shiksha Abhiyaan
SAF	:	South Asian Federation
SAM	:	Severe and Acute Malnourished Children
SAIL	:	Steel Authority of India Limited
SAJHA	:	Sports Authority of Jharkhand
SAPCC	:	State Action Plan on Climate Change
SBA	:	Skilled Birth Attendant
SBLP	:	SHG bank-linkage program
SBM	:	Swachh Bharat Mission
SCARDB	:	State Cooperative Agriculture and Rural Development Bank
SCA	:	Special Central Assistance
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
SDRF	:	State Disaster Response Fund
SECC	:	Socio Economic Caste Census
SGSY	:	Swaranjayanti Gram Swarajgar Yojna
SHG	:	Self Help Group
SHPI	:	Self-help Promoting Institution
SJSRY	:	Swarna Jayanti Shahari Rozgar Yojana
SKIPA	:	Sri Krishna Institute of Public Administration
SLBC	:	State Level Bankers Committee
SRI	:	Systematic Rice Intensification
SRLM	:	Jharkhand Rural Livelihood Mission
SSA	:	Sarva Siksha Abhiyan
SNP	:	Supplementary Nutrition Programme
SOR	:	State's Own Revenue
SPIADA	:	Santhal Paragna Industrial Area Development
SSDG	:	State Service Delivery Gateway
SWAN	:	State Wide Area Network
SWI	:	Systematic Wheat Intensification
SDMA	:	State Disaster Management Authority
SFD	:	State Forest Department
SHG	:	Self Help Group
SMART	:	Simple Methodical Accountable Responsive Transparent
SMC	:	Soil & Moisture Conservation
SMMU	:	State Mission Management Unit
SNP	:	Supplementary Nutrition Programme
SHAJ	:	State Highway Authority of Jharkhand
SRLM	:	State Rural Livelihood Mission
SRS	:	Supported Residential Services
STEP-UP	:	Skill Training for Employment Promotion amongst Urban Poor
T&D	:	Transmission and Distribution
TCDC	:	<i>Tribal</i> Co-operative Development Corporation
TFR	:	Total Fertility Rate
THR	:	Take Home Ration
TIC	:	Tourist Information Centres

### Acronyms and Abbreviations

TOF	:	Trees Outside Forests
TPDS	:	Targeted Public Distribution System
TSP	:	Tribal Sub Plan
UCDN	:	Urban Community Development Network
UEE	:	Universal Elementary Education
USEP	:	Urban Self-Employment Programme
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
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
VTIP	:	Vocational Training Improvement Project
WHO	:	World Health Organisation
WLL	:	Wireless in Local Loop
WPR	:	Worker Population Ratio
WPI	:	Wholesale Price Index
WSA	:	Water Spread Area



# 1

## Macro Economic Overview

# 1

## **Macro Economic Overview**

*For the state of Jharkhand, this financial year (2015-16) has been exemplary in many senses. Not only has growth, for the fourth year in succession, remained impressive, but also has been wide spread across the sectors, regions and societies. The state has been ranked third in 'ease of doing business', next only to Gujarat and Andhra Pradesh. Many new progressive and growth promoting measures and policies have been taken up by the government this year which are going to make these changes sustainable and widespread.*

### Impressive Performance in State Income

The Gross State Domestic Product (GSDP<sub>FC</sub>), at factor cost, at constant (2004-05)<sup>1</sup> prices, of the state is projected to increase by 8.83 percent and the Net State Domestic Product (NSDP<sub>FC</sub>), at factor cost, at constant (2004-05) prices by 8.9 percent in this financial year (2015-16). This is the fourth consecutive year when the real income of the state, measured, whether in terms of GSDP<sub>FC</sub> or NSDP<sub>FC</sub> at constant prices, has recorded an impressive growth and is third year in succession when the growth rate has crossed

8 percent. The year to year growth rates of GSDP<sub>FC</sub> or NSDP<sub>FC</sub> at constant prices, between 2004-05 and 2015-16, have been 7.47 percent and 7.22 percent, respectively and the compound annual growth rates (CAGR)<sup>2</sup> have been 7.26 and 6.97 percent, respectively. The growth rates in this period was dampened because of the poor performance of the economy in the year 2005-06, 2006-07, 2008-09 and 2011-12. In 2005-06 and 2008-09 the growth rates were negative, in 2006-07 it was less than 3 percent and in 2011-12, it was below 6 percent. If these four years are not considered, the average year to year growth rate in these two indicators of income of the state (GSDP<sub>FC</sub> and NSDP<sub>FC</sub> at constant prices), in this period (2004-05 to 2015-16), would have been about 11.5 percent.

The growth rates of GSDP<sub>FC</sub> or NSDP<sub>FC</sub> at constant prices, from 2012-13, when the 12<sup>th</sup> five year plan was launched to 2015-16, the current financial year, have been 8.43 percent and 8.55 percent, respectively, on year to year basis and 8.76 and 8.61, respectively, on the basis of compound annual growth rates (CAGR), indicating an impressive performance of the state economy.

The table below (Table No. 1.1) gives the Growth rate of GSDP and NSDP at factor cost, both at constant and current prices. The difference in the growth rate at current and constant prices is an indicator of inflation; since the rate of inflation has always remained positive in this period, the growth rate in these two indicators of income at current prices has been higher than that at the constant prices in this state.

1 The base year of the national accounts is changed periodically to take into account the structural changes which take place in the economy and to depict a true picture of the economy through macro aggregates. The new series, with new base year, includes new and emerging sectors, changed weights of the existing sectors and revised method of estimation of national income aggregates. It earlier used to be revised almost every 10 years but, henceforth, will be revised every fifth year. The base years of the National Accounts Statistics series have been shifted from 1948-49 to 1960-61 in August 1967; from 1960-61 to 1970-71 in January 1978; from 1970-71 to 1980-81 in February 1988; and from 1980-81 to 1993-94 in February 1999, thereafter, it was changed to 2004-05 in 2006. Now it has been shifted to 2011-12. Because of this change in base year, the economic growth rate of the country has been revised upward from 4.5 percent to 5.1 percent in 2012-13 and from 4.7 percent to 6.9 percent in 2013-14. The base year for calculation of GDP and related aggregates in the state is still 2004-05. The revision in base year, which is in progress in the state, is expected to cause upward movement in the growth figures of the state also.

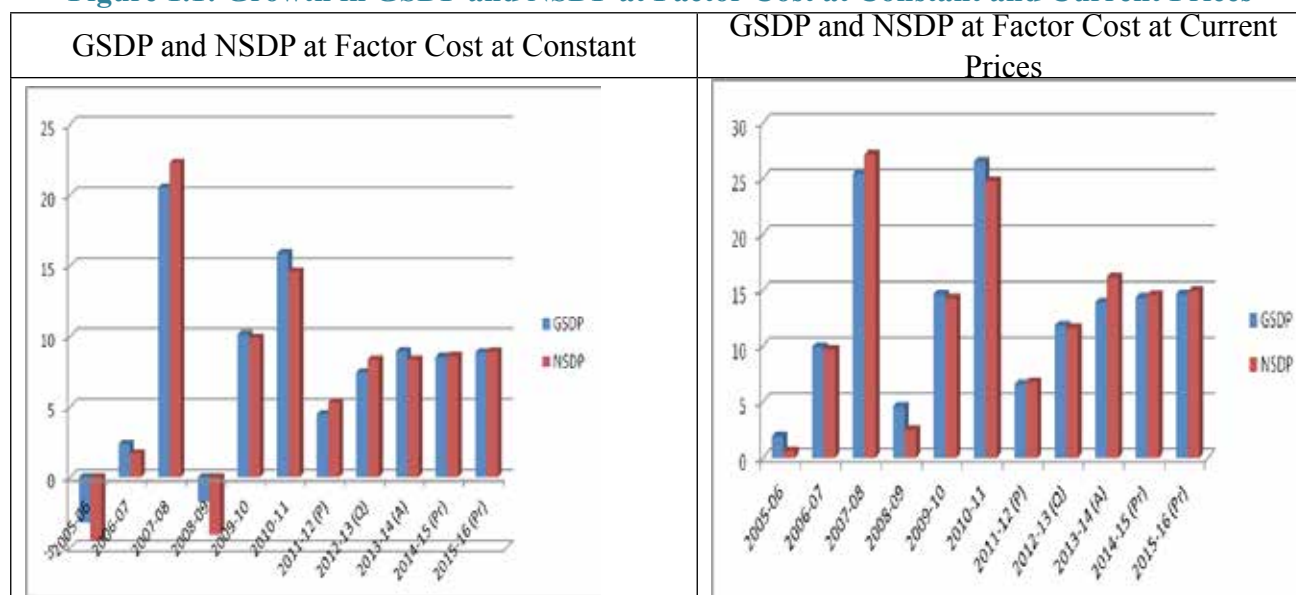
2 Compound annual growth rate (CAGR) is a term for the geometric progression ratio that provides a constant rate of growth over a time period. It dampens the effect of volatility of growth that can render arithmetic means irrelevant. It is calculated through the formula,  $CAGR(t_0, t_n) = (V(t_n)/V(t_0))^{1/(t_n-t_0)} - 1$ , where  $V(t_0)$  is start value,  $V(t_n)$  is finish value,  $t_n - t_0$  is number of years.

**Table 1.1: Growth in GSDP and NSDP at factor cost, at Constant and Current Prices**

Year	GSDP		NSDP		Per capita NSDP	
	Constant prices	Current prices	Constant prices	Current prices	Constant prices	Current prices
2005-06	-3.20	1.91	-4.48	0.57	-5.96	-0.99
2006-07	2.38	9.91	1.68	9.66	0.12	7.98
2007-08	20.52	25.42	22.27	27.13	20.48	25.27
2008-09	-1.75	4.58	-4.02	2.48	-5.38	1.04
2009-10	10.14	14.61	9.91	14.27	8.39	12.68
2010-11	15.86	26.50	14.55	24.73	12.98	23.02
2011-12 (P)	4.49	6.55	5.28	6.74	3.84	5.28
2012-13 (Q)	7.43	11.82	8.36	11.58	6.91	10.08
2013-14 (A)	8.91	13.92	8.36	16.18	6.93	14.65
2014-15 (Pr)	8.53	14.32	8.58	14.54	7.16	13.04
2015-16 (Pr)	8.83	14.63	8.90	14.88	7.46	13.36
Average of year to year growth between 2004-05 & 2015-16	7.47	13.11	7.22	12.98	5.72	11.40
CAGR between 2004-05 & 2015-16	7.26	12.87	6.97	12.71	5.47	11.13
Average of year to year growth between 2012-13 & 2015-16	8.43	13.67	8.55	14.29	7.12	12.78
CAGR between 2012-13 & 2015-16	8.76	14.29	8.61	15.19	7.18	13.68

Source: Directorate of Statistics, GoJ. (P-Provisional, Q-Quick estimates, Pr- Projected)

**Figure 1.1: Growth in GSDP and NSDP at Factor Cost at Constant and Current Prices**



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

The Gross State Domestic Product of Jharkhand at factor cost ( $GSDP_{FC}$ ) at constant prices, which was Rs. 59,758 crore in the year 2004-05, is estimated to become Rs. 129,225 crore this financial year

(2015-16) and the Net State Domestic Product at factor cost ( $NSDP_{FC}$ ) at constant prices which was Rs. 53,056 crore in 2004-05, is estimated to be Rs. 111,295 core this year. Thus, the income of the

state, as measured by these two terms, has more than doubled in these eleven years. The GSDP<sub>FC</sub> and NSDP<sub>FC</sub> at current prices are projected to be Rs. 226,405 crore and Rs. 197,085, respectively;

an increase of more than 370 percent in 11 years period between 2004-05<sup>3</sup> and 2015-16.

<sup>3</sup> Since 2004-05 is the base year the income at current and constant prices is the same for this year.

**Table 1.2: Gross and Net State Domestic Product at Factor Cost at current and constant prices**

Year	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
2004-05	59758	59758	53056	53056	18510	18510
2005-06	57848	60901	50678	53358	17406	18326
2006-07	59226	66935	51527	58512	17427	19789
2007-08	71377	83950	63005	74388	20996	24789
2008-09	70129	87794	60472	76234	19867	25046
2009-10	77240	100621	66465	87112	21534	28223
2010-11	89491	127281	76134	108652	24330	34721
2011-12 (P)	93510	135618	80157	115975	25265	36554
2012-13 (Q)	10050	151655	86861	129402	27010	40238
2013-14 (A)	109408	172773	94121	150333	28882	46131
2014-15 (Pr)	118743	197514	102196	172189	30950	52147
2015-16 (Pr)	129225	226405	111295	197805	33260	59114

Source: Directorate of Statistics, GoJ. (P-Provisional, Q-Quick estimates, Pr- Projected)

### The Per Capita Income of the State

The per capita income of the state at constant prices (NSDP at factor cost) was 18510 rupees in 2004-05 and is projected to be Rs. 33260 in 2015-16. It has grown by 5.47 percent per annum (CAGR) in the last 11 years. The growth rate in per capita income in this period has remained impressive except for the four bad years 2004-05, 2005-06, 2008-09 and 2011-12. In 2004-05 and 2008-09 the growth rate was negative, in 2005-06 it was negligible and in 2011-12 it was very low. If these years are not considered, the average growth in per capita income in this state would have been about 10 percent.

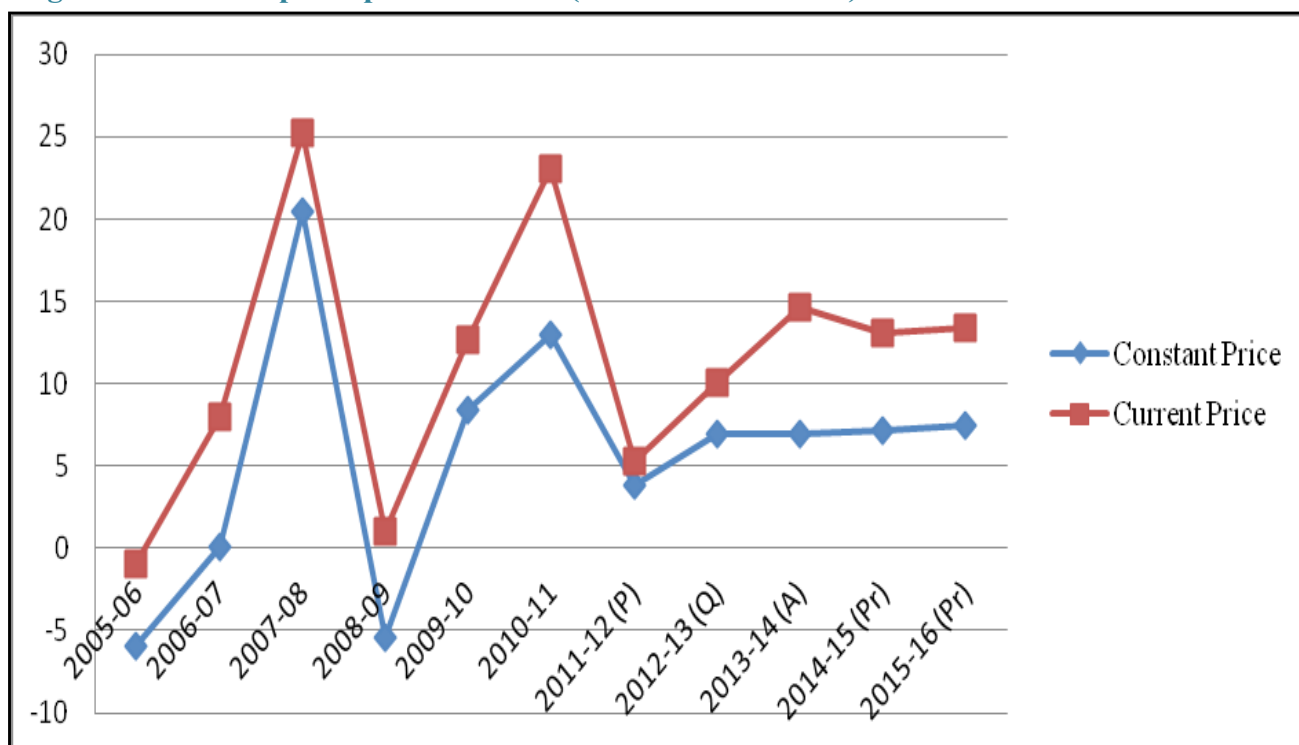
The per capita income has grown at 7.18 percent (CAGR) since the initiation of 12<sup>th</sup> five year plan in 2012-13. The growth rate in this period has not only remained reasonably high, but

also remained almost stable. If the Jharkhand economy maintains this growth rate, the per capita real income of the state will get doubled every ten years.

The per capita income of the state at current prices has grown at a compound annual rate of (CAGR) 11.13 percent between 2004-05 and 2015-16 and 13.68 percent between 2012-13 and 2015-16. The difference between per capita income at constant and current prices and in their growth rate is because of the rate of inflation. Since the rate of inflation has not remained uniform in this period, the difference between the growth rate of per capita income at current and constant prices differs from year to year.



**Fig 1.2: Growth in per capita in Income (NSDP at factor cost) at Constant and Current Prices**



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

### Performance of Jharkhand in comparison to the Rest of the Country

The base year for calculation of income in India has been revised from 2004-05 to 2011-12, while in the state, it is yet to be revised. The revision incorporates inclusion of many new and emerging sectors and revision of weights of the commodities. The change in base year, thus, has made comparison between Jharkhand and India difficult. In this section, therefore, we have made comparison till 2013-14, before this revision was made.

The performance of Jharkhand, for last few years, has been better than the national average. In 2013-14, the growth rate of Jharkhand economy, at current prices, was higher than the national average. In relation to last year, growth in GSDP at current prices of Jharkhand was 13.93 percent and in NSDP it was 16.18 percent this year while

the same at all India level was 11.54 percent and 11.07 percent, respectively. The Compound Annual Growth Rate (CAGR) of these indicators between 2011-12 and 2013-14 is also better in Jharkhand than the all India rates; the CAGR of GSDP was 12.87 percent and in NSDP it was 13.85 percent while the same at the national level were 11.71 percent and 11.26 percent. As a result its share in national output (both GDP and NDP) has improved.

The growth in per-capita income, both at current and constant prices, in Jharkhand has also been higher in Jharkhand than in India. The per capita income at current prices in Jharkhand has increased by 14.65 percent and by 6.93 percent at constant prices while in India they have increased by 10.44 and 2.84 percent, respectively.

**Table1.3: The Economic Performance of India and Jharkhand**

The GDP and NDP of India and GSDP and NSDP of Jharkhand at Current prices										
ITEMS	India				Jharkhand					
	GDP	%age Growth over previous year	NDP	%age Growth over previous year	GSDP	%age Growth over previous year	Percentage of GSDP to National GDP	NSDP	%age Growth over previous year	Percentage of NSDP to National NDP
2011-2012	839169100		751179500		13561800		1.62	11597500		1.54
2012-2013	938887600	11.88	837274400	11.46	15165500	11.83	1.62	12940200	11.58	1.55
2013-2014	1047280700	11.54	929934500	11.07	17277300	13.93	1.65	15033300	16.18	1.62
CAGR 2011-12 to 2013-14		11.71		11.26		12.87			13.85	
The Per Capita NDP of India and NSDP of Jharkhand at Current and Constant prices										
	India				Jharkhand					
	NDP at current prices	%age Growth over previous year	NDP at constant prices	%age Growth over previous year	NSDP at current prices	%age Growth over previous year	% of NSDP to NDP at current prices	NSDP at constant prices	%age Growth over previous year	% of NSDP to NDP at constant prices
2011-2012	61855		38048		36554		59.10	25265		66.40
2012-2013	67839	9.67	38856	2.12	40238	10.08	59.31	27010	6.91	69.51
2013-2014	74920	10.44	39961	2.84	46131	14.65	61.57	28882	6.93	72.28
CAGR 2011-12 to 2013-14		10.06		2.48		12.34			6.92	

Source: Directorate of Statistics, GoJ.

### Sectoral Growth and Changes in Sectoral Share in GSDP

The performance of different sectors of the economy has not been uniform. Some sectors have made outstanding performance, while others have lagged behind. The service sector has been the key performer in the economy. In last 11 years, between 2004-05 and 2015-16, it has grown at an average annual rate of about 11 percent (the average year to year growth has been 11.22 percent and CAGR, 11.13 percent). Except for the year 2011-12, when the growth in this sector had been only 2.4 percent, the service sector has made an impressive growth. It grew at a an average annual rate of about 12 percent during the 11<sup>th</sup> Five Year Plan period (2007-

08 and 2011-12) and is estimated to grow at a compound annual rate (CAGR) of 11.8 percent during the first four years of 12<sup>th</sup> plan period (2012-13 to 2015-16).

The industrial sector, on the other hand, has mostly lagged behind. Except for 2007-08 and 2010-11, its growth rate has remained very low. In last 11 years (2004-05 to 2015-16), this sector grew at an average rate of 4.22 percent on year to year basis and 3.38 percent on CAGR basis. During 4 out of last 11 years, the growth in this sector remained negative. In fact, if the hyper growth of 2007-08 and 2010-11 (when this sector grew by about 34 percent and 21 percent respectively), is not considered, the overall growth in this sector will remain negative. In last four years, the sector has

slightly improved its performance. The CAGR in these four years (2012-13 to 2015-16) has been 5.11 percent. This sector is going to make further development because of supportive policies and procedures and infrastructural development, which have been taken up by the government in a big way this year. Because of the initiatives taken up by government in application of information technology, labour laws and regulations, industrial policy regime and in rules and procedures of taxes, the state, with 63 percent of score, has been ranked third in ‘ease of doing business’ and has been placed in the ‘aspiring leader category’. This is going to attract investment on a large scale and ensure a high rate of development of this sector and in turn demand for skilled, semi-skilled and unskilled labourers in years to come.

As per the national accounts statistics of the state<sup>4</sup>, the agriculture and allied sector, along with its constituent agriculture sector, has recorded an impressive average annual growth of more than 8 percent between 2004-05 and 2015-16. This has both been because of improvement in productivity and because of change in composition of crops in

4 The national accounts statistics of the state is collected and calculated by the Directorate of Statistics of the state in collaboration with the Central Statistical Organisation (CSO).

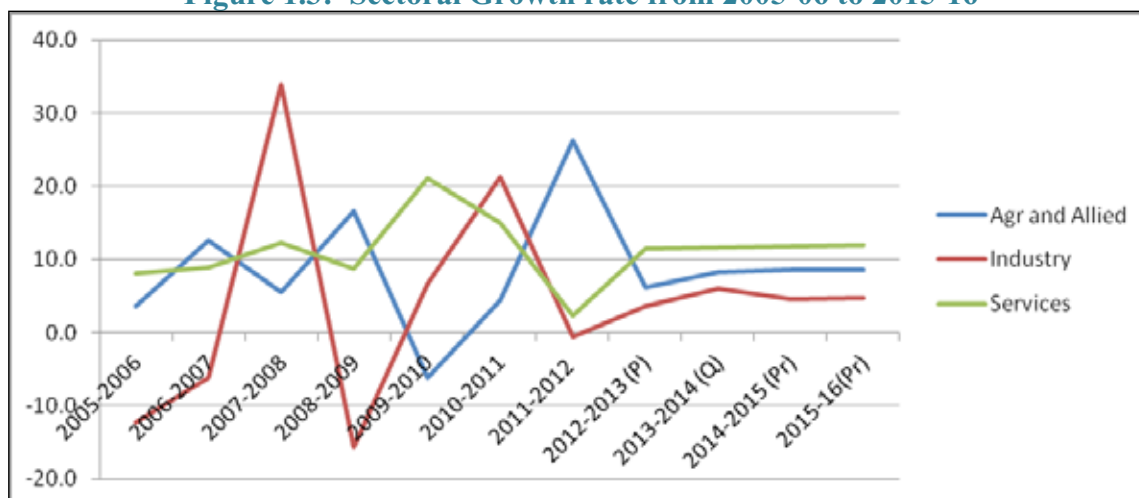
favour of high valued crops.

Except for the year 2009-10, when it had a negative growth, in all other years it made positive growth.

The performance of agriculture and allied sector, however, has varied with the variation in rainfall. The output of this sector recorded a 6.2 percent fall in its output in the year 2009-10, a drought year for the state. Its output in other years varied between 3.6 percent in 2005-06, another drought year to 26.2 percent in 2011-12. During the 11<sup>th</sup> plan period (2007-08 to 2011-12), this sector grew at an average annual rate of 9.3 percent and in first four year of 12<sup>th</sup> five year plan (2012-13 to 105-16) at 7.9 percent per annum. This year, it has been projected to grow by 8.6 percent and its constituent agriculture sector by 9.2 percent. Had the rainfall this year been normal, this growth rate would have been achieved, but since the rainfall this year has been scant<sup>5</sup> the growth in output is expected to be less than the estimated one. It has been estimated that because of scant rainfall the production of paddy is going to fall by about 37 percent, maize by 27 percent, pulses by 17 percent and oilseed by 13 percent.

5 As per the estimate of the agriculture department of the government of Jharkhand and Indian Metrological Department (IMD) the rainfall in the Month of September, 2015 was only one third of the normal rainfall of the month and in October 2015 it was 19 percent of the normal rainfall.

**Figure 1.3: Sectoral Growth rate from 2005-06 to 2015-16**

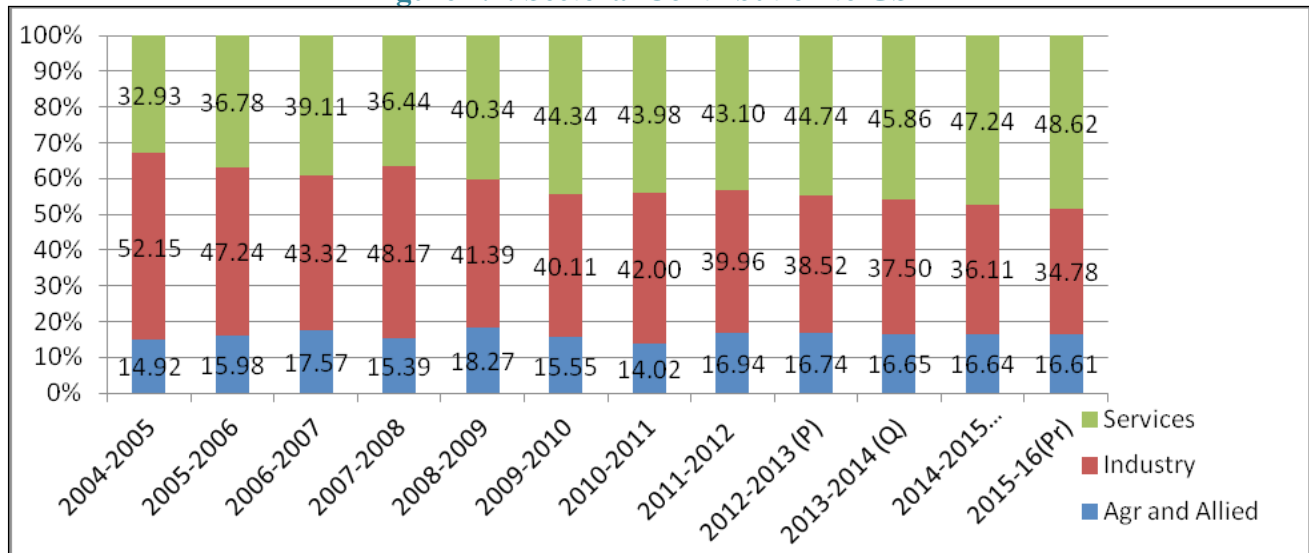


Source: Calculated from the GSDP data provided by Directorate of Statistics, GoJ

As a result of the differential growth rate of these three broad sectors, their share in the GSDP of the state has changed in the last eleven years. The shares of the service and agriculture and allied sectors have increased while that of industry has declined. The share of service sector to the GSDP at constant prices has increased from 33 percent in 2004-05 to about 49 percent in 2015-16 and

the share of agriculture and allied sector has increased from about 15 percent to 17 percent in the same period. The share of industry, however, has declined from 52 percent in 2004-05 to 35 percent in 2015-16 (Figure 1.4). The increase in the share of services sector and the decline of industry has taken place simultaneously and continuously throughout this period.

**Figure 1.4: Sectoral Contribution to GSDP**



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

### Agriculture and Allied Sector

Agriculture and allied sector comprises of agriculture (including animal husbandry), forestry and logging and fishing. Among them, agriculture has remained the dominant sub-sector. Its contribution to the value of the output of this sector remained about 77 percent between 2004-05 and 2010-11 and above 80 percent thereafter. It is estimated to improve to 83 percent of the value of output of agriculture and allied sector in 2015-16. Its contribution to the GSDP has also increased from about 11 percent to about 14 percent between 2004-05 and 2015-16. Because of the dominant position of this sub-sector in the agriculture and allied sector, the growth rate of this sub-sector almost coincides with the growth rate of the whole of agriculture and allied sector. Between 2004-05 and 2015-16 agriculture grew

at an average annual of 9.2 percent and the whole of the agriculture and allied sector at 8.6 percent (see Tables 1.5 and 1.6).

Fishing, despite absence of perennial sources of water and recurrent drought in the state, has made rapid progress; it has grown at an average annual rate 17.23 percent in last 11 years. Its contribution to the total output of agriculture and allied sector, however, has been insignificant. Its share in the output of this sector was only 1.2 percent in 2004-05, but has improved to 2.7 percent in 2015-16.

Growth in the fishing sector, because of the geographical limitations, has remained highly volatile; recording as high an annual growth of 54.65 percent in 2006-07 and as low a rate as minus 7.05 in 2009-10 and about 2 percent in the year 2010-11. These two years had experienced

inadequate rainfall and drought in several parts of the state. Since 2011-12, the growth rate in this sector has not only improved but has also remained almost stable thereafter.

Forestry and logging sector has shown slow but steady growth in this period. It has grown at an average annual rate of 3.6 percent per annum. Its

contribution to total GSDP or to the value of output of agriculture and allied sector, however, is so low, 2.3 percent and 13.8 percent, respectively, that it does not make any significant contribution to the growth of GSDP or to the agriculture and allied sector.

**Table 1.4: Share of Sectors and sub-sectors in GSDP at Constant Prices (%)**

	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Agriculture	11.37	12.14	13.50	11.86	14.54	11.98	10.86	13.71	13.69	13.73	13.81	13.86
Forestry & logging	3.37	3.59	3.70	3.15	3.28	3.20	2.83	2.83	2.66	2.53	2.41	2.30
Fishing	0.19	0.25	0.37	0.39	0.44	0.37	0.33	0.40	0.39	0.39	0.42	0.45
Agr and Allied	14.92	15.98	17.57	15.39	18.27	15.55	14.02	16.94	16.74	16.65	16.64	16.61
Mining & quarrying	10.92	11.64	10.54	8.82	11.08	10.79	12.06	13.54	12.37	12.31	12.30	12.25
Sub Total of Primary	25.84	27.61	28.11	24.22	29.34	26.34	26.09	30.48	29.11	28.96	28.94	28.86
Manufacturing	33.68	26.96	23.05	30.80	21.39	20.42	21.55	17.85	17.73	16.80	15.43	14.17
Manu-Registered	29.00	21.81	17.52	25.66	16.24	15.14	17.02	13.16	13.11	12.28	11.00	9.82
Manu Unregistered	4.68	5.16	5.53	5.14	5.15	5.28	4.54	4.69	4.62	4.52	4.44	4.34
Construction	6.06	7.19	8.02	6.92	7.77	7.75	7.80	7.61	7.36	7.39	7.44	7.48
Electricity, gas and Water supply	1.49	1.45	1.70	1.62	1.15	1.15	0.58	0.96	1.06	1.00	0.94	0.88
Sub Total of Secondary	41.23	35.60	32.77	39.34	30.32	29.32	29.94	26.42	26.15	25.18	23.82	22.53
Industry	52.15	47.24	43.32	48.17	41.39	40.11	42.00	39.96	38.52	37.50	36.11	34.78
Transport, Storage & communication	6.02	6.75	7.66	7.21	8.36	9.09	7.29	8.77	9.07	9.50	10.02	10.58
Railways	2.67	2.92	3.45	3.09	3.58	3.54	3.07	2.66	2.48	2.40	2.34	2.27
Transport by other means	2.53	2.84	3.12	3.03	3.19	3.55	2.79	3.56	3.91	4.05	4.20	4.35
Storage	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.03	0.04
Communication	0.80	0.98	1.07	1.06	1.56	1.97	1.41	2.53	2.65	3.01	3.44	3.92
Trade, hotels and restaurants	10.12	11.43	12.05	11.64	11.71	12.39	12.52	11.06	11.39	11.32	11.30	11.24
Banking & Insurance	2.30	2.73	3.29	3.21	3.49	3.82	4.04	4.15	4.38	4.66	4.96	5.28
Real estate, Ownership of dwellings and B. S.	3.54	3.95	4.21	3.62	3.49	4.06	5.51	4.82	5.17	5.31	5.47	5.63
Public Administration	3.92	3.84	3.73	3.27	4.25	4.58	6.45	7.23	7.34	7.78	8.28	8.78
Other services	7.03	8.09	8.18	7.50	9.05	10.40	8.17	7.07	7.39	7.29	7.21	7.12
Services	32.93	36.78	39.11	36.44	40.34	44.34	43.98	43.10	44.74	45.86	47.24	48.62
GSDP	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Source: Directorate of Statistics, GoJ

**Table 1.5: Production and growth rate (%) of Agriculture and Allied sector (2004-05 prices)**

(In Crore Rupees)

	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12(P)	2012-13(Q)	2013-14(A)	2014-15(Pr.)	2015-16(Pr.)
Agriculture	6795	7023	7995	8462	10198	9251	9722	12821	13750	15017	16400	17910
Growth rate		3.4	13.8	5.8	20.5	-9.3	5.1	31.9	7.3	9.2	9.2	9.2
Forestry & logging	2011	2076	2189	2248	2301	2474	2533	2646	2669	2766	2865	2968
Growth rate		3.2	5.5	2.7	2.3	7.5	2.4	4.4	0.9	3.6	3.6	3.6
Fishing	111	143	221	278	311	289	294	375	396	429	499	579

	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12(P)	2012-13(Q)	2013-14(A)	2014-15(Pr.)	2015-16(Pr.)
Growth rate		28.9	54.7	25.5	11.7	-7.1	2.0	27.5	5.4	8.5	16.2	16.2
Agri. & Allied Sectors	8917	9242	10405	10988	12809	12013	12550	15842	16815	18212	19764	21459
Growth rate		3.6	12.6	5.6	16.6	-6.2	4.5	26.2	6.1	8.3	8.5	8.58

Source: Directorate of Statistics, GoJ

**Table 1.6: Share of the sub-sectors of Agriculture and Allied Sector in the total value of output of Agriculture and Allied Sector (%)**

	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12(P)	2012-13(Q)	2013-14(A)	2014-15(Pr.)	2015-16(Pr.)
Agriculture	76.2	76.0	76.8	77.0	79.6	77.0	77.5	80.9	81.8	82.5	83.0	83.5
Forestry & logging	22.6	22.5	21.0	20.5	18.0	20.6	20.2	16.7	15.9	15.2	14.5	13.8
Fishing	1.2	1.5	2.1	2.5	2.4	2.4	2.3	2.4	2.4	2.4	2.5	2.7
Agri. & Allied Sectors	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Directorate of Statistics, GoJ

## Industrial Sector

The performance of the industrial sector has remained poor mainly because of very low growth in manufacturing, especially in registered manufacturing and in electricity, gas and water supply (Table 1.7). The manufacturing sector experienced a negative 0.86 percent and registered manufacturing minus 2.79 percent compound annual growth (CAGR) between 2004-05 and 2015-16. The outputs of manufacturing and registered manufacturing sectors, this year also, have declined by 0.11 percent and 2.8 percent respectively, from those of last year. As a result of the negative growth rate, the outputs of manufacturing and registered manufacturing sectors, at constant prices this year (2015-16) were less than what they were in 2004-05. The output of manufacturing sector was about Rs. 1.8 thousand crore less in 2015-16 from its output of 2004-05 and that of registered manufacturing by about Rs. 4.6 thousand crore less in the same period.

The unregistered manufacturing, however, has made steady growth in this period, especially in the first four years of 12<sup>th</sup> five year plan (2012-13 to 2015-16). The average annual growth rate in this sector between 2004-05 and 2015-16 and during 2012-13 and 2015-16 have been 6.5 percent per annum (CAGR).

The Electricity, Gas and Water Supply sector registered an annual growth of 2.3 percent (CAGR) in this period. Even this growth has been because of improvement in its performance in last three years. Till 2011-12 it grew at a mere 0.12 percent per annum. The value of its output declined thrice in these seven years. It has started posting a steady growth since 2011-12. In 2011-12 the value of output of this sector was only Rs. 8 crore more than what it was in 2004-05 and in 2015-16 it is estimated to be Rs. 249 crore more than what it was in 2004-05.

Within industrial sector, mining and quarrying and construction have made impressive progress. These two sub-sectors grew at an annual rate of 8.39 percent and 9.34 percent (CAGR) respectively in the last eleven years. Growth in these

two sectors has a significant impact on the overall performance of the industrial sector because they, together, constitute more than 56 percent to the total value of output of this sector (see table 1.8).

**Table 1.7: The value of output (Rs. Crore) and Growth Rates (%) of the components of Industrial Sector in Jharkhand's**

Sector	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12(P)	2012-13(Q)	2013-14(A)	2014-15(Pr.)	2015-16(Pr.)
Mining & quarrying	6523	6733	6245	6297	7769	8333	10795	12659	12430	13473	14604	15829
Growth rate		3.2	-7.3	0.8	23.4	7.3	29.5	17.3	-1.8	8.4	8.4	8.4
Manufacturing	20129	15597	13653	21985	14998	15773	19290	16692	17808	18378	18326	18305
Growth rate		-22.5	-12.5	61.0	-31.8	5.2	22.3	-13.5	6.7	3.2	-0.3	-0.11
Registered manufacturing	17330	12615	10377	18314	11386	11695	15227	12309	13167	13434	13060	12695
Growth rate		-27.2	-17.7	76.5	-37.8	2.7	30.2	-19.2	7.0	2.0	-2.8	-2.8
Unregistered manufacturing	2800	2982	3276	3672	3612	4079	4062	4383	4641	4944	5266	5609
Growth rate		6.5	9.8	12.1	-1.6	12.9	-0.4	7.9	5.9	6.5	6.5	6.5
Construction	3619	4161	4749	4940	5452	5983	6984	7119	7394	8084	8839	9664
Growth rate		15.0	14.1	4.0	10.4	9.7	16.7	1.9	3.9	9.3	9.3	9.3
Electricity, Gas & Water Supply	890	836	1009	1158	809	892	516	898	1065	1089	1114	1139
Growth rate		-6.0	20.7	14.7	-30.1	10.2	-42.1	73.8	18.6	2.3	2.3	2.3
Industry	31162	27327	25656	34380	29029	30982	37585	37367	38697	41025	42883	44939
Growth rate		-12.3	-6.1	34.0	-15.6	6.7	21.3	-0.6	3.6	6.0	4.5	4.8

Source: Directorate of Statistics, GoJ

Because of low growth in manufacturing and electricity gas and water supply sectors as well as due to the impressive performance of mining and quarrying and construction sectors, the contributions of these sectors to the total output of industrial sector have changed in last eleven years (see Table 1.8). The contributions of mining and quarrying and construction have increased while that of manufacturing has declined and the contribution of electricity, gas and water

supply has remained almost the same. Within manufacturing sector, while the share of registered manufacturing has declined, that of unregistered manufacturing has improved. The contribution of mining and quarrying sector increased from about 21 percent to 35 percent and that of construction from about 12 percent to 22 percent in the total output of the industrial sector between 2004-05 and 2015-16. The contribution of manufacturing to the output of the industrial sector, on the other

hand, has decreased from about 65 percent in 2004-05 to about 41 percent in 2015-16. Within this sub-sector, the contribution of registered manufacturing has declined by about 28 percent

points from about 56 percent to 28 percent while that of unregistered manufacturing has increased by 3.5 percentage points from 9 percent to 12.5 percent in this period.

**Table 1.8: Share of the sub-sectors of Industry in the total value of output of industrial sector**

Sector	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Mining & quarrying	20.9	24.6	24.3	18.3	26.8	26.9	28.7	33.9	32.1	32.8	34.1	35.2
Manufacturing	64.6	57.1	53.2	63.9	51.7	50.9	51.3	44.7	46.0	44.8	42.7	40.7
Registered manufacturing	55.6	46.2	40.4	53.3	39.2	37.7	40.5	32.9	34.0	32.7	30.5	28.2
Unregistered manufacturing	9.0	10.9	12.8	10.7	12.4	13.2	10.8	11.7	12.0	12.1	12.3	12.5
Construction	11.6	15.2	18.5	14.4	18.8	19.3	18.6	19.1	19.1	19.7	20.6	21.5
Electricity, Gas & Water Supply	2.9	3.1	3.9	3.4	2.8	2.9	1.4	2.4	2.8	2.7	2.6	2.5
Industry	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Directorate of Statistics, GoJ

As discussed above, the service sector is the most dominant sector of the state economy in terms of growth rate, contribution to state's GSDP and contribution to its growth rate. Growth in this sector has benefited from all its components (Table 1.9). Except for Railways, Trade, Hotels and Restaurants and Other Services, the growth rate of all other sub-sectors in the service sector has been in two digits. The banking and insurance, communication, and public administration sectors, in particular, have made notable growth in this period – by more than 15 percent per annum (CAGR) in the period 2004-05 to 2015-16. The overall progress of the economy, the communication revolution, growth in financial institutions and the hike in salary of the government employees post the 6<sup>th</sup> Pay Commission and the

commensurate increase in the salary of other sectors<sup>6</sup>, played a pivotal role in achieving this high growth in the services sector.

Despite overall good performance in all the constituents of service sector their relative contribution to this sector has changed because of the variation in their growth rate. The share of communication has increased from 2.4 percent to 8 percent of the value of the output of service sector from 2004-05 to 2015-16. The banking and insurance has increased its share from about 7 percent to about 11 percent and public administration from about 12 percent to about 18 percent. The share of Railways, Trade Hotels and Restaurants and Other Services in the total output of this sector has decreased in the last eleven years.

<sup>6</sup> The value of output of the service sector is measured through income method. So, a hike in wages and salary is going to affect it.



**Table 1.9: Growth Rates of Services and its components in Jharkhand's NSDP**

	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12 (P)	2012-13 (Q)	2013-14 (A)	2014-15 (Pr)	2015-16(Pr.)
1. Transport Storage and Communication	3905	4536	5143	5861	7024	6527	8204	9110	1039129	11897	13673
Growth Rate	8.5	16.2	13.4	14.0	19.8	-7.1	25.7	11.0	14.1	14.5	14.9
1.1 Railways	1688	2045	2209	2514	2737	2746	2484	2488	2630	2779	2937
Growth Rate	5.6	21.2	8.0	13.8	8.9	0.3	-9.6	0.2	5.7	5.7	5.7
1.2 Transport by other means	1641	1845	2166	2240	2745	2495	3325	3932	4430	4991	5622
Growth Rate	8.3	12.4	17.4	3.4	22.6	-9.1	33.3	18.2	12.7	12.7	12.6
1.3 Storage	11	13	15	16	21	25	27	31	36	41	46
Growth Rate	1.5	11.7	15.2	11.8	29.1	20.5	4.6	18.5	13.8	13.8	13.8
1.4 Communication	565	634	754	1091	1520	1260	2369	2659	3296	4087	5066
Growth Rate	18.7	12.1	18.9	44.8	39.3	-17.1	88.0	12.2	24.0	24.0	23.9
2. Trade, Hotels and Restaurants	6614	7134	8305	8213	9567	11207	10340	11440	12388	13415	14527
Growth Rate	9.3	7.9	16.4	-1.1	16.5	17.1	-7.7	10.6	8.3	8.3	8.3
3. Banking and Insurance	1577	1947	2291	2447	2948	3614	3878	4405	5095	5893	6816
Growth Rate	14.7	23.5	17.7	6.8	20.5	22.6	7.3	13.6	15.7	15.7	15.7
4. Real Estate	2282	2494	2583	2447	3137	4931	4504	5192	5809	6498	7270
Growth Rate	7.9	9.3	3.5	-5.3	28.2	57.2	-8.7	15.3	11.9	11.9	11.9
5. Public Administration	2223	2210	2331	2979	3540	5769	6760	7375	8513	9826	11342
Growth Rate	-5.0	-0.6	5.5	27.8	18.8	63.0	17.2	9.1	15.4	15.4	15.4
6. Other services	4678	4843	5356	6344	8029	7308	6615	7427	7976	8565	9197
Growth Rate	11.4	3.5	10.6	18.5	26.6	-9.0	-9.5	12.3	7.4	7.4	7.4
Sub Total of Tertiary	21279	23165	26009	28291	34245	39356	40301	44948	50171	56095	62827
Growth Rate	8.1	8.9	12.3	8.8	21.0	14.9	2.4	11.5	11.6	11.8	12.0

Source: Directorate of Statistics, GoJ

**Table 1.10: Share of Services and its components in Jharkhand's NSDP**

Sector	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12 (P)	2012-13 (Q)	2013-14 (A)	2014-15 (Pr)	2015-16 (Pr.)
1. Transport Storage and Communication	18.29	18.35	19.58	19.77	20.72	20.51	16.58	20.36	20.27	20.71	21.21	21.76
1.1 Railways	8.12	7.93	8.83	8.49	8.88	7.99	6.98	6.16	5.54	5.24	4.95	4.67
1.2 Transport by other means	7.70	7.71	7.96	8.33	7.92	8.02	6.34	8.25	8.75	8.83	8.90	8.94
1.3 Storage	0.06	0.05	0.05	0.06	0.06	0.06	0.06	0.07	0.07	0.07	0.07	0.07
1.4 Communication	2.42	2.66	2.74	2.90	3.86	4.44	3.20	5.88	5.91	6.57	7.29	8.0
2. Trade, Hotels and Restaurants	30.74	31.08	30.80	31.93	29.03	27.94	28.48	25.66	25.45	24.69	23.91	23.12
3. Banking & Insurance	6.99	7.41	8.41	8.81	8.65	8.61	9.18	9.62	9.80	10.16	10.51	10.84
4. Real Estate	10.75	10.73	10.77	9.93	8.65	9.16	12.53	11.18	11.55	11.58	11.59	11.57
5. Public Administration	11.89	10.45	9.54	8.96	10.53	10.34	14.66	16.77	16.41	16.97	17.52	18.05
6. Other Services	21.34	21.98	20.91	<b>20.59</b>	22.42	23.45	18.57	16.41	16.52	15.90	15.27	14.63
<b>Total</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	100.00

Source: Directorate of Statistics, GoJ

## Prices

In order to understand the general price levels of an economy several indicators are used. Two common measures used are Consumer Price Index (CPI) and Wholesale Price Index (WPI). CPI is a reflection of changes in the retail prices of specified goods and services over a given

time period, whereas WPI measures the changes in general price level of goods at the wholesale level. Earlier, the Reserve Bank of India used to use WPI as the key measure of inflation, but since April 2014, RBI has adopted CPI as the primary measure of inflation.

## Inflation Targeting

The primary objective of the RBI monetary policy is to maintain price stability, while keeping in mind the economic growth of the economy. Subsequent to the recommendations of the Dr. Urjit Patel Committee Report, the Reserve Bank has formally announced a “glide path” for inflation that sets an objective of below 8 percent CPI inflation by January 2015 and below 6 per cent CPI inflation by January 2016. The agreement on Monetary Policy Framework between the Government of India and the Reserve Bank of India dated February 20, 2015 defines the price stability objective explicitly in terms of keeping the inflation within a targeted range. The target has been set to keep the near to medium-term (January, 2016) inflation at 6 percent, while maintaining future inflation within a fixed range of 2-6 percent band from 2016-17. Any deviation from the range for three consecutive quarters will be treated as a failure of the RBI and it will have to explain the reasons and future course of actions.

Figure 1.5 : India's Inflation



Source: CSO

The above figure shows that during 2015, RBI has been successful in keeping the inflation figure within the targeted range. However, recent figures of CPI and WPI inflation have shown some upward trend posing some future policy challenges for the RBI.

### Indices:

CPI data is primarily released by the Central Statistics Office, Ministry of Statistics and Programme Implementation. Monthly price data are collected from 1114 markets in 310 selected towns by the Field Operations Division of NSSO and the specified State/UT Directorates of Economics and Statistics and from 1181 selected villages by the Department of Posts. Monthly CPI (base year 2010) for all-India and states/UTs are released by CSO, and from January 2015, the base year has been revised to 2012 to make the indices more robust.

There are three other CPIs i.e. CPI for Agricultural Labourers (CPI-AL), CPI for Rural Labourers (CPI-RL) and CPI for Industrial Workers (CPI-IW), which are compiled and published monthly by the Labour Bureau, GoI. The CPI-AL and CPI-RL (base year 1986-87) are compiled monthly for 20 states but do not include Jharkhand. CPI-IW (base year 2001) is mainly used for determining the Dearness Allowances (DA) paid to millions

of public sector employees. It is also used for fixing and revising minimum wages in scheduled employment. CPI-IW is based on retail prices of essential commodities and services in the industrially developed 78 selected centers in India, of which five centers are from Jharkhand- Bokaro, Giridhi, Jamshedpur, Jharia, Kodarma, and Ranchi- Hatia.

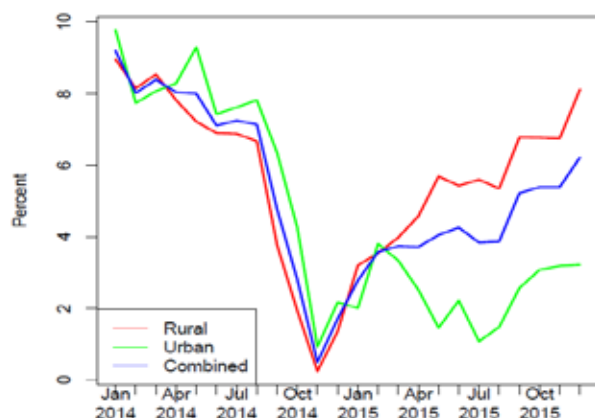
WPI (base year 2004-05) is released on a monthly basis, by the Office of the Economic Adviser, Ministry of Commerce & Industries, GoI. For construction of WPI, prices of 676 items are collected, of which 102 items are from the 'Primary Articles' group, 19 items are from the 'Fuel & Power' group and 555 items are from the 'Manufactured Products' group. WPI data is not separately released for Jharkhand.

### Price Situation in Jharkhand:

Till date CPI data is available only up to December, 2015. The CPI inflation (General Index-All groups) in Jharkhand has steadily declined from January 2014 until November 2014, but since

then it has gone up once again and as on December, 2015, it stands at 6.22%. Interestingly, rural inflation in Jharkhand is rising at a much faster rate than urban inflation. The momentum of urban inflation was slowing down during the first half of 2015, but rural inflation has been steadily increasing throughout 2015, resulting in high level of combined inflation for the state. For December 2015, rural inflation stood at 8.12 percent, whereas, urban inflation was a mere 3.22 percent.

**Figure 1.6: CPI Inflation (y-o-y) in Jharkhand**

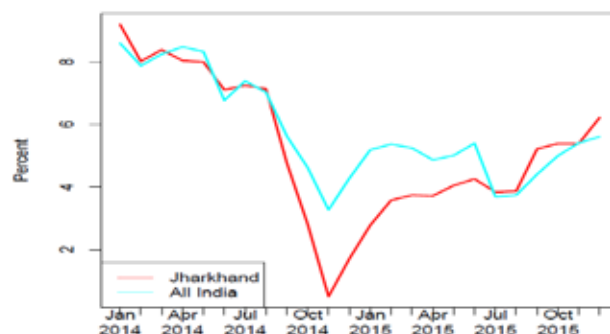


Source: CSO

**Comparison with All India Inflation:**

The Figure 1.6 plots the combined general level CPI inflation for Jharkhand and All India. The figure shows that the momentum of inflation in Jharkhand has peaked in the second half of 2015, while the momentum was much less during the first half of 2015. The CPI inflation at the All India level stood at 5.61 percent on December 2015, while the level was 6.22 percent for Jharkhand during the same period.

**Figure 1.7: CPI Inflation (y-o-y) in Jharkhand and All India**

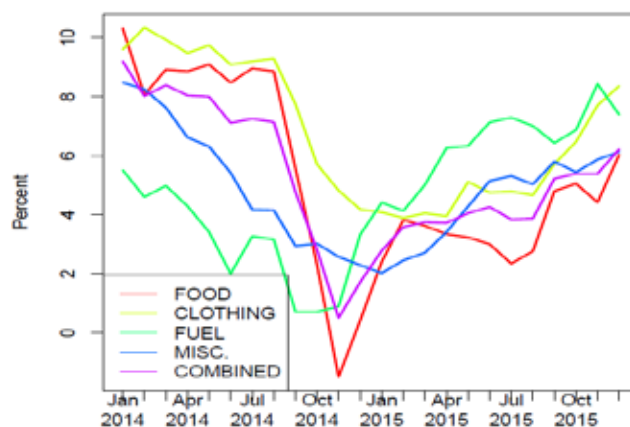


Source: CSO

**Drivers of Inflation in Jharkhand**

The Figure 1.7 presents the group-wise inflation figures of Jharkhand. It reveals that primarily, fuel and light, as well as clothing have contributed to the recent rise in prices in the state. Even though food and beverages have the highest weightage in the calculation of the overall CPI, prices in this category did not rise as fast as the other two categories.

**Figure 1.8: CPI Inflation (y-o-y) in Jharkhand-Group wise**



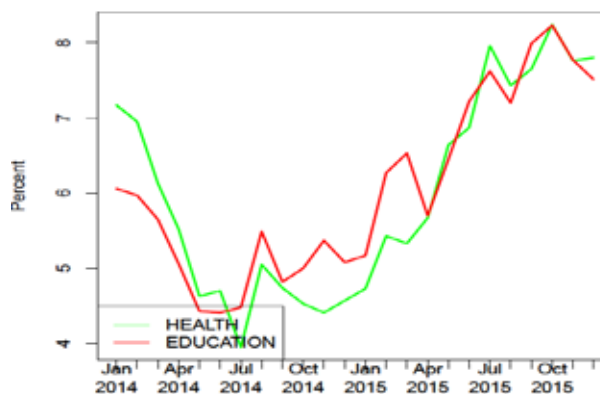
Source: CSO

Food inflation stood at 6.03 percent in December 2015, while inflation for clothing and footwear was 8.3 percent on a year to year basis. Inflation in the fuel & light and miscellaneous category were 7.39 percent and 6.13 percent, respectively.

### Education and Health Inflation in Jharkhand

Apart from food and fuel, households are concerned with expenses related to education and health as these are the two important components of any household budget. Figure 1.8 depicts the inflation level in these two categories belonging to the miscellaneous group of the state. The figure reveals that inflation momentum in both education and health are rising steeply over the last year and a half. Health inflation stood at 7.8 percent at the end of December 2015, while education inflation stood at 7.51 percent during the same time period

Figure 1.9: CPI Inflation (y-o-y) in Education and Health- Jharkhand



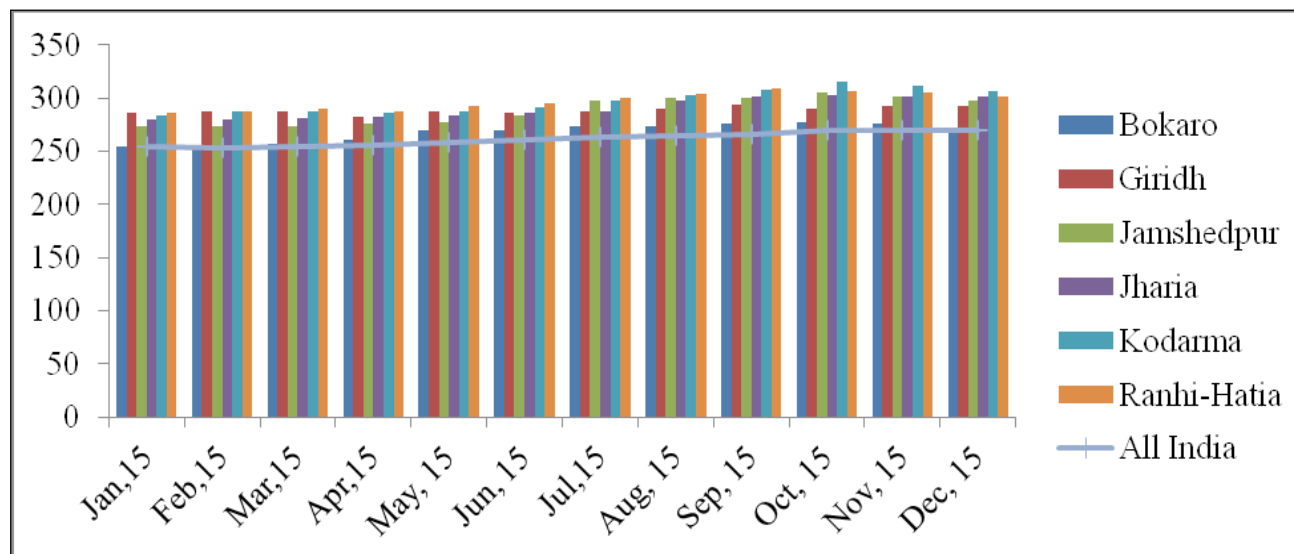
Source: CSO

### CPI for Industrial Workers in Jharkhand

The figure 1.9 plots the CPI for industrial workers at the six centers of the state, Bokaro, Giridhi, Jamshedpur, Jharia, Kodarma and Ranhi- Hatia. The figure also provides a comparison of these

centre specific CPIs with that of the all India level figures. It is evident from the plot that price pressures at each of the centers, in the state were higher than that of the all India level.

Figure 1.10: Centre Specific CPI (IW) in Jharkhand



Source: Labour Bureau, Ministry of Labour and Employment, Govt. of India



# 2

## **Public Finance**

*This year (2015-16) has seen a massive growth in both receipt and expenditure of the government of Jharkhand. As compared to 2014-15, the total receipt is estimated to increase by 44.9 percent of total expenditure by 32.3 percent this year for 2015-16. The revenue from taxes has the highest growth of 34.6 percent. The fiscal deficit is estimated to be within control at 2.28 percent and the state is expected to be in Revenue Surplus.*

### Overall scenario

The plan expenditure is set to increase more than the non-plan expenditure for the first time in accordance with the Budget estimates of 2015-16. The growth in Total Expenditure and Receipts in 2013-14 was lower in comparison to the growth in the previous years; hence the growth in 2014-15 has increased substantially.

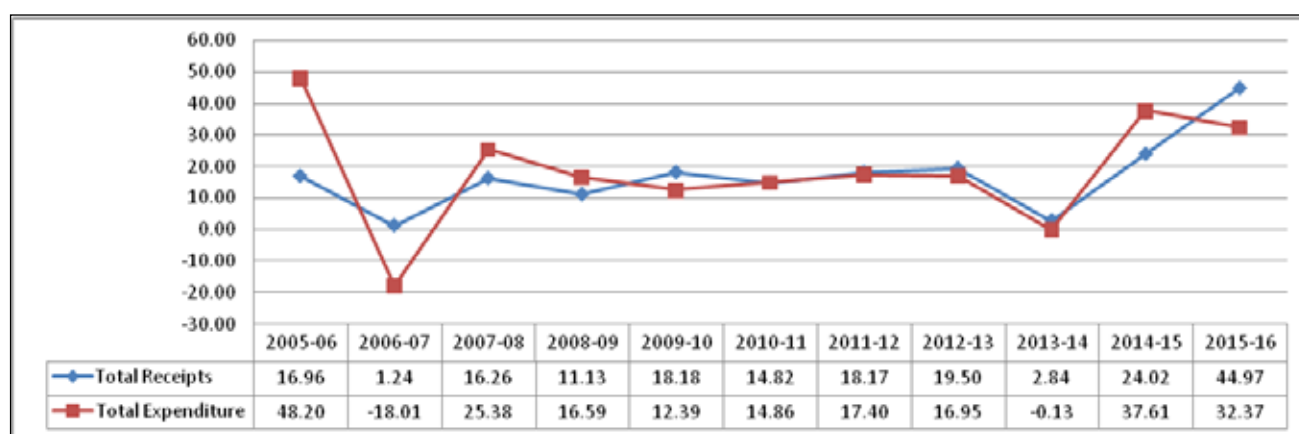
When the expenditure is more than the receipt,

then we have a fiscal deficit. The figures from the year 2014-15 indicate that the total receipts were Rs. 38,278.07 crores, and the expenditure was Rs. 41,921.38 crores, which indicates a fiscal deficit of Rs. 8,453.54 crores, which is 4.27 percent of GSDP.

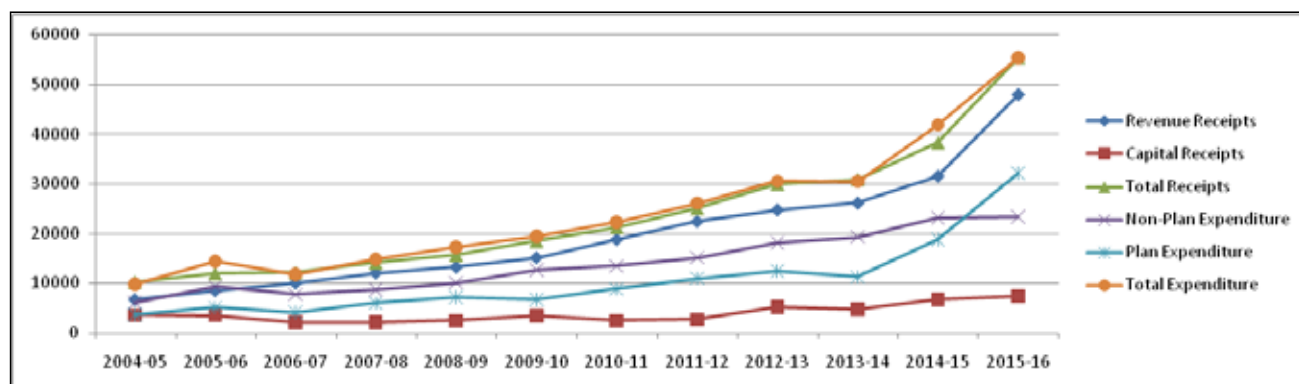
For the year 2015-16, the Growth Rate<sup>1</sup> of total receipts is estimated to be 44.97 percent, which is higher than growth rate of total expenditure, expected to be 32.37 percent; which means that the Fiscal Deficit can be contained for this year. The fiscal deficit is estimated to be contained at Rs. 5157.47 crores, which is 2.28 percent of GSDP. This percentage of Fiscal Deficit is well within the ceiling specified by the FRBM Act.

<sup>1</sup> The data for the year 2015-16 is Budget Estimates and the calculation is also based on the Budget estimates.

**Figure 2.1: Overall Growth Trend of Fiscal Indicators during 2004-05 to 2015-16 (AAGR)**



**Figure 2.2: Overall Fiscal Trend during 2004-05 to 2015-16 (in Crore)**



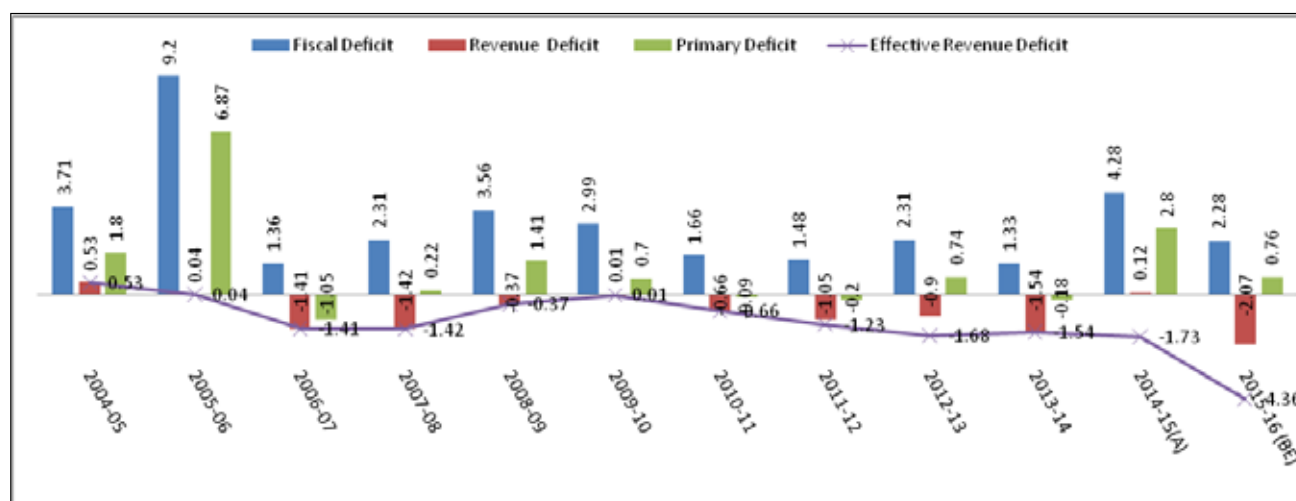


### Fiscal Deficit

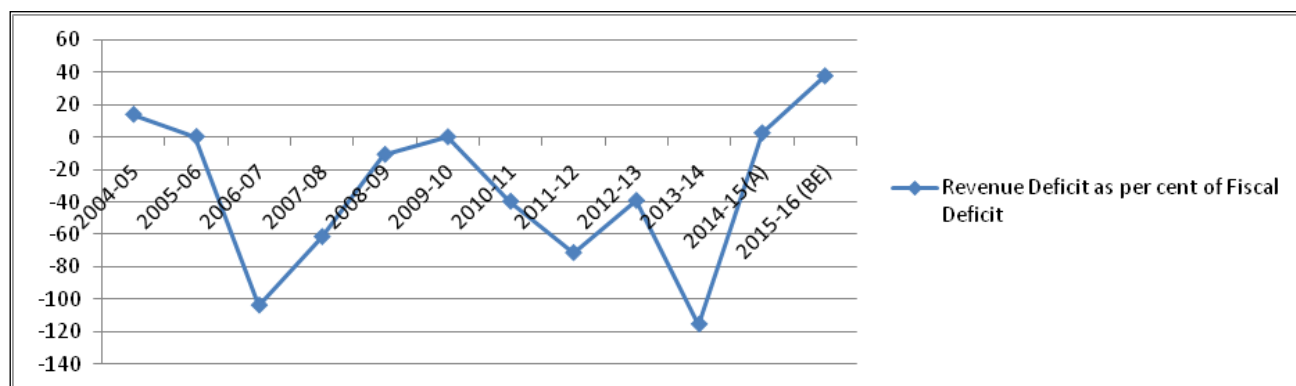
The health of the government finances is indicated by the Fiscal Deficit of the state. The fiscal deficit has remained well within the barometer of the FRBM act, since the year 2009-10. Although the Fiscal deficit for the year 2014-15 was 4.28 percent, with estimated increase in the government receipts, the fiscal deficit is estimated to be at 2.28 percent for the year 2015-16. This indicates substantial fiscal management by the government. Revenue deficit (excess of revenue expenditure over revenue receipts) and the effective revenue receipts (revenue deficit after deducting the expenditure on accounts of grants for creation of capital assets) has been less than one percent of the GSDP, and the estimated figure for the year 2015-16 is negative 2.07 percent and negative 4.36 percent respectively.

The negative sign in revenue deficits indicates that the state economy has surplus in its revenue account. This indicates that the state has surplus revenue that can be used for spending on social and economic services and the ability to increase plan expenditure, which is exactly what the government has estimated for the year 2015-16. The estimated plan expenditure is expected to grow at AAGR of 71.44 percent, which is the highest plan expenditure since the year 2004-05. The Primary deficit (Fiscal deficit minus Interest Payments) is estimated at 0.76 percent, which is low and indicates that the majority payment of the state government is on interest payments.

**Table 2.3: Fiscal Performance Indicators for Jharkhand Economy**



**Figure 2.4: Revenue Deficit as percentage of Fiscal Deficit**



**Table 2.1: Fiscal Indicators from 2004-05 to 2015-16 (in Crore)**

S. No.	Sources	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
		(Actual)	(Actual)	(Actual)	(Actual)	(Actual)	(Actual)	(Actual)	(Actual)	(Actual)	(Actual)	(Actual)	(BE)
1	Revenue Receipts	6660.5	8463.88	10009.82	12026.35	13205.88	15118.46	18781.12	22419.45	24769.56	26137.69	31564.56	48027.30
2	Tax Revenue	4749.18	5933.93	7239.4	8583.18	9138.3	10047.69	11870.98	14123.82	16411.72	18320.01	19836.82	26701.05
	(a) State's share of Central Taxes	2366.4	3175.89	4050.9	5109.83	5392.11	5547.57	6154.35	7169.93	8231.53	8939.32	9487.01	12000.27
	(b) State's Own Taxes	2382.78	2758.04	3188.5	3473.35	3746.19	4500.12	5716.63	6953.89	8180.19	9379.79	10349.81	14700.78
3	Non-Tax Revenue	1911.32	2529.95	2770.42	3443.17	4067.58	5070.77	6910.14	8295.63	8357.84	7817.68	11727.74	21326.25
	(a) State's Own Non-Taxes	1052.45	1426.52	1250.4	1601.4	1951.8	2254.14	2802.89	3038.22	3535.63	3752.71	4335.06	6304.13
	(b) Grants-in-Aid from GOI	858.87	1103.42	1520.02	1841.77	2115.78	2816.63	4107.25	5257.41	4822.2	4064.97	7392.68	15022.12
4	Capital Receipts	3577.98	3510.61	2112.65	2067.22	2455.9	3390.79	2471.12	2694.02	5241.81	4727.36	6713.51	7465.65
	(a) Recoveries of Loans	7.58	9.81	15.75	44.22	18.9	21.79	24.12	23.42	43.11	23.16	23.41	49.65
	(b) Other Receipts	0	0	0	0	0	0	0	0	0	0	0	0
	(c) Borrowing and Other Liabilities	3570.4	3500.8	2096.9	2023	2437	3369	2447	2670.6	5198.7	4704.2	6690.1	7416
5	<b>Total Receipts (1+4)</b>	10238.48	11974.49	12122.47	14093.57	15661.78	18509.25	21252.24	25113.47	30011.37	30865.05	38278.07	55492.95
6	Non-Plan Expenditure	6082.64	9295.1	7760.26	8806.77	10126.75	12608.9	13420.52	15138.81	18064.16	19277.06	23176	23356.11
7	On Revenue Account of Which	4995.73	6352.39	6632.25	7852.09	9063.7	11369.76	11940.92	13345.3	15656.61	17184.41	19358.98	20987.2
	(a) Interest Payments	1141.32	1419.55	1613.38	1758.03	1886.88	2307.45	2227.54	2267.08	2391.25	2614.44	2929.15	3426.94
	(b) Salary	2116.54	2325.87	2517.68	2984.58	3800.67	5125.38	5434.06	6150.05	6446.02	6934.16	7192.60	9165.09
	(c) Pension	620.09	657.16	678.97	818.32	988.4	1680.83	2081.1	2296.69	2931.19	3484.31	3462.53	4492.61
8	On Capital Account of Which	1086.91	2942.71	1128.01	954.68	1063.05	1239.14	1479.6	1793.51	2407.55	2092.65	3817.02	2368.91
	(a) Internal Debt of the State	801.88	129.89	674.05	572.43	724.69	1067.61	1063.17	1484.31	2044.54	1858.17	1721.71	2086.92
	(b) Loans and Adv. from GOI		151.19	162.04	174.94	138.71	122.6	236.25	154.71	138.52	138.75	158.16	171.61
	(c) Capital Expenditure	0	2.15	0.02	25.61	35.82	21	43.33	47.88	67.38	15.81	22.82	25.05
	(d) Loans and Advances	285.03	2659.48	291.9	181.7	163.83	27.93	136.84	106.61	157.11	79.91	1914.33	85.33
9	Plan Expenditure	3605.38	5062.68	4011.92	5953.78	7083.01	6732.57	8795.51	10943.67	12438.01	11186.16	18745.38	32136.84
	(a) On Revenue Account	1980.18	2138.43	2431.69	2979.88	3813.2	3758.48	6003.81	7646.29	7743.26	6287.48	12435.92	22356.04
	(b) of which, Grants for creation of Capital Assets								244.77	1174.38	691.94	3652.09	5194.88
	(c) On Capital Account	1625.2	2924.25	1580.24	2973.9	3269.81	2974.09	2791.7	3297.38	4694.74	4898.68	6309.46	9780.80
10	<b>Total Expenditure (6+9)</b>	9688.02	14357.77	11772.19	14760.55	17209.76	19341.47	22216.03	26082.47	30502.17	30463.22	41921.38	55492.95
	(a) Revenue expenditure (7+9a)	6975.91	8490.82	9063.94	10831.97	12876.9	15128.24	17944.73	20991.58	23399.87	23471.89	31794.90	43343.24
	(b) Capital Expenditure (8+9c)	2712.11	5866.91	2708.25	3928.58	4332.86	4213.23	4271.30	5090.89	7102.3	6991.33	10126.48	12149.71
11	Revenue Deficit (10a-1)	315.41	26.94	-945.88	-1194.38	-328.98	9.78	-836.39	-1427.87	-1369.68	-2665.8	230.34	-4684.06
	Revenue Deficit as % of GSDP	0.53	0.04	-1.41	-1.42	-0.37	0.01	-0.66	-1.05	-0.9	-1.54	0.11	-2.07
12	Effective Revenue Deficit (11-9b)@	315.41	26.94	-945.88	-1194.38	-328.98	9.78	-836.39	-1672.64	-2544.06	-2664.9	-3421.75	-9878.94
	Effective Revenue Deficit as % of GSDP	0.53	0.04	-1.41	-1.42	-0.37	0.01	-0.66	-1.23	-1.68	-1.54	-1.73	-4.36
13	Fiscal Deficit {10-(1+4a+4b+8a+8b)}	2218.06	5603	910.52	1942.61	3121.58	3011.01	2111.36	2000.58	3506.44	2306.19	8453.54	5157.47
	Fiscal Deficit as % of GSDP	3.71	9.2	1.36	2.31	3.56	2.99	1.66	1.48	2.31	1.33	4.27	2.28
14	Primary Deficit (13-7a)	1076.73	4183.46	-702.86	184.58	1234.7	703.56	-116.18	-266.51	1115.19	-309.15	5524.39	1730.53
	Primary Deficit as % of GSDP	1.8	6.87	-1.05	0.22	1.41	0.7	-0.09	-0.2	0.74	-0.18	2.79	0.76
15	GSDP at current prices	59758	60901	66935	83950	87794	100621	127281	135618	151655	172773	197514	226404.91

Note: @ It does not include grants-in-aid for creation of capital assets;

Source: Department of Planning and Finance (Finance Division), Govt. of Jharkhand

### Receipts

Financing development requires resources. The government, in order to ensure development, has made efforts to raise its resources; both tax and non-tax. In the last one year, 2014-15 to 2015-16, the total receipt of the government, as discussed earlier, is expected to increase by about 45, the revenue receipt by about 52 percent and the capital receipt by about 11 percent. They have increased from about ₹ 38278 Crore, ₹ 31565

₹ 6713 Crore last year to ₹ 55493 Crore, ₹ 48027 Crore and ₹ 6465 Crore, respectively this year. This indeed is an impressive growth, especially, in case of revenue receipt and total receipt. The growth in total receipt is driven primarily by growth in revenue receipt. The total receipt of the government, otherwise, grew at a compound annual rate (CAGR) of 16.6 percent and revenue receipt by 19.67 percent and at an average annual rate (AAR) of about 17 and 20

percent, respectively in between 2004-05 and 2015-16. If hike in total and revenue receipts of this financial year (2015-16) is not considered,

the average annual growth rate in this period (2004-05 to 2014-15) would be only 14.31 and 17.01 percent, respectively.

**Table 2.2: Tax and Non-Tax Revenue Receipts for the Jharkhand Economy**

Year	Total Receipts(in ₹ Crore)	Growth in Total receipts (%)	Revenue Receipts (in ₹ Crore)	Growth in Revenue Receipts (%)	Capital Receipts(in ₹ Crore)	Growth in Capital Receipts (%)	Revenue receipt as a % of Total receipt
2004-05	10238.5		6660.5		3577.98		65.05
2005-06	11974.5	16.96	8463.88	27.08	3510.61	-1.88	70.68
2006-07	12122.5	1.24	10009.82	18.27	2112.65	-39.82	82.57
2007-08	14093.6	16.26	12026.35	20.15	2067.22	-2.15	85.33
2008-09	15661.8	11.13	13205.88	9.81	2455.9	18.80	84.32
2009-10	18509.2	18.18	15118.46	14.48	3390.78	38.07	81.68
2010-11	21252.2	14.82	18781.12	24.23	2471.12	-27.12	88.37
2011-12	25113.5	18.17	22419.45	19.37	2694.02	9.02	89.27
2012-13	30011.4	19.50	24769.56	10.48	5241.81	94.57	82.53
2013-14	30865.2	2.85	26137.69	5.52	4727.52	-9.81	84.68
2014-15	38278.1	24.02	31564.56	20.76	6713.51	42.01	82.46
2015-16 (B.E)	55493	44.97	48027.3	52.16	7465.65	11.20	86.55
CAGR (2004-05 to 2015-16)		16.61		19.67		6.92	
AAGR (2004-05 to 2015-16)		17.10		20.21		12.08	
AAGR (2004-05 to 2014-15)		14.31		17.01		12.17	

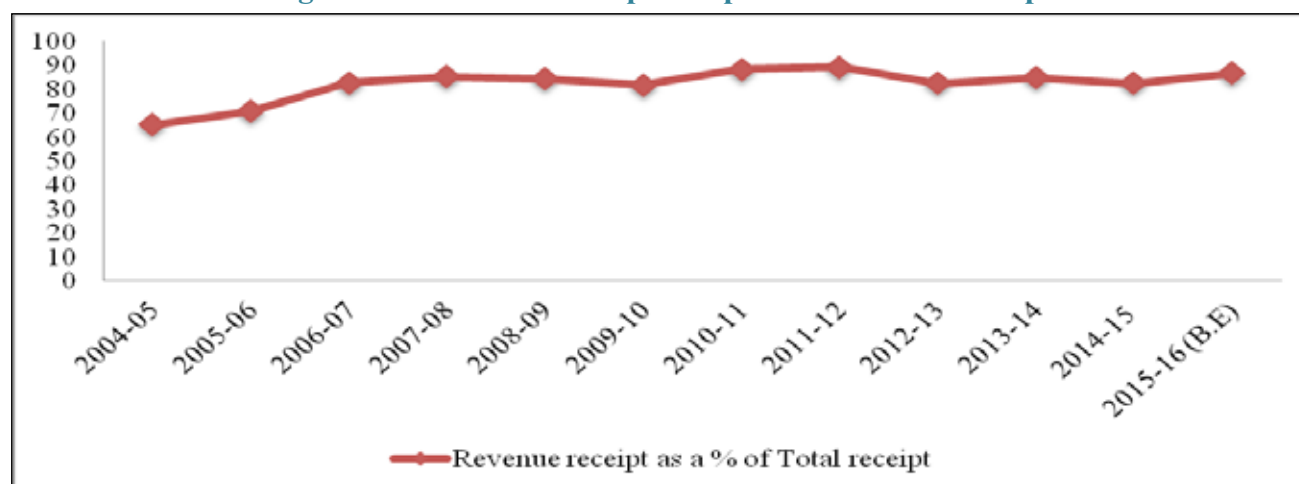
Source: Department of Planning and Finance (Finance Division), Govt. of Jharkhand

### Revenue Receipts

Revenue receipt is not only an important component of the total receipt of the government of Jharkhand, but has also become increasingly

important over the years. In 2004-05, it constituted about 65 percent of the total receipt of the government, 2014-15 about 82 percent and in 2015-16 it is estimated to contribute about 86 percent to the total receipt of the government.

**Figure 2.5: Revenue Receipt as a percent of Total Receipt**

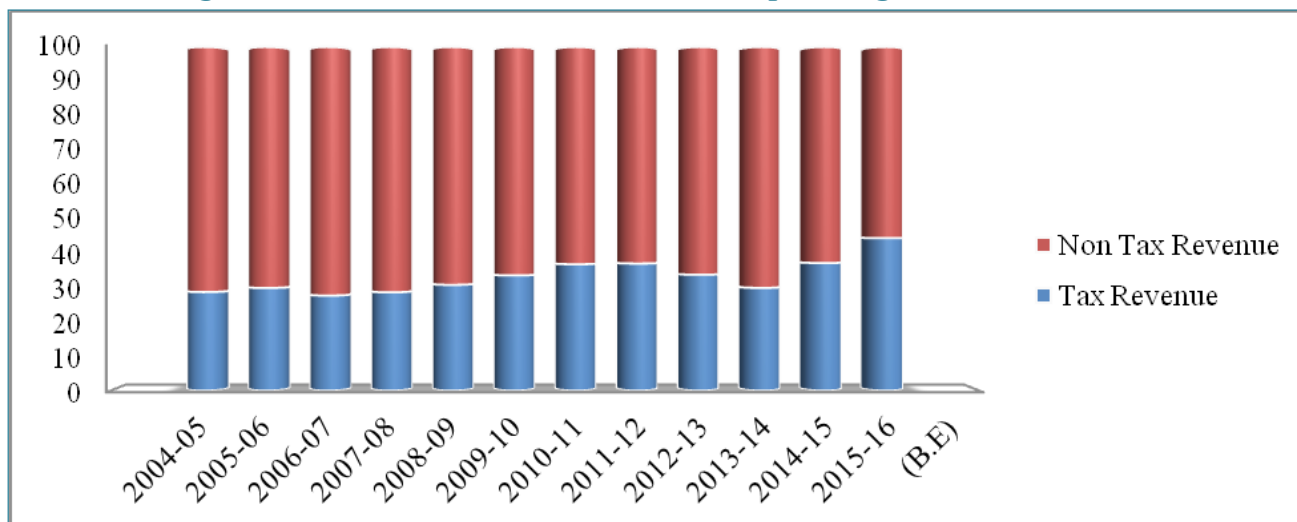


Source: Department of Planning and Finance (Finance Division), Govt. of Jharkhand

Revenue receipt is constituted by tax and non-tax revenue. Non-tax revenue used to constitute about 71 percent to the total revenue of the government in 2004-05. Over a period of time this has become less important and tax revenue

has become more important. This financial year (2015-16) the tax revenue is estimated to contribute about 44 percent to the total revenue receipt of the government and the non-tax revenue remaining 55 percent.

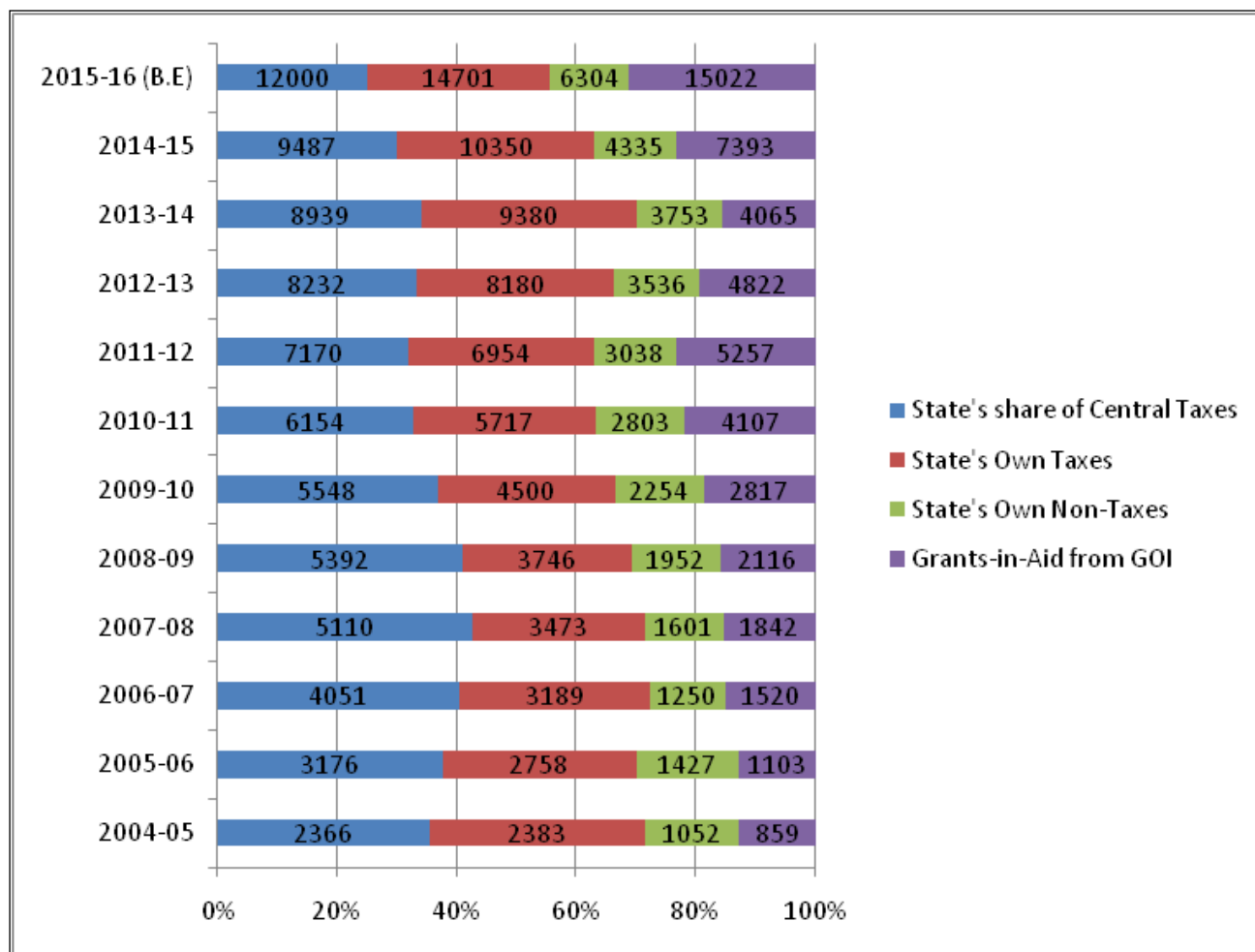
**Figure 2.6: Tax and Non Tax Revenue as a percentage of Total Revenue**



The tax revenue is almost equally contributed by state's share of central taxes and state's own taxes. This financial year they are estimated to constitute 45 percent and 55 percent to the total tax revenue of the government. The composition of tax revenue has remained almost the same over the years, but the composition of non-tax revenue has changed. The share of grants in aid from Government of India (GoI) has increased and that of state's non-tax revenue has decreased. State's

non-tax revenue used to contribute about 55 percent to the total non tax revenue of the state. This year it is estimated to contribute less than 30 percent. The grants in aid from GoI, on the other hand used to contribute about 45 percent to the total non-tax revenue of the state government in 2004-05, while this financial year it is estimated to contribute a little more than 70 percent.

**Figure 2.7: Share of state's Revenue receipt**



### State's own tax revenue

The sales tax/VAT is the most important component of state's own tax revenue. It constitutes about 78 percent to state's own tax revenue. The state excise duty, taxes on vehicles and stamp's and registration fee are the other important sources of state's own tax revenue. Each of them contributes a little more than 5 percent to state's own tax revenue. Land revenue, taxes on goods and passengers and other taxes on income and expenditure make very small contribution to this source of the state's exchequer. The state's own tax revenue and all its constituents are estimated to have made a good collection this financial

year. The state's own tax revenue is estimated to increase by about 36 percent, sales tax by 38 percent, state excise duty by 62 percent, vehicle taxes by 36 percent, stamps and registration fee by 51 percent, land revenue by 259 percent and taxes on good and passengers by more than thousand percent this financial year. The taxes on goods and passengers, which was less than one crore in 2014-15 is estimated to be Rs. 5 crore this year. Similarly, land revenue which yielded only about 83 crore last year is expected to yield Rs. 300 crore this year.

**Table 2.3: Tax and Non-tax Revenue Receipts for the Jharkhand Economy**

Year	Tax Revenue (in Crore)	Non Tax Revenue (in Crore)	Tax Revenue	Non Tax Revenue	State's share of Central Taxes	State's Own Taxes	State's Own Non-Taxes	Grant-in-Aid from GOI
			(As Percent of total receipt)	(As Percent of total receipt)	(As Percent of Tax Revenue)	(As Percent of Tax Revenue)	(As Percent of Non-tax Revenue)	
2004-05	4749.18	1911.32	28.70	71.30	49.83	50.17	55.06	44.94
2005-06	5933.93	2529.95	29.89	70.11	53.52	46.48	56.39	43.61
2006-07	7239.4	2770.42	27.68	72.32	55.96	44.04	45.13	54.87
2007-08	8583.18	3443.17	28.63	71.37	59.53	40.47	46.51	53.49
2008-09	9138.3	4067.58	30.80	69.20	59.01	40.99	47.98	52.02
2009-10	10047.69	5070.77	33.54	66.46	55.21	44.79	44.45	55.55
2010-11	11870.98	6910.14	36.79	63.21	51.84	48.16	40.56	59.44
2011-12	14123.82	8295.63	37.00	63.00	50.76	49.24	36.62	63.38
2012-13	16411.72	8357.84	33.74	66.26	50.16	49.84	42.30	57.70
2013-14	18320.01	7817.68	29.91	70.09	48.80	51.20	48.00	52.00
2014-15	19836.82	11727.74	37.15	62.85	47.83	52.17	36.96	63.04
2015-16 (B.E)	26701.05	21326.25	44.40	55.60	44.94	55.06	29.56	70.44

Source: Department of Planning and Finance (Finance Division), Govt. of Jharkhand

**Table 2.4: Composition of Own Tax Revenues of Jharkhand**

(in ₹ Crore)

	2012-13	2013-14	2014-15	2015-16 (B.E)	Share in Own tax revenue				% increment from 2012-13 to 2013-14 (%)	% increment from 2013-14 to 2014-15 (%)	% Increment from 2014-15 to 2015-16 (%)
					2012-13	2013-14	2014-15	2015-16 (B.E)			
Own Tax Revenue	8180.19	9380.69	10349.81	14050	100.00	100.00	100.00	100.00	14.67	10.33	35.75
Sales Tax/VAT	6421.61	7305.07	8069.72	11180.02	78.50	77.87	77.97	78.50	13.76	10.47	38.54
State Excise	577.92	627.93	740.15	1200	7.06	6.69	7.15	7.06	8.65	17.87	62.13
Taxes on Vehicles	465.36	494.79	660.37	900.76	5.69	5.27	6.38	5.69	6.32	33.46	36.40
Stamps & Registration Fee	492.39	502.6	530.66	800	6.02	5.36	5.13	6.02	2.07	5.58	50.76
Taxes on Goods and Passengers	0.51	1.08	0.27	5	0.01	0.01	0.00	0.01	111.76	-75.00	1751.85
Land Revenue	96.38	229.84	83.54	300	1.18	2.45	0.81	1.18	138.47	-63.65	259.10
Other Taxes on income and expenditure			57.18	80	0.00	0.00	0.55	0.00			39.91

Source: Department of Planning and Finance (Finance Division), Govt. of Jharkhand

### Capital Receipts

The capital receipts of the State economy in the year 2015-16 constitute 13.45 percent of the total receipts. Within the capital receipts, borrowing

and other liabilities form the major component of the capital receipts. The non-debt capital receipts are expected to increase to 45.86 crores, which is 0.61 percent of the total capital receipts. It can

be seen that the percentage was 0.35 percent in 2014-15. Hence it can be seen that the share of the non-debt capital receipts is very low, but there is an increasing trend in its share in the budget

estimates. The borrowings and other liabilities are also seen to be increasing over the years and the budget estimate for the year 2015-16 is 7416 crores.

**Table 2.5: Capital Receipts for the Jharkhand Economy**

Year	Non-debt Capital Receipts	Borrowing and Other Liabilities	Total Capital Receipts	Percentage of Non-debt Capital receipts (to Total Capital receipts)	Percentage
			(in Rs. Crore)		Percentage
2004-05		7.58	3570.4	3577.98	0.21
2005-06		9.81	3500.8	3510.61	0.28
2006-07		15.75	2096.9	2112.65	0.75
2007-08		44.22	2023	2067.22	2.14
2008-09		18.9	2437	2455.9	0.77
2009-10		21.78	3369	3390.78	0.64
2010-11		24.12	2447	2471.12	0.98
2011-12		23.42	2670.6	2694.02	0.87
2012-13		43.11	5198.7	5241.81	0.82
2013-14		23.32	4704.2	4727.52	0.49
2014-15		23.41	6690.1	6713.51	0.35
2015-16 (B.E)		45.86	7416	7461.86	0.61

Source: Department of Planning and Finance (Finance Division), Govt. of Jharkhand

### Own Non-tax Revenues

The state's own non-tax revenue has increased by about 18 percent between 2004-05 and 2015-16. It is estimated to increase by about 45 percent this financial year. It was about 1052 crore rupees in 2004-05 and is estimated to be more than six thousand this financial year.

The major source of states non-tax revenue is mines. It contributes more than 70 percent to the total own non-tax revenue. Its contribution to this head of revenue receipt was about 89 percent

in 2004-05, about 80 percent in 2014-15 and is estimated to contribute about 87 percent this financial year. Among the remaining sources of own non-tax revenue, general services is estimated to contribute 4.2 percent, social services 3 percent and interest receipt 1.4 percent. Between 2004-05 and 2014-15 the non-tax revenue from mines has increased at an average annual rate (AAGR) of about 18 percent, that of general services by about 70 percent, social services by about 62 percent and interest receipt by about 40 percent.

**Table 2.6: Trends in Own Non-tax Revenues of Jharkhand (in Rs. Crore)**

	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16(B.E)
Own Non Tax Revenue	1052.45	1426.52	1250.4	1601.4	1951.8	2254.14	2802.89	3038.22	3535.62	3752.71	4335.06	6304.1
<b>Interest receipts</b>	<b>19.63</b>	<b>71.49</b>	<b>38.09</b>	<b>87.14</b>	<b>109.53</b>	<b>153.2</b>	<b>98.74</b>	<b>44.16</b>	<b>87.23</b>	<b>87.48</b>	<b>143.04</b>	<b>90</b>
<b>General services</b>	<b>16.84</b>	<b>33.96</b>	<b>46.55</b>	<b>28.83</b>	<b>131.58</b>	<b>163.23</b>	<b>309.67</b>	<b>53.55</b>	<b>39.3</b>	<b>94.14</b>	<b>243.65</b>	<b>267.10</b>
<b>Social Services of which</b>	<b>30.09</b>	<b>209.34</b>	<b>51.17</b>	<b>58.09</b>	<b>53.93</b>	<b>68.37</b>	<b>126.89</b>	<b>125.05</b>	<b>105.29</b>	<b>119.77</b>	<b>181.97</b>	<b>168.66</b>
Education, sports & culture	3.32	167.8	13.4	11.08	20.83	8.97	14.24	28.18	8.02	23.91	42.25	30.50
Medical and public health	5.27	4.25	8.85	14.24	10.82	18.76	19.17	35.11	11.18	19.86	23.32	25.00
Water supply & sanitation	4.47	5.27	6.3	6.07	7.84	6.21	8.74	11.59	18.7	13.79	13.19	25.00
Social Security & Welfare	8.48	17.94	11.66	12.57	4.25	13.49	23.85	15.42	20.48	5.23	4.16	10.0
Other Social services	6.22	11.62	8.13	11.53	6.86	3.51	40.76	5.85	12.01	4.16	6.7	10.00
Labour and Employment	1.33	1.52	1.65	1.75	2.34	16.08	19.27	27.96	33.95	42.7	53.12	50.00
<b>Economic Services of which</b>	<b>985.89</b>	<b>1111.73</b>	<b>1114.59</b>	<b>1427.3</b>	<b>1656.76</b>	<b>1869.34</b>	<b>2267.59</b>	<b>2815.46</b>	<b>3303.8</b>	<b>3451.3</b>	<b>3909.303</b>	<b>5868.03</b>
Mines	937.41	1013.15	1022.12	1177.77	1477.94	1733.15	2055.9	2662.79	3142.47	3230.22	3472.99	5500.09

Source: Department of Planning and Finance (Finance Division), Govt. of Jharkhand

**Table 2.7: Composition of Own Non-tax Revenues of Jharkhand (in Rs. Crore)**

	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16(B.E)	Av. Annual growth rate
Own Non Tax Revenue	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<b>Interest receipts</b>	<b>1.9</b>	<b>5.0</b>	<b>3.0</b>	<b>5.4</b>	<b>5.6</b>	<b>6.8</b>	<b>3.5</b>	<b>1.5</b>	<b>2.5</b>	<b>2.3</b>	<b>3.3</b>	<b>1.4</b>
<b>General services</b>	<b>1.6</b>	<b>2.4</b>	<b>3.7</b>	<b>1.8</b>	<b>6.7</b>	<b>7.2</b>	<b>11.0</b>	<b>1.8</b>	<b>1.1</b>	<b>2.5</b>	<b>5.6</b>	<b>4.2</b>
<b>Social Services of which</b>	<b>2.9</b>	<b>14.7</b>	<b>4.1</b>	<b>3.6</b>	<b>2.8</b>	<b>3.0</b>	<b>4.5</b>	<b>4.1</b>	<b>3.0</b>	<b>3.2</b>	<b>4.2</b>	<b>2.7</b>
Education, sports & culture	0.3	11.8	1.1	0.7	1.1	0.4	0.5	0.9	0.2	0.6	1.0	0.5
Medical and public health	0.5	0.3	0.7	0.9	0.6	0.8	0.7	1.2	0.3	0.5	0.5	0.4
Water supply & sanitation	0.4	0.4	0.5	0.4	0.4	0.3	0.3	0.4	0.5	0.4	0.3	0.4
Social Security & Welfare	0.8	1.3	0.9	0.8	0.2	0.6	0.9	0.5	0.6	0.1	0.1	0.2
Other Social services	0.6	0.8	0.7	0.7	0.4	0.2	1.5	0.2	0.3	0.1	0.2	0.2
Labour and Employment	0.1	0.1	0.1	0.1	0.1	0.7	0.7	0.9	1.0	1.1	1.2	0.8
<b>Economic Services of which</b>	<b>93.7</b>	<b>77.9</b>	<b>89.1</b>	<b>89.1</b>	<b>84.9</b>	<b>82.9</b>	<b>80.9</b>	<b>92.7</b>	<b>93.4</b>	<b>92.0</b>	<b>90.2</b>	<b>93.1</b>
Mines	89.1	71.0	81.7	73.5	75.7	76.9	73.3	87.6	88.9	86.1	80.1	87.2

Source: Department of Planning and Finance (Finance Division), Govt. of Jharkhand



**Table 2.8: Growth in Own Non-tax Revenues of Jharkhand (in Rs. Crore)**

	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16(B.E)	Av. Annual growth rate
Own Non Tax Revenue	35.54	-12.35	28.07	21.88	15.49	24.34	8.40	16.37	6.14	15.52	45.42	18.62
<b>Interest receipts</b>	264.19	-46.72	128.77	25.69	39.87	-35.55	-55.28	97.53	0.29	63.51	-37.08	40.48
<b>General services</b>	101.66	37.07	-38.07	356.40	24.05	89.71	-82.71	-26.61	139.54	158.82	9.62	69.95
<b>Social Services of which</b>	595.71	-75.56	13.52	-7.16	26.78	85.59	-1.45	-15.80	13.75	51.93	-7.31	61.82
Education, sports & culture	4954.22	-92.01	-17.31	88.00	-56.94	58.75	97.89	-71.54	198.13	76.70	-27.81	473.46
Medical and public health	-19.35	108.24	60.90	-24.02	73.38	2.19	83.15	-68.16	77.64	17.42	7.20	28.96
Water supply & sanitation	17.90	19.54	-3.65	29.16	-20.79	40.74	32.61	61.35	-26.26	-4.35	89.54	21.44
Social Security & Welfare	111.56	-35.01	7.80	-66.19	217.41	76.80	-35.35	32.81	-74.46	-20.46	140.38	32.30
Other Social services	86.82	-30.03	41.82	-40.50	-48.83	1061.25	-85.65	105.30	-65.36	61.06	49.25	103.19
Labour and Employment	14.29	8.55	6.06	33.71	587.18	19.84	45.10	21.42	25.77	24.40	-5.87	70.95
<b>Economic Services of which</b>	12.76	0.26	28.06	16.08	12.83	21.30	24.16	17.34	4.46	13.27	50.10	18.24
Mines	8.08	0.89	15.23	25.49	17.27	18.62	29.52	18.01	2.79	7.52	58.37	18.34

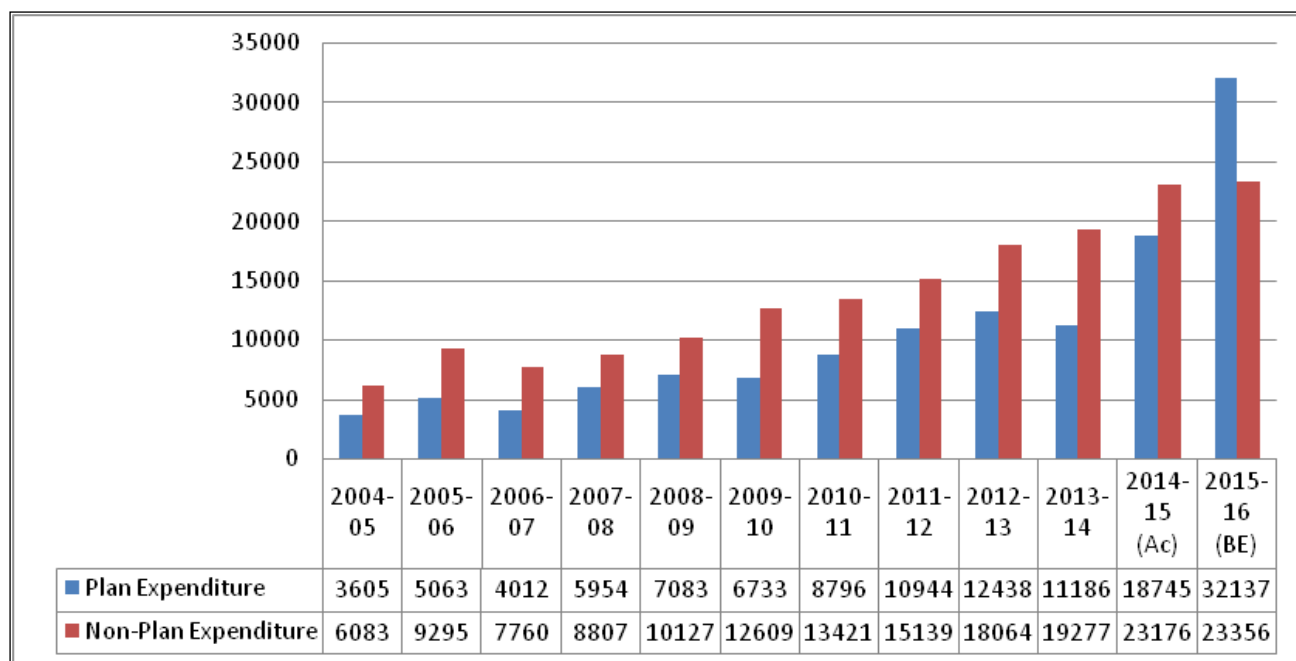
Source: Department of Planning and Finance (Finance Division), Govt. of Jharkhand

### Total Expenditure

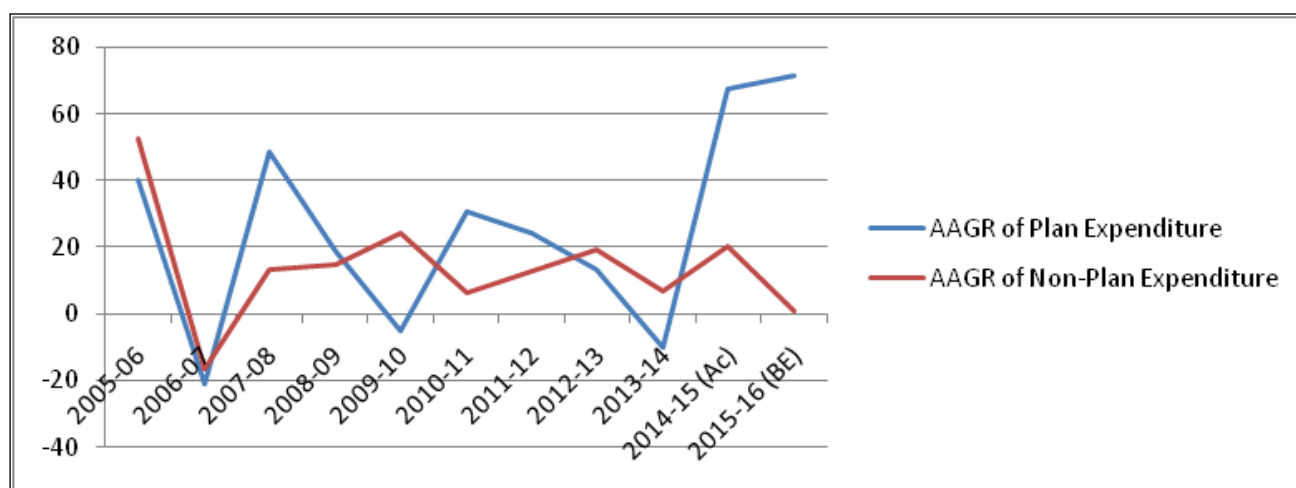
The plan and non plan expenditure both show an increasing trend, over the years. However, the estimates for this year suggest that the AAGR for non-plan expenditure is one percent and that of plan expenditure is 71 percent. It is for the first time that the plan expenditure is estimated to be

more than the non-plan expenditure, which will moderate the fiscal deficit and bring it down to the target of 2.28 (which is below the set target according to the FRBM Act). The total plan and non-plan expenditure comprises revenue and capital account expenditure.

**Figure 2.8: Plan and Non-Plan Expenditure (2004-05 to 2015-16) (in Rs. Crores)**



**Figure 2.9: AAGR of Plan and Non-Plan Expenditure (2004-05 to 2015-16) (percent growth)**

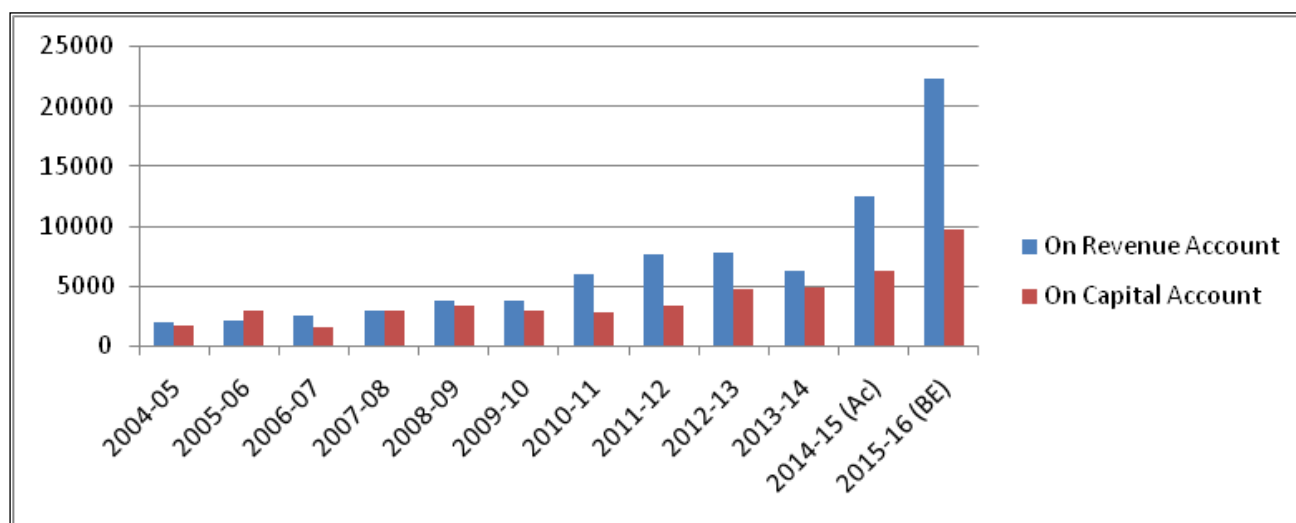


### Components of Plan Expenditure

As mentioned above the plan expenditure is expected to increase drastically, according to the Budget estimate of 2015-16. Since 2011-12 the effective revenue deficit has been introduced in the Union Budget after which, grants for creation of capital assets has been subdivided to subtract it

from the revenue deficit. Hence the data for grants for creation of capital assets is available from 2011-12. The plan revenue revenue expenditure is the highest when compared to the grants for creation of capital assets and plan expenditure on capital accounts.

**Figure 2.10: Components of Plan Expenditure**



**Table 2.9: Components of Plan Expenditure**

Sources	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15 (Ac)	2015-16 (BE)
Plan Expenditure	3605.38	5062.68	4011.92	5953.78	7083.01	6732.57	8795.51	10943.67	12438.01	11186.16	18745.38	32136.84
(a) On Revenue Account	1980.18	2138.43	2431.69	2979.88	3813.2	3758.48	6003.81	7646.29	7743.26	6287.48	12435.92	22356.04
(b) of which, Grants for creation of Capital Assets								244.77	1174.38	691.94	3652.09	5194.88
(c) On Capital Account	1625.2	2924.25	1580.24	2973.9	3269.81	2974.09	2791.7	3297.38	4694.74	4898.68	6309.46	9780.8

Source: Department of Planning and Finance (Finance Division), Govt. of Jharkhand

### Components of Non-Plan Expenditure

Non-Plan Expenditure comprises non-plan expenditure on revenue account and non-plan expenditure on capital account. The non plan expenditure on revenue account constitutes of interest payments, salary, and pension. The highest contribution from these sectors is on salary, followed by pension and then interest

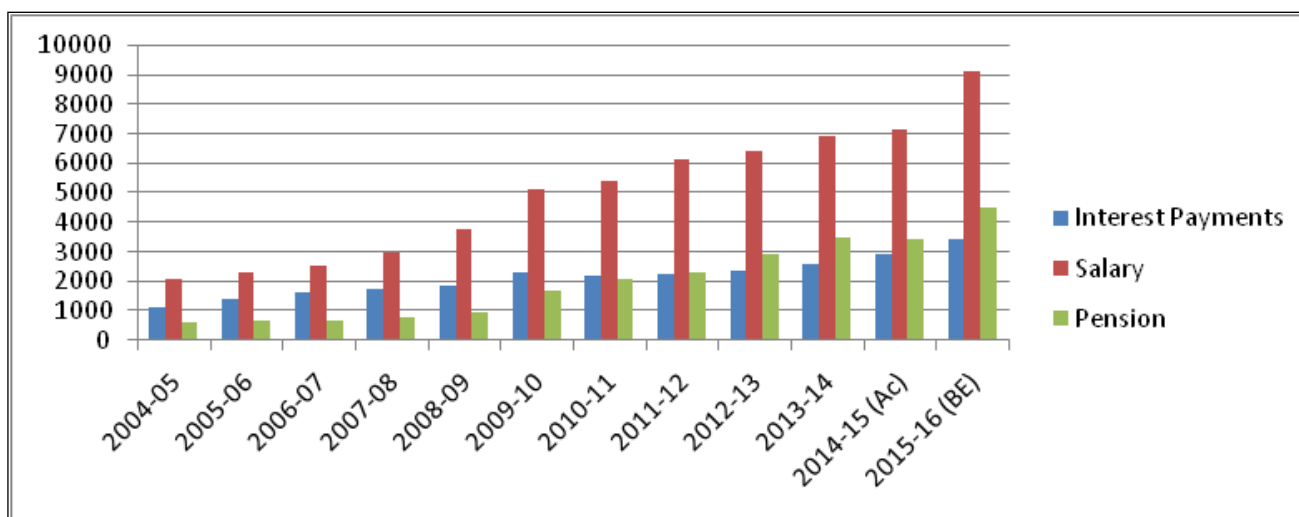
payments. The non plan expenditure on capital accounts comprises internal debt of the state, loans and advances, capital expenditure, and loans and advances. The highest expenditure incurred from these sub sectors is from the repayment of the internal debt of the state, followed by loans and advances, then the loans and repayment of loans from the GOI, and then for capital expenditure.

**Table 2.10: Components of Non-Plan Expenditure**

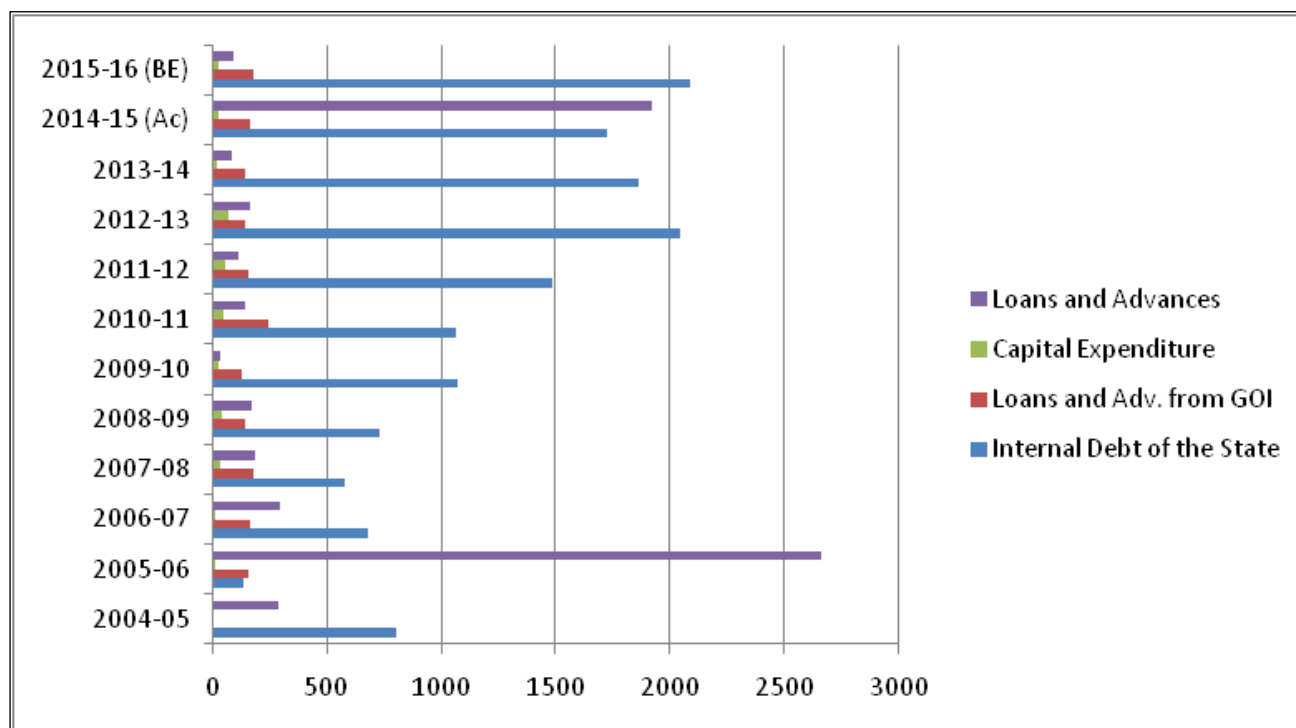
Sources	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15 (Ac)	2015-16 (BE)
Non-Plan Expenditure	6082.64	9295.1	7760.26	8806.77	10126.75	12608.9	13420.52	15138.81	18064.16	19277.06	23176	23356.11
On revenue account of which	4995.73	6352.39	6632.25	7852.09	9063.7	11369.76	11940.92	13345.3	15656.61	17184.41	19358.98	20987.2
(a) Interest Payments	1141.32	1419.55	1613.38	1758.03	1886.88	2307.45	2227.54	2267.08	2391.25	2614.44	2929.15	3426.94
(b) Salary	2116.54	2325.87	2517.68	2984.58	3800.67	5125.38	5434.06	6150.05	6446.02	6934.16	7192.6	9165.09
(e) Pension	620.09	657.16	678.97	818.32	988.4	1680.83	2081.1	2296.69	2931.19	3484.31	3462.53	4492.61
On Capital Account of Which	1086.91	2942.71	1128.01	954.68	1063.05	1239.14	1479.6	1793.51	2407.55	2092.65	3817.02	2368.91
(a) Internal Debt of the State	801.88	129.89	674.05	572.43	724.69	1067.61	1063.17	1484.31	2044.54	1858.17	1721.71	2086.92
(b) Loans and Adv. from GOI		151.19	162.04	174.94	138.71	122.6	236.25	154.71	138.52	138.75	158.16	171.61
(c) Capital Expenditure	0	2.15	0.02	25.61	35.82	21	43.33	47.88	67.38	15.81	22.82	25.05
(d) Loans and Advances	285.03	2659.48	291.9	181.7	163.83	27.93	136.84	106.61	157.11	79.91	1914.33	85.33

Source: Department of Planning and Finance (Finance Division), Govt. of Jharkhand

**Figure 2.11: Components of Non-Plan Revenue Expenditure**



**Figure 2.12: Components of Non-Plan Capital Expenditure**



### Capital Outlay under different Heads

The state has made significant investment in the infrastructural sectors of the state. The development of the state stands on its infrastructural facilities. It can be seen from the table below that there has

been a substantial increase in the expenditure on Police infrastructure and Urban Development. Rural and Health infrastructure has also seen an increase in expenditure for their respective sectors.

**Table 2.11: Capital Outlay and Expenditure under Different Heads**

S. No.	Particulars	2013-14	2014-15
1	Police Infrastructure	72.69	153.8
2	Education Infrastructure	145.21	82.97
3	Health Infrastructure	166.18	260.97
4	Drinking water supply & Sanitation Infrastructure	321.03	139.22
5	Housing Infrastructure	20.91	49.69
6	Urban Development	14.11	188.9
7	Women Welfare & Social Security	270.66	332.74
8	Co-operative Society	48.94	3.56
9	Rural Infrastructure	1148.93	1360.22
10	Irrigation	454.01	378.94

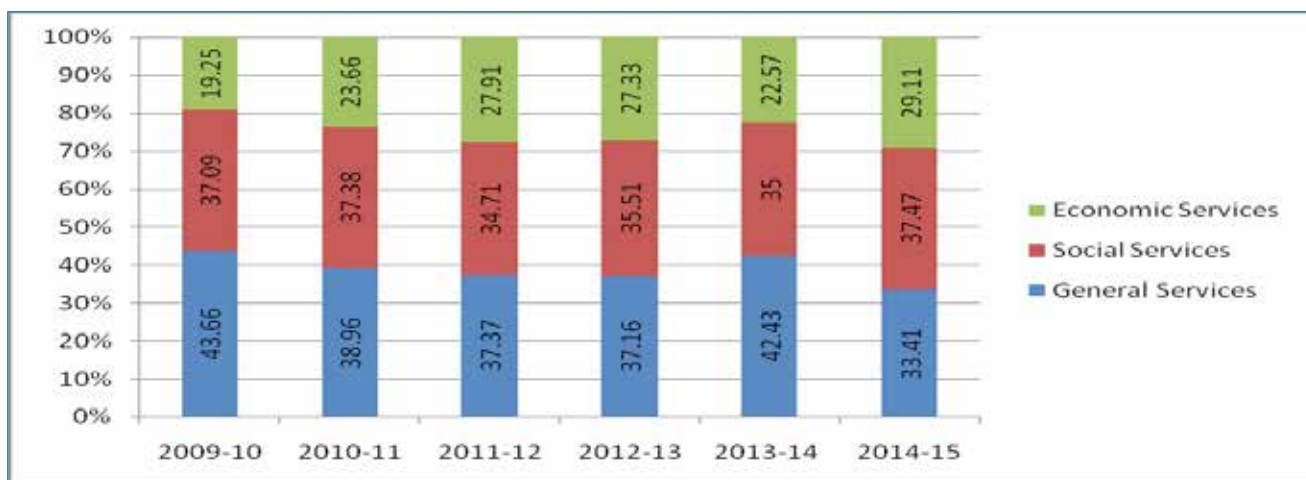
Source: Department of Planning and Finance (Finance Division), Govt. of Jharkhand

### Sectoral Allocation of Expenditure

State spends its revenue receipts primarily in three activities; economic activities, social services and in general services. During 2014-15, Jharkhand spent more in economic services and social services compared to the previous years.

In 2014-15, the share of economic services and social services on the total revenue expenditure witnessed a growth of 6.54 percent and 2.47 percent, respectively, while the share of social services declined by 9.02 percent as compared to that in 2013-14 (Figure below).

Figure 2.13 : Sectoral Allocation in Expenditure



Source: Department of Planning and Finance (Finance Division), Govt. of Jharkhand

The table below presents the components of the revenue expenditure among the three activities. During 2014-15, Jharkhand spent around 10,623 crores on general services including 2,929 crores on interest payments and 3,465 crores on pensions. The expenditure on general activities has witnessed a significant drop (from 14.52 percent in 2013-14 to 6.67 percent in 2014-15), with the expenditure on account of pension payments showing a negative growth of 0.55 percent during the last fiscal year (Figure 2.X2). In 2014-15, the expenditure on social services was 11,915 crores. This was an increase of 3,700 crores (or about 45 %) from the previous year. Within this sector, expenditure on education, sports, art and culture increased by 46.5 percent, while expenditure on

health and family welfare increased by about 39 percent. As indicated in the table below, the revenue expenditure on economic services of Jharkhand stood at 9256.11 crores in 2014-15. The spending on economic activities witnessed an increase of close to 75 percent during the last fiscal over the previous one. Within the economic activities, expenditure on transport increased by about 232 percent, while expenditure on rural development increased by about 145 percent. Expenditure on energy sector and agricultural & allied activities rose by 54 percent and 12 percent respectively.

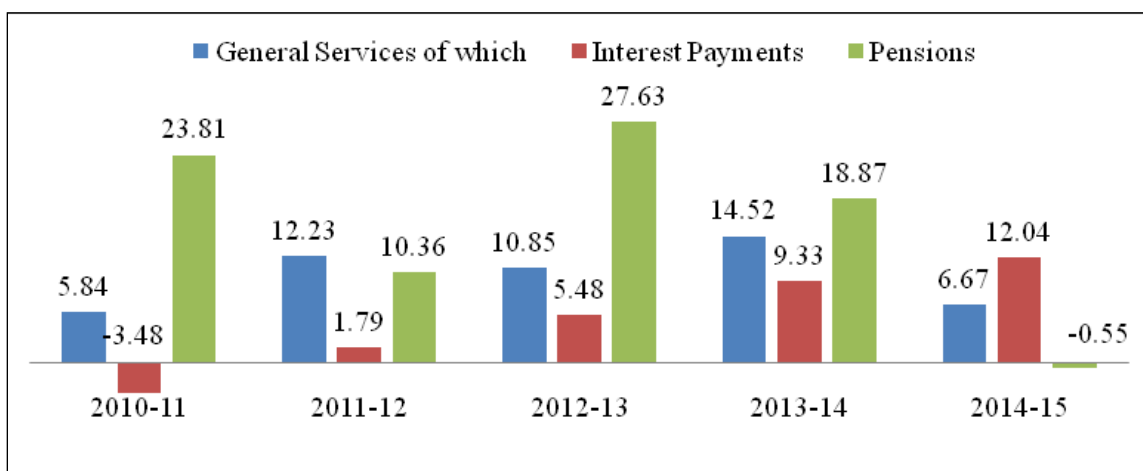
**Table 2.12: Composition of Total Revenue Expenditure by Activities**

	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
<i>General Services of which</i>	<b>6605.36</b> (43.66)	<b>6990.80</b> (38.96)	<b>7845.56</b> (37.37)	<b>8696.49</b> (37.16)	<b>9959.36</b> (42.43)	10623.45 (33.41)
Interest Payments	2307.45 (15.25)	2227.26 (12.41)	2267.08 (10.80)	2391.25 (10.22)	2614.44 (11.14)	2929.15 (9.2)
Pensions	1680.83 (11.11)	2081.10 (11.60)	2296.69 (10.94)	2931.19 (12.53)	3484.31 (14.84)	3465.32 (10.89)
<i>Social Services of which</i>	<b>5610.30</b> (37.09)	<b>6707.30</b> (37.38)	<b>7287.03</b> (34.71)	<b>8308.58</b> (35.51)	<b>8215.34</b> (35.00)	<b>11915.34</b> (37.47)
Education, sports, Art and culture	3178.85 (21.01)	3663.18 (20.41)	3980.57 (18.96)	4289.41 (18.33)	3922.16 (16.71)	5744.53 (18.06)
Health and Family Welfare	534.01 (3.53)	599.92 (3.34)	756.57 (3.60)	728.11 (3.11)	977.10 (4.16)	1358.00 (4.27)
<i>Economic Services of which</i>	<b>2912.38</b> (19.25)	<b>4246.47</b> (23.66)	<b>5859.00</b> (27.91)	<b>6394.79</b> (27.33)	<b>5297.19</b> (22.57)	<b>9256.11</b> (29.11)
Agriculture and Allied Services	632.29 (4.18)	820.99 (4.58)	980.60 (4.67)	992.45 (4.24)	975.02 (4.15)	1090.04 (3.42)
Rural Development	744.90 (4.92)	1678.28 (9.35)	1688.61 (8.04)	1768.17 (7.56)	1429.57 (6.09)	3501.31 (11.01)
Irrigation and Flood control	262.60 (1.74)	264.10 (1.47)	282.08 (1.34)	281.40 (1.20)	304.08 (1.30)	330.08 (1.03)
Transport	335.32 (2.22)	202.29 (1.13)	829.98 (3.95)	725.86 (3.10)	251.63 (1.07)	835.77 (2.6)
Energy	199.93 (1.32)	535.17 (2.98)	859.83 (4.10)	1560.20 (6.67)	1520.78 (6.48)	2343.92 (7.37)
<b>Total Revenue Expenditure</b>	<b>15128.04</b> <b>(100.00)</b>	<b>17944.57</b> <b>(100.00)</b>	<b>20991.59</b> <b>(100.00)</b>	<b>23399.86</b> <b>(100.00)</b>	<b>23471.89</b> <b>(100.00)</b>	<b>31794.90</b> <b>(100.00)</b>

Note: Values in parenthesis are percent of total revenue expenditure.

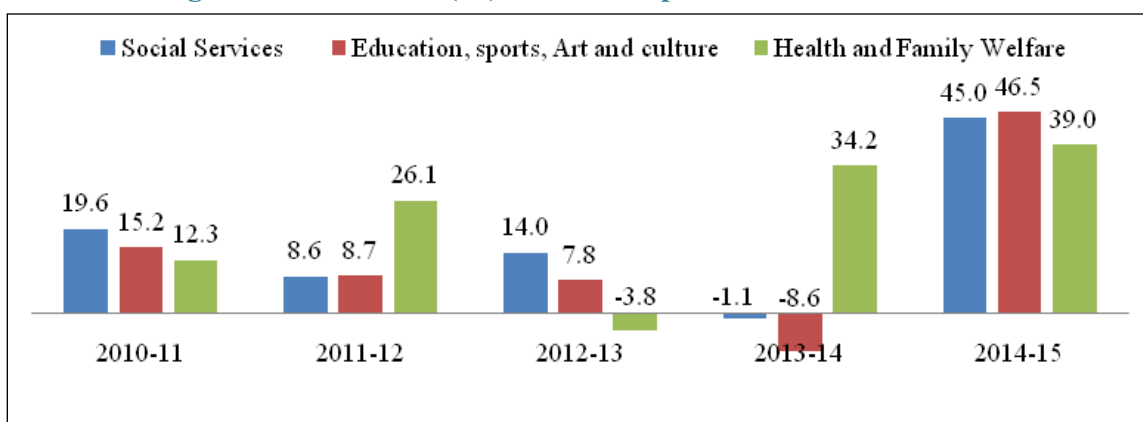
Source: Department of Planning and Finance (Finance Division),  
Govt. of Jharkhand

**Figure 2.14: Growth (%) in Total Expenditure-General Services**



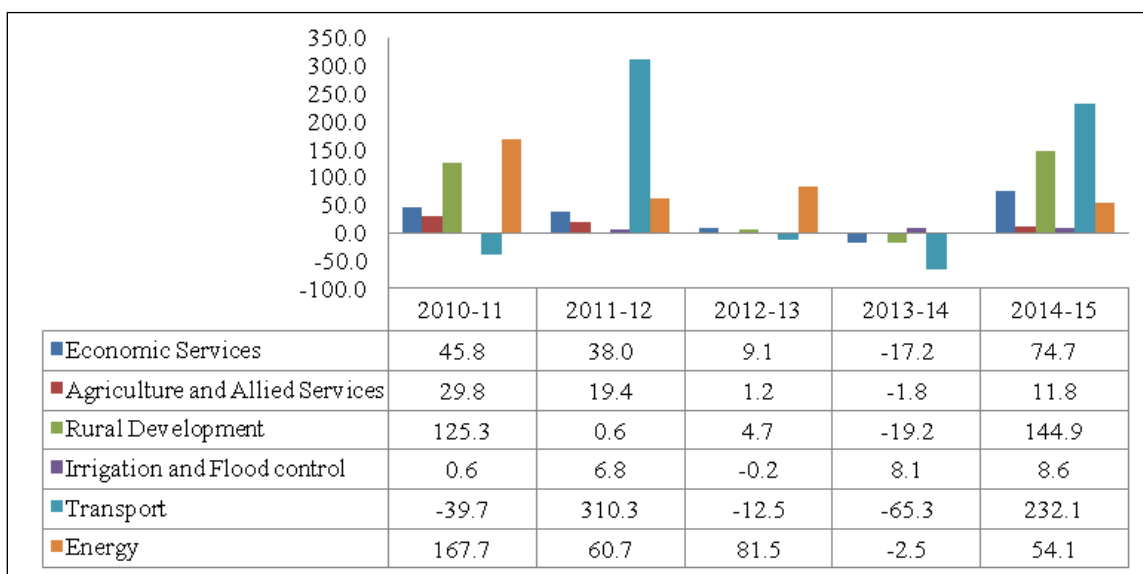
Source: Department of Planning and Finance (Finance Division), Govt. of Jharkhand

**Figure 2.15: Growth (%) in Total Expenditure-Social Services**



Source: Department of Planning and Finance (Finance Division), Govt. of Jharkhand

**Figure 2.16 : Growth (%) in Total Expenditure-Economic Services**



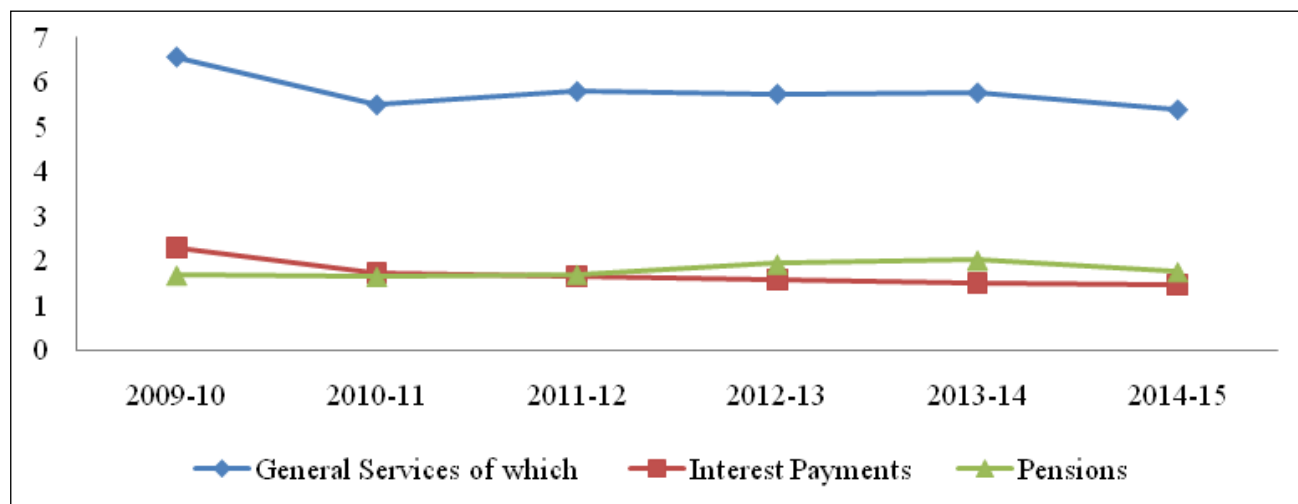
Source: Department of Planning and Finance (Finance Division), Govt. of Jharkhand



Figure below plots the share of general services and its components in the gross state domestic product (GSDP). This also confirms the declining share of the spending on general services in

GSDP. Within this group, expenditure share on account of pension payment has remained mostly unchanged over the last few years.

**Figure 2.17: Revenue Expenditure as a percentage of GSDP- General Services**

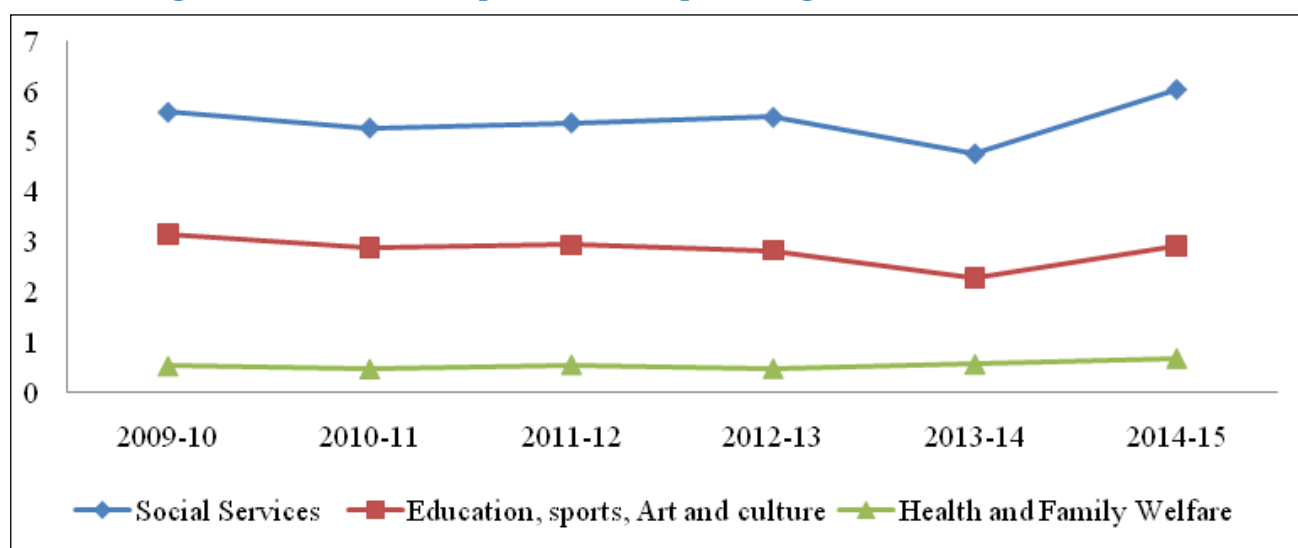


Source: Department of Planning and Finance (Finance Division), Govt. of Jharkhand

Figure below presents the share of social services and its components in the gross state domestic product (GSDP). The share of expenditure of this sector in GSDP increased to 6.03 percent in 2014 -15, which was 4.76 percent in 2013-14. Within this group, share of expenditure on

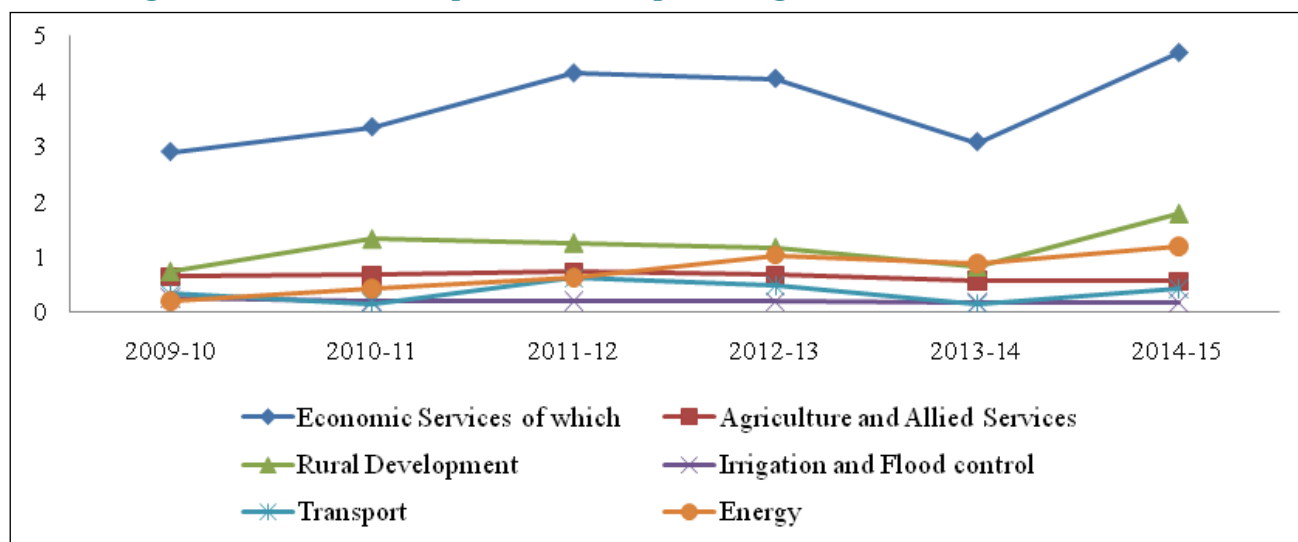
education, sports, art and culture stood at 2.91 percent of GSDP in 2014-15. However, the share of expenditure on health and family welfare improved marginally in 2014-15, from 0.57 percent in 2013-14 to 0.69 percent in 2014-15.

**Figure 2.18: Revenue Expenditure as a percentage of GSDP- Social Services**



Source: Department of Planning and Finance (Finance Division), Govt. of Jharkhand

**Figure 2.19: Revenue Expenditure as a percentage of GSDP- Economic Services**



Source: Department of Planning and Finance (Finance Division), Govt. of Jharkhand

Similarly, the figure above presents the share of economic services and its components in the gross state domestic product (GSDP). The share of expenditure on this sector in GSDP increased to 4.69 percent in 2014-15 as compared to 3.07 percent in 2013-14. The share of expenditure on rural development increased to 1.77 percent in 2014-15 from 0.83 percent in 2013-14, while the share of expenditure on energy stood at about 1.2 percent in the last fiscal. Share of expenditure on irrigation and flood control has remained stagnant

to around 0.2 percent over the last few years.

### Capital Outlay under different Heads

The state has made significant investment in the infrastructure sectors of the state. The development of the state stands on its infrastructural facilities. It can be seen from the table below that there has been a substantial increase in the expenditure on Police infrastructure and Urban Development. Rural and Health infrastructure has also seen an increase in expenditure for their respective sectors.

**Table 2.13: Capital Outlay and Expenditure under Different Heads**

S. No.	Particulars	2013-14	2014-15
1	Police Infrastructure	72.69	153.8
2	Education Infrastructure	145.21	82.97
3	Health Infrastructure	166.18	260.97
4	Drinking water supply & Sanitation Infrastructure	321.03	139.22
5	Housing Infrastructure	20.91	49.69
6	Urban Development	14.11	188.9
7	Women Welfare & Social Security	270.66	332.74
8	Co-operative Society	48.94	3.56
9	Rural Infrastructure	1148.93	1360.22
10	Irrigation	454.01	378.94

### Liabilities of the State

When Expenditure of a state exceeds its total receipt, then typically it borrows money from various sources to finance the resultant deficit. But, this debt poses a liability for the state as it has to be repaid in coming years. Thus, the Ministry of Finance suggests a borrowing ceiling every year to all the states. The debt position of Jharkhand stands good in this perspective. Gleaning through the table given below, we can see that since 2010-11, the net borrowing has

been restricted well below the borrowing ceiling. But on the other front, it can be observed that, for funding rapid growth of the state, the total debt has increased by 15.89 percent for fiscal year 2015-16 and is expected to grow further by 11.98 percent in the fiscal year 2016-17. For the year 2015-16, borrowing from RBI increased by 67.79 percent, and that of NSSF funds have increased by more than double. In addition to this, the deposits also grew by 68.94 percent.

**Table 2.14: Year wise Debt Position of Jharkhand (in Crore)**

	GOI	Borrowing from RBI	Negotiated Loan	Ways & Means Advances	NSSF Fund	GPF Provident Fund	Reserve Funds	Deposits	Gross Borrowing	Repayment (-)	Net Borrowing	Borrowing Ceiling	Total Debt
1	2	3	4	5	6	7	8	9	10 = (2to9)	11	12 = (10-11)	13	14
15.11.2000 (Balance)											5962		5962
2000-01	143.0	123	0	52	0	126		233	677	401	276	828	6238
2001-02	388.9	370	0	12	826	170		948	2715	1149	1566	986	7804
2002-03	407.7	455	1	0	1025	411		1125	3426	2307	1119	1315	8923
2003-04	471.5	575	0	321	1376	368		1231	4342	2696	1646	1584	10569
2004-05	513.4	565	899	0	1593	255		1174	4999	2056	2942	1793	13512
2005-06	5.8	364	1497	0	1634	409		1373	5283	1434	3848	1827	17360
2006-07	16.9	401	193	230	1256	453		1608	4157	2100	2057	2008	19417
2007-08	14.0	1193	618	0	198	479		3379	5881	3684	2197	2518	21615
2008-09	3.0	1486	770	0	178	584	13	4175	7210	4740	2469	2634	24084
2009-10	-10.0	1844	672	0	863	687	489	4075	8621	5540	3081	3019	27165
2010-11	132.0	500	587	0	1228	572	0	3558	6577	5087	1490	3466	28655
2011-12	32.6	1254	874	229	281	613	139	5138	8561	6553	2009	3915	30664
2012-13	238.7	3600	770	369	221	668	280	8571	14718	10513	4205	4877	34869
2013-14	106.2	2950	1032	316	300	760	293	7084	12841	10116	2725	5587	37594
2014-15	153.2	4950.0	814.2	0.0	772.7	842.6	307.9	11968.0	19808.6	13833.3	5975.3	6393.0	43569.1
2015-16 (B.E)	500.0	5350.0	1270.0	0.0	296.0	822.2	337.1	7661.8	16237.0	11017.3	5219.7	6360.0	48788.8

Source: Department of Planning and Finance (Finance Division), Govt. of Jharkhand

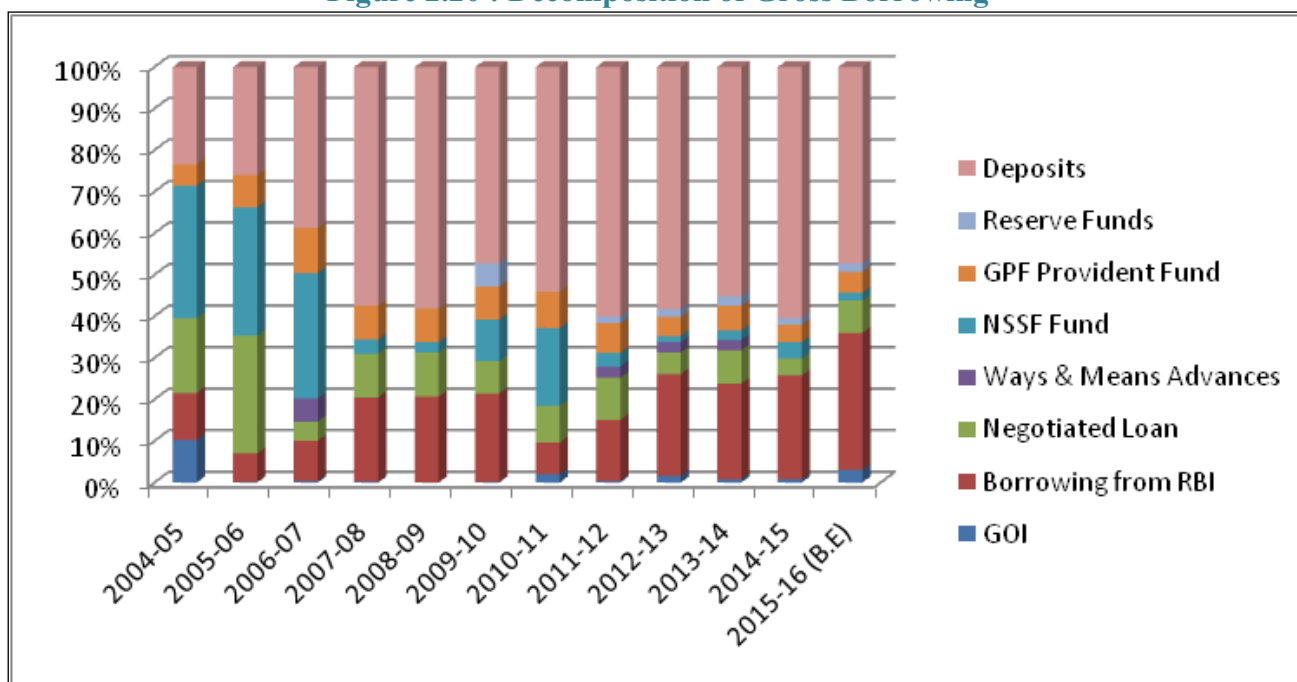
### Decomposition of Gross Borrowing

As we can see in the figure below, the composition of gross borrowing has changed considerably from 2010-11. For the last five years, borrowing from RBI has been one of the major components of Gross Borrowing, besides deposits. In 2014-15, borrowing from RBI constituted 24.99 percent

of the total gross borrowing, whereas, Deposits constituted 60.42 percent. Among other sources of borrowing, components like negotiated loans, GPF and Reserve funds witnessed a great fall but as per the budget estimates for 2015-16, share of these components might increase in the coming fiscal year. In this respect, the share of Deposits

can come down visibly in the coming fiscal year. It can also be said that with big projects planned by the state, the share of borrowing from the central government might increase multi-fold.

**Figure 2.20 : Decomposition of Gross Borrowing**



Source: Department of Planning and Finance (Finance Division), Govt. of Jharkhand

**Liabilities as a percentage of GSDP of Jharkhand**

It is observed that, the composition of the various forms of liabilities as a percentage of GSDP has changed in 2014-15 mainly because of increase in total GSDP. In 2014-15, the gross borrowing of the state which includes both – the internal debts of the states raised from various sources which include Borrowing from RBI, negotiated loans, ways and means advances, and loans from National Small Saving Fund (NSSF) and borrowing from Government of India, was

10.03 percent of the total GSDP of the state. In 2015-16 it is estimated that this share will decrease by about 3 percentage points due to larger increase in GSDP for the respective fiscal year. Net borrowing which is gross borrowing less repayment was 3.03 percent of the GSDP in 2014-15, which also slipped down to 2.31 percent of the GSDP in 2015-16. As said earlier, in 2015-16, percentage of deposit to GSDP is much lower than that in 2014-15. In contrast to this, the internal debt remains almost constant in both the successive years.

**Table 2.15: Liabilities of Government of Jharkhand ( As a % of GSDP)**

Year	Borrowings from GOI	Internal Debt	Deposits	Gross borrowing	Net Borrowings	GSDP (In cr)
2004-05	0.86	5.12	1.96	8.37	4.92	59757.72
2005-06	0.01	5.74	2.25	8.67	6.32	60900.54
2006-07	0.03	3.11	2.40	6.21	3.07	66934.75
2007-08	0.02	2.41	4.03	7.01	2.62	83949.59
2008-09	0.00	2.78	4.76	8.21	2.81	87793.93

Year	Borrowings from GOI	Internal Debt	Deposits	Gross borrowing	Net Borrowings	GSDP (In cr)
2009-10	0.01	3.37	4.05	8.57	3.06	100620.68
<b>2010-11</b>	<b>0.10</b>	<b>1.92</b>	<b>2.80</b>	<b>5.17</b>	<b>1.17</b>	<b>127281.05</b>
2011-12	0.02	1.97	3.79	6.31	1.48	135617.93
<b>2012-13</b>	<b>0.16</b>	<b>3.43</b>	<b>5.65</b>	<b>9.70</b>	<b>2.77</b>	<b>151654.7</b>
2013-14	0.06	2.72	4.10	7.43	1.58	172772.61
<b>2014-15</b>	<b>0.08</b>	<b>3.39</b>	<b>6.06</b>	<b>10.03</b>	<b>3.03</b>	<b>197514.31</b>
2015-16 (B.E)	0.22	3.28	3.38	7.17	2.31	226404.91

Source: Department of Planning and Finance (Finance Division), Govt. of Jharkhand

### Debt Sustainability

Managing the state debt is an important job of the government as excess buildup of the debt in future can lead to financial stress for the state's economy. One of the primary indicators used to understand the financial risk of a state is its debt-to-GDP ratio, which is defined as the ratio of the state's debt and its gross domestic product

(GSDP). A low debt-to-GDP ratio indicates an economy that produces and sells goods and services sufficient to pay back its debts without incurring further debt. Debt-to-GSDP of 35 percent is considered as sustainable for the state. Jharkhand has done well in keeping the debt-GSDP ratio to considerably manageable limit of around 22 percent over the last few years.

**Table 2.16: Debt Sustainability Indicators of Jharkhand (figures are in %)**

Year	Debt/GSDP	FD/GSDP	PD/GSDP	IP/RR	IP/SOR	SOR/RR
<b>2001-02</b>	23.74	5.50	3.44	12.63	23.30	54.22
2002-03	20.36	5.95	1.63	28.74	51.66	55.64
<b>2003-04</b>	20.01	4.98	2.28	20.97	38.24	54.84
2004-05	22.61	3.71	1.80	17.14	33.22	51.58
<b>2005-06</b>	28.51	9.20	6.87	16.77	33.92	49.44
2006-07	29.01	1.36	-1.05	16.12	36.35	44.35
<b>2007-08</b>	25.75	2.31	0.22	14.62	34.64	42.20
2008-09	27.43	3.55	1.41	14.29	33.11	43.15
<b>2009-10</b>	27.00	2.99	0.70	15.26	34.16	44.68
2010-11	22.51	1.65	-0.09	11.86	26.15	45.36
<b>2011-12</b>	22.61	1.47	-0.20	10.11	22.69	44.57
2012-13	22.99	2.31	0.74	9.65	20.41	47.30
<b>2013-14</b>	21.76	1.33	-0.18	10.00	19.91	50.25
2014-15	22.06	4.27	2.79	9.20	19.94	46.52
<b>2015-16 (B.E)</b>	21.55	2.28	0.76	7.14	16.32	43.74

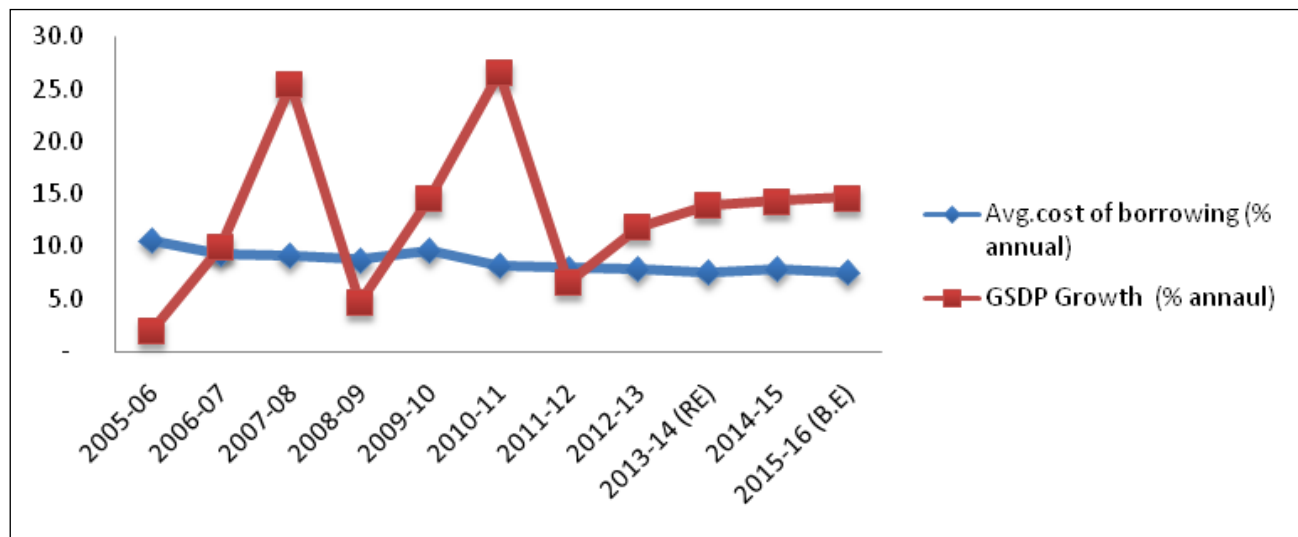
Source: Department of Planning and Finance (Finance Division), Govt. of Jharkhand

During the current fiscal year its total debt and interest payment increased by around 12 percent and 11 percent, respectively. The state has been

able to maintain good fiscal health over the years by keeping its debt within a manageable limit and improving its revenue through taxes and

other measures. This is more evident from the following figure as the nominal growth rate of the GSDP has been higher than the average cost of borrowing for the state.

**Figure 2.21 : Average Cost of Borrowing and GSDP Growth –Jharkhand**



Source: Department of Planning and Finance (Finance Division), Govt. of Jharkhand

**Table 2.22: Average Cost of Borrowing**

Year	Total Debt	Interest Payment	Average cost of borrowing
	(₹ Crore)	(₹ Crore)	(percent per annum)
2005-06	17,360	1,419.55	10.50
2006-07	19,417	1,613.38	9.30
2007-08	21,615	1,758.03	9.10
2008-09	24,084	1,886.88	8.70
2009-10	27,165	2,307.45	9.60
2010-11	28,655	2,227.54	8.20
2011-12	30,664	2,267.08	7.90
2012-13	34,869	2,391.25	7.80
2013-14 (RE)	37,594	2,614.44	7.50
2014-15	43,569	2,929.15	7.80
2015-16 (B.E)	48,789	3,253.64	7.50

Source: Department of Planning and Finance (Finance Division), Govt. of Jharkhand

# 3

## **Institutional Finance**

*Jharkhand has a huge potential for faster and sustainable growth in terms of resources and an abundant and young labour force and therefore availability of adequate finance becomes indispensable for unlocking that potential. The need for finance is even more important extricate of poor from the web of poverty. Banks are gradually extending their reach through 'brick and mortar branches' (micro and small branches) and banking correspondents to the remote villages in the state. Institutional finance in Jharkhand is primarily bank based and it is mostly dominated by the public sector banks as the public sector banks also play an important role as the development financial institutions apart from their profit making business. Nevertheless, private sector banks also play an important role in the overall institutional finance of Jharkhand.*

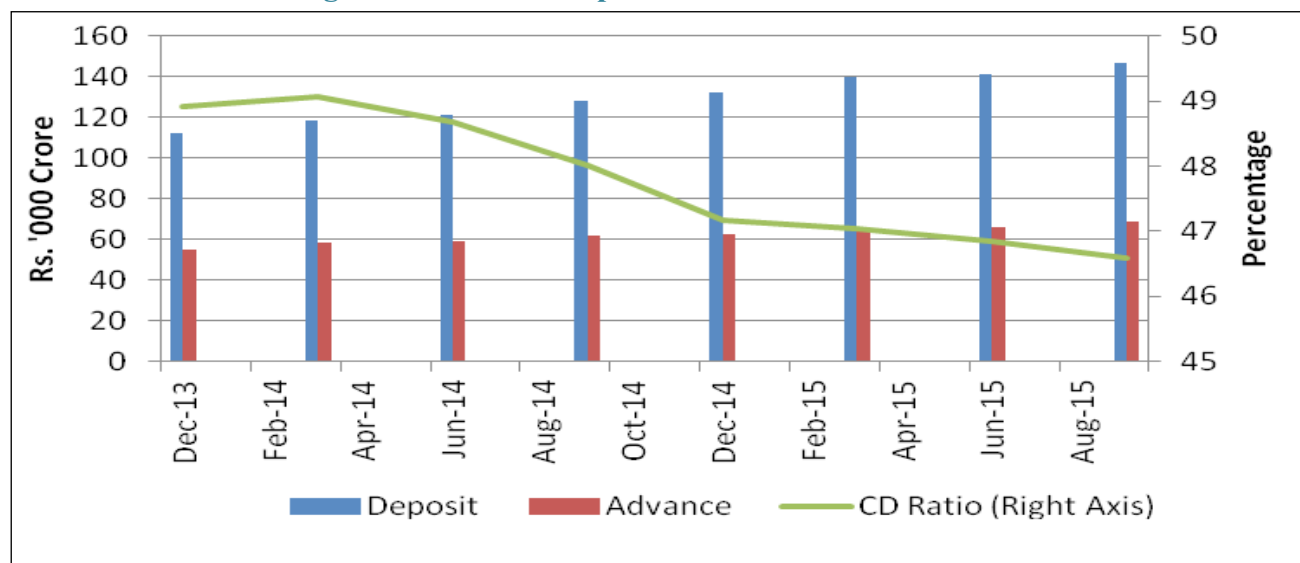
### Performance of Banking Sector in Jharkhand

The Banking system in Jharkhand comprises of commercial banks, regional rural banks (RRBs)

and cooperative banks. Commercial banks are categorised as public sector banks and private sector banks. There are 25 public sector banks (including IDBI and Bhartiya Mahila Bank) and 13 private sector banks in Jharkhand. There are two RRBs viz. Jharkhand Gramin Bank and Vananchal Gramin Bank and one cooperative bank.

The year-on-year credit and deposit growth of the banking system in Jharkhand has slowed down during the period December 2014 and September 2015. As compared to the deposit growth of 16.56 percent in June 2015, the deposit grew at 14.66 percent in September 2015 on an year-on-year (y-o-y) basis. On the other hand the advances grew at 11.23 percent in September 2015 as compared to 12.22 percent in June 2015. As a result of slower credit growth as compared to deposit growth, the overall credit-deposit ratio (CD Ratio) declined to 46.58 percent in September 2015 as compared to 48.02 in September 2014 (Figure 3.1).

**Figure 3.1: Credit –deposit of all Banks in Jharkhand**



Source: SLBC, Jharkhand

The performance of public sector banks, private sector banks, RRBs and cooperative banks during September 2014 and September 2015 is outlined below.

### Commercial Banks

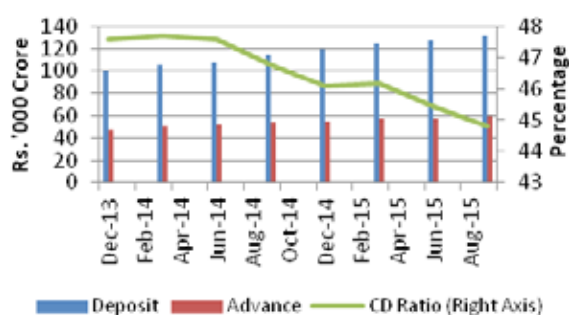
The Commercial banks of Jharkhand comprise of public sector banks and private sector banks. The growth of deposit and advances has slowed down in Jharkhand during the period of December 2014



to September 2015 on y-o-y basis. The growth of deposit growth slowed down from 18.83 percent in December 2014 to 14.78 percent in September 2015 (y-o-y). On the other hand, the growth of advances slowed down from 14.20 percent in December 2014 to 11.21 percent in September 2015 (y-o-y). As the growth of deposits was higher than that of advances during this period, the credit-deposit ratio declined from 47.59 percent in December 2014 to 46.93 percent in September 2015. The fall in the CD ratio of the commercial banks was mainly due to the slow

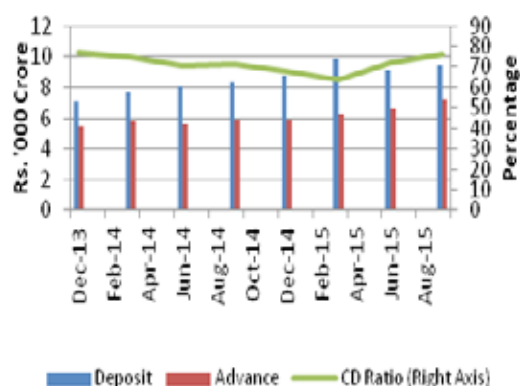
growth in advances of the public sector banks (figure 3.2a). The growth of deposits in private sector banks was recorded at 14.24 percent in September as compared with growth of 22.64 percent in December 2014. The advances in the private sector banks grew at the rate of 21.98 percent in September 2015 as compared with 8.78 percent in December 2014, as a result of which the CD ratio of private sector banks increased from 68.05 percent in December 2014 to 76.55 percent in September 2015 (figure 3.2b).

**Figure 3.2a: Credit – deposit of public sector banks**



Note: Including IDBI

**Figure 3.2b: Credit – deposit of private sector**



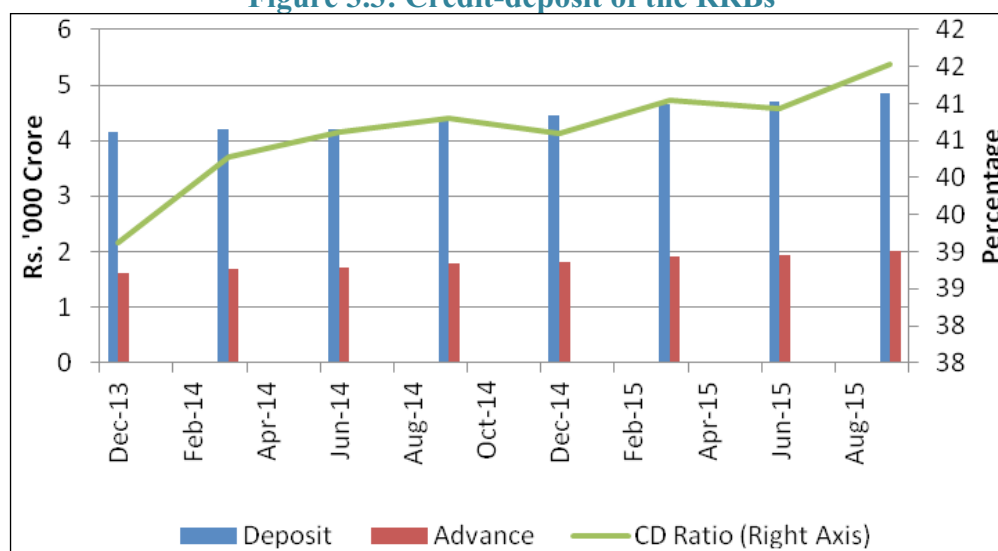
Source: SLBC, Jharkhand

### Regional Rural Banks (RRBs)

There are two RRBs in Jharkhand - Jharkhand Gramin Bank and Vananchal Gramin Bank. Though they are less in number as compared to the public sector banks and private banks, nevertheless, they play an important role in the institutional finance of Jharkhand. The growth of deposit in RRBs in Jharkhand increased from

7.5 percent (y-o-y) in December 2014 to 11.14 percent in September 2015. Advances recorded a growth of 13.13 percent (y-o-y) in September 2015 as compared to 11.60 percent in December 2014 (figure 3.3). CD ratio of the RRBs increased from 40.6 percent in December 2014 to 41.53 percent in September 2015.

**Figure 3.3: Credit-deposit of the RRBs**



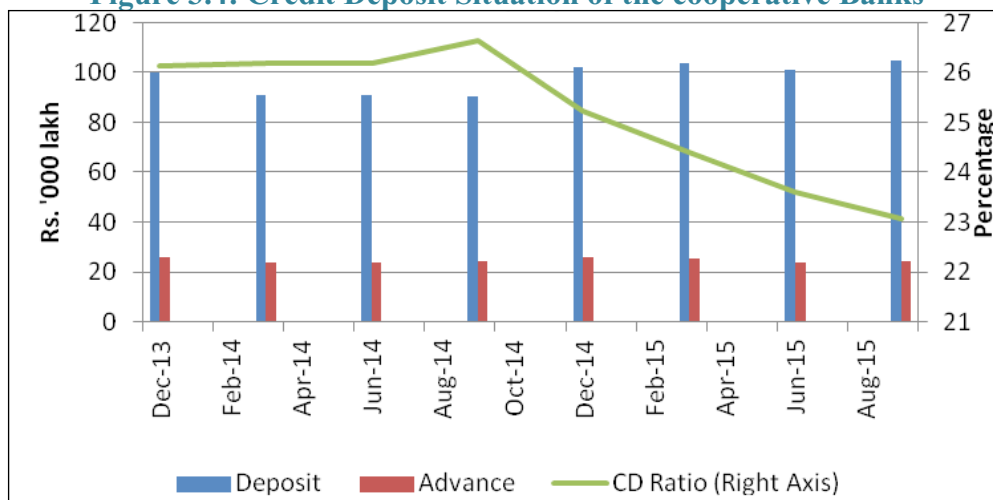
Source: SLBC, Jharkhand

### Cooperative Banks

The deposits in cooperative banks grew at the rate of 16.01 percent in September 2015 as compared to 2.26 percent in December 2014 (y-o-y). The growth in advances on the other hand, remained subdued in the cooperative banks. Advances

grew at the rate of 0.48 percent in September 2015 as compared with a contraction of (-) 1.22 percent in December 2014. As a result of this the CD ratio in the cooperative banks declined from 25.23 percent in December 2014 to 23.08 percent in September 2015 (figure 3.4).

**Figure 3.4: Credit Deposit Situation of the cooperative Banks**



Source: SLBC, Jharkhand

### Credit Flows to Different Sectors and Sections

Banks are an important source of finance for the economic activities. The total priority sector advances in Jharkhand by the banks was Rs. 34.85 thousand crore which constituted 50.92 percent

of the total advances as on September 2015. Of this, around Rs. 19.81 thousand crore was by banks with lead banks, Rs. 8.77 thousand crore by other public sector banks, Rs. 1.39 thousand crore by other public sector banks (new), Rs. 2.28 thousand crore by private sector banks and

Rs. 1.88 thousand crore by RRBs. IDBI and cooperative banks together extended advances of around Rs. 71588.55 lakh to the priority sector.

Of the total advances by the commercial banks 49.77 percent went to the priority sector. As of September 2015, out of the total advances by the commercial banks, advances to agriculture

constituted around 16.79 percent, advances to micro and small enterprises (MSE) constituted around 19.47 percent, advances to other priority sector were 13.5 percent (Table 3.1). 93.35 percent of the RRBs advances went to the priority sector, 52.41 percent went to agriculture, 29.15 percent to MSE and 11.79 percent to other priority sector.

**Table 3.1: Advances to Different Sectors and Sections (in Rs. Lakhs) (As of September 2015)**

	Banks with Lead Banks	Other Public Sector Banks	Other Public Sector Banks New	Private Sector Banks	Commercial Bank Total	IDBI	RRBs	Cooperative Banks	TOTAL
Priority Sector	1980903.78	876651.31	139677.09	228430.24	3294414.08	68751.67	188120.00	2836.88	3485370.96
Percentage to Priority Sector	48.36	60.25	59.59	31.56	49.77	62.46	93.35	11.75	50.92
Agriculture	787106.79	275580.67	21229.30	21385.04	1111706.4	6404.60	105615.00	2539.69	1219861.09
Percentage to Agriculture	19.22	18.94	9.06	2.95	16.79	5.82	52.41	10.52	17.82
MSE	543363.02	459419.05	87133.44	171693.13	128879.94	27271.30	58752.00	0.00	1347631.94
Percentage to MSE	13.27	31.58	37.17	23.72	19.47	24.77	29.15	0.00	19.69
OPS	650433.97	141651.59	31314.35	35352.07	893827.75	35075.77	23753.00	297.19	917877.94
Percentage to OPS	15.88	9.74	13.36	4.88	13.5	31.86	11.79	1.23	13.41
Export Finance	34685.52	7673.27	38.00	0.00	42682.79	286.00	0.00	0.00	42682.79
DRI	463.17	2574.33	372.15	1.25	3422.71	11.81	0.00	0.00	3422.71
Percentage to DRI	0.01	0.18	0.16	0.00	0.05	0.01	0.00	0.00	0.05
Weaker Section	856890.52	360641.58	13643.86	20820.3	1263780.26	11784	94004	6647.85	1364432.11
Percentage to Weaker Section	20.92	24.79	5.82	2.88	19.09	10.71	46.65	27.53	19.93
Minority Community	348691	195137	9410	29275	58775	5262	29321	1372	618468
Percentage to Minority Community	8.51	13.41	4.01	4.04	8.88	4.78	14.55	5.68	9.04
SC	341027.36	102102.00	6038.00	1451.52	451802.88	1184	48149	1541	501492.88
Percentage to SC	8.33	7.02	2.58	0.2	6.83	1.08	23.89	6.38	7.33
ST	502676.53	197339.20	5274.54	1825.03	709723.3	2608	64454	3316	777493.3
Percentage to ST	12.27	13.56	2.25	0.25	10.72	2.37	31.98	13.73	11.36
Women	1058312.78	209909.00	20176.50	42817.23	1335128.51	3913	60150	611.8	1395890.31
Percentage to Women	25.84	14.43	8.61	5.92	20.17	3.55	29.85	2.53	20.39

Source: SLBC Jharkhand

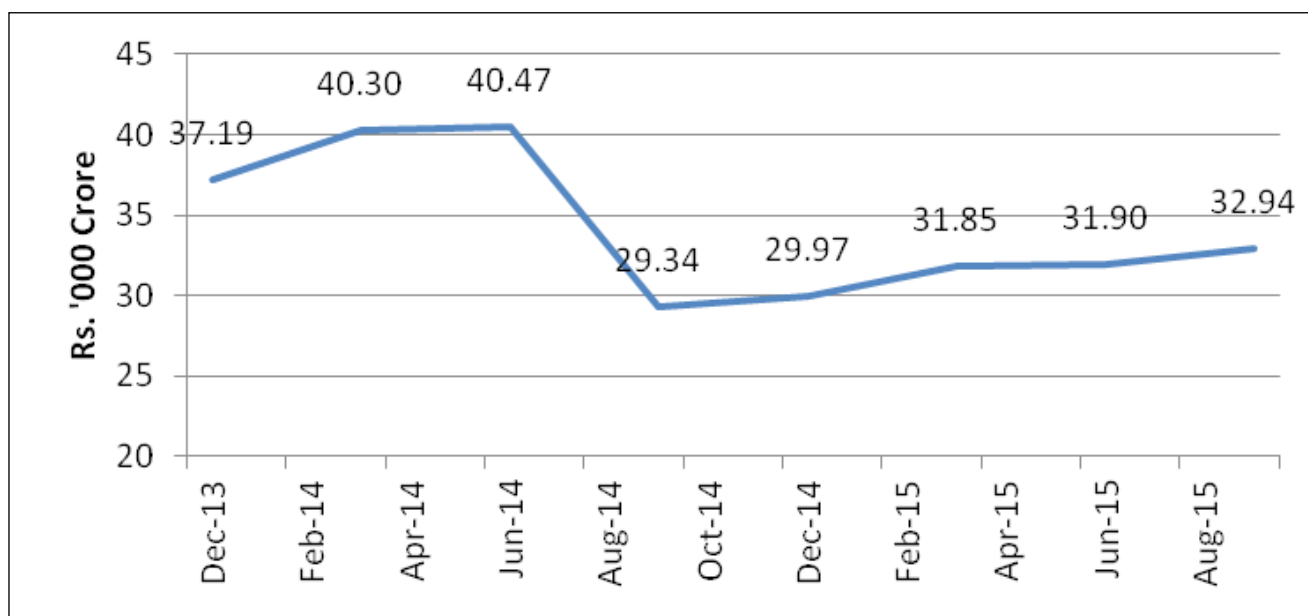
As of September 2015, of the total advances by the banking sector in Jharkhand, 19.93 percent went to the weaker sections, 9.04 percent to the minority community, 7.33 percent to SC, 11.36 percent to ST and 20.39 percent to women. 19.09 percent of the total advances by the commercial banks went to the weaker sections, 8.88 percent to the minority community, 6.83 percent to SC, 10.72 percent to ST and 20.17 percent to women. 46.65 percent of the total advances by the RRBs went to the weaker section, 14.55 percent to the minority community, 23.89 percent to SC, 31.98

percent to ST and 29.85 percent to women.

### Trend of Advances to Priority Sector

The growth in the priority sector advances has remained subdued during December 2013 and September 2015 (figure 3.5). The commercial banks' advances to the priority sector in Jharkhand increased from Rs. 37.19 thousand crore in December 2013 to Rs. 40.47 thousand crore in June 2014, but it declined marked by to Rs. 29.34 thousand crore in September 2014. It then increased to Rs. 32.94 thousand crore in September 2015.

Figure 3.5: Commercial Banks Advances to the priority Sector



Source: SLBC, Jharkhand

The subdued growth of advances to the priority sector is mainly on account of the low growth in advances to the micro and small enterprises (MSE). Advances to agriculture and other priority sector, on the other hand, has shown a slow but consistent growth.

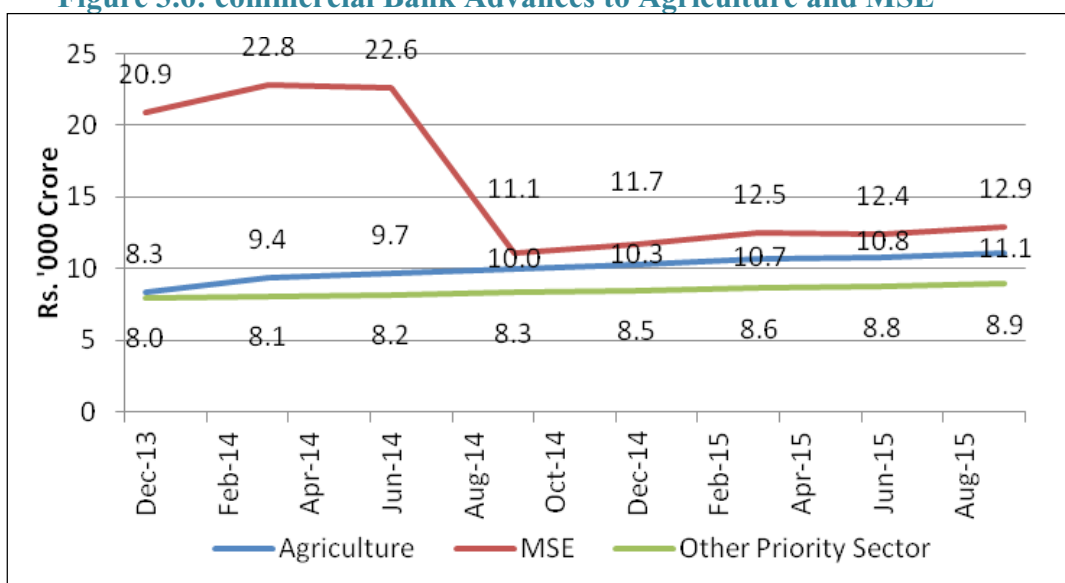
### Agriculture

Total Agricultural credit of all the banks in the state as of September 30, 2015 was Rs. 12198.61 crore which constitutes 17.82 percent of the advances of the banks. Total credit to agriculture has increased marginally from its earlier value

of Rs.10848.88 crore which constituted 17.63 percent of the gross credit as at end September 2014. This is very near the national benchmark of 18 per cent<sup>1</sup>. However, it is showing an increasing trend over the years (figure 3.6). Focused attention of all the stakeholders i.e. the state government, banks, NABARD and other agencies is yielding satisfactory result in this segment.

<sup>1</sup> According to RBI guidelines, 18% of the total net bank credit should go to agricultural advances inclusive of both Direct Agricultural advances and indirect agricultural advances.

**Figure 3.6: commercial Bank Advances to Agriculture and MSE**



Source: SLBC, Jharkhand

The data for Kisan Credit Card (KCC) scheme indicates that the flow of credit towards farm sector entrepreneurial activities has increased during the financial year 2015-16. Total bank advances of KCC increased by 38.24 percent during the financial year 2014-15 till September

30, 2015. Total outstanding amount of KCC advances of commercial banks increased by 36 per cent and that of RRBs and cooperative banks increased by 49.16 per cent and 24.33 per cent respectively during the same period (Table 3.2).

**Table 3.2: Position of Kisan Credit Card Scheme (amount in Rs. Lakh)**

	As at end March 2014		As at end September 2015	
	No. of Accounts	Amount	No. of Accounts	Amount
Commercial Banks	1034922	294000.18	1276213	399871.25
RRBs	386719	63229	329734	94314
Cooperative Banks	13886	2283.48	15868	2839.18
Total	1435527	359512.66	1621815	497024.43

Source: SLBC, Jharkhand

### Micro and Small Enterprises (MSE) and Medium Enterprises

The financing to MSE shows that the outstanding position of financing has increased during the current financial year after a decline during the previous financial year. During September 2014 and September 2015 the financing of MSE increased by 15.52 percent from Rs. 11665.61 crore as at end-September 2014 to Rs. 13476.32 crore as at end-September 2015. Advances to

micro enterprises increased from Rs. 571824.2 lakh as at end September 2014 to Rs. 712511.52 lakh as at end September 2015 (Table 3.3). Banks in Jharkhand expanded the share of micro enterprise advances out of total MSE advances from 49.02 percent as at end September 2014 to 52.87 percent as at end September 2015. According to RBI guidelines, 60 percent of MSE advances should go to the micro enterprises.

**Table 3.3: Financing to Micro & Small Enterprises (MSE)**

			End Sep-14	End Sep-15
MICRO ENTERPRISES(Priority)	Manufacturing	Account	40179	42804
		Amount	137723	164485
	Services	Account	203840	216006
		Amount	434101.2	548026.55
TOTAL OF MICRO		Account	244019	258810
		Amount	571824.2	712511.52
SMALL ENTERPRISES(Priority)	Manufacturing	Account	19695	23035
		Amount	285379.8	279529
	Services	Account	84402	67790
		Amount	309356.7	355590.93
MSE(PRIORITY)	Manufacturing	Account	59874	65839
		Amount	423102.8	444014.5
	Services	Account	288242	283796
		Amount	743457.8	903617.48
%OF MICRO ENTERPRISES TO MSE - B/D*100		Account	70	23
		Amount	49.02	52.87
MEDIUM ENTERPRISES (NON-PRIORITY) - E	Manufacturing	Account	6634	3102
		Amount	107586.51	101457.5
	Services	Account	76230	27230
		Amount	48570.44	60160.7
CREDIT FLOW TO MSME SECTOR (Priority sector advances)	Manufacturing	Account	66508	870680
		Amount	530689.4	545471.91
	Services	Account	364472	300774
		Amount	792028.3	963778.13
COVERAGE UNDER CGTMSE OUT OF TOTAL	Manufacturing	Account	14337	10383
		Amount	77555.78	95786.68
	Services	Account	42443	34948
		Amount	196645.2	160062.46

Note: amount in Rs. lakhs,

CGTMSE: Credit Guarantee Fund Trust for Micro and Small Enterprises

Source: SLBC

The MSME sector has a large scope in Jharkhand since it is an industrially rich state having many public as well as private sectors giants. The State is also rich in mineral resources like copper, coal, aluminium; iron etc. The proper ancillary sector to these industries needs to be developed. This segment should be further exploited for growth in MSME in the State.

### Educational Advances

The disbursement of educational advances in the state increased from Rs. 2021.96 crore as at end March 2014 to Rs. 2211.00 crore as at end September 2015 (Table 3.4). Commercial banks educational advances increased from Rs. 1999.31 as at end March 2014 to Rs. 2185.26 crore as at end September 2015. RRBs also registered a marginal increase in educational advances during this period.

**Table 3.4: Progress under Educational Advances (amount in Rs. Lakh)**

	Outstanding as at end March 2014 (Priority Sector)		Outstanding as at end of the Reporting Quarter September 2015 (Priority Sector)	
	Accounts	Amount	Accounts	Amount
Commercial Banks	58311	199931	59233	218526.48
RRBs	1002	2259	909	2564.00
Cooperative Bank	3	7	0	9.72
<b>Total</b>	<b>59316</b>	<b>202196</b>	<b>60142</b>	<b>221100.20</b>

Source: SLBC

### Housing Advances

Housing loans by the banks in the state registered a growth from Rs. 3866.64 crore as at end March

2014 to 4278.75 crore as at end September 2015. Commercial banks housing loans increased from Rs. 3846.90 crore to Rs. 4249.18 crore during the same period.

**Table 3.5: Progress under Housing Advances (amount in Rs. Lakh)**

	Outstanding as at end March 2014		Outstanding as at end of the Reporting Quarter September 2015	
	Accounts	Amount	Accounts	Amount
Commercial Banks	59804	384689.9	61014	424917.88
RRBs	701	1876	528	2670
Cooperative Bank	5	97.76	0	287.47
<b>Total</b>	<b>60510</b>	<b>386663.66</b>	<b>61542</b>	<b>427875.35</b>

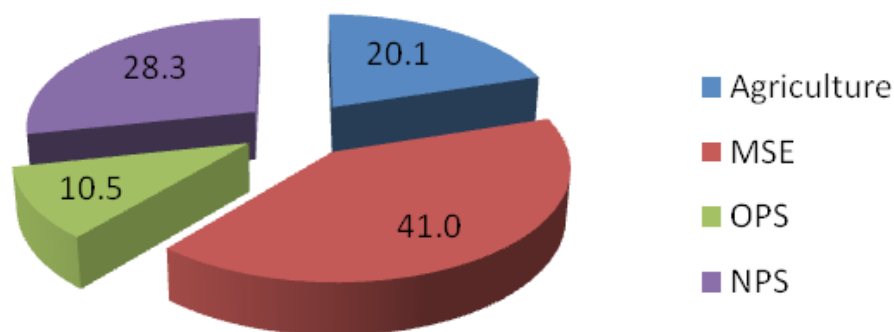
Source: SLBC

### Non-Performing Assets (NPAs)

In the NPAs, the share of MSE constituted around 41 percent followed by the share of the

non-priority sector (NPS) (28.3 per cent). The agricultural sector constituted around 20.1 per cent of the total NPAs (as at end-September 2015) (figure 3.7).

**Figure 3.7: sector -wise share of NPAs**

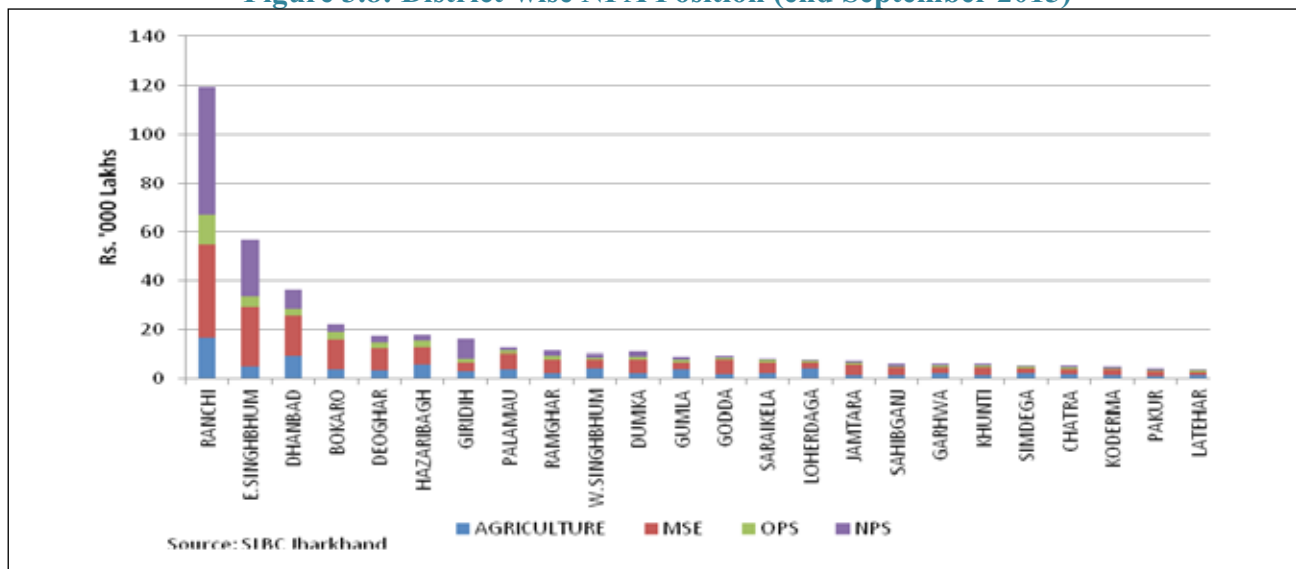


SLBC Jharkhand

Source: SLBC, Jharkhand

The District-wise NPAs data shows that Ranchi has the highest amount of NPAs (Rs. 117.60 thousand lakh), followed by East Singbhum (Rs. 60.83 thousand lakh) and Dhanbad (Rs. 38.42 thousand lakh) (figure 3.8).

**Figure 3.8: District-wise NPA Position (end September 2015)**

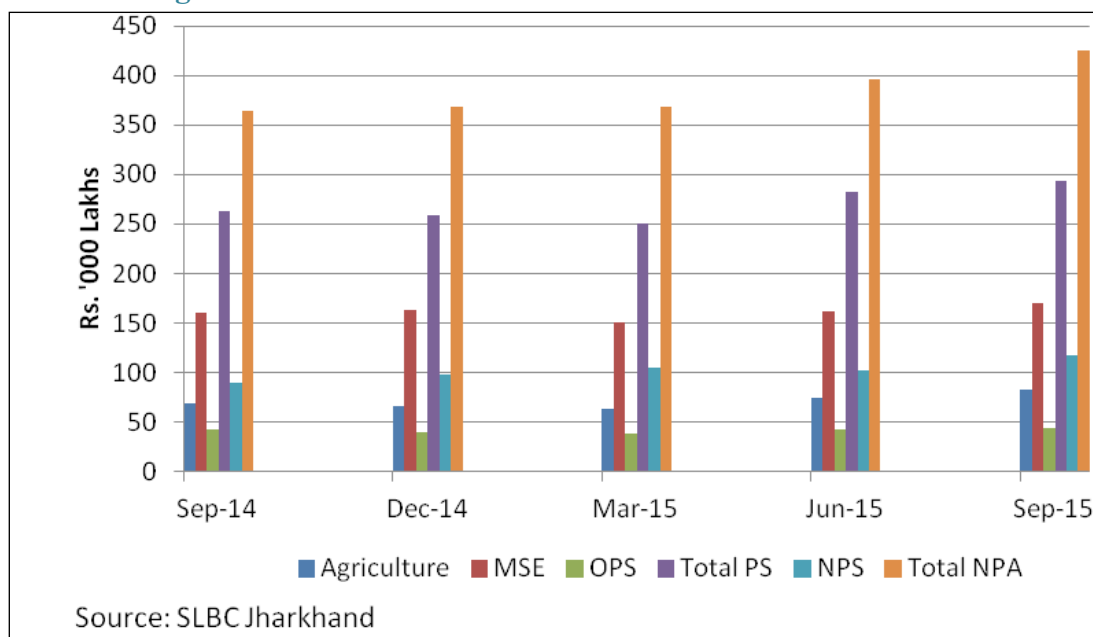


Source: SLBC, Jharkhand

Non-Performing Asset position of the banking sector in Jharkhand has worsened marginally in the period September 2014 to September 2015. The total NPA of the banking sector has increased from Rs. 363.94 thousand lakh as at the end of September 2014 to Rs. 425.39 thousand lakh as at the end of September 2015 (figure 3.9). The year-

on-year increase of NPA in the priority sector during this period was 11.21 percent (y-o-y) while NPA in the non-priority sector increased by 30.67 percent. NPA in agriculture increased by around 19.50 percent and in MSE by around 5.45 percent.

**Figure 3.9: Sector wise NPA Position of Banks in Jharkhand**



Source: SLBC Jharkhand



### Recovery of Loans and Advances

The actual recovery as a percentage of recovery demanded of banks deteriorated in case of agriculture as it declined from 60.35 percent in September 2014 to 48.17 percent in September 2015. The recovery position in case of MSE improved from 56.98 percent in September 2014 to 60.73 percent in September 2015. The recovery position in case of other priority sector also showed a marginal improvement from 58.17 percent in September 2014 to 60.28 percent in September 2015. Recovery position of government sponsored schemes has remained low compared to other advances. Recovery in government sponsored schemes declined marginally from 35.84 percent in September 2014 to 34.52 percent in September 2015 (Appendix Table A.1).

### Financial Inclusion

In more recent years, India has witnessed important developments which have significantly impacted the delivery of financial inclusion (FI) services right up to the grassroots. As a matter of fact, the term “financial inclusion” gained momentum in the early 2000s, as a result of the findings about ‘financial exclusion and its direct correlation to poverty’. With that discovery achieving FI became a common objective for many central banks and governments among the developing nations.

The big push came on April 26, 2010, when the Reserve Bank of India (RBI), as a part of its FI mandate issued guidelines to banks for the delivery of financial services through the Common Services Centers (CSCs). The RBI in its Annual Policy Statement for the year 2010-11, allowed banks to engage companies (excluding Non Banking Financial Companies (NBFCs) registered under the Indian Companies Act, 1956, as Business Correspondents (BCs) in addition to individuals/entities permitted earlier. Further, the RBI allowed banks to engage the Common Service Centres’ Operators/Village Level Entrepreneurs as BCs.

Further, August 28, 2014 was another landmark day, as Pradhan Mantri Jan Dhan Yojana (PMJDY) was formally launched which is a National Mission for Financial Inclusion to ensure access to financial services, namely, Banking/ Savings & Deposit Accounts, Remittance, Credit, Insurance, Pension in an affordable manner. PMJDY is a mission of 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. In addition, the beneficiaries would get RuPay Debit card having inbuilt accident insurance cover of Rs. 1 lakh. The plan also envisages channeling all government benefits (from Centre / State / Local Body) to the beneficiaries’ accounts and pushing the Direct Benefits Transfer (DBT) scheme of the Union Government. The technological issues like poor connectivity in on-line transactions will be addressed. Mobile transactions through telecom operators and their established centres as Cash Out Points are also planned to be used for financial inclusion under the scheme. The total number of accounts opened under PMJDY as on February 3, 2016 are given below (Table 3.6)

**Table 3.6: Accounts Opened under PMJDY in Jharkhand**

Rural Accounts	4025323
Urban Accounts	1629966
Total Accounts	5655289
Deposit (in Crore)	524.88
Aadhaar seeded	4030508
Zero Balance Accounts	2129082
Rupay Card Issued	4455502

Source: SLBC, Jharkhand

The financial Inclusion program is progressing well in Jharkhand as the banks in Jharkhand have been extending their services through branches,

Business Correspondents (BCs), Common Services Centers (CSCs) and brick and mortar branches (ultra small branches). Till the end of September 2015, out of 13230 villages allotted for financial inclusion, in the current financial year, 4249 were covered through BC/CSCs, 4767 were covered through branches and 1508 were covered through ultra-small branches (Table A.2).

### Self Help Groups

The SHG - Bank Linkage Programme is a major plan of the strategy for delivering financial services to the poor in a sustainable manner. During April 1, 2015 and September 30, 2015 the commercial banks of Jharkhand have opened 4926 self help group (SHG) bank accounts with an amount Rs. 773.19 lakh. A total of 4386 SHGs have been linked with the banks during this period (Table 3.7).

**Table 3.7: Progress of Self Help Groups (amount in Rs. Lakh)**

	FROM 01ST APRIL TO THE END OF REPORTING QUARTER				CUMULATIVE, SINCE INCEPTION			
	SAVING BANK ACCOUNT OPENED		LINKAGE ESTABLISHED (FINANCED)		SAVING BANK ACCOUNT OPENED		LINKAGE ESTABLISHED (FINANCED)	
	No.	Amt.	No.	Amt.	No.	Amt.	No.	Amt.
BANKS WITH LEAD BANK	2456	172.26	2845	1289.21	75030	32430.65	38808	34633.58
OTHER PUBLIC SECTOR BANKS	1852	303.50	795	450.13	18961	5618.45	11638	17584.10
OTHER PUBLIC SECTOR BANKS NEW	445	211.57	171	203.70	2057	475.70	1197	1168.91
IDBI Bank	113	84.52	113	84.52	186	16.10	132	103.30
PRIVATE SECTOR BANKS	60	1.34	462	219.37	146	4.64	549	232.90
COMMERCIAL BANKS Total	4926	773.19	4386	2246.93	96380	38545.54	52324	53722.79
RRBs and Cooperative Banks	2418	163.00	1861	1074.00	11575	734.00	8395	2523.00
TOTAL	7344	936.19	6247	3320.93	107955	39279.54	60719	56245.79

Source: SLBC, Jharkhand

### Outlook and Challenges

Role of the banks in Jharkhand is manifold. It plays a catalytic role in increasing the investment through extension of credit to the investors. As the Jharkhand economy is growing, the financial development needs to keep pace with it so that the immense potential of the economy can be harnessed in a sustainable manner. For the improvement of the institutional finance of the state, it is necessary that the banks improve their balance sheet position by reducing the level of

the non-performing assets. The recovery of loans has improved marginally in the state during the current financial year. The efficient recovery mechanism would ensure that the levels of non-performing assets of the banks are low.

Also, to improve the credit flows to the MSEs it is important that the business environment in the state is improved through betterment of infrastructure facilities. Share of micro sector credit in MSE has improved in the recent years but it still remains lower than the benchmark of

60 per cent as per the Guidelines of the Reserve Bank of India.

Financial inclusion in the state has been progressing satisfactorily. Banks in Jharkhand have been gradually extending their services to the unbanked areas through new branches and business correspondents. Going forward, bringing financially excluded people under the network of

banking services would help in efficient flows of government benefits to them and improve their financial activity through improving saving and investment behaviour.



# 4

## **Rural Development and Panchayati Raj**

*In a state where 75.95% of the total population lives in rural areas (Census 2011), the government is committed to address the issues and problems particularly distinctive to the rural areas of the state for achieving holistic and inclusive development. For this purpose, both, the central and the state governments are striving hard to device innovative policies and programs that could create opportunities for the rural people to make their life better.*

With a vision to make rural resources the engine of growth for the state of Jharkhand and country as a whole, the government initiatives in last fiscal year targeted specific issues pertaining to improvement in rural livelihood opportunities, creation of productive assets in the villages that could provide sustainable sources of income, creation of infrastructure that could help in improving vital indicators like health, education and skill development, empowering rural women socially and economically so that they can become the face of the growing Jharkhand, management of natural resources and ensuring transparent governance at grass root level.

Various development indicators of the state suggest that progress is already visible. The agricultural sector has grown at an average annual rate of about 4 percent since 2004- 05; higher than 2.2 percent recorded at all India level. There has been impressive improvement in access to primary education, especially in the 6-14 year age-group, for both gender categories and also for the Scheduled Caste and Scheduled Tribe population. There has been increase in enrolment accompanied by greater gender and social equity. The share of enrolment of SCs and STs in the state is almost close to their shares in the respective age-group population. Equally impressive progress has been made in some of the key health indicators, especially in the area of child vaccination and prevention of major diseases in rural areas.

In 2014-15, Government of Jharkhand merged

three departments, i.e. Rural Development, Rural Works and Panchayati Raj into one department since these departments were each working on different facets of rural development but they were targeting the same issues and populace. Thus, the state government decided that the convergence of these three departments would facilitate in better and effective implementation. Some of the initiatives taken by the department in the last fiscal year are highlighted below.

## **A. Rural Development**

### **National Rural Livelihood Mission**

National Rural Livelihoods Mission (NRLM) was launched by the Ministry of Rural Development (MoRD), Government of India in June 2011. Aided in part through investment support by the World Bank, the Mission aims at creating efficient and effective institutional platforms for the rural poor enabling them to increase household income through sustainable livelihood enhancements and improved access to financial services. NRLM has set out with an agenda to cover 7 Crore rural poor households, across 600 districts, 6000 blocks, 2.5 lakh Gram Panchayats and 6 lakh villages in the country through self-managed Self Help Groups (SHGs) and federal institutions and support them for livelihood collectives in a period of 8-10 years in phased manner.

### **NRLM in Jharkhand (Jharkhand State Livelihood Mission)**

In Jharkhand, 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 2012-13. The indicative phase-wise plan of NRLM in Jharkhand is depicted below.

**Table 4.1: Proposed Districts and block in phasing plan of Jharkhand SRLM**

Phase	Time Period	No of Districts	No of Blocks
Phase-I	2012-13	3	7
Phase-II	2013-14	12	40
Phase-III	2014-15	12	40
<b>Phase-IV</b>	<b>2015-16</b>	<b>20</b>	<b>80</b>
Phase-V	2016-17	20	120
Phase-VI	2017-18	20	160
Phase-VII	2018-19	24	200
Phase - VIII	2019-20	24	259

Source: Progress report NRLM (Dec, 2015)

The program started by putting its first foothold in eight blocks across three Intensive districts of Pakur, West Singhbhum and Ranchi. Presently, a total of 17 blocks from nine districts are being developed as Resource Blocks. Services of external Community Resource Persons (CRPs) from two National Resource Organisations (NRO), i.e. - Society for Elimination of Rural Poverty (SERP), Andhra Pradesh and Bihar Rural Livelihood Promotion Society (BRLPS), Bihar, are being taken to undertake systematic Social Mobilization Process and create a pool of local community resource persons.

Apart from the strategy to build Resource Blocks,

in FY 2015-16 Jharkhand SRLM is developing an additional 63 blocks as intensive blocks by using its own internal community resources either from existing resource blocks or with women SHG federations under Home Grown Model (HGM) or partnership model. Currently, the State Rural Livelihood Mission (SRLM) has presence in 49 blocks under intensive strategy. Apart from best 80 blocks, NRLM has its interventions through DRDA (District Rural Development Agency) in the districts categorized as non-intensive blocks. It is envisaged that by the end of 2021-22, the outreach of SRLM would cover all villages of the State with around 2.92 lakh SHGs.

**Table 4.2: Progress of NRLM in Intensive Blocks in 2015-16 (till December, 2015)**

S.N.	Indicators	Status as on March, 2015	Annual target (2015-16)	Achievement (2015-16) up to the current month	Cumulative Achievement till November 2015 since Inception
A.1	Total No. of districts	12	8	0	12
2	Office Setup				
2.1	SMMU (number of offices)	1	0	0	1
2.2	DMMU (number of offices)	10	0	0	10
2.3	BMMU (number of offices)	26	40	18	44
3					
3.1	Total No. of blocks entered	40	40	9	49
3.2	Number of villages entered	2312	1506	866	3178
3.3	Total Number of SHGs supported by SRLM	16945	14107	6125	13070

S.N.	Indicators	Status as on March, 2015	Annual target (2015-16)	Achievement (2015-16) up to the current month	Cumulative Achievement till November 2015 since Inception
3.4	Total families supported by SRLM	211424	175914	83365	294789
3.5	No. of VOs formed	831	1137	228	1059
3.6	No. of CLF Formed	0	40	26	26
4	Financial Inclusion				
4.1	No. of SHGs with bank account	13122	14268	6913	20035
4.2	No. of SHGs that have received RF	11119	12099	6162	17281
4.3	Amount of RF disbursed (Rs. lakh)	1666.2	1814.85	915.15	2581.35
4.4	No. of SHGs that have received CIF	7458	11912	6277	13735
4.5	Amount of CIF disbursed (Rs. lakh)	3783.18	5956	4253.08	8036.26
4.6	Total amount of RF/CIF disbursed (Rs. in lakh)	5449.38	7770.85	5168.23	10617.65
4.7	No. of SHGs credit linked to Banks	1808	7702	3627	5435
4.8	Estimated amount of credit limit leveraged from Banks (Rs. Lakh)	1014.5	1458	1915.44	2929.94
4.9	Total amount of saving generated by SHGs (in Rs. Lakh)				3999.54
4.1	Cumulative amount of interloaning generated by SHGs (in Rs. Lakh)		NA		13,182.80
5	Livelihood (Includes Coverage in Non-Intensive Blocks)				
5.1	No. of farmers practicing SCI	58,459	1,00,000	28000	86459
5.2	No. of farmers practicing CMSA	322	2400	555	877
5.3	No. of farmers with goat interventions	6383	10,000	8427	8427
5.4	No. of Livelihood Community Cadres developed - AKM & APS	864	1709	552	1416
Livelihood - Non Farm					
5.6	No. of Micro Enterprise consultants Developed	112	143	112	112
5.7	No. of Micro Enterprise support	494	1800	855	1349



S.N.	Indicators	Status as on March, 2015	Annual target (2015-16)	Achievement (2015-16) up to the current month	Cumulative Achievement till November 2015 since Inception
<b>MKSP</b>					
5.8	No. of village covered under MKSP	336	434	372	708
5.9	No. of farmers under MKSP interventions	15095	12192	7300	22395
5.1	No. of farmers taken Lac Cultivation	1600	10000	6765	8365
5.11	No. of farmers covered under agriculture and livestock interventions	NA	10000	9541	9541
<b>Skills and Placement</b>					
6.1	No. of youths completed training under Skills program (DDU -GKY)	NA	20574	1024	NA
6.2	No. of youths including undergoing & completion of training under Skills program (DDU - GKY)	NA	26003	3143	NA
6.3	No. of trained youths placed under Skills program (DDU -GKY)	NA	10614	475	NA
6.4	No. of youths completed training under Skills program (ROSHINI)	NA	9804	1207	NA
6.5	No. of youths including training under Skills program (ROSHINI)	NA	11990	1903	NA
6.6	No. of trained youths placed under Skills program (ROSHINI)	NA	5790	1107	NA
6.7	Total Quarterly Capacity of all Training Centers	NA	4153	2915 (70%)	NA

Source: Progress report NRLM (Dec, 2015)

**Table 4.3: Physical Progress in Non-Intensive Areas for FY 2015-16 (up to December 2105)**

Sl. No.	Indicator	Status as on March,2015 Since inception	Annual Target (2015-16)	Achievement (2015-16) up to the current month	Cumulative achievement till date since Inception
1	Amount of Revolving Fund disbursed(Rs. Lakh)	1202.72	1034.4	355.9	1558.62
2	No. of SHGs Received RF	8259	7144	2390	10649
3	No. of SHGs credit linked to Bank	4297	21132	3567	7864

Sl. No.	Indicator	Status as on March, 2015 Since inception	Annual Target (2015-16)	Achievement (2015-16) up to the current month	Cumulative achievement till date since Inception
4	Amount of credit leveraged from Bank (Rs. Lakh)	2140.89	10573	1813	3953.84

Source: Progress report NRLM (Dec, 2015)

### Rashtriya Grameen Aajeevika Mission

The Rashtriya Grameen Aajeevika Mission started with the purpose of empowering the rural women by giving them financial help and necessary skills to start new ventures which can

improve their life and livelihood. Over time it has been observed that, not only women but their families have also benefited from the program which has helped break shackles of poverty and deprivation.

#### Box 4.1 : Anita Devi: Breaking The Shackles Of Poverty

Anita Devi's story is indicative of what is happening across the length and breadth of rural India—underprivileged women finding their footing and firmly moving on to create success for themselves and inspire others like them. This once-poor housewife from interior Jharkhand has broken the shackles of poverty by selling spices. But what is perhaps more important than her success is the fact that she has now become an inspiration for many women in her community.

Few years ago, Anita Devi was a poor woman with a shy and diffident disposition. Once her husband was seriously ill and was admitted to the hospital. Anita was helpless and running out of money since her only source of income was through selling spices in the weekly market of the village and she could not even make Rs.2000 per month. This was the time when her neighbors informed her about Self Help Groups. In the year 2013 Anita became a member of the “Lovely Aajeevika” SHG. The very first loan which she took from the group was for Rs.700 and then another for Rs.1000 which she used for her husband's treatment. Altogether she took 7 small loans and 5 big loans summing up to an amount of Rs.92,000. Slowly and steadily she expanded her business and opened a shop where she sells spices. She also bought an auto for her husband which helped them augment their income. At present Anita's monthly family income is approx Rs.17, 000. Anita is a mother of two kids, a girl and a boy, whom she is nurturing with proper education.

Anita's life changed drastically after becoming part of this SHG. Anita happily testifies, “I think my journey has just started and I am glad to be part of such a program that has helped me and my family in more ways than one.” Not only did Anita's life completely change, but also the lives of various poor rural women are changing and they are also trying to follow her example and grow with the help of SHGs.

In 2015-16, the program was implemented in 12 districts of the state covering 49 blocks and 3144 villages. In these villages, 22,664 Self Help Groups (SHG) and 1034 village level organizations were formed through which about 2.90 lakh households were provided with new ways of supporting their livelihood. Under this program, Rs 2,487 lakh was provided to 16,652 Self Help Groups through

the cyclical fund process of the mission, Rs 7,779 lakh was provided to 3,333 SHGs through the community fund process of the mission and Rs 27.54 Crore was provided to 5,288 SHGs through bank linkages.

The past studies have repeatedly shown that although these types of schemes were implemented before, they could not succeed mainly because

of the reluctance of the people towards banking procedure. Keeping this in mind, this program introduced special resource person called Bank Sakhis. Across the state, in its first phase, Bank

Sakhis have been deputed in 141 nationalized bank branches which are situated in rural areas.

#### Box4.2: Introduction of Bank Sakhis

After the launch of NRLM, there has been a steady increase in the number of SHGs across the state. Along with the increase in number of SHGs, the demand for SHG- Bank linkage has been growing. Unlike other customers, SHG members with relatively low educational background, require guidance and support to carry out their bank transactions.

Experiences from the states of Andhra Pradesh, Orissa, Bihar and Tamil Naidu indicate that community level resource person or a “Bank Sakhi” with basic knowledge of banking transactions can play a very useful role in supporting the SHGs as well as the banks. Thus in Jharkhand too, the concept of Bank Sakhis was implemented. “Bank Sakhi” placed at a bank branch provides multiple types of support to the SHGs to complete their transactions. A well trained Bank Sakhi facilitates:

- Opening of saving bank account of the SHG
- SHGs to carry out both credit and debit transactions from saving account
- Credit linkage of the SHGs
- Assisting SHGs in seeking other financial services from the bank

Bank Sakhi supports the bank in different ways. She completes the tedious documentation work and reduces the work load of the bank. She is ideally suited to facilitate recovery of bank loans by working closely with the SHGs. This also reduces the work load of the Bank Managers and therefore she acts as a liaison between the SHGs and the bank and resolves all issues affecting the SHGs.

Bank Sakhi acts as a trainer to undertake awareness among the SHGs on credit linkage, term and condition of loans, including interest rate and repayment schedule as well as interest subvention and the conditions of eligibility for interest subsidy. Thus the strategy of appointing a Bank Sakhi is central to the financial inclusion vision of NRLM.

The state government acknowledging the immense scope of agriculture as a source of supporting livelihood and the importance of women’s role in it, has started Mahila Kisan Sashaktikaran Pariyojna (Aajeevika- MSKP) as a sub component of the NRLM program. This program, on one hand intends to empower women as an important entity of the society and on the other strengthens the agriculture and allied activity base in the rural areas of the state.

Under this program, 86,459 families have benefited from learning new and scientific techniques of farming. The productivity of such

farmlands where modern farming techniques are applied has been observed to be increasing. In addition to this 8, 365 families have also been trained and encouraged for lac cultivation and production through Women self Help groups. The program not only addresses the current livelihood problems of rural areas but intends to make a long term sustainable model through which the villagers can be self-reliant, even in the absence of the state government’s support. With this perspective in mind, women are trained as community agriculture experts who are trained to give expert advice on the new

techniques of agriculture to the rural households. In this process, 8,427 women are also trained as “Pashu Sakhis” to provide expert advice and support regarding sustainable animal husbandry practices to 8500 rural households of the state.

It is heartening to observe that, in places where these “PashuSakhis” are employed, the mortality rates of cows, goats and other milch animals have gone down remarkably.

### Box 4.3 : Ahilya Devi : The Change Agent

Ahilya Devi is a 30 year old woman living in Getalsud village of Ranchi district. She lives with her husband, who is a carpenter, and two children who are studying in an English Medium School. But, her life was not always like this. The family income was too low and she didn't even have a house of her own. It was very difficult for her to survive. Ahilya, although a graduate couldn't find a way to support her family. But her life changed after she joined “Maa Lakshmi Mahila” Self Help Group (SHG) which was set up in her village in 2013 by JSLPS.

As a graduate, Ahilya's name was proposed for the training of Pashu Sakhi. Ahilya accepted this proposal to be a Pashu Sakhi and underwent rigorous training on animal management. After completing this training she is able to check animal health, do vaccination and treat sick livestock. Initially villagers were not willing to accept her as a service provider but when Ahilya applied this treatment package to her own livestock and succeeded, everybody started trusting her. Now, apart from being a resource person, she is rearing animal herself to support her family.

She has been working with 100 families and given new lives to almost 500 goats so far. She was also successful in transforming the traditional mindset and practices of the villagers. She made them believe in vaccination, modern medicines and scientific practices of livestock rearing.

This way she took over the reins to bring about a change in the society. Before being a “PashuSakhi” she used to work as a seasonal labour but she is a Doctor (the community calls her a doctor) now. Now she is one amongst the many such success stories in her neighborhood.

**Table 4.4: PIA wise Financial Progress of MKSP as on 30 Sep 2015**

Name of PIA	1st instalment received by PIA (25% of Total Fund of Central & State)	Bank Interest Earned	Total amount Sanctioned including bank interest	Utilized Amount Till 30-September-2015	Utilization (%)
Support	5868750	153788	6022538	7483257	124
Udyogini	1880250	14103	1894353	1706065	90
Leads	4717500	110692	4828192	5931253	123
LokPrerna	3250000	43463	3293463	3524462	107
TSRD	3296750	97661	3394411	3337450	98
RDA	3748000	50123	3798123	2293046	60
Srijan Foundation	6372500	164632	6537132	4730295	72
SPWD	11790000	259348	12049348	11401046	95

Sources : Department of Rural Development, Government of Jharkhand

### Deen Dayal Graameen Kaushal Vikas Yojna

The department of rural development in their quest to encourage micro, small and cottage industries introduced Deen Dayal Graameen Kaushal Vikas Yojna. In its initial phase in Jharkhand, 6 blocks were chosen for a pilot practice in which each block was provided with skill development and

management centers. Up till now, 1,349 micro level industries have already been established in these areas. The youth get training on special skills in the centers, post which they can manage micro and cottage industries. In the current financial year, about 1600 youth including girls have got jobs or have successfully established their business.

#### Box 4.4 :Creating Rural Entrepreneurs of Tomorrow

Shimla Banra, 43 years of age, unmarried woman was working day and night to give her family members a better life. The financial condition of her family was very poor. A meal a day was kind of luxury for her family. Her father was suffering from a deadly disease which required a lot of money for treatment. After fighting the illness 5 years, her father died.

Shimla was going through a very hard time of her life when one day few officers from Kerala came for field visit to her village. Shimla was called by one of the local volunteers to be a translator i.e. to translate the local language. During this interaction those officers suggested to her to join as Micro Enterprise consultant in JSLPS. She received the training and was sent to the field where she was required to meet those rural women of the villages who were SHG members. Initially she had to change the mind set of these women to start their own business for changing their livelihood and improving their financial condition. Today she is successfully working as a Micro Enterprise Consultant in JSLPS and helping to change the mindset of the rural woman. She is helping them set up their business by helping them make a business plan. She provides full support till the shop is set up and helps them learn to maintain accounts. She also helps them in labeling, packaging and marketing their products.

Till date she had made 97 poor rural women start their own small business and become a rural entrepreneur. Shimla is a face which is changing the rural society by helping the SHG members become rural entrepreneurs.

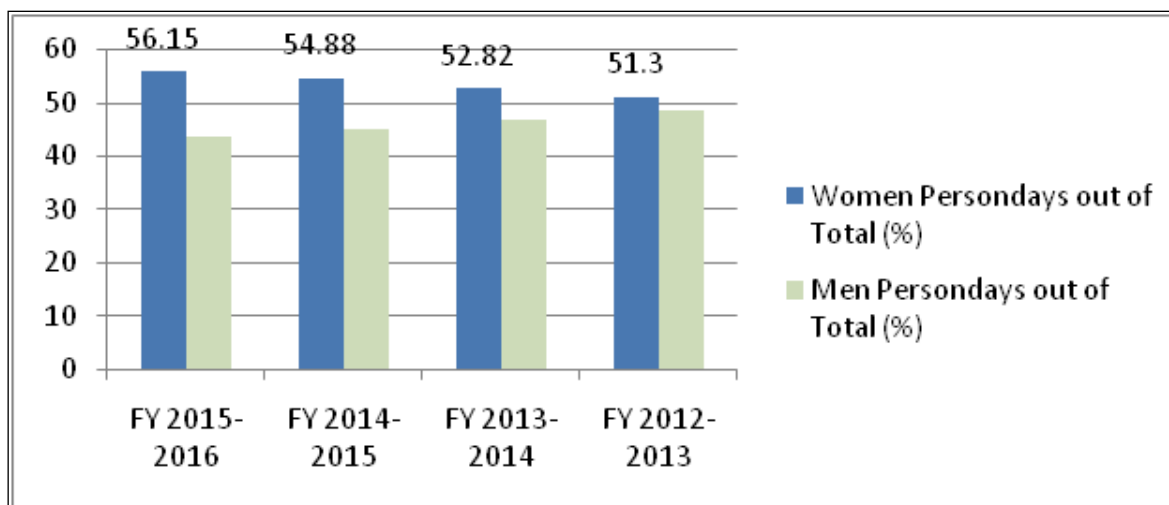
### Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA)

MGNREGA is the largest public works program in the world employing nearly 4.5 crore households or 7 crore individuals every year. Nearly 1 crore assets are constructed under MGNREGA in India every year. It is for this reason that MGNREGA has been hailed as the greatest policy for transformation of rural India since independence. Due to its holistic nature and design, which addresses some of the key concerns of rural India such as employment, infrastructure provisioning and natural resource management, it is claimed to have the potential to drive sustainable, broad based and equitable rural development in India.

### Employment in MGNREGA in Jharkhand

In the current financial year, nearly 10 lakh households have been provided employment under MGNREGA in the state. These people have been provided with nearly 4.37 crore person-days of work under MGNREGA at an average of nearly 44 days of employment per household. Thus, nearly 87 percent of the demand for employment has been fulfilled (as nearly 11.33 lakh people have demanded work under the current financial year). The figure below depicts the proportion of women persondays being generated in India under MGNREGA in the last four years.

**Figure 4.1: Women participation in MGNREGA from 2012-13 to 2015-16**



Source: <http://www.nrega.nic.in/netnrega>

Nearly 36 lakh households have been issued job cards this year. The table below presents the details of employment provided under MGNREGA in 2015-16 till the time of writing this report (i.e. February, 2016). Although,

the average number of employment days per household (i.e. 44 days) is slightly higher than the national average, the average no. of person-days has been declining over the years.

**Table 4.5: Employment under MGNREGA in Jharkhand in 2015-16**

Employment under NREGA in Jharkhand for the Year 2015-16				
1	a	Cumulative No. of HH issued jobcards (Till the reporting month)	SCs	455963
	b		STs	1384863
	c		Others	1763598
	d		Total	3604424
2	-	Cumulative No. of HH demanded employment (Till the reporting month)	-	1133953
3	-	LB: HHs Projected upto the month	-	0
4	-	Cumulative No. of HH provided employment (Till the reporting month)	-	990333
5	-	No. of HH working under NREGA during the reporting month	-	336749
6	-	LB: Projected Persondays upto the month	-	57144057
7	a	Cumulative Persondays generate(Till the reporting month)	SCs	5494123
	b		STs	16641884
	c		Others	21582753
	d		Total	43718760
	e		Women	14274001
8	-	Cumulative No. of HH completed 100 days (Till the reporting month)	-	87506
9	-	No. of HH which are beneficiary of land reform/IAY	-	7345
10	-	No. of Disabled beneficiary individuals	-	4670
11	-	Average Days of Work Per Household	-	44.15
12	-	Share of Women's Participation (No. of Persondays Generated Among Women as a proportion of Cumulative Persondays Generated)	-	32.65
13	-	Proportion of people who demanded and got employment in the year	-	87.33
14	-	Proportion of people who completed 100 days of employment (out of all those who worked)	-	8.84

Source: <http://www.nrega.nic.in/netnrega>

### Achievement versus Projections in Employment Generation

Nearly 6.4 crore person-days of work was to be generated in Jharkhand under MGNREGA

till February 2016. In reality, nearly 4.4 crore person-days were generated in the state, implying that 77 percent of the target was met. This is the same as the all India average. In

terms of actual person-days generated, Jharkhand ranked 14th amongst all the states. Overall, one can still observe a widening gap between the persondays that were projected and those which were actually generated.

### Assets Completed by Type of Asset and Implementing Agency

62,664 assets have been constructed in the current year under MGNREGA. Out of these, over one-fourth of the works are meant to enhance the rural 'water conservation and

water harvesting' capacity. Close behind, in terms of number of works, are the assets meant to provide 'irrigation facilities to SC/ST/IAY/LR' and 'Rural Connectivity' as nearly 23% of the assets fall under each of these categories. Nearly 12.5% of the assets are meant to improve 'Rural Sanitation', while around 7.7% of the works are related to 'Land Development'. These assets are the basic key towards bringing about sustainable rural transformation by providing rural households better access to opportunities for livelihoods and enhanced incomes.

**Table 4.6: Types of work completed in Jharkhand in 2015-16**

Completed Works - By Category and Implementing Agency					
Jharkhand (2015-16: Till 5th February, 2016)					
Assets	Gram Panchayat	Panchayat Samiti	Zilla Panchayat	Total	Percentage
Flood Control	53	25	0	78	0.1
Rural Connectivity	12791	1383	244	14418	23
Water Conservation And WaterHarversting	14884	954	254	16092	25.7
Renovation of Traditional Water Bodies	1118	165	11	1294	2.1
Drought Proofing	214	118	247	579	0.9
Irrigation Canals	999	35	2	1036	1.7
Irrigation Facilities To SC/ST/IAY/LR	14210	412	4	14626	23.3
Land development	4730	88	17	4835	7.7
Other works	1213	151	214	1578	2.5
Bharat Nirman Rajeev Gandhi Sewa Kendra	254	1	0	255	0.4
Coastal Areas	14	0	0	14	0
Rural Drinking Water	42	0	0	42	0.1
Fisheries	0	0	0	0	0
Rural Sanitation	7680	137	0	7817	12.5
<b>Total</b>		<b>62664</b>		<b>62664</b>	<b>100</b>

Source: <http://www.nrega.nic.in/netnrega>

### New works taken up in the current financial year

Till date, nearly 78 percent of the works taken up

in Jharkhand have been completed. The highest completion rate is in Pakur (92%), followed by Deoghar (88%), Gumla (86%), Chatra (86%) and

Jamtara (85%). Over 65,000 new works have been taken up in Jharkhand during the current financial year (2015-16) till now (i.e. 5th February, 2016). This is higher than the number of works taken up in any of the previous financial years. Thus, the trend of increasing number of works being taken up in every successive financial year has continued this year as well (see table below). Overall, since the inception of the program, nearly 6.4 lakh works have been started. However, the year has also witnessed another trend – i.e. a decline in the rate of completing a work. For the current financial year, only around 7.4 percent of the works that were taken up have been completed, as opposed to 35 percent in 2014-15, 72.6 percent in 2013-14 and 94.6 percent in the previous years. This may

however, be in large measure attributed to the fact that the year has not yet ended and it can be hoped that the completion rate would rise by the time the financial year 2015-16 comes to an end.

### Households Completing 100 Days of Employment in 2015-16 in Jharkhand

Nearly 90,000 households actually completed 100 days of employment generating 90,08,796 person days of employment in Jharkhand in 2015-16 (till 5th February, 2016). Out of these, the largest proportion of households were in Dumka, followed by Chatra, Giridih and Ranchi. Ramgarh, Khunti, Lohardaga and Koderma were among the districts where the least number of people completed 100 days of work.

**Table 4.7: Number of households completing 100 days of employment under MGNREGA in Jharkhand in 2015-16**

Households Completing 100 Days of Employment in Jharkhand in 2015-16 under MGNREGA			
S.No	District	House Hold Employed	Persondays Generated
1	Dumka	8931	925971
2	Chatra	8437	857095
3	Giridih	6529	666752
4	Ranchi	6276	644777
5	Latehar	5666	586199
6	Deoghar	5261	542984
7	Bokaro	4628	472592
8	Sahebganj	4405	458588
9	Jamtara	3717	381555
10	Gumla	3659	377607
11	Pakur	3161	331864
12	Dhanbad	2896	296975
13	Godda	2792	286466
14	SaraikelaKharsawan	2759	282220
15	Simdega	2666	278348
16	Palamu	2508	256348
17	West Singhbhum	2339	240163
18	Garhwa	2094	218085
19	Hazaribagh	2091	213708
20	East Singhbhum	1975	205267
21	Koderma	1347	137961



Households Completing 100 Days of Employment in Jharkhand in 2015-16 under MGNREGA			
S.No	District	House Hold Employed	Persondays Generated
22	Lohardaga	1258	129636
23	Khunti	1206	124724
24	Ramgarh	901	92911
	Total	87502	9008796

Source: <http://www.nrega.nic.in/netnrega>

### Cluster Facilitation Teams for Effective Implementation of the NREGA in Jharkhand

One of the biggest problems faced by the department in the successful implementation of NREGA has been the lack of capacity at the grass root level - i.e. among the block and panchayat level functionaries. The convergence between the NREGA and the NRLM has helped plug this lacuna to some extent.

The Ministry of Rural Development implements both these flagship programs which address rural unemployment and poverty through different facets. Therefore, convergence between these programs was sought to synergize the functioning of the two so as to substantially enhance the quality of assets being created in the MGNREGS and thereby ensure better sustainability of rural livelihoods.

In order to use this synergy and improve the implementation of MGNREGS, it has been decided to achieve convergence between the two, covering the following components:

- Creation of awareness and demand generation
- Identification and planning for works that converge with the livelihood plans
- Worksite execution and measurement
- Advance payment of wages to NREGA workers through funds devolved to CBOs
- Provision of capacity building and training for all stakeholders involved including PRIs.

### Creation of Cluster Facilitation Teams (CFTs)

Based on the 12th Plan document, the Operational Guidelines 2013 provided for creation of Cluster Facilitation Teams (CFTs) that would address gaps in MNREGA and thereby result in creation of sustainable livelihoods. Cluster facilitation teams are to be set up to cover 15,000 job card holders or an area of 15,000 hectares which corresponds to the watershed boundaries. The members of the cluster facilitation team must have demonstrated expertise in the following areas:

- Soil and moisture conservation
- Agriculture and allied/livelihood activities
- Community mobilisation
- Expertise in preparing estimates, doing measurements and assessing quality of assets.

### Areas for the Pilot Project

This convergence has been piloted in 250 most backward blocks. The State Governments have identified these Blocks as per the following criteria:

- Poor Human Development indicators
- Tribal areas
- High population of SCs
- Poor connectivity
- Active presence of Civil Society Organisations (CSOs) or Community Based Organisations (CBOs).

### Operationalizing through Civil Society Organisations (CSOs)/CBOs:

The Operational Guidelines of MGNREG 2013 have emphasised the need for involving CSOs in implementation of the program so as to improve participation and thereby increase overall effectiveness of the program. Many CSOs/CBOs have built up social capital of women SHGs which can be immediately used for improving the quality of works and reducing delays in payments. The CSOs will also NOT have the constraints that State Governments have in selecting and placing the staff required in the pilot. The pilot will therefore leverage the strengths of Civil Society Organisations and the SHGs/federations (referred to as CBOs) who will work as Resource Organisations along with the MGNREGS implementation machinery.

### Cluster Facilitation Teams in Jharkhand

In 2014, therefore, the Ministry of Rural Development introduced a three-year project in 250 blocks of the country for establishing these “Cluster Facilitation Teams” (CFTs) for providing technical support in the implementation of NREGA and involving self-help group (SHGs) members to help workers demand their entitlements. In each block a non-government organisation (NGO) is given the funds for identifying, training and employing the CFTs and SHG members. In Jharkhand the CFT project is being implemented in 76 blocks with the participation of 28 NGOs. The Department for Rural Development, Government of Jharkhand, regularly monitors, supervises and supports the functioning of these Cluster Facilitation Teams.

**Table 4.8: List of Cluster facilitation schemes in Jharkhand**

S No.	District	CSO ID-CSO Name
1	Bokaro	Jh13-Pradan
		Jh17-Sanjivani Project Under Jspls
2	Chatra	Jh17-Sanjivani Project Under Jspls
		Jh16-Gyan VigyanSamiti, Jharkhand
3	Dhanbad	Jh1-Lok Prerna
		Jh13-Pradan
5	East Singhbhum	JH10-Tagore Society For Rural Development
		JH27-Youth Unity For Voluntary Actionyuva
		Jh28-Devnet
		Jh9-Rural Development Association
6	Garhwa	Jh32-Jharkhand SewaMandal
		Jh39-Om SaiKhadiGramodyogSewaSanstha
7	Giridih	Jh17-Sanjivani Project Under Jspls
		JH24-Social Action For Rural Development SARDA
8	Godda	Jh13-Pradan
		Jh13-Pradan
9	Gumla	Jh17-Sanjivani Project Under Jspls
		Jh19-Vikas BhartiBishunpur
10	Hazaribagh	Jh12-Srijan Foundation
		Jh13-Pradan
		Jh40-Support

S No.	District	CSO ID-CSO Name
11	Khunti	Jh13-Pradan
		JH14-Karra Society For Rural Action
		Jh30-Sinduartola GramodayaVikasVidyalaya
		JH31-Life Education And Development Support LEADS
12	Koderma	Jh13-Pradan
13	Latehar	Jh17-Sanjivani Project Under Jspls
		JH31-Life Education And Development Support LEADS
		JH5-Society For Promotion Of Wastelands Development
14	Lohardaga	Jh13-Pradan
		Jh19-Vikas BhartiBishunpur
		Jh29-Pragya SewaSansthan
		JH4-Lohardaga Gram SwarajyaSansthan
15	Pakur	Jh8-Action For Social Advancement
16	Palamu	Jh11-Mahila SamagraUtthanSamiti
		Jh2-Vikas Sahyog Kendra
		Jh34-Ajay Kumar
17	Ramgarh	Jh40-Support
18	Ranchi	Jh17-Sanjivani Project Under Jspls
		Jh42-Udyogini
		JH5-Society For Promotion Of Wastelands Development
		Jh8-Action For Social Advancement
19	SaraikelaKharsawan	Jh17-Sanjivani Project Under Jspls
20	Simdega	JH5-Society For Promotion Of Wastelands Development
21	West Singhbhum	Jh12-Srijan Foundation
		Jh13-Pradan
		Jh25-Srijan MahilaVikasManch
		JH31-Life Education And Development Support LEADS

Source: <http://www.nrega.nic.in/netnrega>

Preliminary data obtained from these blocks shows that CFTs have led to an increase in Job Card Distribution, resulting in an increase in person-days generated, and the completion rate of works undertaken under NREGA. Among other likely benefits, are increased awareness about rights, entitlements and processes under NREGA, improvements in quality and utility of assets being constructed etc.

### Indira AwasYojna

Indira AwasYojna is a centrally sponsored scheme which intends to provide affordable housing to the below poverty line households in the rural areas of the country. Under this scheme, for building a single unit house, Rs 70,000 is being provided in level land areas and Rs 75,000 in the hard-to-reach hilly areas and the Naxal affected areas. In addition to this, the families are also provided with a loan up to Rs 20,000 at a very low interest

rate (4 percent) through nationalized banks. In Jharkhand, the total financial burden is borne by the central and state government in the ratio of 60:40 respectively.

In Jharkhand, till date 1, 67,085 housing units have been built; 64,569 housing units were built in 2012-13, 46,651 in 2013-14 and 30,681 in 2014-15. In the year 2015-16, the central government proposed a target for building 41,901 housing units in Jharkhand. For this purpose, a total of Rs 17,598.46 lakh was provided by the central government and Rs 11,732.30 lakh was provided by the state government. As reported, till October 2015, 25184 housing units had already been built.

Currently, the targeted beneficiaries are listed according to the CENSUS, but it is proposed that from the next year the list of beneficiaries will be selected according to the recently concluded Socio-Economic Caste census. For strengthening the implementation and monitoring of the scheme, a Program Management Unit (PMU) has been set up at the State level with technical experts for IT based monitoring of IAY. Jharkhand State Livelihood Promotion Society (JSLPS) under the aegis of Rural Development Department, Government of Jharkhand, has been directed to hire consultants for approved positions of PMU under IAY.

**Table 4.9: District wise Physical progress for IAY during 2015-16**

S .	District	Annual Target	Registered in MIS					IAY New Construction				
			ST	SC	Minority	Others	Total	House Sanctioned				
			ST	SC	Minority	Others	Total	ST	SC	Minority	Others	Total
1	BOKARO	459	231	166	18	106	503	221	153	14	81	455
2	CHATRA	1371	524	700	56	214	1438	484	682	55	205	1371
3	DEOGHAR	1735	545	94	254	770	1409	471	81	68	227	779
4	DHANBAD	2192	806	498	224	582	1886	726	359	114	335	1420
5	DUMKA	2295	1596	410	93	368	2374	1515	392	83	345	2252
6	EAST SINGHBUM	2300	1543	352	12	287	2182	1379	312	11	236	1927
7	GARHWA	2103	1382	428	122	326	2136	1320	382	106	279	1981
8	GIRIDIH	2238	1471	473	114	408	2352	1434	421	90	338	2193
9	GODDA	2032	1582	117	289	747	2446	1353	95	83	324	1772
10	GUMLA	1556	1081	209	101	246	1536	841	153	72	168	1162
11	HAZARIBAGH	1758	946	367	73	263	1576	560	283	52	186	1029
12	JAMTARA	1287	937	292	131	441	1670	722	224	48	169	1115
13	KHUNTI	1137	826	170	137	141	1137	826	170	137	141	1137
14	KODERMA	860	21	704	39	135	860	20	635	38	128	783
15	LATEHAR	2639	1682	510	103	375	2567	1354	441	90	312	2107
16	LOHARDAGA	776	522	142	34	118	782	515	141	32	112	768
17	PAKUR	1540	924	179	51	212	1315	854	159	41	182	1195
18	PALAMU	2748	1159	1174	151	605	2938	1108	1075	102	444	2627
19	RAMGARH	1749	945	325	71	261	1531	927	311	70	247	1485
20	RANCHI	2284	1747	456	82	385	2588	1490	383	74	316	2189
21	SAHEBGANJ	1802	1090	441	81	327	1858	896	282	55	208	1386
22	SARAIKELA KHARSAWAN	1383	1021	286	67	222	1529	862	242	57	188	1292
23	SIMDEGA	1354	1048	303	30	230	1581	896	240	26	195	1331

S .	District	Annual Target	Registered in MIS					IAY New Construction				
			ST	SC	Minority	Others	Total	House Sanctioned				
			ST	SC	Minority	Others	Total	ST	SC	Minority	Others	Total
24	WEST SINGHBHUM	2303	1539	297	55	282	2118	1475	290	53	263	2028
	<b>Total</b>	<b>41901</b>	<b>25168</b>	<b>9093</b>	<b>2388</b>	<b>8051</b>	<b>42312</b>	<b>22249</b>	<b>7906</b>	<b>1571</b>	<b>5629</b>	<b>35784</b>

Source: [http://iay.nic.in/netiay/homest.aspx?state\\_code=34&state\\_name=Jharkhand](http://iay.nic.in/netiay/homest.aspx?state_code=34&state_name=Jharkhand)

### Future plans in Indira AwasYojna

The state government has planned to employ local labour force for building houses under this scheme. For this, a special skill development program will be organized in association with O.P. Jindal Committee College, which will provide them with mason work skills. The state government has also planned for a research work in association with UNDP that will enable the department to explore ways in which locally developed raw materials can be used for building houses.

### Watershed Scheme (Integrated Watershed Management Program)

This scheme has been merged with three other schemes viz. Accelerated Irrigation Benefit Programme (AIBP) of the Ministry of Water Resources, River Development & Ganga Rejuvenation (MoWR,RD&GR),and the On Farm Water Management (OFWM) of Department of Agriculture and Cooperation (DAC) to form Pradhan Mantri Krishee Sichayi Yojna( PMKSY) from July 2015. Before this, the department of rural development used to implement Watershed Schemes in Jharkhand. Under these programs,144 watershed schemes were operated in all the 24 districts of Jharkhand covering 7.67 lakh hectare. In addition to this, 936 rainwater harvesting system have also been installed in these districts. As a result, in areas like Sonuwabeda and Piprobada harvesting has been made possible in all the seasons.

### Sansad Adarsh Gram Yojna

On 11th October 2014, the scheme Saansad Aadarsh Gram yojna was launched, which

aimed at holistic transformation of traditional subsistence villages into model villages, inspired by principles and values of Mahatma Gandhi. The program will be a convergence of major central flagship programs and some state programs which will allow the parliamentarians to create a model which addresses all the major issues of contemporary rural India.

The main objectives of SAGY are:

- i. To trigger processes which lead to holistic development of the identified Gram Panchayats
- ii. To substantially improve the standard of living and quality of life of all sections of the population through –
  - a. improved basic amenities
  - b. higher productivity
  - c. enhanced human development
  - d. better livelihood opportunities
  - e. reduced disparities
  - f. access to rights and entitlements
  - g. wider social mobilization
  - h. enriched social capital
- iii. To generate models of local level development and effective local governance which can motivate and inspire neighboring Gram Panchayats to learn and adapt
- iv. To nurture the identified Adarsh Grams as schools of local development to train other Gram Panchayats

### Activities proposed in Aadarsh Gram

An Adarsh Gram should evolve out of people's shared vision, using their capacities and available resources to the best extent possible, duly

facilitated by the MP, the Gram Panchayat, the civil society and the government machinery. Following are the broader categories of activities that have been planned under the program.

**Table 4.10: Activities to be undertaken under SAGY**

Areas of Intervention	Activities to be undertaken
Personal Development	Cleanliness
	Promote cultural heritage
	Behavioral change towards society
Human Development	Improving Education
	Better Health Services
	Improving level of nutrition
	Social Security
Economic Development	New Sources of Livelihood
	Skill Development
	Financial Inclusion
	Basic amenities and services
Social Development	Spirit of voluntarism
	Social Values
	Social Justice
	Good Governance

Source: Department of Rural Development, Government of Jharkhand

In Jharkhand, all the nineteen members of parliament (14 from Lok Sabha and 5 from Rajya Sabha) have chosen one gram panchayat in their constituency for implementing this scheme. For the successful implementation of the program, a State Level Empowered Committee(SLEC) has been formed, headed by the Chief Secretary

of the state. In 2015-16, 1726 program have already been planned and approved in 18 gram panchayats. State government through the Department of rural development has already started many developmental activities in some selected villages like construction of rural roads and watershed development.

**Table 4.11: Name of the Gram Panchayats Chosen for SAGY**

S. No	Name of the MP	District	Gram Panchayats
Lok Sabha			
1	Shri Sudarshan Bhagat	Gumla	Bishunpur
2	Sh. Ram TahalChoudhary	Ranchi	Hahap

S. No	Name of the MP	District	Gram Panchayats
3	Sh. NishikantDubey	Godda	Boha
4	ShriLaxmanGiluwa	West Singhbhum	Bila
5	Sh. Vijay Kumar Hansdak	Sahebganj	Taljhari
6	Sh. BidyutBaranMahato	East Singhbum	Bangurda
7	ShriKariyaMunda	Ranchi	Parasi
8	ShriRavindra Kumar Pandey	Dhanbad	Mairanawatand
9	Shri Vishnu Dayal Ram	Palamu	Kishunpur
10	Sh. Ravindra Kumar Ray	Giridih	Gadi
11	Sh. PashupatiNath Singh	Dhanbad	Ratanpur
12	Shri Sunil Kumar Singh	Chatra	Kaandinagar
13	Sh. JayantSinha	Hazaribagh	Jarba
14	ShriShibuSoren	Dumka	Ranga
RajyaSabha			
1	Dr. Pradeep Kumar Balmuchu	East Singhbum	Bhalki
2	Sh. ParimalNathwani	Ranchi	Baram
3	ShriDhiraj Prasad Sahu	Palamu	KekarGarh
4	ShriSanjiv Kumar	Dhanbad	Tundi
5	ShriPrem Chand Gupta	Koderma	Chopnadih

Source: [http://MGNREGAIndc3.nic.in/sagy/reports/Dreports/SummarReport\\_chosenGP.aspx](http://MGNREGAIndc3.nic.in/sagy/reports/Dreports/SummarReport_chosenGP.aspx)

### Sanjeevani

Women in every household play the role of central pillar and it has been seen that improvement in the status of women in a family contributes to overall improvement of the family. Women centric SHGs movement is a tried and tested model to fight poverty. Thus State is making an effort to build a cadre of trained and motivated rural women who can train other rural local women. With this vision, the Sanjeevani project was initiated by the State government in 29 blocks of 13 Districts of Jharkhand under the banner of Jharkhand State Livelihood Promotion Society, Department of

Rural development, Government of Jharkhand.

The main objectives of Sanjeevani program are:-

- To ensure universal coverage of families under SHG fold in selected villages.
- Capacity Building of SHGs in the program villages with the help of Community Resource Person.
- To cover all SHG members under existing social security net.
- Supporting SHG to undertake livelihood activities of their choice to enhance their current income.

**Table 4.12: Physical targets vs Achievement of SANJIVANI in Jharkhand in 2015-16**

S.No	Domain	Indicators	Achievement	Annual	Total Achievement (2015-16)	Cumulative Achievement
1	Social Mobilization & Institution Building	No. of SHGs (formed/ Revived)	14388	2750	927	15315
		No. of Households mobilized into SHGs	174220	35750	12051	186271
		Number of Vos formed	0	300	10	10
2	Financial Inclusion	No of SHGs provided revolving fund(RF)	2684	1000	368	3052
		Amount of RF provided to SHGs (Rupee in Lakhs)	402.6	150	55.2	457.8
		No. of SHGs mobile Bank Credit (Bank Linkages)	583	550	908	1491
		Amount of credit mobilization from Bank (Rupees in lakh)	336	275	454	790
		No. of SHG member & families covered under insurance	57800	10000	16596	74396
3	Livelihood Intervention	No. of Households undertook SCI (Paddy &Vegetable cultivation)	32727	39000	21242	53969
		No. of Households undertook Goat rearing				
4	Skill & Placement	No. of youth identified for training under DDU-GKY	11963			11963
5	Capacity Building output	SHG training Module -1 & Module -2	10414	3000	927	11341
		SHG Master Book keeper training	343	340	139	482
		SHG book keeper training	4018	9642	150	4168
		ICRP training M module		180	190	190
		No concept and management Trg-Staff		600	89	89



S.No	Domain	Indicators	Achievement	Annual	Total Achievement (2015-16)	Cumulative Achievement
6	Ensuring entitlement	No. Of Families assisted to get ADDHAR	62836		2133	64969
		No. Of Families assisted to get Job Card	33938		2428	36366
		No. Of Families assisted to get MANREGA work in village	5050		14008	19058
		No. Of Families assisted to get PDS Card	10302		956	11258
		No. Of families assisted to open individual pass book	76290		17340	93630
		No. Of SHG member motivated to send their girl to school	27616		2440	30056
		No. Of SHG members made function literate	33625		3085	36710
		No. Of SHG member motivated to avail one / two services	30777		3172	33949
		No. Of SHG member motivated to avail to services provided	18958		1136	20094
		No. Of person assisted in getting old age pension	9674		182	9856
		No. Of widows assisted in getting widow pension	7154		150	7304
		No. Of families assisted for LadliLaxmiYojna	2690		424	3114
		No of HANDICAPPED person identified and their application	1415		393	1808

S.No	Domain	Indicators	Achievement	Annual	Total Achievement (2015-16)	Cumulative Achievement
7	Convergence with PRI	Mahila Gram Sabha Organised in no of village	1195	412	412	1195
		No of Mahila Gram Sabha Organised	5845	1648	824	6669

Source : Progress Report NRLM, Dec. 2016

### New Initiatives and Future Plans

- The department of rural development has planned to benefit 30,000 rural households by installing Drip Irrigation system for them, which will enable them to practice multi-crop farming in a year. The initiative will be undertaken with the help of Government of Japan and is pending their approval.
- The state is also planning for a joint scheme named “Johar” with the World Bank worth Rs. 875 Crore. Under this scheme, the locally produced goods will be, marketed through value chain management and market linkage.
- Computerization of the department- The department in the quest for adapting new techniques for office management and speeding up procedural blockages, is planning to computerize the department. Under this proposed scheme,
  - The department will procure 20 mbps FTTH line to make whole FFP building WiFi enabled
  - The Secretaries and the officers will be connected with networking through IP Phones
  - It is proposed that the block offices will be connected with the state headquarters through SMS Gateways.
- **Mukhyamantri Smart Village Yojna**  
The gap between the rural urban divide has been seen to be increasing instead of decreasing and that is why the need of the hour is to develop the villages so as to help bridge this gap. Under this Mukhya Mantri Smart Village Yojna, the state government has planned to develop 500 villages of Jharkhand as smart villages. This scheme intends to speed up the development process of some selected villages through a sustainable model which will depend on modern tools and techniques like use of ICT, Smart Grid etc. In other words, the idea of smart village is to aim at accelerated development of compact areas around a potential growth centre in a Gram Panchayat (or a group of Gram Panchayats) for providing livelihood opportunities and urban amenities with the use of technology, to improve the quality of life in rural areas. For the formulation of a comprehensive scheme, a national level convention was organised by the department in association with SIRD, Jharkhand and Institute for Human Development - Eastern Regional Centre, Ranchi where delegates and participants from all over the country shared and discussed their ideas and concepts of building smart village.

### Important Elements of Smart Village

- Good Local Governance by Gram Panchayats
- Energy Sufficiency for cooking and Smart Grid in Smart Villages
- Rural Industries & marketing of produce for Globalized Market Driven Economy
- Improving educational opportunities for rural Students through use of technology.
- Better Healthcare and social services though ICT, other medical advances and blending with Indian medicine systems and naturopathy
- Adapting to climate changes in agricultural production systems
- Integrated production systems and smart management of natural resources
- Skill Development in rural settings for non-farm employments
- Expanding Rural Tourism & non-farm employments in Smart Villages
- Drinking water, Sanitation and Waste Management.
- New Technologies for Harnessing Rural Potential
- Improving Connectivity and Connectedness with Outer World.

### B. Panchayati Raj Division

In order to strengthen Panchayati Raj Institutions (PRIs) as per the spirit of the Constitution and the Jharkhand Panchayat Raj Act, 2001, the Department of Panchayati Raj has undertaken several schemes such as construction of Panchayat Bhawan (buildings), grants to Zila Parishad area, construction of Dak Bungalows, office buildings, bus stands in Zila Parishad areas, training to PRI officials and staff, grants to Gram Shabha etc. In the previous fiscal year, 8,646 schemes were completed under this division.

**Table 4.13: Physical and Financial Progress of Panchayati Raj division**

Financial progress		
Planned Account		
Financial Year	Allotment (In RsCrore)	Expenditure (In RsCrore)
2015-16	31	27.41
Non-Plan Account		
2105-16	1112.76	730.21
Physical progress		
Heads	Types of scheme	Completed Assets
Infrastructure	Panchayat Bhawan	401
	Aaganbadi Kendra	554
	Health/ Sub health Center	145
	Community Centre	33
Road	Road	2312
	Bridges	1868
	Construction of Drains	131
Irrigation	Check Dams	115
Water	Drinking Water	542
Others	Other Schemes	2545

Source: Department of Rural Development, Government of Jharkhand

### Implementation of Panchayats Extension to Scheduled Area (PESA)

PESA is an Act that provides for the extension of the provisions of Part IX of the Constitution relating to the Panchayats in the Scheduled Areas. As most of the rural area of the state comes under Scheduled Areas, the Jharkhand Panchayati Raj Act, 2001 has been formulated according to the provisions of the PESA act. In Jharkhand, 16 districts have been incorporated under the PESA act. In these 16 districts, 136 blocks covering 2070 gram panchayats have been taken under PESA act where the rules of the act are being implemented.

The PESA act, enforced in 1996 gives special power and procedures to Panchayati raj Institutions situated in Scheduled areas:-

- i. The Gram Sabha is headed by the Gram Pradhan
- ii. In Gram Panchayats where the villages and hamlets are widely spread, more than one Gram Sabha can be constituted

- iii. In PESA area all the main posts should be held by people of Scheduled Tribe community.

**Table 4.14: Details of PESA Districts**

Incorporation of PESA act	
Completed Pesa District	13
Partial	3
Number of Blocks under PESA	136
Number of Gram panchayat under PESA	2070

Source: Department of Rural Development, Government of Jharkhand

### Panchayat Election

The state witnessed the 2nd panchayati raj election in 2015. In this perspective department implemented the following rules:-

- 50 percent of seats were reserved for women candidates
- The department decided that for the first time, the elected representatives will get per month honorarium.

**Table 4.15: Monthly Honorarium of Panchayat Representatives**

Level	Monthly Honorarium in Rs
JilaParishad Sadasya	1500
Panchayat Samiti Sadasya	750
Gram Panchayat Sadasya	200

Source: Department of Rural Development, Government of Jharkhand

- Details About the elected representatives in the 2015 Panchayati election

**Table 4.16: No of seats at different levels of Panchayati Raj**

Level	No of Seats
JilaParishad	24
PanchayatSamiti	263
Gram Panchayat	4402

Source: Department of Rural Development, Government of Jharkhand

**Table 4.17: Details of Panchayati Election conducted in 2015**

S.No	Level	Total Contestants	Reserved for Women	Reserved for ST	Reserved for SC
1	JilaParishad Member	545	281	179	66
2	PanchayatSamiti Member	5423	2823	1818	650
3	Gram Panchayat Member	54330	28631	18417	6227
4	Gram Panchayat Member	4402	2084	2324	250
Total		64700	33819	22738	7193

Source: Department of Rural Development, Government of Jharkhand

- Delegation of powers- the panchayati raj institutions will be delegated powers according to the 11th schedule under 29 different heads related to thirteen departments
  - i. Agriculture and allied activities
  - ii. Health, education and family welfare
  - iii. School education and literacy
  - iv. Women and social development
  - v. Water resource
  - vi. Drinking water and sanitation
  - vii. Industries
  - viii. Food and Civil supplies
  - ix. Welfare
  - x. Rural Development
  - xi. Arts, Culture and Sports
  - xii. Revenue
  - xiii. Animal husbandry and fisheries

## New Initiative

### Mukhya Mantri Panchayat Protsahan Puraskar Yojna

The state government has acknowledged the fact, that eviction of social evils from the rural areas of the state is a necessary step to achieve holistic development of the state. With this perspective, the government started a new scheme of

awarding the best gram panchayats and districts of the state with an amount worth Rs one crore. Under this scheme, the respective panchayats and districts have to properly implement Swach Bharat Mission and minimize the incidence of social evils like witch hunting, alcoholism, theft and crimes, dowry among many others.

### Yojana Banao Abhiyan- A Landmark Movement for Inclusive and Participatory Rural Development

The National Rural Employment Guarantee Act (NREGA) entitles all rural households a minimum of 100 days of work per year. The gram sabha is expected to discuss the needs of the village and plan work for improving people's livelihoods and access to basic infrastructure. In Jharkhand however, planning for NREGA works usually does not take place in this manner. This process is often hijacked by the powerful people of the village who plan schemes for their own gain. Even when people do participate in large numbers in the planning process, the chosen schemes are primarily restricted to wells, roads and large ponds. Thus Yojna Banao Abhiyan is a method and a mission that will enable people to choose their own development policies which will better fulfill their needs.

### Objective of Yojna Banao Abhiyan

**The objectives behind the Yojna Banao Abhiyan are the following:-**

- Preparation of participatory village-level

plans for livelihoods enhancement based on integrated natural resource management (INRM) principles and for improving basic services of all villages in Jharkhand

- Intensive livelihood planning of extremely vulnerable families
- Preparation of comprehensive Gram Panchayat Development Plans based on Village Development Plans prepared by Gram Sabhas
- Implementation of plans through MGNREGA, 14<sup>th</sup> Finance Commission grants to Gram Panchayats and convergence with line departments
- Preparation of plans for utilisation of 14<sup>th</sup> Finance Commission grants by Gram Panchayats for 2015-16 and 2016-17 for improving/constructing school buildings and anganwadi centres, drinking water systems, community toilets, playgrounds etc
- Activating Gram Panchayats and unlocking Panchayat Bhavans by triggering decentralisation of the planning processes

### Structure of the campaign

- Identifying and training a group of about 650 persons to form the campaign's "State Resource Team". These persons include members of civil society organisations, officials of the State Rural Livelihood Mission, district level NREGA functionaries, Prime Minister's Rural

Development Fellows and others with some experience of planning.

- Formation of Panchayat Planning Team comprising of the Gram RozgarSewak, two ward members and two other local residents. Panchayat Planning Teams have been trained and supported by the State Resource Team members of the district comprising of civil society members, CFT members, JSLPS officers, government officials and functionaries, PMRDFs, PRI trainers and IWMP officials
- In each Gram Panchayat, planning is being facilitated by this Panchayat Planning team comprising the Gram Rozgar Sewak, two Ward Members and two community planners. Elected representatives have been trained to enable them to lead the planning process in their gram panchayat.
- Gram Panchayats leading all Gram Panchayat level activities
- Women members supporting Gram Panchayats in awareness generation and participatory planning exercises
- Steering Committees formed at block and district levels for coordinating and monitoring Abhiyan activities
- Widespread awareness generation activities such as rallies, street plays, wall writings, radio announcements etc are encouraging people to participate in this innovative abhiyan.

**Table 4.18: Wings Created for successful planning and implementation**

HamariYojnaHamaraVikas			
Planing Team		Implementation and monitoring team	
Level	Samiti	Level	Samiti
Gram Panchayat	PanchayatYojna Dal	Block	BlockSansadhanSamiti
Block	RajaySansadhanSamuh	District	District SansadhanSamiti
State level			Steering Committee (Headed by Chief Secretary, Gov. of Jharkhand )
State Sansadhan Team		State	

	Empowered Committee (headed by development commissioner)		
	Advisory Committee (Headed by Principle Secretary, Finance)		

Source: Department of Rural Development, Government of Jharkhand

**Figure 4.2: Rally in Jagannathpur, West Singhbhum**



### Proposed Monitoring Mechanism

- Weekly meeting of Panchayati Raj department, MGNREGA Cell and JSLPS, under the chairpersonship of Principal Secretary, RDD to review the progress of the Abhiyan
- Weekly micro-detailed task-responsibility list prepared and followed
- District-level civil society monitors appointed for qualitative monitoring of activities
- Departmental Secretaries nominated for district-level monitoring
- Divisional Whats App groups comprising of district and block administration and local state resource team members setup for easy dissemination of instruments
- Weekly reporting formats prepared for blocks and districts

### Expected Outcome in 2016-17

- Preparation of MGNREGA labour budget for 2016-17 based on people's demand for employment
- Preparation of Gram Panchayat Development Plan for enhancing livelihoods, generating employment, improving access to irrigation and strengthening basic services in all villages and Gram Panchayats of the state
- Immense potential of reduction of rural poverty through implementation of the planned schemes
- Skill enhancement of more than 20,000 people in participatory planning, INRM technologies and MGNREGA processes
- Creation of a "State Resource Team" for providing technical support to Gram Panchayats and helping people access their entitlements

- Strengthening democratic decentralization by increasing people’s participation in local governance
- Providing the newly elected Gram Panchayats with a ready “task list” for the coming years

### Progress in the Yojna Banao Abhiyan

Statistics available from 120 blocks up to 7th February, 2016 reveal the following:

- Total Schemes selected for MGNREGA: 1.99 Lakh
- Schemes selected for improvement/repair of basic facilities/infrastructure: 98.85 Thousand
- Restoration of old Community Ponds: 9000
- Number of households without job cards who are willing to work under NREGA– 42.5 thousand
- Number of workers without bank accounts willing to work under NREGA– 80,000

### C. Rural Works

In a state where approximately 78% of the total population resides in 32260 villages, rural road connectivity becomes one of the key factors for the socio-economic development of the state. In this context, the rural works Division is constructing, maintaining and improving the

Rural Roads networks and Bridges.

### Mukhyamantri Gram Setu Yojna

The program implemented by rural works department intends to connect remote villages so that the access and opportunity of the people residing in these villages can be increased. Under this program, the department targeted at least one bridge in each Vidhan Sabha area. In financial year 2015-16, 68 bridges with a length of 20 meters each have been constructed connecting 910 villages and hamlets of the state.

### Progress in the continual schemes

In the past fiscal year, the department successfully completed 442 projects in construction of roads with a length of 1790 kms as a part of Pradhan Mantri Gram Sadak Yojna and convergence with other continual projects. The division spent Rs 751.76 crore for completing these projects. The department with a mission to connect the areas covered with forest and those affected by naxal movements with mainstream development, implemented 75 work projects in these areas. In addition to these, under the aadarsh gram yojna, the department successfully completed 29 schemes connecting remote villages of 19 panchayats. In the dairy producing belt, department has completed 9 projects under Bulk milker Cooler Connectivity Road scheme with a total length of 21.8 kms.

**Table 4.19: Physical and Financial Progress of PMGSY**

S.No		
1	December 2014 to November 2015 Tak Available	
	Number of completed roads	472
	Number of completed bridges	50
	Length of the bridges	1300
	Number of Habitation	753
	Expenditure in Crore	567
2	March 2015 till November 2015 available	
	Number of completed roads	337
	Number of completed bridges	31



	Length of the bridges	717
	Number of Habitation	536
	Expenditure in Crore	406

Source: Department of Rural Development, Government of Jharkhand

### New Initiatives

The department has launched several new initiatives for better implementation of projects, for upgrading quality and durability of construction, for adapting new techniques which will make the projects time and cost effective.

- For the completion of 414 delayed projects, the department plans to use hot mix technology in place of cold mix technology which will enable the workers to work throughout the year in all weather conditions and complete the lagging projects.
- For better monitoring and implementation, the department plans to increase the no of SQM officials from 25 to 40 which will result in constructing better quality projects. In addition to this, 14 teams have been constituted at the state level to recheck the projects already evaluated by the SQM.
- For the coming fiscal year a special Maintenance policy has been constituted which will look after the maintenance and repair of the assets created.
- For better monitoring, GIS mapping is been done in all the blocks which will keep a robust track of the status of rural roads and bridges in the respective blocks of the state.
- In Jharkhand 113 such blocks have been marked which are affected with naxal movements. For better connectivity of these blocks, the department has planned for 2034 projects with an estimated road connectivity of 5139 km.



# 5

## Urban Development

*According to Census 2011, 24.05 per cent of the population of Jharkhand lives in urban area. It marks a population growth of 32.3 per cent over 2001 and this trend is expected to continue in the future. With more than 70 per cent of the state GDP generated in cities, urbanization can contribute to sustainable growth if managed well by increasing productivity, and by allowing innovation and new ideas to emerge. However, increasing urbanization also brings challenges, including meeting an accelerated demand for affordable housing, well-connected transport systems and other infrastructure, basic services and the generation of employment opportunities.*

The process of urbanization historically has been associated with other important economic and social transformations, which have brought greater geographic mobility, lower fertility, longer life expectancy and population ageing. Cities are important drivers of development and in the reduction of poverty both in urban and rural areas, as they concentrate much of the national economic activity, government, commerce and transportation, and provide crucial links with rural areas, between cities, and across international borders. Urban living is often associated with higher levels of literacy and education, better health, greater access to social services, and enhanced opportunities for cultural and political participation. Nevertheless, rapid and unplanned urban growth threatens sustainable development when the necessary infrastructure is not developed or when policies are not implemented to ensure that the benefits of city life are equitably shared<sup>1</sup>.

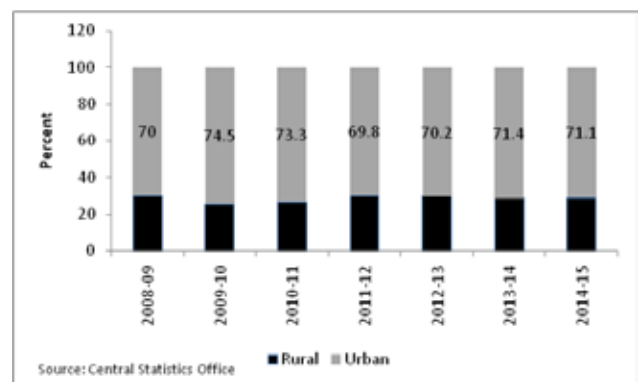
### Contribution of urban sector in SGDP

In Jharkhand, the urban sector is the major contributor of the State domestic product (SGDP). Figure 5.1 shows rural and urban contribution in net state domestic product (NSDP) at factor cost at constant price.

The contribution of the rural sector comprises of

the agriculture & allied and the mining & quarrying industries, whereas the urban sector comprises of manufacturing industries, electricity, gas & water supply and services. In the last 6 years (2008-2014) the total contribution of the urban sector in NSDP at factor cost has been above 70 per cent. During 2014-15 the contribution of urban sector to NSDP was 71.1 per cent as compared with 28.9 per cent by the rural sector. So the contribution of the urban sector in the NSDP has always been more than double the contribution of the rural sector.

**Figure 5.1: Sector wise contribution in net state domestic product (NSDP) at factor cost at constant price (Base: 2004-05)**

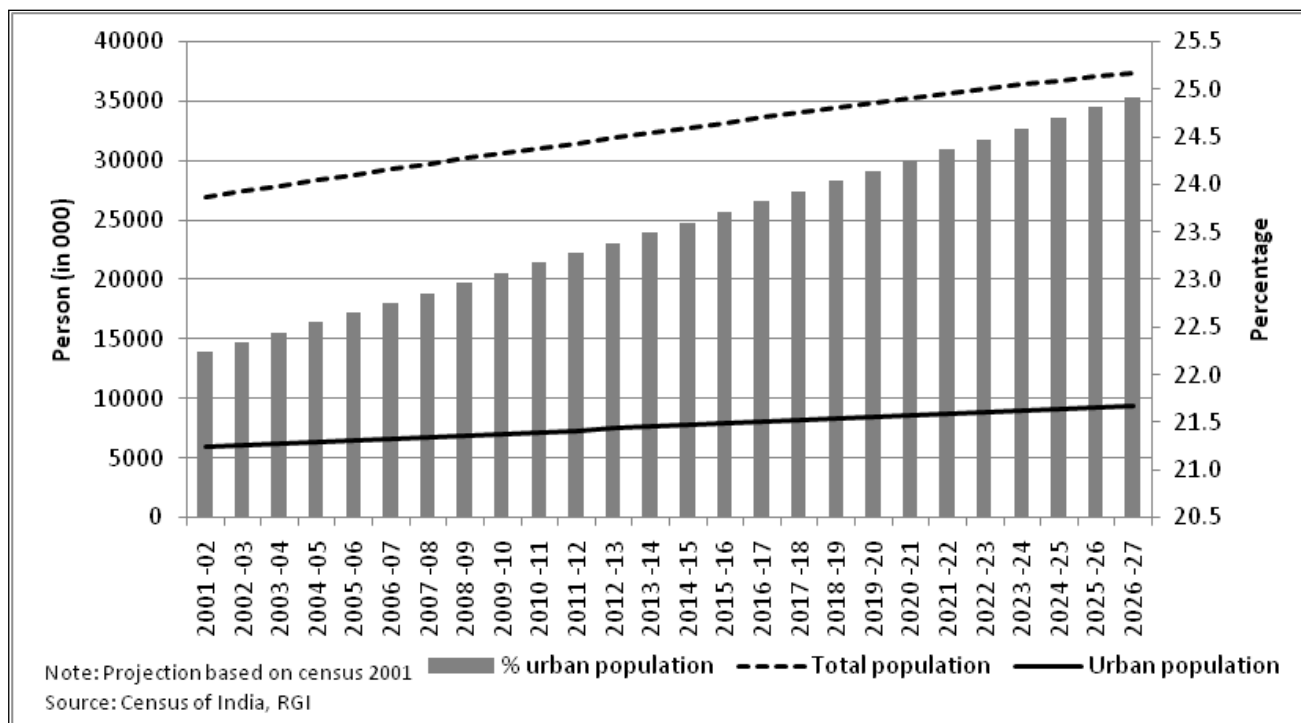


### Urban population growth

According to the census 2011 7.9 million people live in the urban areas in Jharkhand. It accounts for 24 per cent of the total population of the state. Figure 5.2 shows the projected total and urban population in Jharkhand till the year 2026-27. The proportion of the total urban proportion is expected to increase over time. By the end of 2026-27 it will increase by 1 percentage point reaching to 25 per cent of the total population. This increasing absolute and proportional urban population poses a great challenge to the policy makers in terms of the creation of new employment opportunities and providing basic services and infrastructure.

<sup>1</sup> World Urbanization Prospects-2014, The United Nations

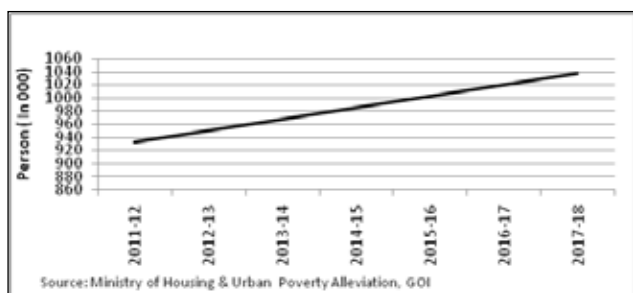
**Figure 5.2: Projected Population in Jharkhand**



### Slum population growth

Today despite the comparative advantage of cities, the urban areas show more disparity than rural areas and hundreds of millions of the world’s urban poor live in sub-standard conditions popularly called ‘slums’. The Ministry of Housing and Urban Poverty Alleviation has projected the slum population in Jharkhand from 2011 to 2016-17. Till the end of 2016-17 the total slum population is projected to be 1 million.

**Figure 5.3: Projected Slum Population in Jharkhand**



### Town Amenities

Urbanisation is itself a process that will support

growth only if the accompanied challenges are well taken care of. One of the most important challenge of urbanisation is the provision of urban amenities and services. In Jharkhand, several state and centre sponsored programmes are running which primarily focus on the provision of basic public services and infrastructure in the urban areas. The Census of India has recently released its Town Directory data, which contains detailed data on town amenities. In the following section focus has been given to the availability of basic infrastructure in the class I towns of the state.

### Roads:

Roads are called the lifeline of any country. The Indian cities are increasingly faced with the twin challenges of providing adequate road space for future use and for improving the poor condition of the existing roads due to the neglect of maintenance over the years. In Jharkhand Dhanbad has the highest road density (Table 5.1) followed by Jamshedpur. Road density is also very low in the capital city of Ranchi (2 km per sq km)

**Table 5.1: Urban road density in Jharkhand by class I towns (km per sq km), 2011**

Town Name	Road Density
Dhanbad	28.4
Ranchi	2.0
Jamshedpur	11.5
Bokaro Steel City	2.5
Mango	8.5
Adityapur	2.6
Deoghar	0.7
Hazaribag	2.2
Chas	3.9
Giridih	3.2

Source: Census of India, RGI

### b. Drainage and Sanitation:

Sanitation and hygiene are the most essential ingredients to ensure human health. In Jharkhand the drainage system in class I towns is mostly a mix of covered and open drains. The availability of improved sanitation facilities is very low in Dhanbad (0.58) and Adityapur (0.59). There is an urgent need to improve the sanitation facilities to the desired level. Programs like JNNURM and Swatch Bharat Mission are directly related and working for the achievement of this goal.

**Table 5.2: Urban Drainage and Sanitation in Jharkhand by class I towns, 2011**

Town Name	Drainage System	Availability of Improved sanitation facility (Flush Toilets) per household
Dhanbad	Both Open and Closed	0.58
Ranchi	Both Open and Closed	0.77
Jamshedpur	Both Open and Closed	0.82
Bokaro Steel City	Both Open and Closed	0.62
Mango	Both Open and Closed	0.85
Adityapur	Open	0.59
Deoghar	Both Open and Closed	0.66
Hazaribag	Both Open and Closed	0.84
Chas	Both Open and Closed	0.80
Giridih	Both Open and Closed	0.75

Source: Census of India, RGI

### Drinking Water:

Water supply and sanitation are critical determinants of public health outcomes, particularly in countries with low and lower middle income groups. Tap water from treated

source is the main source of drinking water in most of the towns except Mango, Deogarh, Chas and Giridih (see Table 5.3). Hand pump is the second most common source of drinking water in Jharkhand.

**Table 5.3: Different Sources of Water supply and their capacities by class I towns, 2011 (in kilolitres)**

	Protected Water Supply Source-1	Capacity Source-1	Protected Water Supply Source-2	Capacity Source-2	Protected Water Supply Source-3	Capacity Source-3	Protected Water Supply Source-4	Capacity Source-4	Protected Water Supply Source-5
Dhanbad	TT	106399	HP		TU	34025	TW/B	17347	O
Ranchi	TT	69550	UW		HP		TW/B	250	TU

	Protected Water Supply Source-1	Capacity Source-1	Protected Water Supply Source-2	Capacity Source-2	Protected Water Supply Source-3	Capacity Source-3	Protected Water Supply Source-4	Capacity Source-4	Protected Water Supply Source-5
Jamshedpur	TT	68628	HP		TU	740	TW/B	715	UW
Bokaro Steel City	TT	68100	TU	312	UW		HP		TW/B
Mango	HP		TW/B	1141	TT	1380	TU	251	UW
Adityapur	TT	19975	HP		TW/B	25	UW		CW
Deoghar	HP		UW		TW/B	6852	TT	5000	CW
Hazaribagh	TT	9850	UW		HP		TW/B	150	CW
Chas	HP		TW/B	567	TT	918	TU	137	UW
Giridih	UW		TT	5579	HP		TW/B	2169	TU
Note:	TT: Tap water from treated source TU: Tap water from un-treated source CW: Covered well UW: Un-covered well HP: Hand pump TW/B: Tubewell /Borehole RW: Rainwater S: Spring TK/P/L: Tank/Pond/Lake O: Others								

Source: Census of India, RGI

### Electricity for Domestic Use:

Electricity is now being recognized as a basic human need. Bokaro steel city, Adityapur and

Ranchi have relatively higher shortfall in the domestic connection of electricity. In the state capital of Ranchi there is a shortage of 25374 connection for domestic use.

**Table 5.4: Electricity connection for domestic use and its shortage by class I towns, 2011 (numbers)**

Town Name	No. of Households	Electricity-Domestic Connection	Connection Shortage
Dhanbad	220783	205097	15686
Ranchi	207636	182262	25374
Jamshedpur	139529	128994	10535
Bokaro Steel City	82473	67083	15390
Mango	43005	39476	3529
Adityapur	37206	31710	5496
Deoghar	36768	32849	3919
Hazaribag	25794	23825	1969
Chas	25540	23119	2421
Giridih	19740	17381	2359

Source: Census of India, RGI

### Streetlights:

The situation of the availability of streetlight is not uniform across the towns of Jharkhand. Giridih and Deogarh have better streetlight facilities than other big towns. However, it should be noted that this high value of streetlights per km of pucca roads may be because these districts have less pucca roads (which goes into the denominator) compared to the other developed districts. This could also be the reason why this figure is very low for Dhanbad.

**Table 5.5: Streetlight density by class I towns (in kms.), 2011**

Town Name	No. of Streetlights per km Pucca Road
Dhanbad	4.96
Ranchi	29.19
Jamshedpur	13.13
Bokaro Steel City	24.78
Mango	12.35
Adityapur	4.58

Town Name	No. of Streetlights per km Pucca Road
Deogarh	41.84
Hazaribag	23.81
Chas	22.89
Giridih	45.48

Source: Census of India, RGI

### Health Infrastructure:

Health infrastructure is another important measure of development of basic amenities. A better health facility means better health of the individuals which may have positive impact on their productivity. Table 5.6 shows the health infrastructure in the class I towns of Jharkhand, in terms of the number of allopathic hospital number of hospital beds per 1000 population and number of doctors per 1000 population. Jamshedpur has the highest number of hospitals, 27. Dhanbad and Ranchi have 14 each. Bokaro Steel City has the highest number of hospital beds compared to the population ratio (2.8) followed by Jamshedpur. Ranchi accounts for the highest doctor to population ratio (1.4).

**Table 5.6: Health Infrastructure in Jharkhand by class I towns, 2011**

Town Name	Hospital Allopathic (Numbers)	No. of hospital beds per 1000 population	No. of Doctors per 1000 population
Dhanbad	14	1.09	0.22
Ranchi	14	1.12	1.40
Jamshedpur	27	1.48	0.11
Bokaro Steel City	8	2.89	0.60
Mango	1	0.89	0.00
Adityapur	3	0.43	0.11
Deogarh	3	0.93	0.09
Hazaribag	5	1.46	0.42
Chas	1	0.21	0.04
Giridih	2	0.76	0.25

Source: Census of India, RGI

### Educational Infrastructure:

Better educational infrastructure is considered to have a positive impact on the overall education

of the individuals in the area. Proper educational infrastructure facilities nearby also provides incentives to individuals to study thereby reducing



the drop-out rates. Jamshedpur has the maximum number of primary and middle schools among all the class I towns of Jharkhand (Table 5.7) followed by Dhanbad and Ranchi. Nevertheless,

the number of primary and middle schools in other districts is low. One also needs to look into the betterment of the existing educational infrastructure.

**Table 5.7: Educational Infrastructure in Jharkhand by class I towns, 2011**

Town Name	Govt. Primary School	Govt. Middle School	Govt. Senior Secondary School	Govt. Degree College-Art, Science and Commerce	Govt. Degree College-Law	Govt.-Medical College	Govt.-Engineering College	Govt.-Management Institute	Govt.-Polytechnic	Govt.-Special School for Disabled
Dhanbad	201	127	2	4	1	1	2	1	1	0
Ranchi	145	45	5	5	1	2	0	1	2	0
Jamshedpur	266	342	2	3	1	0	0	0	0	0
Bokaro Steel City	29	30	11	2	0	0	0	0	1	0
Mango	7	13	3	2	0	1	0	0	0	0
Adityapur	9	9	1	0	0	0	1	0	1	0
Deoghar	11	1	7	1	0	0	1	0	0	0
Hazaribag	20	14	2	3	1	0	1	0	1	0
Chas	16	10	2	2	0	0	0	0	0	0
Giridih	20	12	1	2	1	0	0	0	0	0

Source: Census of India, RGI

### Others:

Other amenities in the towns include government working women hostel, stadiums, auditoriums/community halls, public library etc. The data from Census 2011 show that Jamshedpur has

3 working women' hostels Bokaro has 2 while Ranchi and Dhanbad have only one government working women's hostel each (Table 5.8). Other towns do not have working women hostels. Dhanbad has the highest number of government auditoriums/community halls.

**Table 5.8: Other Amenities**

Town Name	Govt.-Working Women's Hostel	Govt.-Stadium	Govt.-Auditorium/Community Hall	Govt.-Public Library
Dhanbad	1	3	21	2
Ranchi	1	4	1	2
Jamshedpur	3	1	1	1
Bokaro Steel City	2	0	6	6
Mango	0	0	6	2
Adityapur	0	1	1	1
Deoghar	0	2	0	3
Hazaribag	0	1	3	3
Chas	0	0	0	1
Giridih	0	1	0	1

Source: Census of India, RGI

### Basic Amenities in the slum Areas:

It has been widely seen that the rapid growing urban population poses an increasingly serious challenge to the policymakers for providing safe sanitary, affordable housing and basic

infrastructure to all the citizens. The poor are the worst sufferer in this process. In Jharkhand, several state and centre sponsored programmes are running which primarily focus on the provision of basic services and infrastructure in the urban areas.

**Table 5.9: Basic amenities in the slum areas during 2011**

Town Name	System of Drainage	No. of Households	Improved Sanitation	Private Latrines-Community	No. of Tap points	Electricity-Domestic Connection	Electricity-Road Lighting Connection
Dhanbad	Open	2852	2140	35	1782	2704	164
Ranchi	Both	14426	8464	18	4464	11808	96
Jamshedpur	Both	8829	3596	12	4046	6867	152
Mango	Both	5969	3635	1	281	4614	30
Deoghar	Both	4303	2157	4	101	3720	500
Adityapur	Both	6457	2721	3	1395	5532	28
Hazaribag	Open	2050	1879	0	865	1968	32
Chas	Open	1790	982	0	221	1614	35
Giridih	Both	5940	3836	7	1706	5184	2377

Source: Census of India, RGI

### Social welfare schemes in urban Jharkhand

**Clean India Mission:** The Swachh Bharat Mission (SBM) has been launched in October 2014 and will run for five years to mark the 150<sup>th</sup> birth anniversary of Mahatma Gandhi's birthday. "All statutory towns will be covered under the SBM. The objectives of the SBM are

the elimination of open defecation, eradication of manual scavenging, modern and scientific solid waste management, and generating awareness about sanitation and its linkage with public health."The achievement of the state is remarkable especially in schools, BPL households and anganwadi toilets.

**Table 5.10: Report Card status of Swachh Bharat Mission (SBM) as on 10 /2/2016**

Component	Project Objective	Project Performance	%age Achievement
IHHL BPL	2327306	1591795	68.4
IHHL APL	1402189	393985	28.1
IHHL TOTAL	3729495	1985780	53.25
School Toilets	42687	41454	97.11
Sanitary Complex	1203	366	30.42
Anganwadi Toilets	11472	7809	68.07
RSM/PC	249	753	302.41

**Table 5.11: Financial progress of Swachh Bharat Mission (SBM) as on 10 /2/2016, (in lakh)**

Share	Approved	Funds Received	Utilization	%age of Utilization against release
GOI	60485.48	38362.47	47907.71	124.88
State Share	22185.77	20318.08	20556.34	101.17
Benf. Share	8057.18	3363.62	2389.66	71.04
Total	90728.43	62044.17	70853.71	114.2

**Swarna Jayanti Shahari Rozgar Yojana (SJSRY) / National Urban Livelihood Mission (NULM):** The Swarna Jayanti Shahari Rozgar Yojana (SJSRY) is a scheme to provide gainful employment to the urban unemployed or under-employed through the setting up of self-employment ventures, provision of wage employment and skilled training.

**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 240 new house have already been completed in Ranchi and in Dhanbad and Chas 1636 houses are under construction. Mean while, 14 towns in Jharkhand have been selected for the Prime Minister’s ‘Housing for all Scheme.

**Master Plan:** Detailed Project Reports are being prepared to plan aspects of water supply, solid waste management, river front development etc with support of consultants. The master plan of Ranchi has already been accepted by the cabinet. ULBs of Dhanbad, Deoghar, Chaibasa, Jamshedpur, Giridh and Medininagar are preparing project plans. Consultants have already been appointed for the preparation of the master plans of another 27 towns, out of which 17 have to be submitted in the current financial year.

**Urban water supply Scheme:** The state government is committed to complete this program by the year 2017.

**Drainage and sewerage:** Tata Consulting Engineering has been appointed to make DRP of Drainage and sewerage in 12 towns of Jharkhand under JNNURM by dividing to into four different zones. The total budgetary allocation for this work is Rs. 359.25

**Solid Waste Management:** Essel Infra is helping the state government of Jharkhand in planning a proper model for solid waste management.

#### **Way forward:**

Spatial planning is the key instrument for achieving social, territorial and economic development within the state. The challenge of managing urbanization will have to be addressed through a combination of increased investment, strengthening the framework for governance and development financing. The development of adequate infrastructure is a critical prerequisite for sustaining the growth momentum and to ensure inclusiveness of the growth process and special emphasis needs to be given to the poor delivery mechanism, which hinders the full translation of the social welfare schemes into outcomes. It is also suggested that by simplifying procedures, reforming the institutions for service delivery and ensuring greater participatory role by the beneficiaries can help in creating a better delivery mechanism in the urban space.



# 6

## **Agriculture**

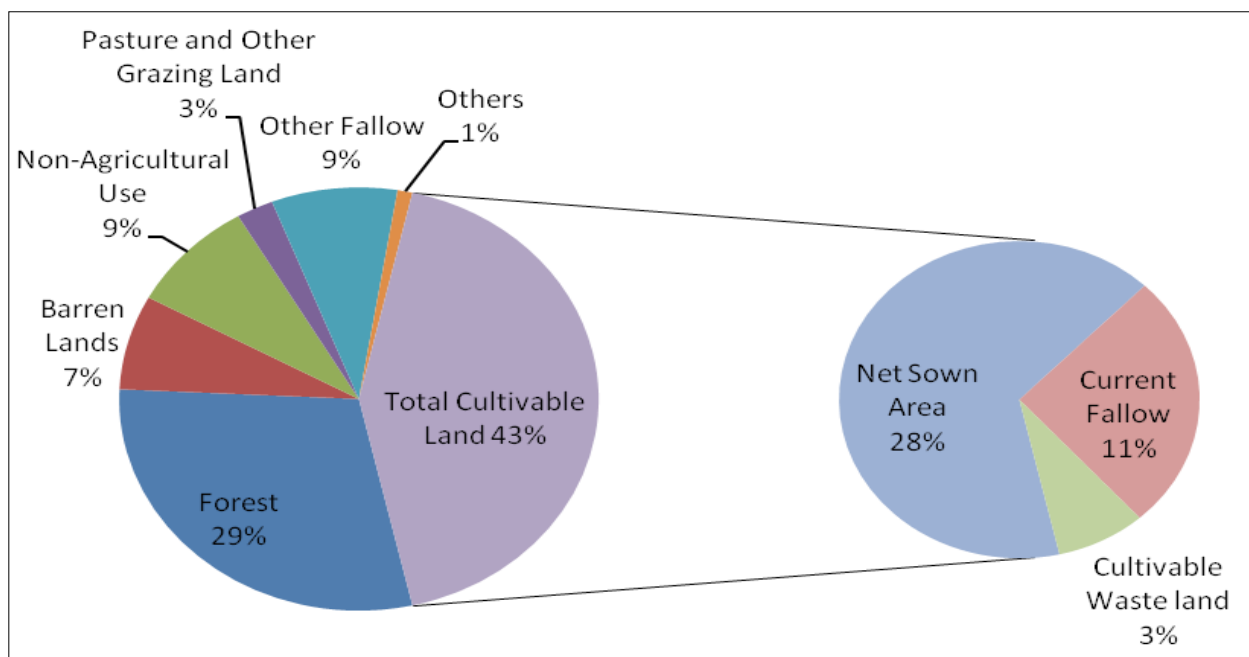
Agriculture is the mainstay of the Indian economy and its importance in the economy of Jharkhand cannot be overlooked. Given the relatively high contribution of other sectors the contribution of agriculture may look low at around 17 percent (2014-15) of the gross state domestic product (GSDP), but, it accounts for a substantially high share in creating employment and livelihood in the economy of the state. According to National Sample Survey Organization (NSSO), during the reference period of July 2012- June 2013 agricultural households as percentage of rural households is 59.5 percent in Jharkhand, which is marginally greater than the national average of 57.8 percent.

The focus of Agricultural policy in India across decades has been on self-sufficiency and self-reliance in the production of food grains and Jharkhand plays an important role in that. According to the Ministry of Agriculture, production of food grains rose from 2 million tons in 2000-01 to 4.7 million tons in 2014-15.

### Land Use Pattern

Jharkhand has a large land area under forest cover (around 29 percent). The total cultivable land in Jharkhand is around 43 percent (according to Department of Agriculture, Jharkhand). Out of the total land in Jharkhand around 28 percent is the net sown area, 11 percent is fallow land and 3 percent is cultivable waste land.

Figure 6.1: Land use in Jharkhand

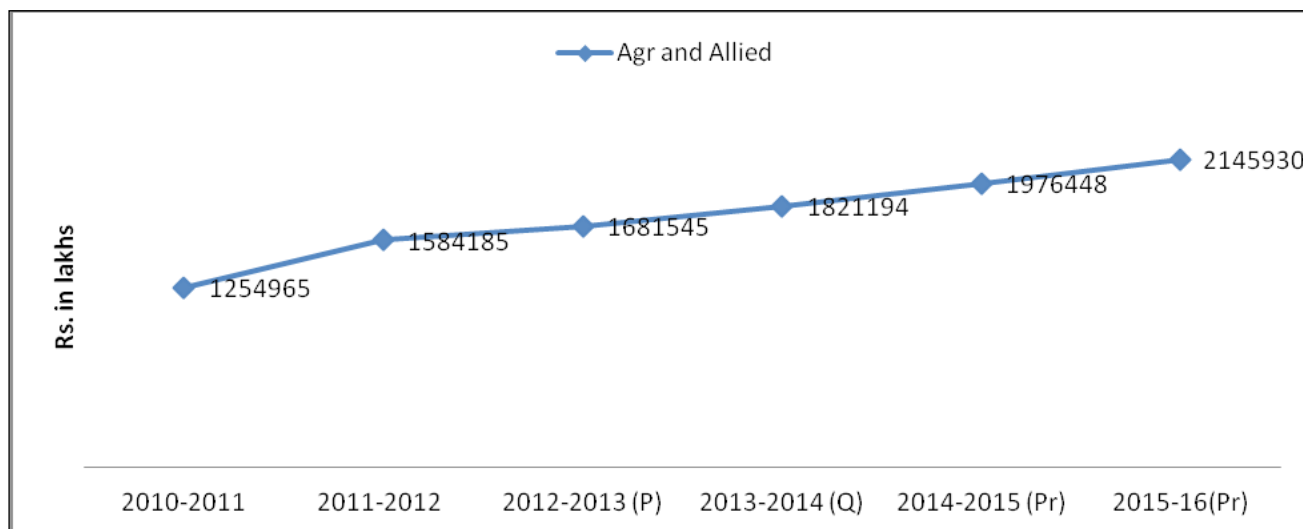


### Contribution of Agriculture and Allied Sector in State Gross Domestic Product

Agriculture and allied sector production in value terms has shown a consistent growth over the last five years. The value of the output of agriculture

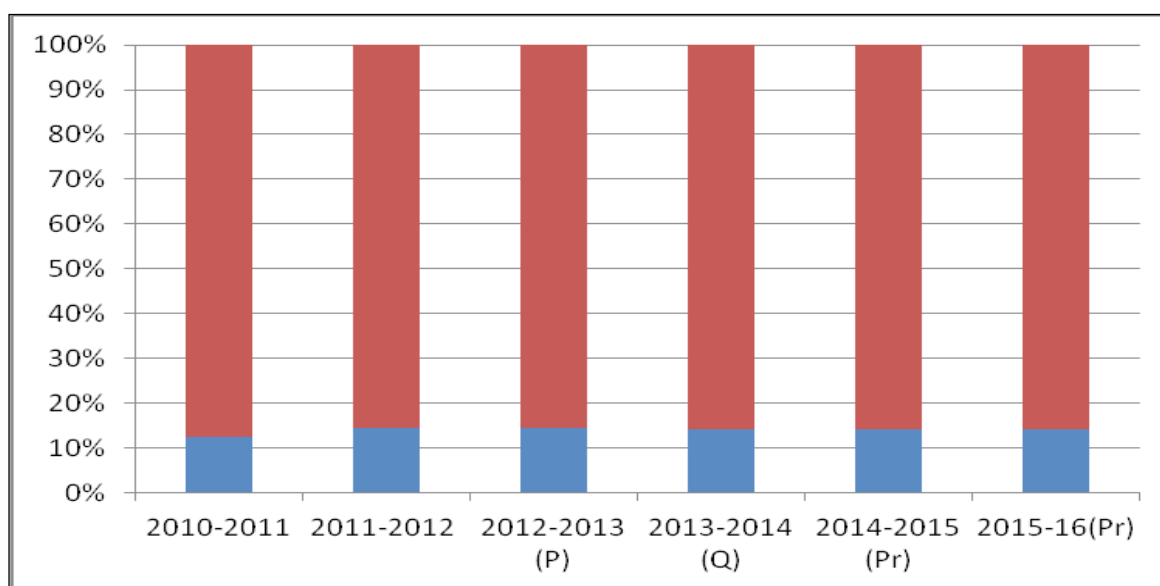
and allied sector at constant prices has increased from Rs. 1254965 lakh in 2010-11 to Rs. 1976448 lakh in 2014-15 (Figure 6.2). It is further expected to grow to 2145930 lakhs in 2015-16.

**Figure 6.2: Agriculture and Allied Sector Production**



The contribution of agriculture to GSDP increased from 14.02 percent in 2010-11 to 16.94 percent in 2011-12. Thereafter it has remained around 16.6 percent (figure 6.3)

**Figure 6.3: contribution of Agriculture and other sector to GSDP**



### Crop Production

In the last ten years agricultural production has more than doubled in Jharkhand. During 2004-05 and 2014-15, the production of rice has increased from 1677 thousand tons to 3319.7 thousand tons (Table 6.1). The production of wheat increased from 150 thousand tons to 370.4 thousand tons. The production of coarse cereals increased from

324.1 thousand tons to 463.8 thousand tons. The production of pulses on the other hand, has increased from 160 thousand tons to 412 thousand tons. The production of oilseed has also shown a remarkable increase from 8 thousand tons to 79.5 thousand tons. The production of sugarcane increased from 141.6 thousand tons to 348.8 thousand tons.

**Table 6.1: Production of Foodgrains and Major Non-Foodgrain Crops**  
(Thousand tonnes)

Year	Rice	Wheat	Coarse cereals	Pulses	Food-grains	Oilseeds	Sugarcane
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	8.1	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

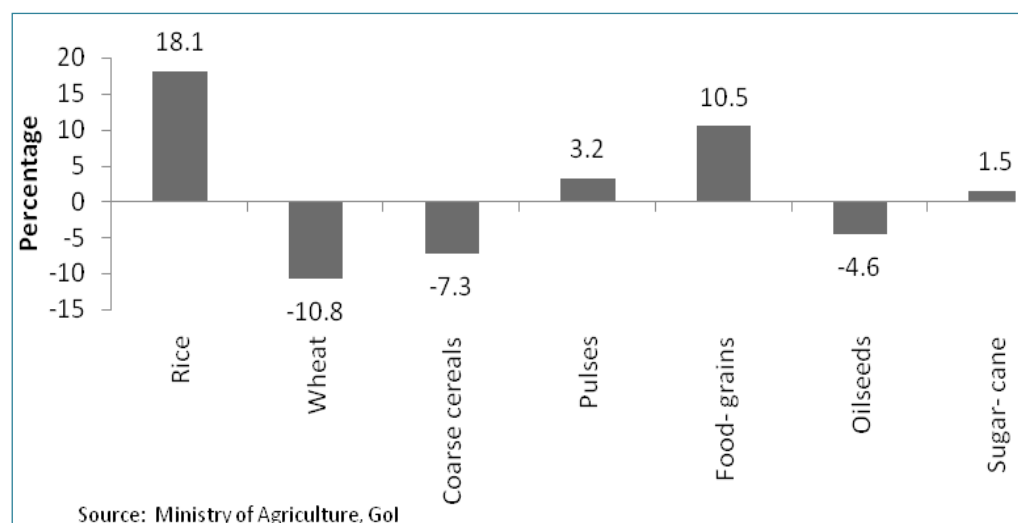
Source: Agricultural Statistics at a Glance, Ministry of Agriculture & Farmers Welfare, Government of India

### Crop production during 2013-14 and 2014-15

During 2013-14 and 2014-15 the production of food grain grew by 10.5 percent driven mainly

by increase in the production of rice by 18.1 percent and production of pulses by 3.2 percent. The production of wheat and coarse cereal, on the other hand, declined by (-) 10.8 percent and (-) 7.3 percent respectively (figure 6.4).

**Figure 6.4: percentage change in production of major crops (2014-15 over 2013-14)**





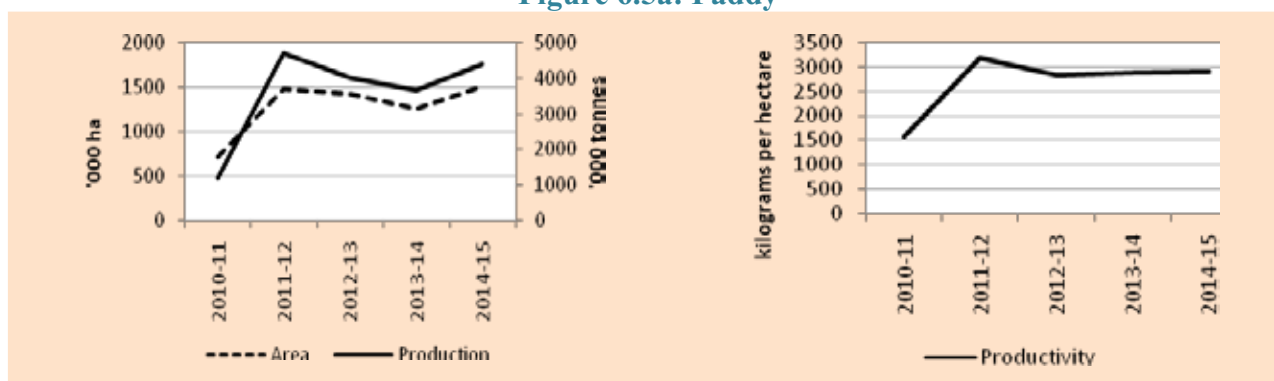
### Area, Production and Productivity of Major Agricultural Crops

Area under cultivation and production of food grains and oilseeds has increased during 2013-14 and 2014-15 but the growth in productivity of the state has remained subdued or declined during this period. The area under paddy cultivation has increased from 1255.87 thousand hectare to 1501.18 thousand hectare. This has led to an increase in paddy production from 3637.45 thousand tons during this period (Figure 6.5a). The productivity of paddy has increased marginally from 2896 kg per hectare to 2909 kg per hectare. Area under cultivation of maize increased marginally from 256.94 thousand hectare to 265.84 thousand hectare. Production of maize, on the other hand, has declined from 517.029 thousand tons to 450.736 thousand tons

(figure 6.5b). Productivity of maize in Jharkhand has declined sharply from 2012 kg per hectare 1695 kg per hectare. The area under cultivation of wheat and its production have both declined marginally from 174.491 thousand hectare to 170.1 thousand and 370.372 thousand tons to 335.93 thousand tons respectively during the same period (figure 6.5c). The area under cultivation of pulses and its production have also shown marginal growth. The productivity of pulses has also shown a marginal fall during 2013-14 and 2014-15 (figure 6.5d). During 2013-14 and 2014-15, the area under oilseed cultivation has increased marginally, however the production of oilseeds has increased more than the area under cultivation as a result of which the productivity of oilseeds has shown a sharp increase during this period (figure 6.5e).

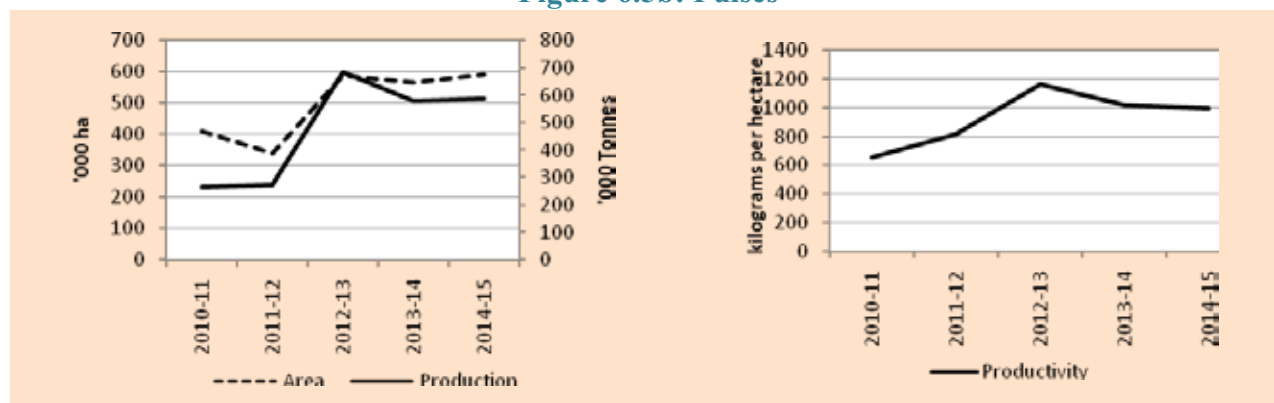
**Figure 6.5: Cropwise area under cultivation, production and productivity**

**Figure 6.5a: Paddy**



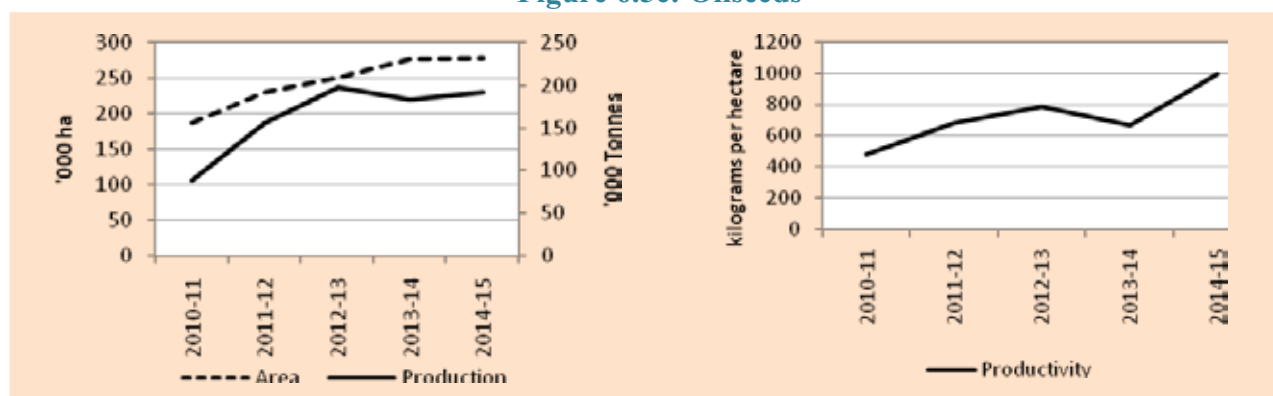
Source: Kharif Workshop-2015, Department Of Agriculture, Government Of Jharkhand

**Figure 6.5b: Pulses**



Source: Kharif Workshop-2015; Department Of Agriculture, Government Of Jharkhand

Figure 6.5c: Oilseeds



Source: Kharif Workshop-2015; Department Of Agriculture, Government Of Jharkhand

### A snapshot of State of Agriculture in Jharkhand in 2015-16

Jharkhand was declared drought hit in 2015-16 due to deficit rainfall in the months of September and October. The South West Monsoons withdrew earlier than usual leading to a shortage

in rainfall as seen in the table below. According to data released by the IMD and the department of Agriculture, GoJ, the state only received 34 percent and 18.9 percent of the normal rainfall rain during the latter part of the kharif crop season i.e. September and October.

Table 6.2: Trends in rainfall in June-October, in mm

	Normal rainfall	Actual (2015)		Actual (2014)		Actual (2013)	
June	196.6	151.4	77%	109	55.50%	162.9	82.80%
July	319.4	424.3	133%	305.9	93.50%	197.4	60.30%
August	276.2	238.3	86%	251	98.80%	266.3	82.50%
September	235.5	79.8	34%	156.6	66%	152.9	65%
October	81.9	15.5	18.90%	32.3	39.50%	203.3	248.20%

Source: Department of Agriculture, Government of Jharkhand.

The state had received normal rainfall in the early Kharif season which gradually took a downturn in September-October. This had two fold implications for the farming community i.e.

### Loss in Kharif crop

#### Creation of moisture stress which has adversely impacted the current rabi crop

This implied potential increase in crop loss leading to a shortfall in food grains and fodder. The department did an on-ground survey to take stock of the situation. After an assessment of the visual estimation of crop damage, depletion in

the groundwater level and other water bodies and a possible fodder crisis, the government declared the state drought-hit. The report of the state department of agriculture says that 64 blocks of the state have suffered 50 percent loss in crops and another 62 blocks have suffered 40 percent loss due to poor monsoon. As per the report of the committees constituted to look into the matter extensive crop damage is expected. The data received from the affected districts till December 2015 suggest an estimated loss of 37.75 percent in paddy, 27.06 percent in maize, 16.85 percent in pulses and 13.44 percent in oilseeds.

A State level Drought Task Force was constituted under the chairmanship of the Principal Secretary of Planning-cum-Finance department, GoJ. The state government has sought a relief package of Rs.1140.77 crores from the Centre. Various mitigation and relief measures have been taken by the Department of Agriculture.

### **Steps taken by the State Government for Relief to Farmers in view of Deficit Monsoon**

Allotting agricultural input grant to the affected farmers

Allotting Rs.112 crores and approximately Rs.0.83 crores to the Drinking Water and Sanitation and Urban and Housing Department respectively for repair of damaged water pumps to combat drought

Under the National Food Security Act which became operational in the state in October 2015, approximately 9.18 lac AAY (Antodaya Anna Yojna) families with 37.38 lac members and about 42.52 lac priority households with 1.96 crores members have been provided with food relief. The AAY families receive 35 kgs food grain per family while the Priority Households receive 5 kg food grain per member

Allocation of additional days of work under MGNREGA to households in drought affected areas: to provide non-farm employment to the distressed farmers, the Ministry of Rural Development has been requested to allow 150 days, instead of the stipulated 100days, of employment to the unskilled registered labors. Towards this end, the State is trying to initiate one work per Gram Panchayat.

With a bird's eye view the government has allowed a reserve storage quota of an additional 10 quintals of rice per panchayat in the drought affected areas.

The state of Jharkhand has faced droughts in many consecutive years successively and yet it is to the immense credit of the government that it has the lowest number of farmer suicides amongst all the agrarian states in the country. This is in part due to fast response of the Government when faced with this natural disaster. Second, the herculean task of providing relief is made easier through efficient and effective coordination amongst various departments in the state including Rural, Drinking Water and Sanitation, Urban Development, Disaster management besides the department of Agriculture. All these departments work in perfect tandem with the vision of controlling the drought induced distress as best as they can.

The fact that the districts of Garwah and Palamu were provided a special relief package of Rs.2.88 crores in 2014-15 to cope with "drought-like" situation is a perfect example of the State Government's commitment to such exigencies.

However, every drought has a loud and clear though unspoken message for Jharkhand as also for every other agrarian state in the country i.e. to bolster and strengthen its irrigation system to keep drought related disasters at bay. In hind sight we can see that only 12 percent of the cropped area in Jharkhand has irrigation facilities making agriculture largely rain-fed. The national figure on this indicator reads 47 percent. In this era of technology reach no farmer should be deprived of an enabled irrigation system.

About 272000 hectares of land under Kharif crop and 28000 hectares under Rabi need irrigation aid. The government has several, minor, medium and long term irrigations projects under implementation in the state. If we compare statistics for the target fixed by the Water

Resources department for land under kharif crop to be covered by irrigation with the actual achievement we find that the state achieved 46 percent, 51 percent and 59 percent in the years 2012, 2103 and 2014 respectively. The upward slope does give us hope that soon we will see a state with much larger irrigation coverage.

The way the full government machinery got galvanized towards minimizing the impact of drought in 2015 is commendable and going forward we hope that the day will come soon when we can say that our farmers are no more the hostage of vagaries of rainfall at least.

## Horticulture

### Vegetables

According to the latest available data on production of vegetables (Handbook of Horticulture 2014), during 2012-13 and 2013-14, production of major vegetables like beans, brinjal, cabbage, cauliflower, okara, onion and potato declined marginally, while, production of tomato and peas recorded a subdued growth. The productivity of these vegetables has shown a marginal improvement during this period. However, the productivity of potato has declined marginally during this period.

**Table 6.3: Vegetables Yield**

A:- Area in '000Ha P:- Production in '000MT													
	2011-12		2012-13		2013-14		2011-12	2012-13	2013-14	% Change in 2012-13 Over 2011-12		% Change in 2013-14 Over 2012-13	
	A	P	A	P	A	P				Yield/Ha (Productivity)	A	P	A
Beans	13.92	219.20	15.25	222.20	13.07	202.60	15.75	14.57	<b>15.50</b>	9.60	1.37	-14.31	-8.82
Brinjal	22.70	295.04	24.21	297.14	21.20	272.46	13.00	12.27	<b>12.85</b>	6.69	0.71	-12.44	-8.31
cabbage	28.91	477.08	31.14	480.23	30.18	471.30	16.50	15.42	<b>15.62</b>	7.69	0.66	-3.07	-1.86
cauliflower	23.66	378.50	24.72	381.21	23.13	364.50	16.00	15.42	<b>15.76</b>	4.51	0.72	-6.46	-4.38
okara	31.77	444.73	32.52	447.40	32.53	447.41	14.00	13.76	<b>13.76</b>	2.39	0.60	0.01	0.00
onion	15.70	318.19	17.21	322.15	16.22	320.53	20.27	18.71	<b>19.76</b>	9.66	1.25	-5.77	-0.50
peas	22.60	355.97	24.13	358.22	24.14	359.28	15.75	14.84	<b>14.89</b>	6.77	0.63	0.02	0.30
potato	45.75	652.79	47.21	659.61	49.06	653.12	14.27	13.97	<b>13.31</b>	3.19	1.05	3.92	-0.98
Tomato	24.16	247.59	26.36	250.21	26.39	251.44	10.25	9.49	<b>9.53</b>	9.13	1.06	0.11	0.49

Source: Handbook of Horticulture, 2014

### Fruits

The production of fruits increased marginally in Jharkhand during 2012-13 and 2013-14. Among

fruits, Jharkhand mainly grows guava and mango. The productivity of fruits in the state has remained constant during this period (Table 6.4).

**Table 6.4: Fruits Yield**

	2011-12		2012-13		2013-14		2011-12	2012-13	2013-14	% Change in 2012-13 Over 2011-12		% Change in 2013-14 Over 2012-13	
	A	P	A	P	A	P				Yield/Ha (Productivity)	A	P	A
Gooseberry	7.33	32.98	7.80	33.73	7.80	33.74	4.50	4.33	<b>4.33</b>	6.37	2.27	0.01	0.03
Banana			0.52	1.26	0.54	1.29		2.42	<b>2.39</b>			3.85	2.38
Guava	7.91	94.93	8.64	95.37	8.67	95.39	12.00	11.04	<b>11.00</b>	9.23	0.47	0.35	0.02
Mango	50.30	515.57	51.33	517.92	51.33	517.92	10.25	10.09	<b>10.09</b>	2.04	0.46	0.00	0.00

Source: Handbook of Horticulture, 2014

### Livestock and milk production

The production of milk, meat, fish and eggs in the state has shown a marginal increase during the period 2013-14 and 2014-15 (Table 6.5). During this period, the production of milk in Jharkhand

increased from 1699.83 tons to 1733.72 thousand tons. The production of eggs increased from 4444.9 lakhs to 4663.1 lakhs. The production of meat and fish increased from 45.4 thousand tons to 47.6 thousand tons and 104.8 thousand tons to 106.4 thousand tons respectively.

**Table 6.5: Milk, egg, meat and fish production in Jharkhand**

	2010-11	2011-12	2012-13	2013-14	2014-15
Milk (in 000 tonnes)	1555	1745	1679	1699.83	1733.72
Eggs (in Lakh)	4153.16	4294.4	4238.9	4444.9	4663.1
Meat (in 000 tonnes)	43.7	45.9	44.5	45.4	47.6
<b>Fish (in 000 tonnes)</b>	-	-	96.6	104.8	106.4

Source: Department of animal husbandry and fisheries, Government of Jharkhand

### Agricultural Inputs

Improvement in yield depends on a number of factors, also called agricultural inputs that include technology, use of quality seeds, fertilizers and pesticides and micronutrients and last but not the least irrigation. Each of these plays a role in determining the level of yield and in turn the augmentation in the level of production. Timely and convenient availability of inputs is a critical factor for attaining the production targets.

### Seeds

The availability of good quality seeds is a *sine qua non* for productivity growth in agriculture. In Jharkhand, majority of the farmers rely on farm-saved seed leading to a low seed replacement rate. The Seed Replacement Rate for the hybrid varieties of paddy is 2% every year whereas the Seed Replacement Rate for improved varieties is 7-8%<sup>1</sup>. The State Government has proposed to improve the infrastructure for the storage of seeds especially the farm-saved seeds.

### Fertilizers

The consumption of fertilizer during the period 2012-13 and 2013-14 has declined substantially from 197.62 thousand tons to 103.48 thousand

tons. All the three categories of fertilizers viz. Nitrogen, Phosphate and Potash saw a decline in consumption with the largest decline in the phosphate (Table 6.6).

**Table 6.6: Consumption of Different Fertilizers (in 000 tons)**

2012-13				2013-14			
N	P2O5	K2O	Total	N	P2O5	K2O	Total
111.83	76.08	9.71	197.62	82.48	17.31	3.69	103.48

Source: Agricultural Statistics at a glance-2014, GOI

The table below is a crop wise synthesis of the requirement, supply and consumption of total fertilizers<sup>2</sup> since 2009-10. Whereas the supply of total fertilizers has been variable through the reference period both for kharif and rabi crop, we see a distinct pattern in the requirement and consumption pattern wherein the latter has always been much lower than the former. The plausible explanation for the gap could be in the shortfall in the supply of fertilizers. However, the year 2014-15 for kharif crop and 2011-12 for rabi crop seem to be outliers since the supply far exceeded the requirement in both these years and yet the consumption was less than the requirement.

1 <http://jharkhandindustry.gov.in/pdf/Jharkhand-%20State%20Profile%20MOFI.pdf>

2 Total fertilizers include Urea, D.A.P, M.O.P and complex fertilizers. Since the year 2012-13 farmers in the State started using SSP, single super phosphate.

Another visible trend in the table and the subsequent figure is the great variability in the consumption of fertilizers both for kharif and

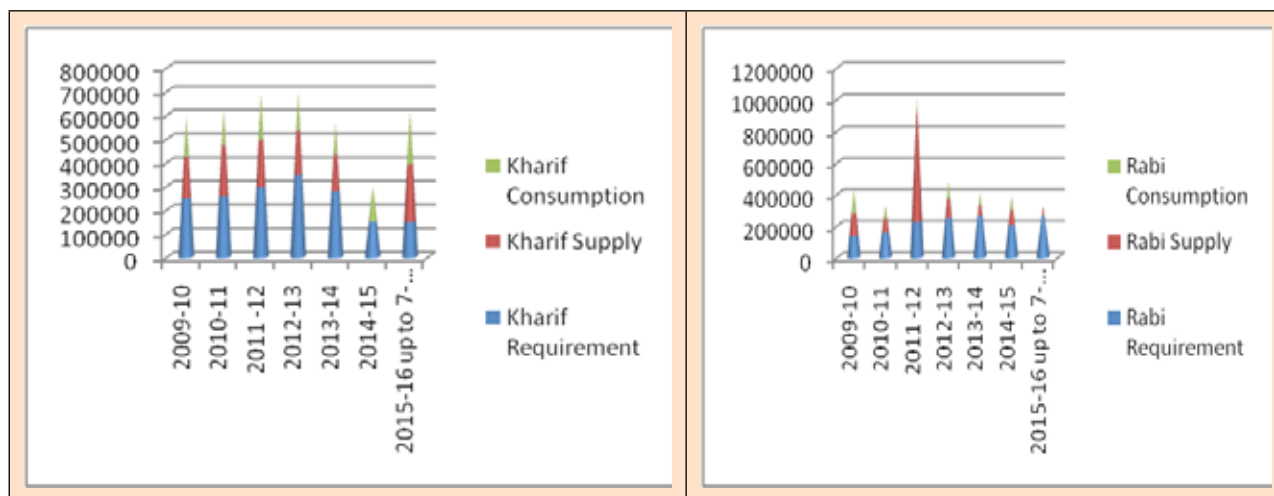
rabi crop during the reference period. Also, apparently there is lower consumption by rabi crops as compared with that for kharif crops.

**Table 6.7: Trends in Total fertilizer requirement and consumption in tons during 2009-2016**

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 up to 7-12-15	151760	240355	223248	266000	43169	17688

Source: Directorate of Agriculture, Government of Jharkhand

**Figure 6.6: Trends in Total fertilizer requirement and consumption in tons during 2009-2016**



### Mechanization and Technology

In Jharkhand due to the prevalence of small and marginal farmers with smaller landholding and weaker economic status, tractor is the only symbol of mechanization. According to the latest

survey of agricultural inputs, Jharkhand had 4.6 lakhs tractors, 20566 tractor drawn ploughs and 13674 tractor drawn disc harrow, 5.4 lakhs diesel engine pump sets, 62074 power operated sprayers, 101817 electric pump sets, 114909 power tillers in 2011-12 (Table 6.8).

**Table 6.8: Estimated number of Agricultural machinery in Jharkhand, 2011-12**

Power operated sprayer/ Duster	Diesel engine Pump set	Electric pump set	Power Tiller	Agricultural Tractor	Tractor Drawn board Plough	Tractor Drawn Disc Harrow
62074	541817	101817	114909	461783	20566	13674

Source: Input survey, All India Agricultural census 2010-11

### Irrigation

Irrigation is one of the most important inputs for agriculture. Presently, in Jharkhand the

availability of water resource is only 287810 lakhs m<sup>3</sup>, out of which 237890 lakh m<sup>3</sup> is from surface water and the remaining 49920 lakh m<sup>3</sup> is from

ground water. The total utilization of surface and ground water in the state for irrigation purposes so far is only 47360 lakh m<sup>3</sup> out of which 39640 lakh m<sup>3</sup> is surface water and 7720 lakh m<sup>3</sup> is

ground water. In Jharkhand, only 12.1 percent of the total area under crops is irrigated. This is far below the national average of around 47 percent (Table 6.9).

**Table 6.9: Percent Coverage of Irrigated Area during 2011-12**

	Total Foodgrains	Total Oilseeds	Total Area Under all crops
<b>Jharkhand</b>	7	6.2	12.1
<b>All India</b>	49.8	27.6	46.9

Source: Agricultural Statistics at a glance-2014, GOI

The table below presents the targets and achievements of different district departments

responsible for implementation of the major and medium irrigation projects in their region.

**Table 6.10: Trends in Irrigation Projects- Targets and Achievements, 2012-2015 (in hectares)**

District responsible for scheme implementation	Target-2012	Achievement-2012	Target-2013	Achievement-2013	Target-2014	Achievement-2014	Target-2015	Achievement-2015
Deoghar	44030	12100	36030	9814	41450	24104	39950	30655
Medini Nagar	50360	28303	39120	12410	49130	13855	50370	29437
Ranchi	69650	31759	55247	38094	53720	39742	62710	46534
Hazaribagh	22570	6096	8700	4255	7710	5588	10570	6885
Echa Guladiah	300	95	160	106	160	0	1700	160
Chandil	25280	3858	8560	7737	14336	8034	30568	14196
Total(major and medium projects)	212190	82211	147817	72416	166506	91323	194328	127833
<b>Grand Total (major, medium and minor projects)</b>	<b>257190</b>	<b>119396</b>	<b>223562</b>	<b>114030</b>	<b>274982</b>	<b>162918</b>	<b>302887</b>	<b>197445</b>

Source: Department of Water Resources, Government of Jharkhand

The table below reveals the statistics for district wise percentage achievement against the projected targets in the period 2012-15. On average, we have an upward trend in percentage achievement against the total target in the reference period

though there is some district wise variability on this indicator. On average, the ongoing irrigation schemes in Deoghar and the capital region of Ranchi outperform those in the other 4 regions.

**Table 6.11: Trends in Percentage Achievement against irrigation target, 2012-2015**

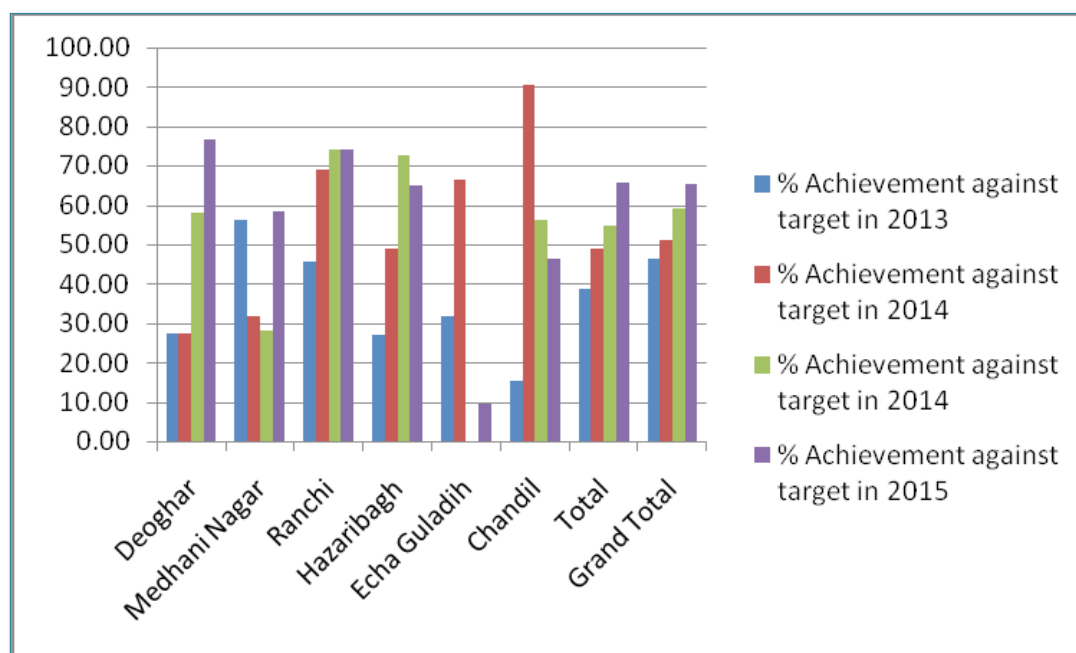
District responsible for scheme implementation	% Achievement against target in 2013	% Achievement against target in 2014	% Achievement against target in 2014	% Achievement against target in 2015
Deoghar	27.48	27.24	58.15	76.73
Medini Nagar	56.20	31.72	28.20	58.44
Ranchi	45.60	68.95	73.98	74.21

Hazaribagh	27.01	48.91	72.48	65.14
Echa Guladih	31.67	66.25	0.00	9.41
Chandil	15.26	90.39	56.04	46.44
Total(major and medium projects)	38.74	48.99	54.85	65.78
<b>Grand Total (major, medium and minor projects)</b>	<b>46.42</b>	<b>51.01</b>	<b>59.25</b>	<b>65.19</b>

Source: own calculations based on data from Department of Water Resources, Government of Jharkhand.

The figure below summarizes the year wise performance in each of the six major districts overlooking the implementation of the major and medium irrigation projects in the state.

**Figure 6.7: Performance of six major districts on implementation of major and medium irrigation project**



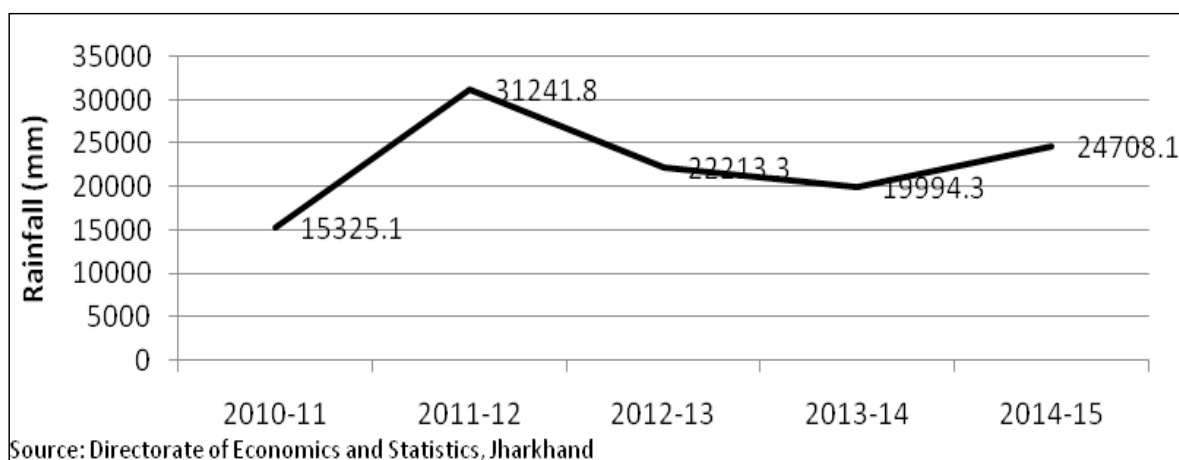
### Rainfall

In the absence of sufficient irrigation facilities, agriculture in Jharkhand remains primarily dependent on monsoon for its irrigational requirements. The majority of annual rainfall is received during the southwest monsoon season (June-September). However the total rainfall in the state during April to September has been found to cover more than 90 percent of the total

rainfall received annually. It also accounts for the rainfall other than the monsoons. Year 2014-15 was a good year compared to 2013-14 in terms of rainfall (figure 6.8). The state received around 24 percent more rainfall during this year compared to the previous year. This could be one of the reasons for the increase in the production of paddy in 2014-15.



**Figure 6.8: Total Rainfall during April to September**



### Storage Facilities

A good storage facility helps in smoothening consumption and avoids the risk of escalation in prices during a bad harvest year. Inadequate storage facility also causes post-harvest losses. But the utilization of storage capacity in Jharkhand has been low. As of January 2015, Food Corporation of India (FCI) had Average Storage Capacity of 1.81 lakh tons capacity in Jharkhand, out of which, only 59 percent is utilized. There are only 55 cold storages in Jharkhand having a capacity of 217280 metric tons<sup>3</sup>.

### Market for Agriculture

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 to provide marketing facilities to different stakeholders and remunerative price to growers through agricultural produce market committees (APMCs) in the State of Jharkhand.

In Jharkhand, HAAT BAZARS (Rural Markets) play an important role in the marketing of Agricultural Produce. Hundreds of persons from nearby villages assemble at these places to meet their day-to-day requirements. These

are also the centers of various other social and cultural activities of the simple people of the State. Keeping this scenario in consideration, the Board has paid special attention for the Integrated Development of all 603 HAATs of the State named as SAMEKIT VIKAS YOJNA which includes the construction of 4-6 Covered and Open Platforms, Internal Road in sufficient length, a Community Hall, a unit of toilets and at least one tube-well in each such HAAT. In the first phase of the YOJNA, 80 such Schemes in 65 HAATs have been taken up for implementation.

### Credit and insurance

Credit plays an important role in increasing agricultural production. The availability and access to adequate, timely and low cost credit from institutional sources is of great importance especially to small and marginal farmers. Along with other inputs, credit is essential for establishing sustainable and profitable farming systems. As shown in the chapter on Institutional Finance, the advances of banks to agriculture has expanded at a slow but consistent pace over the last three years

### Kisan Credit Card (KCC)

As on September 30, 2015 the total number of Kisan Credit Cards (KCC) issued in Jharkhand was 1573907 with the amount sanctioned around

<sup>3</sup> Source: [http://www.iasri.res.in/agridata/15data/chapter6/db2015tb6\\_10.pdf](http://www.iasri.res.in/agridata/15data/chapter6/db2015tb6_10.pdf)

Rs. 3.9 lakh crore (Table 6.12).

**Table 6.12: Kisan Credit Card (as on September 30, 2015)**  
(Amount in lakh)

	Cards Issued	Amount Sanctioned
Cooperative Banks	14883	2447.31
Regional Rural Banks	408268	70421
Commercial Banks	1150756	320134.1
Total	1573907	393002.4

Source: SLBC, Jharkhand

## Insurance

Insurance cover against loss is another important factor, other than credit, which encourages farmers to invest more in agriculture and increase production. During 2013-14, the total number of farmers insured under National Crop Insurance Programme (NCIP) in Jharkhand was 78467. An amount of Rs. 517.12 lakh was claimed as compensation against insurance in 2013-14 (Table 6.13). It is important that the insurance safety net is expanded to large number of farmers so that they can invest more in agriculture.

**Table 6.13: Number of Farmers Covered (Insured) and Claims for Compensation (Rabi Season) under National Crop Insurance Programme (NCIP) in Jharkhand (2013-2014)**

(Rs. in Lakh)								
State	No. of Farmers Covered (Insured)				Claims for Compensation*			
	WBCIS	MNAIS	CPIS	Total	WBCIS	MNAIS	CPIS	Total
Jharkhand	68801	9666	-	78467	517.12	-	-	517.12
India	5272831	3095511	13816	8382158	70546.32	14213.97	95.11	84855.4

MNAIS: Modified National Agricultural Insurance Scheme

WBCIS : Weather Based Crop Insurance,

CPIS : Coconut Palm Insurance Scheme.

Note : \* : As raised upto 10.07.2014.

Source : Indiastat based on Lok Sabha Starred Question No. 117, dated on 15.07.2014.

## Schemes and Initiatives for Agriculture

**Jalanidhi Yojana:** This program is for the installation of dug wells, shallow tube wells, bore wells and surface lift-irrigation points with the assistance from Rural Infrastructure Development Fund (RIDF) through the scheme “Jalanidhi”. Subsidy is provided to the beneficiaries under the scheme.

**Jharkhand State Horticulture Mission:** The Mission for Integrated Development of Horticulture (MIDH) is a Centrally Sponsored Scheme for the holistic growth of the horticulture sector covering fruits, vegetables, roots and tuber crops, mushrooms, spices, flowers, aromatic plants, coconut, cashew, cocoa and bamboo. This program is running in 17 districts of the state. It has been proposed, with a budget to Rs. 700 lakhs, to extend the program in the other 7 non mission districts of the state.

**Agri-clinic Yojana:** It has been proposed to start a new program to help farmers in different aspects of agriculture and cultivation like soil health, crop insurance, harvesting tools, fodder management etc. An initial budget of Rs.200 lakhs has been allocated for this program.

**Solar Energy for Agriculture:** Rs. 1500 lakhs has been proposed to allocate for the development of solar energy for agriculture sector.

**National Food Security Mission:** This program is running in 17 districts of the state. It has been proposed, with a budget of Rs. 300 lakhs, to extend the program in the other 7 non mission districts of the state. Under this program the cultivation of pulses will be promoted.

## Challenges and Outlook

Given that agriculture is one the most important

sectors of the economy of Jharkhand, its improvement in terms of area under cultivation, production and productivity is necessary. Jharkhand has an immense scope as well as challenges of increasing the agricultural production. One of the important challenges is improving its productivity. It can come through improvement in soil through use of manures and fertilizers, use of high quality seeds, improving the irrigation facility, gradual mechanization of agriculture and skill development of the farmers. The availability of adequate storage facility and its proper utilization can help in reducing

the post-harvest losses. The establishment of infrastructure and connecting the remote villages to the markets may provide incentives to farmers to increase their production and shift to more scientific ways of farming. The strengthening of safety nets in the form of crop insurance can help the farmers to hedge their investments. Also, effective coordination and monitoring of the ongoing agriculture and allied sector programs need to be ensured for optimum results.



# 7

## **Food and Public Distribution**

India has the largest Public Distribution System (PDS) of its kind in the world. PDS helps in distributing essential commodities to approximately 16 crore families in India. The total value of such commodities is worth more than ₹15,000 crore. The programme is managed jointly by GOI and state governments. The responsibility of procurement, storage, transportation and bulk allocation of food grains rests with the Central Government, whereas the State Government holds the responsibility of distributing the same to the consumers through the network of Fair Price Shops (FPS) established in the state. Each state government is also responsible for the allocation and identification of BPL families, issue of ration cards and supervising and monitoring the functions of FPS. Major commodities distributed through the networks of PDS are wheat, rice, sugar and kerosene. These essential commodities are distributed to the identified beneficiaries belonging to several categories: APL (Above Poverty Lines), BPL (Below Poverty Lines), AAY (Antyodaya Anna Yojna) and Annapurna.

### National Food Security Act

The Government of India implemented the National Food Security Act (NFSA) in 2013. The aim of the NFSA is to deliver food security to the targeted beneficiaries covering nearly 67 percent of India's population. NFSA brings several existing food-based welfare schemes including the targeted public distribution system (TPDS), wheat-based nutrition programme (WBNP), integrated child development services (ICDS), mid-day meal (MDM) and a conditional cash

transfer scheme called the Indira Gandhi Matritva Sahyog Yojana (IGMSY) under a single roof. The mandate of the programme is to distribute raw ration, meals and/or cash depending on the particular scheme under which the beneficiary is covered. Besides this, the Act also recommends targeted efforts to identify and support malnourished children across states. It has given a legal character to food entitlement to the people of India. In case of the non-supply of entitlement, the government commits to give food security allowance. Considering its coverage, TPDS is the largest component of the NFSA. There are two types of TPDS beneficiaries under NFSA, the Antyodaya (AAY or the poorest-of-poor) families and the priority households (PH). AAY families are entitled to 35 kilogram of food grains every month, while PH families are entitled to 5 kilogram of grains per month. Rice, wheat and coarse cereals are distributed to these families at predetermined prices. Using the Socio-Economic and Caste Census (SECC)-2011, the states are identifying the NFSA beneficiaries.

Jharkhand implemented the NFSA beginning from October 1, 2015, covering families belonging to both AAY as well as PH categories. Table 7.1 presents the actual distribution and pricing mechanism for the state based on the rural and urban population. At present, Jharkhand has a wide network of 23,614 FPS dealers covering nearly 5,170,159 ration cardholders belonging to 23,340,832 families in the state. The district wise distribution of ration card holders belonging to AAY and PH categories are provided in Table 7.2.

**Table 7.1: Food Grains Distribution under NFSA in Jharkhand**

		Urban		Rural			
Schemes	Commodity	Quantity	Rate	Schemes	Commodity	Quantity	Rate
		(Kg)	(₹/Kg)			(Kg)	(₹/Kg)
P.H.	Rice	3	1	P.H.	Rice	5	1
P.H.	Wheat	2	1	P.H.	Slat	1	1
P.H.	Salt	1	1	P.H.	Sugar	1	18.35
P.H.	Sugar	1	18.35	AAY	Rice	35	1

Urban				Rural			
Schemes	Commodity	Quantity	Rate	Schemes	Commodity	Quantity	Rate
		(Kg)	(□/Kg)			(Kg)	(□/Kg)
AAY	Rice	21	1	AAY	Slat	1	1
AAY	Wheat	14	1	AAY	Sugar	1	18.35
AAY	Salt	1	1				
AAY	Sugar	1	18.35				

Source: Department of Food, Public Distribution System and Consumer Affairs, Government of Jharkhand. Retrieved from [http://pdsreport.jharkhand.gov.in/policy\\_temps/searchPolicyResult/MTI=/Mg==](http://pdsreport.jharkhand.gov.in/policy_temps/searchPolicyResult/MTI=/Mg==)

**Table 7.2: District-wise Distribution of Ration Card**

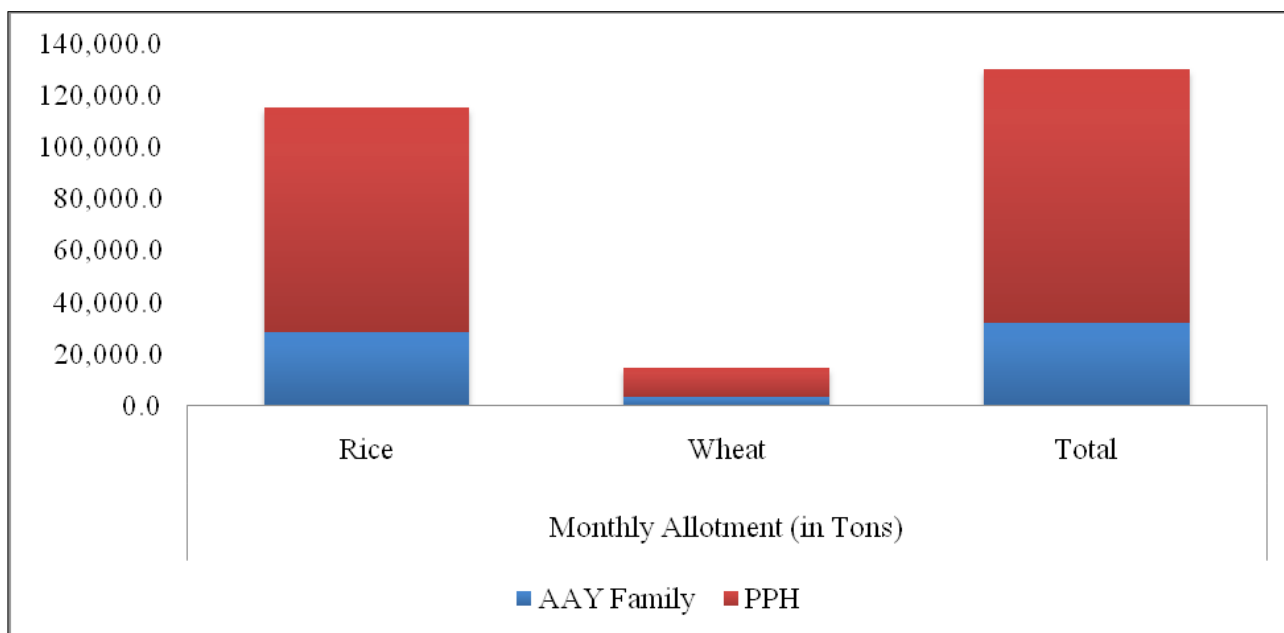
Sl. No.	District Name	PH		AAY		Total	
		Head	Member	Head	Member	Head	Member
1	Garhwa	215,586	1,008,845	31,112	127,253	246,698	1,136,098
2	Chatra	125,830	683,476	38,810	171,370	164,640	854,846
3	Kodarma	81,003	421,395	17,047	79,206	98,050	500,601
4	Giridih	280,189	1,479,968	69,168	356,343	349,357	1,836,311
5	Deoghar	201,363	1,074,993	15,652	70,833	217,015	1,145,826
6	Godda	171,808	796,842	28,761	109,599	200,569	906,441
7	Sahibganj	146,592	723,674	40,621	167,932	187,213	891,606
8	Pakur	141,623	677,917	19,808	77,990	161,431	755,907
9	Dhanbad	366,718	1,551,516	34,248	102,648	400,966	1,654,164
10	Bokaro	235,018	1,071,315	21,412	99,635	256,430	1,170,950
11	Lohardaga	69,801	356,324	14,185	57,886	83,986	414,210
12	PurbiSinghbluim	241,206	996,088	58,869	195,220	300,075	1,191,308
13	Palamu	340,457	1,471,176	47,210	157,023	387,667	1,628,199
14	Latehar	114,027	587,547	14,612	75,667	128,639	663,214
15	Hazaribagb	222,455	1,018,115	56,347	266,582	278,802	1,284,697
16	Ramgarli	94,436	439,150	21,498	94,412	115,934	533,562
17	Dumka	192,133	876,685	49,561	193,308	241,694	1,069,993
18	Jamtara	129,223	620,584	18,339	80,879	147,562	701,463
19	Ranchi	314,199	1,312,860	105,661	416,109	419,860	1,728,969
20	Khunti	69,126	320,310	33,542	120,932	102,668	441,242
21	Gumla	122,087	627,083	32,947	170,757	155,034	797,840
22	Simdega	89,517	423,722	17,408	77,339	106,925	501,061
23	PashchimiSinghbhum	136,113	536,084	96,539	337,496	232,652	873,580
24	SaraiKela-Kharsawan	151,898	527,554	34,394	131,190	186,292	658,744
	<b>TOTAL</b>	<b>4,252,408</b>	<b>19,603,223</b>	<b>917,751</b>	<b>3,737,609</b>	<b>5,170,159</b>	<b>23,340,832</b>

Source: Department of Food, Public Distribution System and Consumer Affairs, Government of Jharkhand

According to the latest available data, for the month of October, 2015, Jharkhand received approximately 1, 30,137 tons of food grain NFSA. Table 7.3 provides details of the allotment based on the household type and food grains (wheat and rice, respectively). The allocation is generally

based on the ratio of 60:40 for rice and wheat, respectively, but the dietary habits of the population are also kept in mind while distributing a particular state's share. Tables 7.4 and 7. 5 provide the district wise detailed allocation of wheat and rice for AAY and PH families, respectively.

**Table 7.3: Monthly Allotment of Rice and Wheat under NFSA for Jharkhand**



Source: Department of Food, Public Distribution System and Consumer Affairs, Government of Jharkhand

**Table 7.3: District-wise Allotment under AAY-October, 2015**

District	No. of AAY Family	Monthly Allotment of Food Grain		
		Rice	Wheat	Total
Garhwa	31112	965.643	123.277	1088.92
Chatra	38810	1204.571	153.779	1358.35
Koderma	17047	529.099	67.546	596.645
Giridih	69168	2146.811	274.069	2420.88
Deoghar	15652	485.801	62.019	547.82
Godda	28761	892.673	113.962	1006.635
Sahebganj	40621	1260.78	160.955	1421.735
Pakur	19808	614.793	78.487	693.28
Dhanbad	34248	1062.977	135.703	1198.68
Bokaro	21412	664.578	84.842	749.42
Lohardaga	14185	440.269	56.206	496.475
East Singhbhum	58869	1827.155	233.26	2060.415
Palamau	47210	1465.287	187.063	1652.35



District	No. of AAY Family	Monthly Allotment of Food Grain		
		Rice	Wheat	Total
Latehar	14612	453.522	57.898	511.42
Hazaribagh	56347	1748.878	223.267	1972.145
Ramgarh	21498	667.247	85.183	752.43
Dumka	49561	1538.256	196.379	1734.635
Jamtara	18339	569.199	72.666	641.865
Ranchi	105661	3279.468	418.667	3698.135
Khunti	33542	1041.064	132.906	1173.97
Gumla	32947	1022.597	130.548	1153.145
Simdega	17408	540.303	68.977	609.28
West Singhbhum	96539	2996.342	382.523	3378.865
SaraikelaKharsawa	34394	1067.508	136.282	1203.79
Total	917751	28484.821	3636.464	32121.285

Source: Department of Food, Public Distribution System and Consumer Affairs, Government of Jharkhand

**Table 7.4: District-wise Allotment under PH–October,2015**

District Name	No. of PH Family	Monthly Allotment of Food Grain		
		Rice	Wheat	Total
Garhwa	1008845	4473.166	571.059	5044.225
Chatra	683476	3030.497	386.883	3417.38
Koderma	421395	1868.443	238.532	2106.975
Giridih	1479968	6562.101	837.739	7399.84
Deoghar	1074993	4766.463	608.502	5374.965
Godda	796842	3533.156	451.054	3984.21
Sahebganj	723674	3208.733	409.637	3618.37
Pakur	677917	3005.849	383.736	3389.585
Dhanbad	1551516	6879.341	878.239	7757.58
Bokaro	1071315	4750.155	606.42	5356.575
Lohardaga	356324	1579.922	201.698	1781.62
East Singhbhum	996088	4416.602	563.838	4980.44
Palamau	1471176	6523.118	832.762	7355.88
Latehar	587547	2605.153	332.582	2937.735
Hazaribagh	1018115	4514.269	576.306	5090.575
Ramgarh	439150	1947.168	248.582	2195.75
Dumka	876685	3887.176	496.249	4383.425
Jamtara	620584	2751.637	351.283	3102.92
Ranchi	1312860	5821.153	743.147	6564.3
Khunti	320310	1420.238	181.312	1601.55
Gumla	627083	2780.453	354.962	3135.415
Simdega	423722	1878.761	239.849	2118.61
West Singhbhum	536084	2376.969	303.451	2680.42
SaraikelaKharsawa	527554	2339.147	298.623	2637.77

District Name	No. of PH Family	Monthly Allotment of Food Grain		
		Rice	Wheat	Total
Total	19603223	86919.669	11096.446	98016.115

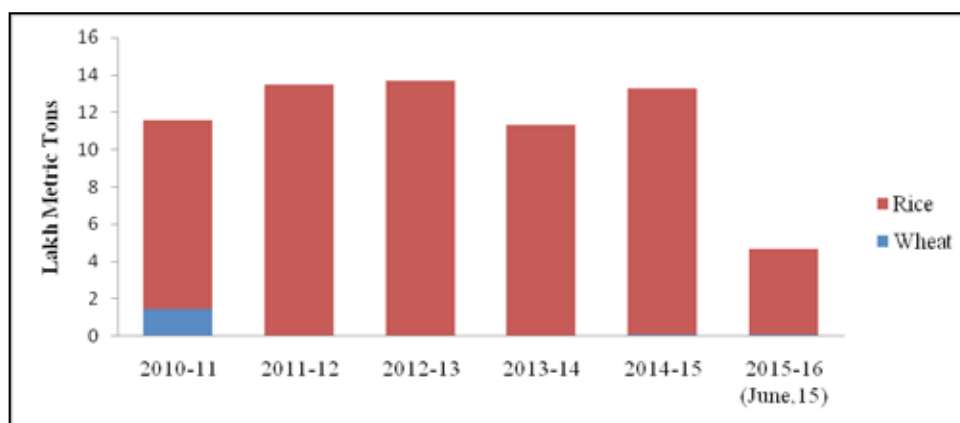
Source: Department of Food, Public Distribution System and Consumer Affairs, Government of Jharkhand

### Allotment and Off-takes of food grains from FCI

Food Corporation of India (FCI) is responsible for the procurement and storage of food grains through its network of godowns across the country. The Jharkhand region of FCI has 30 depots, out of which 6 are owned by FCI and the rest are hired. However, Jharkhand is a non-decentralized procurement (DCP) state, and hence, does not contribute much to the procurement by the

FCI. In order to meet the demand of the state, rice and wheat stocks are regularly inducted from surplus regions like Odisha, Chhattisgarh and Punjab. Table 7.6 provides the procurement of food grains by FCI from different states. The figures are in lakh metric tons. The data reveals that an estimated 13 lakh metric tons of food grains are procured by FCI every year in order to meet the needs of the state.

**Table 7.6: Procurement of Food grains by FCI from other States**



Source: Food Corporation of India. Retrieved from <http://fci.gov.in/movements.php>

In order to protect the interests of the state, constant monitoring and regular surprise inspections are carried out to detect any instance of corruption or malpractice. FCI takes disciplinary action, wherever required. However, in Jharkhand only

2 such minor incidents have been reported as of June 30, 2015 and actions have been taken against them. Allotment and off-take for APL, BPL and AAY families over the last few years are given in tables 7.7 and 7.8.

### Box No. 1

#### Kerosene DBT can result in 40 percent savings on under-recoveries

The proposed extension of the direct benefit transfer (DBT) scheme to kerosene, could result in an estimated 30-40 per cent savings annually on kerosene under-recoveries if implemented nationally, ratings agency ICRA opined in a note. It also said that the under-recovery from kerosene is likely to fall from ₹ 24,800 crore in 2014-15 to ₹ 12,500 crore in 2015-16 on falling crude prices and an increasing penetration of cooking gas. The report, however, warns that implementation is a major challenge as kerosene distribution is done through PDS outlets handled by the states, unlike LPG, which is directly sold by the central government-owned oil marketing companies. On January 1, 2016, the government said it would roll out LPG-like DBT scheme for kerosene from April 1, wherein the users will buy the cooking fuel at market rate but will get financial support directly in their bank accounts. The cash subsidy to be paid to users will be equivalent to the difference between the current PDS price of about ₹ 12 and market rate of ₹ 43 per liter.

On the impact of the scheme on oil marketers, the report said if the average crude prices remains at \$60 a barrel and the Rupee trades around 66.50 to the dollar, the under-recovery burden on kerosene could be Rs 9/litre, while the total burden will be Rs 21/litre.

The scheme will be rolled out from April 1, 2016 in Raipur, Durg and Bilaspur in Chhattisgarh, Panipat and Panchkula in Haryana, Shimla, Solan and Una in Himachal Pradesh, Chhatra, Giridih, East Singbhum, Hazaribagh, Jamtara and Khunti in Jharkhand.

Source: PTI, Jan 4, 2016. Retrieved from: <http://timesofindia.indiatimes.com/business/india-business/Kerosene-DBT-can-result-in-40-savings-on-under-recoveries/articleshow/50441514.cms>

**Table 7.5: Allotment and Off-take of Rice from FCI by Jharkhand**

Scheme	2010-11			2011-12			2012-13			2013-14			2014-15		
	Allotment	Off-take	%	Allotment	Off-take	%	Allotment	Off-take	%	Allotment	Off-take	%	Allotment	Off-take	%
APL	0.79	0.25	32	1.17	0.35	30	1.76	0.15	9	1.18	0.23	20	1.18	0.33	28
BPL	5.66	5.23	92	6.19	5.91	95	6.15	5.93	96	6.2	6.14	99	6.19	4.72	77
AAY	3.36	3.16	94	3.85	3.76	98	3.83	3.75	98	3.85	3.84	100	3.85	3.9	100
Total	9.81	8.64	88	10.02	10.02	89	11.74	9.83	84	11.23	10.2	91	11.22	10.45	93

**Table 7.6: Allotment and Off-take of Wheat from FCI by Jharkhand**

Scheme	2010-11			2011-12			2012-13			2013-14			2014-15		
	Allotment	Off-take	%	Allotment	Off-take	%	Allotment	Off-take	%	Allotment	Off-take	%	Allotment	Off-take	%
APL	0.36	0.1	27	1.76	0.15	8.5	1.65	0.03	2	1.18	0.0009	0.07	1.18	0	0
BPL	1.61	1.36	84	0	0	0	0	0	0	0	0.0000	0	0	0	0
AAY	1.5	1.43	95	0	0	0	0	0	0	0	0.0000	0	0	0	0
Total	3.47	2.89	83	1.76	0.15	8.5	1.65	0.03	2	1.18	0.0009	0.07	1.18	0	0

Source: Source: Food Corporation of India. Retrieved from <http://fci.gov.in/sales.php>

FCI issues stocks to the state governments who further issue the stocks to the fair price shop dealers. The findings from the above two tables reveal that the state is primarily allotted with rice and a very small allotment of wheat. We also observe that the off-take has improved over the last few years, specially, in 2014-15; the state was able to

off take 93 percent of its allotment in rice for the distribution to its people covered under several food programs.

#### Status of schemes run by the state

Jharkhand is committed to properly implementing the NSFA and improving the network of PDS system. The status of the several schemes run by

the department of food, PDS and consumer affairs is given below:

- BPL Yojana: Under BPL Yojana, the state distributes 35 kilograms of rice every month to each of the 14, 76,100 identified BPL households.
- Antyodaya Anna Yojana: Under Antyodaya Anna Yojana, state distributes 35 kilograms of rice every month to each of the 9, 17,900 identified families in the state.
- APL Yojana: This scheme covers around 19, 62, 00 families who receive 5 kilograms of rice and 5 kilograms of wheat every month.
- Additional BLP Yojana: This scheme covers around 11, 15,833 families where they receive additional food grains whenever the state receives any extra amount of monetary support from the central government. The amount of food grains distributed depends on the availability.
- National Food Security Act: As per census 2011, Jharkhand has a population of 3, 29,88,134, out of which 2,50,55,073 or approximately 76 percent of the total population live in rural areas and while the rest 24 percent live in urban areas. The scheme has so far covered 2,64,43,330 people which constitutes about 80 percent of the total population of Jharkhand. This implies that Jharkhand has made enormous progress in terms of the coverage of its population under NFSA. Looking at the rural-urban distribution, it reveals that, this scheme covers about 2, 16, 67,627 or 86.48 percent of rural population (against national average of 75%) and 47, 75,703 or, 60.20 percent of urban population (against national average of 50%) in the state. Some additional features of this act include-
  - Provisions to distribute wheat flour instead of food grains
  - Free meals for pregnant and breast-feeding mothers (from the birth of the child until they are 6 months old) through Anganwadi centers. Identified mothers will also receive at least ₹ 6,000 as maternal entitlement.
  - Free meals for children up to the age of 6.
  - Mid-day meals for school going children up-to the age of 14 or standard 8.
  - Number of families under various schemes: Identification of families is being conducted based on SECC-2011 data. At present, there are about 23, 94,000 BPL families in the state which also include 9, 17,900 families under Antodaya. In rural areas there are about 13,45,583 households who fall under the BPL category and have red ration cards. There are about 8, 44,983 households who belong to Antodaya and have blue ration cards. Moreover, in rural areas there are about 11, 15,833 households belonging to the additional BPL category, which takes the total number of identified families in the rural areas to 33, 06,399. Under NFSA there are about 40,90,006 families in the rural areas, which makes the total number of PH households in the rural areas to be 7,83,607. Similarly, in urban areas there are 1,30,517 households belonging to the BPL category, 72,917 households belonging to Antodaya, and 7,14,864 households who belong to the priority households category.
  - Chief Ministers Dal-Bhaat Yojna: Under this scheme, the state government is running 370 Dal Bhaat Centres by procuring food grains from the market. At these centres people are being provided with a one time meal at ₹5 every day. The state is also planning to establish seven Night-Dal-Bhaat centres, two each at Ranchi and Dhanbad and one each at Hajaribagh, Jamshedpur and Palamu,

respectively. There are also plans to establish model Dal Bhaat centres, one each at Ranchi, Hajaribagh, Palamau and Deoghar district headquarters, respectively, and two at Jamshedpur district headquarters.

- **Computerization:** In order to improve the operational efficiency and service delivery system of the PDS, the department has initiated the process of end-to-end computerisation which will be completed within the next five years.
- **Grain Banks:** In order to tackle emergency situations like drought, flood, etc., the state has established 583 village grain banks and each bank has been provided with the required amount of funds as well as one time allotment of 40 quintals of food grains.
- The department has also initiated the distribution of free LPG to about 1 lakh poorest BPL families.
- **Sugar Distribution:** Prior to the implementation of the NFSA, each household in the state used to receive 2 kilograms of sugar per month. However, from October 2015, the mechanism of sugar distribution has been modified. Accordingly households are receiving 1 kilogram of sugar in one month followed by 2 kilograms of sugar in the following month.
- **Salt Distribution:** Jharkhand will initiate the distribution of salt very soon. It has already initiated the process of accepting tenders through NCDEX by employing Reverse Auction Method.
- **Kerosene Oil Distribution:** Ministry of Petroleum and Natural Gas, GoI provides Jharkhand with 22,136 kiloliters of kerosene oil every month. The state distributes the oil among its districts based to their respective population. The state has around

51, 70,159 households which are under this scheme. At present, 2 litres of kerosene are distributed in the urban areas while 4 litres of kerosene oil are provided in the rural areas. The distributed price of kerosene oil varies between ₹14.38 to ₹15.38 per litre.

- **Empowerment of Women:** As per NFSA, the government designates the oldest woman of a family, who is not less than 18-years old, as the head of the household for the issuance of items under the TPDS. In case of a household that does not have women or women of 18 years of age or above, but has a female member below that age, then the oldest male member of the family will be considered the head while the female member, on attaining such age will become the head of the household in place of the male member.
- **Increment in the Commission:** In order to improve the financial condition of the FPS owners, the state has decided to increase the commission from ₹0.45 per quintal to ₹0.80 per quintal.
- **Consumer Protection and Grievance Redressal Mechanism:** Keeping the safety and rights of the people in mind, the government has begun implementing the Consumer Protection Act, 1986 in the state. The state government has constituted 24 district forums to look into the complaints from the consumers for any violation regarding the quality of the service/product. The state also observes 24th December as the National Consumer Rights day to create awareness about the rights of the consumer, which include Right to Safety, Right to be Informed, Right to Choose and Right to be Heard. For effective grievance management, redressal and monitoring, call

centres will be set up in each district. The department aims to redress the grievances within a stipulated timeline.

#### **Major Initiatives of the department:**

- Computer facilities for all the offices at the state, district, block and godown level
- Training facilities at all levels
- Call Centre Setup
- Development of web portal for transparent operations
- Implementation of POS devices with biometric authentication
- Routine video conferencing for improvement of implementation
- Using AADHAAR for authentication of beneficiaries
- Generation of e-SIO (Store Issue Order) to minimize human intervention
- Promoting NEFT payment system instead of demand draft

#### **Conclusion:**

Jharkhand has a wide network of food distribution system in place to meet the need of the people of the state. It has successfully implemented the National Food Security Act with a coverage of more than 80 percent of the total population of the state. Apart from successfully running the

schemes of the central government, Jharkhand also helps the poor through its own programs, including Chief Minister's Dal-Bhaat Yojna. The state is also making rapid progress in digitalizing the PDS mechanism.

# 8

## **Industry and Mining Industry**

*The progress of a state is to a great extent measured by its industrial development. Although agriculture has its own importance and provides the basic necessities of life, but it alone cannot take a state forward. Even to modernize and improve agriculture, industrialization is necessary. With Make in India progressing at a fast pace, Jharkhand has also followed its footsteps and launched Make in Jharkhand, which can also boost the industrial sector of the state.*

Jharkhand is becoming the vanguard of industrialization among the Indian States. To ensure regular and mega investment, the State has been able to convince the ambassadors of industries to choose Jharkhand as a preferred investment destination. Accordingly, major industrial houses have inked MoUs with the State Government. Jharkhand is presently producing about 20-25 percent of the 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 become the potential steel-hub of India<sup>1</sup>.

### Sub-Sectoral share of Industry

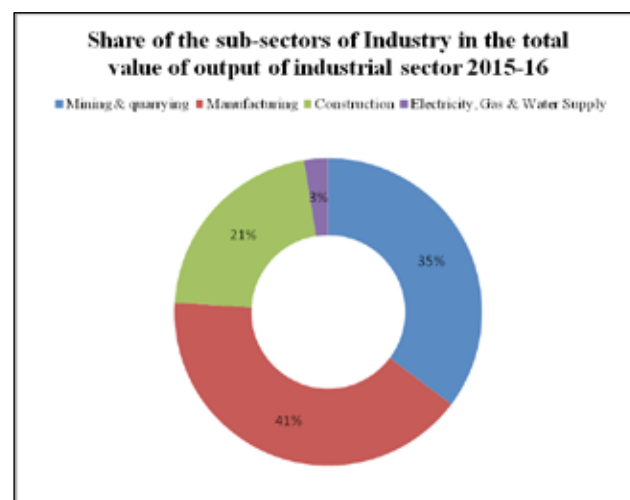
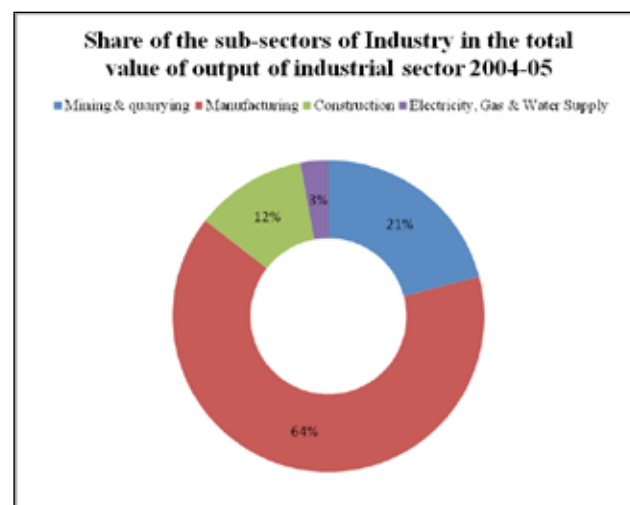
The share of manufacturing in the total output of the industrial sector is the highest, as it occupies 41 percent share, followed by mining and quarrying activities that occupy 35 percent of the value of the total output of the industrial sector. Construction occupies 21 percent of the share in the total output, and electricity, gas and water supply occupy 3 percent.

Although, it can be seen that manufacturing contributes the majority share in the total output of the industrial sector, its share in the total output of the industrial sector is reducing. In 2004-05 the share of manufacturing in the total output of the industrial sector was 64 percent, and has reduced to 41 percent.

<sup>1</sup> Jharkhand Industrial and Investment Promotion Policy 2016 (draft)

The share of construction has increased from 12 percent to 21 percent, similarly the share of mining and quarrying has also increased from 21 percent to 35 percent.

**Figure 8.1: Share of Sub-sectors of Industry in the total value of output of Industrial Sector 2004-05 and 2015-16**



The overall growth of the Industrial sector is low, construction is the main driver to the growth of this sector, and the manufacturing sector has a negative growth, especially the unregistered manufacturing. Although, the figures for 2014-15 and 2015-16 are projected figures, with the new initiatives that have been taken up by the department, it can be expected that the revised figures may show a positive trajectory.



With the “Make in Jharkhand” and other several initiatives undertaken by the department, the manufacturing sector can show improvement in

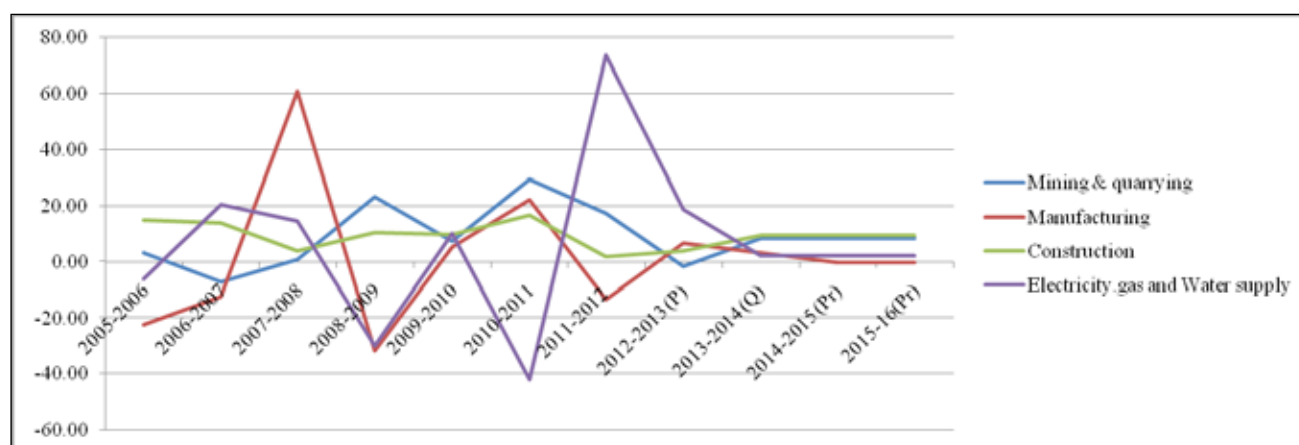
the figures if adequate investments and growth take place in the sector.

**Table 8.1: Percentage Change over previous year in GSDP Constant Prices (2004-05)**

	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013 (P)	2013-2014 (Q)	2014-2015 (Pr)	2015-16 (Pr)
Mining & quarrying	3.21	-7.25	0.84	23.38	7.26	29.54	17.27	-1.81	8.39	8.39	8.39
Manufacturing	-22.52	-12.46	61.03	-31.78	5.17	22.30	-13.47	6.69	3.20	-0.28	-0.11
Manu-Registered	-27.21	-17.74	76.48	-37.83	2.71	30.21	-19.17	6.97	2.03	-2.79	-2.79
Manu Unregistered	6.53	9.85	12.07	-1.61	12.91	-0.40	7.89	5.90	6.52	6.52	6.52
Construction	14.97	14.13	4.02	10.37	9.74	16.73	1.92	3.86	9.34	9.34	9.34
Electricity, gas and Water supply	-6.01	20.68	14.72	-30.10	10.23	-42.11	73.82	18.65	2.27	2.27	2.27
Industry	-12.31	-6.12	34.01	-15.56	6.73	21.31	-0.58	3.56	6.02	4.53	4.79
Calculated State Per Capita GSDP (Rs.)	-4.70	0.82	18.75	-3.14	8.62	14.28	3.06	5.99	7.47	7.11	7.39

Source: Directorate of Statistics, GoJ (Note-P-Provisional,Q-Quick, Pr-Projected,A-Advance)

**Figure 8.2: Percentage Change over previous year in GSDP, constant (2004-2005) prices from 2005-06 to 2015-16**



### Index of Industrial Production in Jharkhand

The growth of the industrial sector is measured using the Index of Industrial Production (IIP). The present index of industrial production covers mining, manufacturing and electricity sectors. At the state level, for Jharkhand, data is available for the manufacturing sector alone. The table below presents the IIP for the state, for the manufacturing sector for the financial years 2012-13 and 2013-14. We observe that manufacture of wearing

apparel, except custom tailoring, manufacture of pharmaceutical; medicinal chemicals and botanical products, manufacture of electrical equipments and production, processing and preservation of meat, fish, fruit, vegetables, oils and fats showed a double digit growth over the last year. However, manufacturing of computer and peripheral equipment, repair and installation of machinery and equipments and manufacturing of communication equipments, has declined by more than 10 percent over the last financial year.

**Table 8.2: Index of Industrial Production National Industrial Classification 2008-Jharkhand**

Description	2012-13	2013-14	Change
Production, Processing and preservation of meat, fish, fruit, vegetables, oils and fats	98.42	108.90	10.65
Manufacture of dairy products	103.06	97.66	-5.24
Manufacture of grain mill products, etc. and animal feeds	104.76	105.01	0.24
Manufacture of other food products	102.47	98.12	-4.25
Manufacture of beverages	107.80	106.65	-1.07
Manufacture of tobacco products	99.58	100.42	0.84
Manufacture of textiles & cotton ginning	105.95	110.62	4.41
Manufacture of wearing apparel, except custom tailoring	110.38	131.90	19.50
Manufacture of leather and related products	107.25	112.78	5.16
Manufacture of Basic Iron and Steel, Casting of iron and steel	102.04	103.82	1.74
Manufacture of basic precious and non-ferrous metals, Casting of non-ferrous metals	101.10	91.85	-9.15
Manufacture of fabricated metal products, except machinery and equipments	95.34	88.66	-7.01
Manufacture of electronic components, consumer electronics, magnetic and optical media	93.33	84.31	-9.66
Manufacture of computer and peripheral equipment	86.13	72.64	-15.66
Manufacture of communication equipments	107.16	75.86	-29.21
Manufacture of optical and electronics products n.e.c	97.97	93.00	-5.07
Manufacture of Electrical equipments	100.47	113.96	13.43
Manufacture of machinery and equipments n.e.c	95.07	90.42	-4.89
Manufacture of Transport Equipments	96.21	91.47	-4.93
Manufacture of coke, refined petroleum products, rubber and plastic products	108.48	114.14	5.22
Manufacture of chemical and chemical products except pharmaceuticals, medicinal and botanical products	103.76	113.02	8.92
Manufacture of pharmaceutical; medicinal chemicals and botanical products	103.78	118.88	14.55
Manufacture of rubber & plastic products	100.24	98.12	-2.11
Manufacture of other non-metallic mineral products	101.88	102.97	1.07
Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting material	96.31	95.15	-1.20
Manufacture of paper and paper products	100.54	100.47	-0.07
Printing and reproduction of recorded media except publishing	100.54	100.47	-0.07
Manufacture of furniture	112.65	112.36	-0.26
Other Manufacturing	92.42	77.45	-16.20
Repair and installation of machinery and equipments	92.42	77.45	-16.20

Source: Directorate of Economics & Statistics, Government of Jharkhand

### Annual Survey of Industries

The Annual Survey of Industries (ASI) covers all factories registered under Factories Act, 1948 and Bidi & Cigar establishments registered under Bidi & Cigar Workers (Conditions of

Employment) Act, 1966. ASI 2012-13 results reveal the status of the industries in the state under several parameters.

**Table 8.3: Selected Indicators for Industries in Jharkhand**

Characteristics	2011-12			2012-13		
	Jharkhand	India	Percentage to India	Jharkhand	India	Percentage to India
Number Of Factories	2,556	217,554	1.17	2,697	222,120	1.21
Fixed Capital	6,742,579	194,955,088	3.46	6,728,469	218,026,022	3.09
Working Capital	1,192,981	58,879,446	2.03	1,024,577	60,341,107	1.70
Invested Capital	8,479,558	284,009,510	2.99	8,937,014	314,411,215	2.84
Number of Workers	135,795	10,438,365	1.30	127,287	10,051,626	1.27
Wages to Workers	228,400	9,985,579	2.29	249,485	11,089,620	2.25
Total Emolumnets	516,062	21,473,349	2.40	557,785	23,805,727	2.34
Prov. Fund and Other Welfare Exp.	104,204	3,348,831	3.11	133,936	3,696,609	3.62
Total Inputs	8,285,568	479,866,558	1.73	8,358,559	501,866,586	1.67
Value of Output	10,305,316	577,602,354	1.78	10,851,206	602,594,536	1.80
Net Value Added	1,678,877	83,670,291	2.01	2,091,303	85,194,869	2.45
Net Fixed Capital Formation	1,496,640	20,316,875	7.37	588,081	20,219,540	2.91
Gross Fixed Capital Formation	1,837,512	34,382,380	5.34	989,424	35,752,621	2.77
Gross Capital Formation	2,161,522	40,703,148	5.31	1,193,832	44,673,315	2.67
Profits	745,298	45,162,950	1.65	1,048,854	44,426,292	2.36

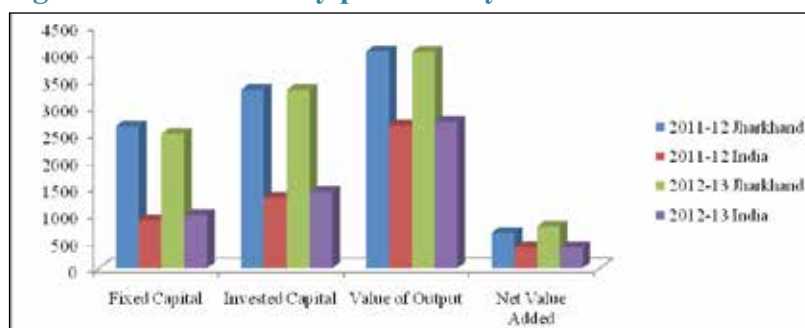
Source: Annual Survey of Industries 2012-13, (Value Figures in Lakhs & Others in Numbers )

The above table reveals that, the number of factories in the state increased by 141 factories in one year from 2011-12 to 2012-13. The amount of Invested capital went up by 5.4 percent during 2012-15, but the share of Jharkhand with respect to all India level declined from 2.99 percent to 2.84 percent. Jharkhand saw a decline in the total number of employment by 6.26 percent, but the wages to the workers increased by 9.23 percent during the financial year 2012-13. One area where the state did extremely well was in providing welfare benefits to its industrial workers. There was a 28.5 percent increase in the amount that was provided to the workers in the form of provident fund and other welfare schemes. Similarly, the state's share at the all

India level also increased to 3.62 percent in 2012-13 compared to 3.11 percent in 2011-12. While the contribution of the state declined in terms of input usage but its share improved marginally for output. The state exhibited a major decline in terms of its share at the all India level in all categories related to Capital Formation. However, Jharkhand performed extremely well in terms of improving its share in the Profit category.

The figure below exhibits the productivity of the factories in Jharkhand and India with respect to per factory contribution. We find that even though there was not much of a change in per factory capital and output, but, on average the performance of Jharkhand has been better than the all India average.

**Figure 8.3: Productivity per Factory – Jharkhand and India**



Source: Annual Survey of Industries 2012-13, (Value Figures in Lakhs)

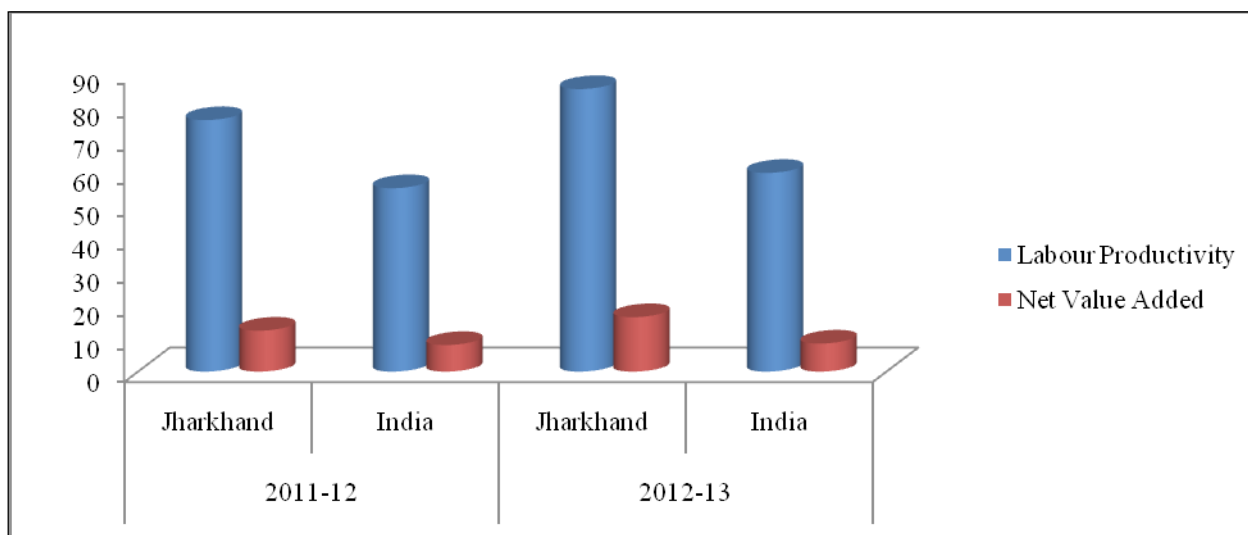
**Figure 8.4: Per Factory Worker – Jharkhand and India**



Source: Annual Survey of Industries 2012-13, (Value Figures in Numbers)

The figure above shows the average number of workers in a factory in Jharkhand and India over the two financial years 2011-12 and 2012-13. The figure shows that the average number of workers in a factory in Jharkhand stood at around 53 in 2011-12 but dropped to 47 in 2012-13. During the same period, average number of workers per factory dropped from 48 to 45 for India.

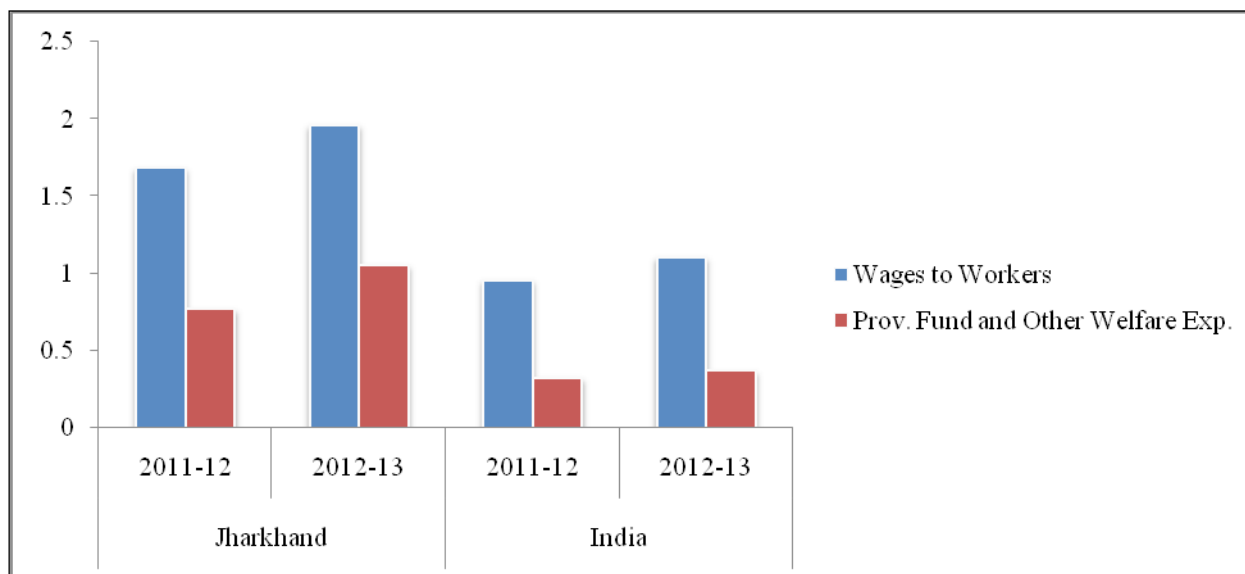
**Figure 8.5: Productivity per Worker – Jharkhand and India**



Source: Annual Survey of Industries 2012-13, (Value Figures in Lakhs)

The above figure plots the worker productivity in Jharkhand and India over the two financial years, 2011-12 and 2012-13. The figure shows that in 2012-13, labour productivity measured as the value of total output per worker stood at ₹ 85 lakh per-worker in Jharkhand while for India it stood ₹ 60 lakh per-worker. The growth rate in labour productivity for India was about 8 percent but for Jharkhand labour productivity increased by 12 percent.

**Figure 8.6: Benefits per Worker – Jharkhand and India**



Source: Annual Survey of Industries 2012-13, (Value Figures in Lakhs)

In terms of providing benefits to its work force, Jharkhand ranks very high in India. Not only has it been able to provide more wages and social security benefits to its workers compared to the all India average, but at the same time it has provided more benefits and wages in 2012-13 over the past financial year.

### Government Initiatives

The Department of Industries' organizations like Industrial Area Development Authorities, Jharkhand, State Khadi & Village industries Board, Jharkhand Industrial Infrastructure Development Corporation (JIIDCO), Single Window Society and JHARCRAFT are making significant contributions in industrialization of the State. Government is also committed to provide international standard infrastructure and facilities in the industrial areas and estates managed by the Industrial Area Development Authorities.

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 and rubber, chemicals,

electrical, cement, metallurgy and automobile components, equipment's for heavy engineering companies etc.

There have been several new initiatives that have been taken up by the Department of Industries, Government of Jharkhand. With the state of Jharkhand being ranked third in the 'ease of doing business' by the World Bank, a huge morale boost for the state economy, the department has taken up Make in Jharkhand, in sync with the Make in India campaign. With enabling a single window portal to help investors, to launching of the Food Processing Industry Policy 2015, the Feed Processing Industry Policy 2015, the Industrial Park Policy 2015 and the Export policy 2015 has put Jharkhand on the forefront on its way to becoming the Industrial hub of the country.

### Jharkhand Industrial and Investment Promotion Policy 2016

Jharkhand Industrial and Investment Promotion Policy 2016, (in its draft stage) aims to establish state-of-the-art infrastructure, promote manufacturing, enhance inclusivity, foster innovation and create employment opportunities across sectors. The main objective of this policy is to convert Jharkhand into a favoured destination

for investors and to promote sustainable Industrial growth of the State, to create a time bound web based transparent working mechanism for project clearance, date of production declaration and financial & non-financial assistances and clearances, to establish linkages between large industries and MSME/ancillary industries etc.

The strategy that will be adopted is elaborated as follows:

The strategy for achieving growth seeks to promote collaboration among regional value chains by encouraging innovative activity and sector-specific interventions explained below:

- Promotion of private investment and PPP mode mechanism in the development of infrastructure. It includes road, power, telecom, industrial estate, industrial clusters and industrial parks including rural & village industrialization e.g. Sericulture, Khadi, Handicraft, Food Processing, Handlooms, Bamboo, Leather, & Lac etc.
- Organization of quality training to rural women SHG in sericulture, handloom and handicraft for rural village industrialization.
- Industrial parks of specialized nature shall be promoted by private, joint venture or PPP mode.
- Striving to put in place appropriate arrangements for ensuring timely and adequate flow of credit to industries, specially the MSE sector.
- Development of a strong network with Export Promotion Councils, Commerce and Transport Department, FIEO, ITPO and Product Sectoral Associations and MSME sector associations to give impetus to Public Private Partnership.
- Development of international trade service providers to boost international trade.
- Strengthening of the Single Window System

for facilitating export Industries.

- Better land management and increasing the availability of developed plots readily for new investors in Industrial Area Development Authority.
- Special incentives are proposed for women and SC/ST entrepreneurs.
- Institutionalization of Monitoring, Evaluation and Grievance Redressal Mechanism.
- Institutionalization of consultation mechanism with stakeholders and industrial associations.
- Thrust to entrepreneurship and skill development programmes.
- Accelerating Development of Infrastructure.
- Promoting labour intensive industries.
- Focused approach for industrially under-developed areas.
- Strengthening sector-specific skill development and vocational skills.
- Encouraging universities for start-ups & innovative product development.
- Support technology up-gradation and research & development.
- Promotion of trade facilitation & e-governance.
- Conducive labour reforms including more opportunity for women
- Focus approach on 'Make in India' program
  - Improving business environment with stress on 'Ease of Doing Business'.
  - Enable manufacturing processes.
  - Zero effluent discharge plants.

The department with the collaboration of the government has already started walking the path that has been set up by the Jharkhand Industrial

and Investment Promotion Policy of 2016. Some of the initiatives that have been taken up have been dealt in the following sections.

### **Box 8.A: And the third position goes to Jharkhand!**

With a 63.07 per cent score on the World Bank's Ease of Biz assessment, Jharkhand has leapfrogged to the third position from almost the bottom of the list.

Jharkhand is the only state that has complied 100 per cent with the suggested labour regulations. Along with the portal, the department's efforts at reforming the inspection regime are the subject of case studies. The report calls Jharkhand the clear leader in terms of labour inspection reforms, with a 72 per cent compliance rate against a national average of 19.45. Tax returns have also been computerised which allows e-registration of VAT and CST, professional tax and entertainment tax. The state has also developed an online management system for key statutory clearances related to the State Pollution Control Board.

The report notes that the state has improved in four key areas — property registration, environmental clearances, commercial taxes and land allocation. What seems to be giving the state an edge is its online infrastructure — except land, key reforms in the three other areas have been online innovations. The foundations for these were laid in 2005 by the current TRAI chairman and former C.S., R.S Sharma as the then-Secretary of the state's Information Technology department. "I can say with confidence that Jharkhand, which was an early-adopter, is very,very ahead of other states in terms of providing online, real-time services," opined Mr. R.S. Sharma.

#### **What is 'Ease of Doing Business'?**

DIPP reports reveal that by 2020, India will be home to 1.35 billion people and out of the lot; 906 million will be of working age. Hence, to sustain India's growth, these 906 million people will need jobs and it can be provided only if manufacturing and service sectors in India have a sustainable growth.

Therefore, to achieve this, in December, 2014, a workshop was organised namely 'Make in India' where state governments agreed to a 98-point action plan for business reforms for all States and Union Territories.

Prime Minister Narendra Modi had requested the World Bank Group to support the efforts made by India and increase manufactured exports.

The main objective of the action plan was to target at increasing transparency and improve the efficiency and effectiveness of government's functions and services for doing business in India.

### **Jharkhand launches "Ease of Doing Business"**

To simplify and rationalize rules and make the Information Technology (IT) more effective, the Jharkhand government has launched "Ease of Doing Business" initiative in the state in sync with the launch of the Make in India campaign by the central government.

By facilitating things, "Ease of doing business" will bring in more investments to the state and "create more demand for skilled and unskilled manpower". Increase in demand for manpower will help in improving in wages and the skill acquisition ecosystem.

The state's labour department is taking multiple initiatives in discussion with stakeholders on labour laws related compliances to improve "Ease of Doing Business". Several amendments in applicable acts and rules are underway, which aim to make an investor-friendly environment in the state and ensure compliances for the benefit of the workers.

One of the key initiatives being undertaken by the department is to develop a Comprehensive Labour Management System (CLMS) portal. This portal will enable the entrepreneurs and industrialists to access all departmental services such as licensing, online returns, registration of workers, etc. online. They will be able to apply for registration, renewal

of licences and avail other services related to compliance of labour laws.

It is a significant achievement for Jharkhand and has sensitized stakeholders in Jharkhand and those outside on willingness of the Government of Jharkhand to provide a suitable business environment to investors. This will help Jharkhand in building the perception of a business friendly state.

To better the condition of the workers in the state, the government has launched several initiatives, including the Shram Shakti Pehchan Campaign to register and issue Unorganised Workers Identification Number to provide social security benefits.

The state government plans to launch an online system for registration and issue of certificate under Jharkhand Shops and Establishment Act, along with a labour manual detailing the inspection process, compliances under various laws and standardized formats for inspection.

### **Jharkhand Single Window Clearance Act, 2015**

Jharkhand Single Window Clearance Act, 2015 has been enacted to provide for accelerated and time bound grant for various licenses, permissions and approvals to promote industrial development; to facilitate new investments; to simplify the regulatory framework by reducing procedural requirements and rationalizing documents, to improve ease of doing business, and to provide for an investor friendly environment in the state of Jharkhand.

### **Single Window and Single Sign-On for 'Ease of Doing Business'**

State has taken a giant leap by introducing the Single Sign-on at Single Window portal of Government of Jharkhand, i.e., [www.advantage.jharkhand.gov.in](http://www.advantage.jharkhand.gov.in). A single sign-on technology available at Jharkhand's portal for Ease of Doing Business portal is first of its kind in India and no

other single window portal in India has it.

Single Sign-On at Single Window portal allows seamless integration of single window portal with the respective department's portal by eliminating the need of signing in multiple times as well as the need of creating separate login credentials at various department portals.

This feature has been currently made available for availing services of Industries Department, Commercial Tax Department, Labour Department, Industrial Area Development Authorities and Jharkhand State Pollution Control Board. Other departments will be integrated shortly.

### **Single Window Clearance Mechanism**

For the promotion of investment and industries, in the state of Jharkhand, department of Industries has established a single window clearance system. It is for "Ease of Doing Business", and also to provide mandatory clearances and disbursement of fiscal incentives within the given time limit. This mechanism shall have Single Window Clearances Committee under the chairmanship of the Principal Secretary, Industries with all the important secretaries as members in this committee. This committee shall approve projects including financial incentives at the MSME level and for projects other than that of MSME, this committee shall make recommendations to the High Powered Committee for approval.

The dept. of Industries has also launched four sector specific policies namely,

1. Jharkhand Industrial Park Policy 2015
2. Jharkhand Feed Processing Industry Policy 2015
3. Jharkhand Food Processing Industry Policy 2015
4. Jharkhand Export Policy 2015

### **Jharkhand Industrial Park Policy 2015**

Industrial Parks have played a pivotal role in industrialization across the globe. In Jharkhand also, space developed by the Industrial



Development Authorities, houses more than 3000 units. It is an apt time to expand the possibility of setting up of industrial parks by inviting private capital. This will also bring in expertise from the private sector and new practices and learnings from other states to Jharkhand.

The government has decided to provide assistance to the private industrial parks also. This is because Private Parks also require assistance in developing common infrastructure in the park and provide facilities to the participating units. The policy provides support to setup Industrial Parks in the Joint Venture or PPP mode, under this policy.

#### **Incentives and concessions for Public, Private, PPP, JV Industrial Parks to be set up**

- Fifty percent of the project cost, upto a maximum of Rs. 10 crores. incurred on development of infrastructure
- Fifty percent of cost, up to maximum of Rs. 7 crores, incurred on development of infrastructure in the sector specific private industrial park
- The incentives for development of infrastructure of private industrial park will be based on the project cost.
- The developer of industrial park availing incentives under this policy will not be eligible to avail incentives under any other schemes of the state government unless specified otherwise while granting approval of the project. However, the industrial units set up in the private industrial park shall be entitled to the benefits and incentives as provided under Jharkhand Industrial Policy and any schemes of the Central and state Government for the time being.

Any Private Institutions, Industry House or any large project is eligible for setting up private industrial park including sector specific industrial park. The promoter of private institution of the

private industrial park shall have to commit to hold at least 20 percent equity participation in the projects. Focus areas will be Apparel Fiber and Textile Park, IT Park / Software Technology Park, Gems and Jewellery Park, Bio-tech and Herbs Park, Chemical and Pharmaceutical Park, Food Park, Automobile Vendor-Ancillary Industries Park and parks for other sectors, like, Ceramic Park. Plastic Park, Knowledge Park and Film City.

#### **Jharkhand Feed Processing Industry Policy 2015**

Animal Husbandry is an area where, Jharkhand has huge untapped potential in developing an ecosystem suitable for the progress of Animal Husbandry sector which includes dairy, meat, piggery, goater, poultry and fisheries. Availability of suitable 'Feed' is an important component of an animal husbandry ecosystem. This policy will help in developing feed producing capabilities in the state to support the animal husbandry sector. Farmers and intermediaries will also benefit with demand for processing of agricultural by-products and opportunity for additional income.

The main objective is to create a favourable atmosphere for setting-up of animal feed processing units in the state through creation of infrastructure facilities, encouragement of capital investment, technology up-gradation, development of marketing network, development promotion, grants and concessions.

The scheme envisages financial assistance to food processing units in the form of grants-in-aid:

- 35 percent of the cost of Plant & Machinery and technical civil works, subject to a maximum of Rs. 500 lakhs in general areas
- 45 percent of the cost of Plant & Machinery and technical civil works, subject to a maximum of Rs. 500 lakhs in Integrated Tribal Development Project (ITDP) areas.

## Jharkhand Food Processing Industry Policy 2015

About half of Jharkhand's population is engaged in agriculture and primary sector which has a huge untapped potential in agriculture, horticulture, fishery and animal husbandry. Jharkhand offers favourable climatic environment for these products. This potential could be utilized for the development of a vibrant food processing industry in Jharkhand to meet its own needs and also provide it to the other states and countries.

The objective is creating a favourable atmosphere for setting-up of food processing units in the state through creation of infrastructure facilities, and encouraging capital investments and technology up-gradation as well as grants and concessions.

- Assistance of up to 35 percent of the cost of Plant & Machinery and technical civil works, subject to a maximum of Rs. 500 lakhs in general areas ( upto 45 percent in Integrated Tribal Development Project (ITDP) areas for processing units (new unit. modernisation, up-gradation, expansion & diversification)
- Grant-in-aid of 50 percent of the bank appraised project cost for the general areas and 75 percent in Integrated Tribal Development Area respectively to a maximum of Rs. 2.5 crore for setting up of primary processing centres/ collection centres in Rural Areas.

- Grant-in-aid: assistance of 35 percent of project cost (up to a maximum of Rs. 7 Crores) for setting up of cold chains, value addition and preservation infrastructure; also assistance will be upto 50 percent in case of Integrated Tribal Development Areas
- Grant-in-aid of 50 percent of project cost establishment and modernization of meat and fish shops subject to a maximum of Rs. 5 Lakhs; 75 percent in case of Integrated Tribal Development Areas

### Investments in the Food Sector

- The Mother Dairy, National Dairy Development Board, has set up a vegetable and fruits processing plant which is under construction, with a project cost of Rs. 76 Crore in 27 acres of land near Ranchi.
- SFAC-APEDA, Pack House & IQF plans to set up a plant with an investment of Rs. 30.00 Crores at Hotwar. Ranchi. The transfer of land is under process.
- M/s Anmol Feeds, Sun Juices, Crystal Logistics, Keventer. NCL, etc. has identified land near Nagri. Requisition has been sent to district administration for transfer of land.
- Further, land requirement has been made by the following industries in Food & Feed Processing sector and the proposed investments are as follows.

**Table 8.4: Major steps towards the Jharkhand Food Processing Industry Policy 2015(Proposed Major Food and Feed Processing Units)**

A. Proposed Major Food and Feed Processing Units				
Unit Name	Product	Project Cost (Rs. Cr)	Land Required (Acres)	Ideal Location Required
L L Logistics	Cold Chain and Frozen Food	100.00	70.00	Near Ranchi & Jamshedpur
Crystal Logistics	Cold Chain and Frozen Food	35.00	2.00	Near Ranchi
Anmol Feed	Aqua Feed	5.00	10.00	Near Ranchi

Xitix SFT Technologies	Biscuits	200.00	10.00	Near Ranchi
Keventer	Cold Chain and Frozen Food	30.00	5.00	Near Ranchi
Acuity Cold System	Cold Chain	20.00	2.00	Near Ranchi
Madan Mohan Grains	Flour Milling	50.00	1.50	Near Ranchi
NCL	Herbal Processing	50.00	0.50	Near Ranchi
Sun Juices	Fruit Juices & Dairy	100.00	5.00	Near Ranchi on Highway
Anup Kumar	Tomato Powdering	5.00	2.00	Near Ranchi
<b>Total</b>		<b>595.00</b>	<b>108.00</b>	

Source: Department of Industries, GoJ

**Table 8.5: Major steps towards the Jharkhand Food Processing Industry Policy 2015 (Units setting up in Mega Food Park, Near Gatasud, Ranchi)**

<b>B. Units setting up in Mega Food Park, Near Gatasud, Ranchi</b>			
Unit Name	Product	Project Cost (Rs. Cr)	Land Required (Acres)
Kitchen Mate	Puree & Paste	4.71	1.2
Eastern Manufacturing	Food Park	6.5	1.25
Raha Enterprises	Cold Chain, IQF and Frozen Food	2.5	2 SDF
Vijay Cashew Processing	Food Park in Bokaro over 12 acres	5	0.5
Vadilal	Food Park in Ranchi over 10 acres	60	10
<b>Total</b>		<b>78.71</b>	<b>12.95</b>

Source: Department of Industries, GoJ

**Table 8.6: Major steps towards the Jharkhand Food Processing Industry Policy 2015 (Units setting up in Own Land)**

<b>C. Units setting up in Own Land</b>			
Unit Name	Product	Project Cost (Rs. Cr)	Land Ownership
M R Food	Skimmed Milk	55	Own Land
Triveni Mega Food Park	Food Park	100	Own Land
Prasad Nutriments Pvt. Ltd.	Cold Chain, IQF and Frozen Food	15	Own Land
Jharkhand Realty	Food Park in Bokaro over 12 acres	10	Own Land
Logistics Park	Logistic Park in Ranchi over 10 acres	10	Own Land
Makhan Chor Dairy	Dairy Processing	5	Own Land
<b>Total</b>		<b>195</b>	

Source: Department of Industries, GoJ

### Jharkhand Export Policy 2015

The objective of the policy is to facilitate the rapid and sustained growth of exports from Jharkhand and to increase its share in all India exports to 2 percent by 2019. This is envisaged to be achieved by:

- Providing an effective, proactive and supportive institutional mechanism.
- Evolving and implementing export promotional strategies.
- Building supportive infrastructural facilities like high speed internet access, high speed consignment movement by rail or road without hurdles.
- Marketing development assistance, R&D on global market research and testing laboratories support, crating world trade centre facility at Ranchi.

### Fiscal Incentives provided are:

- **Exemption from Electricity Duty** -100 percent Export Oriented Units (EOUs), IT and Bio-technology units, industries in Special Economic Zone (SEZs) and Electronics Hardware Technology Parks will be exempted from payment of Electricity Duty for a period of 10 years.
- **Allotment of Land for Exporting Units** - One of the key reasons for low investment in the exporting sector has been the availability of land or high cost of the same which deter a potential small manufacturer start manufacturing. With a view to meet the high export target, the Government of Jharkhand will give priority in allotment of plots/land to export oriented units (those committing to exports over 50 percent of their production) in an industrial area.
- **Transport Subsidy for Shipment to Ports** - Being a land locked state; Jharkhand does not have any port. It has to send export shipments via rail/ road to Kolkata port, which increases the cost of transportation. To encourage exports from the state.

Transport subsidy would be provided on the basis of costs incurred by exporters for shipment to the export transporting goods to the ports. The amount of subsidy will not exceed Rs. 10 Lakh during the financial year for an exporter.

- **Export Development Assistance (EDA)** - Presently Market Development Assistance (MDA) is provided by the Government of India to exporters for market surveys, product development and participation in international trade fairs. Government of Jharkhand will extend the Export Development Assistance to MSMEs for participation in approved International Trade Fairs at national and international level. Buyer-seller meet shall be organized for exploring new markets in collaboration with ITPO/EPCs/Commodity Boards etc.

These four policies have have been set up to attract investments in Jharkhand. Recently the department of industries has published a draft notification of the Jharkhand Automobile and Auto-Component Policy 2015 for stakeholder discussion and is seeking public comments. In addition to these, Jharkhand direct land purchase policy and revised Jharkhand Industrial policy is under finalization.

### Box 8.b: Important Initiatives for Industrial Promotion

**Jharkhand Investment Promotion Board (JIPB)** has been approved to advise the government on issues related to attracting investments and building a positive word of mouth. Captains from the industry have been invited to provide direction and guidance on measures to be taken to promote Jharkhand as an attractive investment destination

### Electronic Manufacturing Cluster

The Government of India has sanctioned an Electronic Manufacturing Cluster at Aditaypur. It is estimated that out of the total cost of Rs. 90 Crore, the Government of India will contribute ₹ 40 Crore limit. Rest will be funded by the SPV. This EMC will give a boost to the electronic system design and manufacturing in Jharkhand.

Department of Industries has also submitted a proposal to Govt, of India for establishing a **Plastic Park** at Devipur, Deoghar.

To promote exports, a MoU has been signed with the Airports Authority of India to establish air cargo complex at Birsa Munda International Airport at Ranchi. In the current financial year, an amount of Rs. 1 Crore has been released for this purpose to AAI, for the air cargo complex which is under construction.

### Integrated manufacturing clusters

**Barhi**, in the **Hazariibagh** district has been identified and approved by the Honorable Chief Minister as the nodal point for IMC under Amritsar- Kolkata Industrial Corridor.

**Amritsar Kolkata Industrial Development Corporation (AKIDC)** is preparing a prospective plan for the development of IMC in about 2500 Acres. It has been informed that the Government of India is investing Rs. 2500 Crores in this IMC for development of infrastructure, in addition to the investment from private sector and the state government.

#### Few additional steps being taken

Department of Industries is planning to organize a Jharkhand Global Investment Summit in 2016 for attracting more investments to Jharkhand. The knowledge partner has been identified and the preparation has already been started.

*Source: Department of Industries, GoJ*

### Investment Proposals

In the current financial year, first stage MoUs have been signed with following business houses.

**Table 8.7: List of MoUs signed by with different business houses**

Sl. No.	Company	Proposed Capacity to be installed	Investment Proposal (Rs. Crores)
1	M/s Ultratech Cement Ltd. Date of MOU-02.06.2015	5000 TPD Green field Integrated Cement Plant & 40M W CPP	1700.00
2	M/sAdaniEntreprisesLtd.DateofMOU-25.06.2015	MMT Methanol SNG-8MMSCMD Power-4000MW	50000.00
3	M/s NMDC Ltd. Date of MOU-28.06.2015	Green field Integrated Project	18000.00
4	M/s Kansal & Kansal Agro Farms Co. Date ofMOU-24.04.2015	Production of herbal orgenic value added.	70.00
5	M/s M.R. Food Processing Industries Date of MOU-24.04.2015	Milk Powder Plant	55.00
6	M/s L.L. Logistic Pvt. Ltd. Date of MOU-24.04.2015	Agro product storage & preservation	200.00

Sl. No.	Company	Proposed Capacity to be installed	Investment Proposal (Rs. Crores)
7	M/s Triveni Mega Food Park (P) Ltd. Date of MOU-24.04.2015	Mega Food Park	180.00
8	M/s Bridge Point Skills & Network (P) Ltd. Date of MOU-24.04.2015	Training Resource Centre in Food Processing in HUB & Spoke model	55.00
9	M/s Crystal Logistic Cool Chain Ltd. Date of MOU-24.04.2015	Agro Food Processing	100.00
10	M/s Kwalitiy Ltd. Date of MOU-24.04.2015	Milk & milk Products	100.00
		Total	70460

Source: Department of Industries, GoJ

### Corporate Social Responsibility Activities

Jharkhand is the first state to establish “Jharkhand Corporate Social Responsibility Council”. This council is headed by the Chief Minister to coordinate development through CRS funds. The CSR spending has been increased from Rs. 376.94 Crore in 2014-15 to Rs. 913.73 Crore in 2015-16. The increase in spending is more than 2.5 times. The state highway of Hazaribagh to Bijubara Road is funded by NTPC with Rs 441 Cr and CCL is developing the Hotwar Mega Sports complex as a Sport University.

### Jharkhand Industrial Infrastructure Development Corporation

The Chief Minister approved additional manpower for JIIDCO. JIIDCO shall provide secretarial support to single window clearance system and also provide housekeeping support to DICs.

The process has been initiated to form a Joint Venture Company between GAIL Gas Ltd and JIIDCO for the development of the city gas distribution at Ranchi and Jamshedpur.

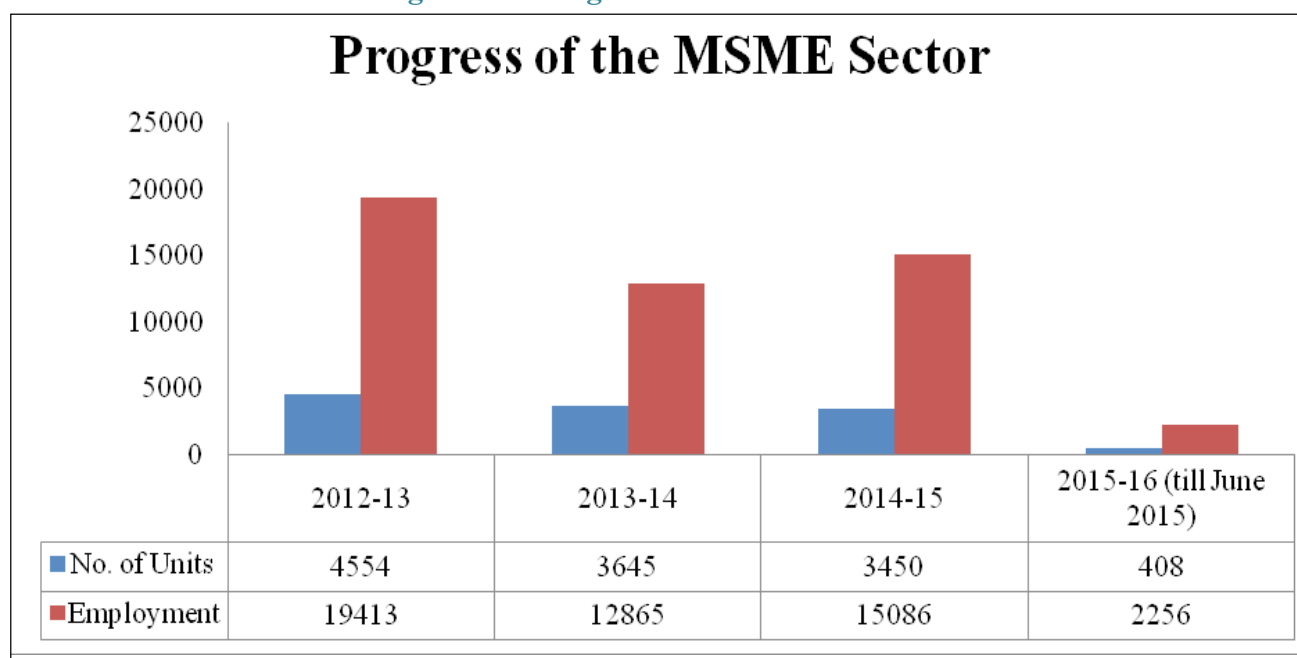
### MSME Sector

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 percent of the country’s GDP, 45 percent of the manufacturing output and 40 percent of the exports and hence, Government of Jharkhand places a strong impetus on the development of the MSME sector.

MSMEs provide the largest share of employment, second only to agriculture, and hence the development of the MSME sector can contribute enormously to the socio-economic development of the state. MSME sector underscores entrepreneurship and innovation. Moreover, MSMEs are complementary to large industries as ancillary units.

The figure below depicts the progress of the MSME sector over the years from 2012-13 to 2015-16. For 2015-16, data is available till June 2015, where the number of units stood at 408 and employment stood at 2256, for the first quarter of the financial year 2015. The number of units in 2014-15 was 3450 and employment was 15086.

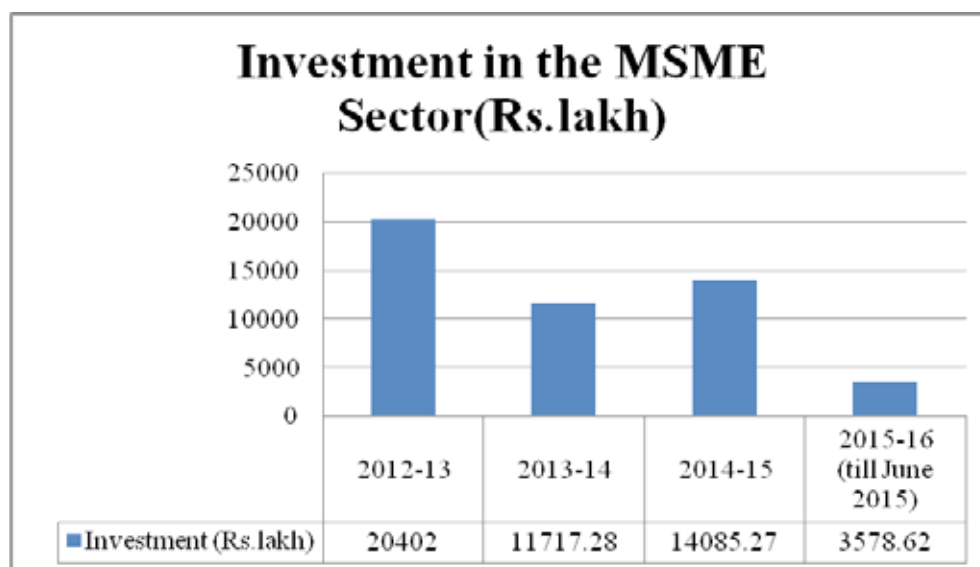
**Figure 8.7: Progress of the MSME Sector**



The figure below shows the amount of investments that took place year after year from 2012-13 to 2015-16. In 2012-13 the investments stood at Rs 20,402 Lakh. In 2013-14 the investments made

were to the tune of Rs. 11,717 lakh and in 2014-15 it was Rs. 14,085 lakh. Till the month of June 2015, the investments for the financial year of 2015-16 stood at Rs. 3578 lakh.

**Figure 8.8: Investment in the MSME Sector**



The table below shows that 1.87 percent of estimated numbers of enterprises in India are present

in Jharkhand, and Jharkhand accounts for 1.60 percent of the employment of the country.

**Table 8.8: Distribution of estimated number of enterprises and employment in Jharkhand**

Particulars	Number of Enterprises (Lakh)			Employment (Lakh)				
	Registered Sector	Unregistered Sector		Total	Registered Sector	Unregistered Sector		Total
		Sample	EC 2005 <sup>1</sup>			Sample	EC 2005	
Jharkhand	0.18	4.25	2.32	6.75	0.75	8.24	3.92	12.91
All-India	15.64	198.74	147.38	361.76	93.09	408.84	303.31	805.24
Percentage of Jharkhand's share	1.15	2.14	1.57	1.87	0.81	2.02	1.29	1.60

Source: MSME Annual Report, 2014-15

With reference to the principal characteristics of the MSME sector, according to the MSME Annual Report, Jharkhand's MSME Sector is home to 2.07 percent of the enterprises of the country and generates 1.79 percent of the country's employment.

**Table 8.9: Distribution of principal characteristics of MSME sector<sup>2</sup>**

State	Enterprises (Lakh)	Employment (Lakh)	Market Value of Fixed Assets (Rs. In Crore)
Jharkhand	4.43	8.99	5020.72
All-India	214.38	501.93	689954.86
Percentage of Jharkhand's share	2.07	1.79	0.73

Source: MSME Annual Report, 2014-15

<sup>2</sup> Excluded activities under wholesale/retail trade, legal, education & social services, hotel & restaurants, transports and storage & warehousing (except cold storage).

The progress of PMEGP over the years has been elaborated in the table below, with the No of beneficiaries being added every year and the margin money. In 2015-16 there were 1260 beneficiaries in total from all the institutions, and the margin money was Rs. 2094 Lakh approximately.

**Table 8.10: Progress in PMEGP**

Name of Institution	2013-14		2014-15		2015-16	
	Physical	Financial	Physical	Financial	Physical	Financial
	No. of Beneficiaries	Margin Money in Lakh	No. of Beneficiaries	Margin Money in Lakh	No. of Beneficiaries	Margin Money in Lakh
D.I.C.	2125	2947.38	527	977.39	799	1192.90
K.V.I.C.	745	1341.00	192	356.21	231	538.91
K.V.I.B.	582	807.23	107	198.42	230	362.60
Total	3452	5095.61	826	1532.02	1260	2094.41

Source: Department of Industries, Govt. of Jharkhand

As MSME sector is an integral part of the state's economy, the government intends to offer a conducive eco-system and competitive fiscal incentives to MSME's, through the Jharkhand Industrial and Investment Promotion Policy, 2016.

Some of the strategies that would be undertaken are described as follows;

- Price preference will be allowed for goods manufactured by Micro and Small Industries of Jharkhand in case of



purchases by the government departments and state owned PSUs including boards, corporations, development authorities, improvement trusts, municipalities, notified area committees, cooperative bodies and institutions aided by the state government and companies where the government share is 50 percent or more.

- The state government proposes to formulate a Marketing Policy for safeguarding the interest of the local Micro and Small Enterprises (MSE). GoJ launched the Procurement Policy in 2014.
- Providing platforms for interaction between enterprises of Jharkhand and potential domestic and global markets through trade fairs, road shows etc.
- Encouraging the MSEs to participate in national and overseas business fairs and exhibitions, and international delegations.
- Setting up a permanent exhibition-cum-convention centre for exclusive display of MSME products
- Special emphasis will be given on providing Common Facility Centres (CFC) mainly through Public-Private-Partnership (PPP) initiatives to MSME projects of a cluster.

### Initiatives at the MSME Sector

#### Land Bank

In Jharkhand there are four Industrial Area Development Authorities, and they function as land banks for industrialization of Jharkhand through MSMEs. These authorities are responsible for acquisition of land, development of infrastructure, etc within their jurisdiction. This is done so as to identify the state as a state which has international standard infrastructure and facilities to promote more and more of industries in the region.

**Table 8.11: Industrial and Growth Areas of Jharkhand**

Industrial Areas	
Palamu-Garhwa Industrial area	Lohardaga Industrial Area
Dhanbad-Bokaro Industrial Area	Singhbhum Industrial Area
Koderma-Hazaribagh Industrial Area	Ghatshila Industrial Area
Ranchi Industrial Area	Doeghar-Giridih Industrial Area
Growth Areas	
Mega Growth Areas	Barhi, Hazaribagh
Mini Growth Areas	Food Park(Ranchi) Apparel Park (Chaibasa)
Micro Growth Centers	At the block to boost village based industries

Source: "Advantage Jharkhand", GoJ

#### Adityapur industrial Area Development Authority (AIADA)

This is situated in the district of Saraikela Kharaswan. It is located at a distance of about 8 km from Tatanagar railway station and 8 km from the Jamshedpur Airport. At present it is spread over about 3,500 acres of land. The entire industrial area is broadly divided into seven phases with each phase having a direct approach from the state highway. AIADA is in the process of acquiring more land to the extent of about 200 acres for setting up industrial units in the years to come.

#### Ranchi Industrial Area Development Authority (RIADA)

It is an autonomous body set up by the Government of Bihar, in the year 1974 and has been playing a pro-active role towards industrial development in nine command districts of Jharkhand since the last forty one years. It has got 17 industrial areas/ estates with 6 micro industrial parks. 589 units have been established with 143 ancillary units and 79 units are under construction.

#### Bihar Industrial Area Development

### Authority (BIADA)

With its headquarters at Bokaro, BAIDA, endeavours for the industrialization of the region. The region is rich in coal and mineral reserves, and this industrial area helps in facilitating the ancillary units of the Bokaro Steel Plant and the Central Coalfields Ltd.

### Santhal Pargana Industrial Area Development Authority (SPIADA)

The headquarter is located in Deoghar and it is manated for the industrial development of Santhal Pargana Division, covering Dumka, Deoghar, Jamtara, Pakur, Godda and Sahibganj.

The state cabinet has passed regulations for all four IADAs for transparent and time bound allotment of land through online system.

1. Adityapur Industrial Area Development Authority Regulations, 2015
2. Bokaro Industrial Area Development Authority Regulations, 2015
3. Ranchi Industrial Area Development Authority Regulations, 2015
4. Santhal Paragna Industrial Area Development Authority Regulations, 2015

### Handicraft sector

Jharkhand is the largest producer of tussar silk. The state accounts for seven percent share in India's silk production and 40 percent share in tussar silk production. In 2014-15 the production of raw silk stood at 1,946 metric tonnes, and there is an estimate of an increase of 15 percent<sup>3</sup> in the production of silk, as a bumper harvest of the first crop is expected this year.

In the current financial year, production of 2,700 metric ton was targeted. Till now, commercial seed rearing of about 10 lakh has been done. About 12,020 people have been trained for advance training in silk production.

Few initiatives in the handicraft sector are

elaborated as follows:

- Government of India has sanctioned a Mega Handloom cluster development scheme, in favour of JHARCRAFT. This will help in the infrastructure, design and marketing development of the product made by the weavers of Godda, Dumka, Sahibganj, Deoghar and Jamtara districts of Jharkhand. The scheme includes central government assistance of Rs. 70 crores and state government assistance of Rs. 6.5 crores.
- An integrated handicraft development scheme has been sanctioned and is being implemented by JHARCRAFT. The scheme has an outlay of about Rs. 30 Crores. This will help in providing training to more than 5000 SC and ST candidates through JHARCRAFT.
- Approval has been granted for establishing a centre with the help of C-DAC for computer aided design.
- The government has introduced mobile service to farmers engaged in production of silk. Information can directly be given to the farmers on current issues related to production of silk. This will help timely intervention on problems and can increase production of silk.
- Construction of a Silk Park at Irwa has already been started and the construction of Silk Park at Amda is to be started soon.
- Computer Design training will be imparted to weavers at Ranchi, Saraikela, Deoghar and Hazaribagh. Infrastructure has already been created. Weavers' training has been started.
- JICD (Jharkhand Institute of Craft and design) will be started this year with the help of National Institute of Design (NID). This will help in providing degree courses to students on craft, design, entrepreneurship and animation.

<sup>3</sup> Data from the Department of Industries, GoJ

## Development of Industrial areas and Logistics

In order to facilitate easy availability of land for industrial development, around 650 acres of land is under the process of acquisition by various IADAs in the current financial year 2015-2016 with an expenditure of around Rs. 44 crores.

A total of 601 plots are notified for all four IADAs for online allotment. Entrepreneurs have deposited a processing fee for 128 numbers of plots for allotment of land. It is expected to generate total investment of around Rs. 2000 crore from the MSME sector. All the four authorities are acquiring some more land in various parts of Jharkhand and the notification is expected to be issued in the coming days for online allotment for MSME and large industries.

## Promotion of Cluster Development in the State

The state government will promote cluster development of industries under existing schemes of Government of India. The state government will extend all necessary support for cluster development of industries under the relevant schemes of the Government of India viz-a-viz Small Industry Cluster Development Programme, of Ministry of MSME and IIUS Scheme of Directorate of IPP.

Quality of infrastructure in industrial clusters of the State would be upgraded through a cluster development action plan in collaboration with industries and all other concerned department / agencies availing the Government of India schemes. The State Government will support and supplement the cluster plans depending upon the nature of cluster, sustainability of activities and other considerations.

Clusters are being implemented to increase productivity, upgrade technical skills, competitiveness and capacity building of

enterprises. Adityapur Auto Cluster has state-of-art testing facilities and CETP, and Hazardous Waste Management facility is under construction. Electronic Manufacturing Cluster has been sanctioned at Adityapur by the Government of India.

Government of Jharkhand has identified the following clusters:

1. Refractory Cluster, Chirkunda, Dhanbad. Jharkhand Refractory & Research Development Centre, Nehru Road, Chirkunda
2. Black Smithy/Hand Forging Cluster, Bhendra, Bokaro.
3. Brass & Bronze Utensils Cluster, Bishnugarh, Hazaribarh.
4. Brass & Bronze Utensils Cluster, Jariagarh, Khunti.
5. Ranchi-Ramgarh Refractory Cluster, Ranchi
6. Black Smith Cluster, Badki Lari, Ramgarh
7. Bamboo Cluster, Bundu & Sonahatu, Rehebundu, Ranchi
8. Engineering Components Cluster, Tupudana, Ranchi
9. Silver Jewellery Cluster, Sukrigarha, Ramgarh
10. Fly Ash Cluster, Jamshedpur
11. Dhanbad Flour Mill Cluster, Dhanbad
12. Sari Calendaring Cluster, Chirkunda, Dhanbad
13. Steel Utensils Cluster & Agriculture Equipment Cluster, Deoghar
14. Deoghar Pera & Allied Cluster, Deoghar
15. Auto Service Cluster, Dhanbad
16. Tribal Art Products, Sarsawa

## Mines and Minerals

Jharkhand state is a part of the Indian Peninsular Shield, and is a stable cratonic block of the earth's crust. Jharkhand is known for its diversified

geological set up. The whole of Singhbhum region is considered as a natural geological museum.

*Geologically, Jharkhand consists of different types of rock formations ranging from Pre-Cambrian to Cenozoic Era. The most predominant hard rocks in the state comprise of the Archaean metamorphics with associated intrusive and sedimentary belonging to Vindhyan and Gondwana Super Group with associated igneous rocks. The Raj Mahal hills, lying in the north-eastern extremity of the Chotanagpur Plateau consists of Jurassic volcanic lava flows.*

### Mineral Resources

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.

The Coal, Iron ore, Copper, Bauxite, Dolomite and Pyroxenite deposits 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 available in small quantity.

**Table 8.12: Mineral Availability in Jharkhand**

Quantity of Minerals	Minerals available
Plenty	China Clay, Fireclay, Magnetite, Graphite, Kyanite, Copper, Bauxite, Feldspar, Mica & Decorative Stones.
Sufficient	Coal, Iron Ore, Limestone, Quartz Quartzite, Dolomite, Pyroxenite
Insufficient	Andalusite, Manganese, Chromite, Beryl, Talc, Gold, Bentonite

Source: "Jharkhand the Land of Mines and Minerals", Department of Mines & Geology, GoJ

The mineral map provided below shows the availability of the various minerals scattered in the state of Jharkhand. As can be seen from the map below, Iron Ore is mainly concentrated in the West Singhbhum District, Bauxite is found in Gumla and Lohardaga regions of Jharkhand, China Clay is found in Dumka and Pakur Regions, Mica is found in Koderma and Giridih, Limestone and Graphite are found in Garhwa and Gumla, Granite is scattered in a lot of regions of Jharkhand and

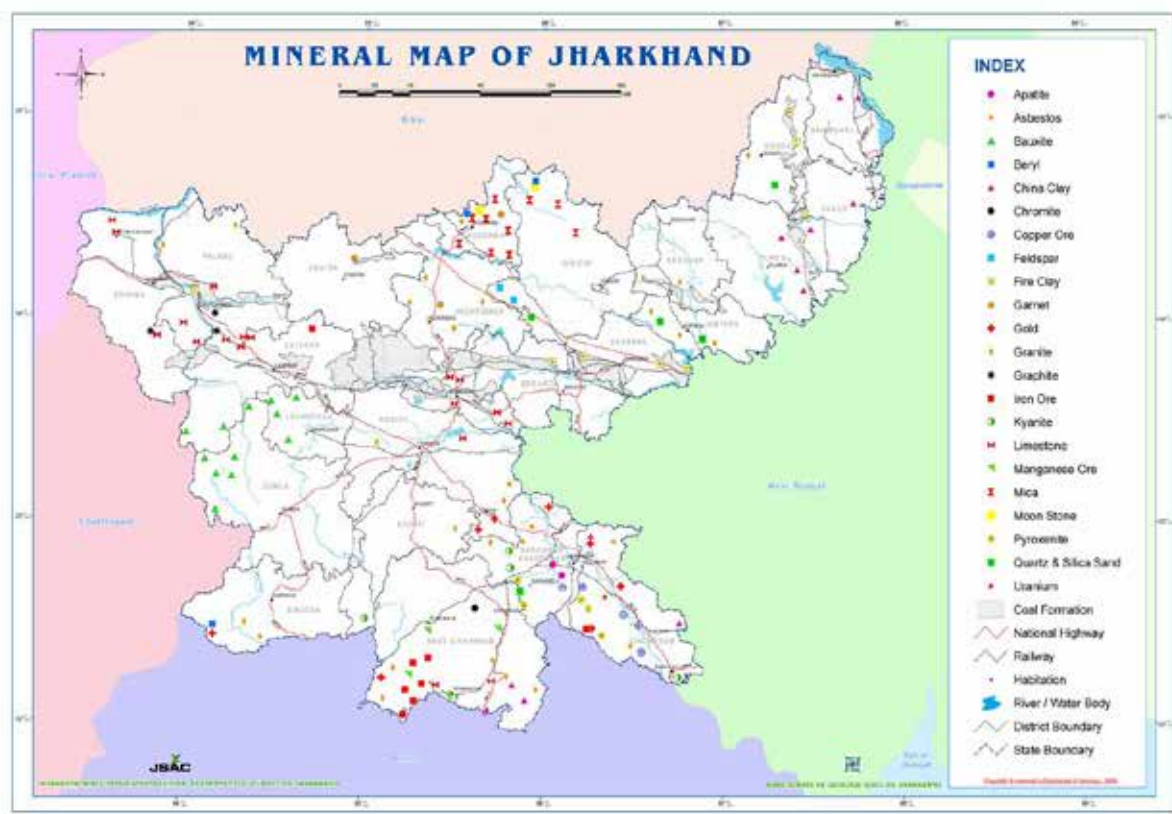
East Singhbhum has a variety of minerals like Iron ore, Apatite, Copper Ore and Gold etc.

The table below also highlights the major minerals present in the state of Jharkhand and its percentage with respect to India. As can be seen, Jharkhand is home to 27.37 percent of coal reserves of the nation. The other major minerals present in Jharkhand are, Iron Ore, Apatite rock Phosphate, Cobalt and Copper Ore.

**Table 8.13: Status of mineral deposits of Jharkhand (Reserve in Million Tonnes)**

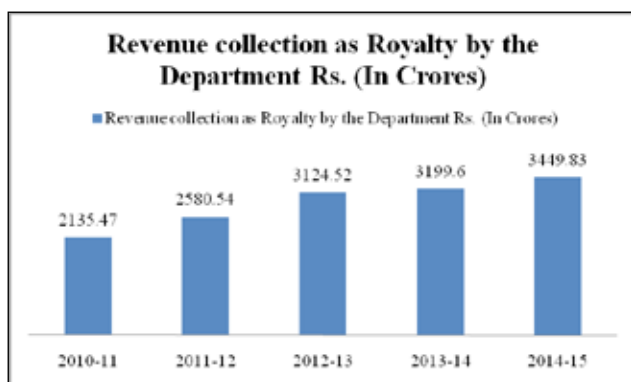
Mineral	National Reserve/ Resources	Jharkhand's Reserve/ Resources	Jharkhand's Share w.r.t. Indian (in %)	District
Coal	293497.2	80356.2	27.37%	Dhanbad, Bokaro, Latehar, Giridih, Ramgarh, Chatra, Hazaribagh, Pakur, Dumka
<b>Iron Ore (Haematite)</b>	17882.1	4596.621	25.70%	West Singhbhum
Apatite rock Phosphate	24.22	7.27	27.07%	West Singhbhum
<b>Cobalt</b>	44.91	9	20.04%	East Singhbhum
<b>Silver ore</b>	466.98	23.84	5.10%	Ranchi, East Singhbhum
<b>Copper Ore</b>	1558.45	288.12	18.48%	East Singhbhum
Kyanite	103.24	6.03	5.84%	West Singhbhum, Saraikela-Kharsawa, East Singhbhum,
<b>Graphite</b>	174.84	12.91	7.38%	Palamu
<b>Asbestos</b>	22.16	0.154	0.69%	West Singhbhum, Saraikela-Kharsawa
<b>Fireclay</b>	713.51	66.619	9.33%	Dhanbad, Bokaro, Hazaribagh, Palamu, Giridih, Ramgarh
Quartz & Silica	3499.03	156.521	4.47%	East Singhbhum, West Singhbhum, Saraikela-Kharsawa, Dumka, Hazaribagh, Deoghar, Palamu, Sahebganj
<b>Bentonite</b>	568.36	0.98	0.17%	Sahebganj
<b>Bauxite</b>	3479.62	146.323	4.20%	Lohardaga, Latehar Gumla, Godda, Sahebganj
<b>Chinaclay/ Kaolin</b>	2705.2	198.69	7.33%	Lohardaga, Ranchi, Dumka, Sahebganj, East Singhbhum, West Singhbhum
Feldspar	132.34	1.634	1.23%	Dumka, Hazaribagh, Deoghar
<b>Garnet</b>	56.96	0.11	0.19%	Koderma, Chatra
<b>Magnetite</b>	10644.06	10.542	0.10%	Palamu, East Singhbhum
<b>Barytes</b>	72.73	0.035	0.04%	Ranchi, Palamu, East Singhbhum
Talc/Soapstone	269.02	0.338	1.25%	West Singhbhum, East Singhbhum, Saraikela- Kharsawa, Palamu
<b>Dolomite</b>	7730.55	41.43	0.53%	Palamu, Garhwa
<b>Limestone</b>	184935.1	634.41	0.34%	Garhwa, Palamu, Ranchi, Ramgarh, Hazaribagh, Bokaro, West Singhbhum
<b>Chromite</b>	203.3	0.73	0.35%	West Singhbhum
Manganese ore	429.9	13.7	3.18%	West Singhbhum
<b>Nickel</b>	189	9	4.76%	East Singhbhum
<b>Gold ore</b>	493.69	8.15	0.09%	Ranchi, East Singhbhum, West Singhbhum, Simdega, Palamu
<b>Ochre</b>	144.26	0.215	0.14%	West Singhbhum
<b>Vermiculite</b>	2.5	0.03	1.23%	Koderma
<b>Mica</b>	0.55	0.002	0.30%	Koderma, Giridih, Hazaribagh
<b>Black Granite</b>	3175688	8875340	19.36%	Dumka, Jamtara, Koderma, Ranchi, Khunti, Simdega, Palamu, Latehar, Garhwa
Coloured Granite	42649661			

Source: Department of Mines and Geology, GoJ



With a large percentage of mineral reserves, the revenue collection by the department has been continuously increasing. From Rs. 2135 crores, in 2010-11 to Rs. 3449 crores, in 2014-15.

**Figure 8.9: Revenue collection as Royalty by the Department (in Rs Crores)**



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 12<sup>th</sup> five year plan for the state. The state has deposits of energy, ferrous, non-ferrous, fertilizer, industrial, refractory, atomic,

strategic, precious and semi-precious groups of minerals, as indicated in the table above.

The efforts of State will be to increase the mineral production from 150 million tonne to 200 million tonne in the 12<sup>th</sup> five year plan period. This can be achieved by opening new mines as well as adoption of e-governance in revenue collection and by developing some new modern methods for checking revenue leakages in the State. These new mines will be opened only when reserve and grade of the mineral in new area will be determined after mineral exploration though application of state-of- the art technology and an integrated multi-disciplinary approach.

(Footnotes)

1 For activities under wholesale/retail trade, legal, education & social services, hotel & restaurants, transports and storage & warehousing (except cold storage) excluded from the Sample survey of Fourth All India Census of MSME Unregistered Sector, data were extracted from Economic Census 2005 (EC, 2005), conducted by Central Statistics office of Ministry of Statistics & Program Implementation.

# 9

## **Infrastructure and Communication**

*A robust infrastructure system ensures that we are not only able to move goods and services, but also people in the most effective ways possible. In order to attract and retain quality jobs, communities need functioning infrastructure. Infrastructure can unite or divide us. Infrastructure properly designed can reconnect the social fabric of communities. Modern-day areas of the world are marked by unpaved roads, no electrical grid, lack of communication and low levels of technology. Improvement in any of these areas holds the potential to boost economic growth and create an environment that attracts business investment and supports local firms. The need for infrastructure development is one of the great global challenges of our time.*

*In fact there is probably no bigger question for public policy worldwide. Investments in modern infrastructure lay the foundations for economic development and growth. Building roads, bridges, power transmission lines and making other improvements create jobs. When completed, these projects help a society increase its wealth and its citizens' standard of living.*

*Efficient infrastructure underpins Jharkhand's economic strength. The construction of roads and efficient railway networks with a proper power system, can boost the economy of the state. More recently, investments in telecommunication and Internet networks have provided a launching pad for a 21st century economy. Infrastructure must be maintained and modernized as new needs and technologies emerge*

## **ENERGY**

Although Jharkhand is endowed with rich mineral resources and is a potential hub for power generation, it has the lowest levels of rural electrification, as only 44.7 percent of the rural households have been electrified. Still there is a lot of scope for the power sector of the state. The state of Jharkhand, in January, 2014 has unbundled the erstwhile Jharkhand State Electricity

Board into Jharkhand Urja Vikas Nigam Limited (JUVNL – Holding Company), Jharkhand Urja Utpadan Nigam Limited (JUUNL – State Genco), Jharkhand Urja Sancharan Nigam Limited (JUSNL – State Transco) and Jharkhand Bijli Vitaran Nigam Limited (JBVNL – State Discom). In order to facilitate rapid development of the state, a focused approach towards infrastructure development has been adopted by the state government. The unbundling of the erstwhile JSEB in January 2014, has been a step in the right direction, paving the way for a robust and sustainable power sector and realizing the long-term vision of ensuring energy for everyone.

One of the distinguishing features of the power sector in Jharkhand is that it is being served by multiple distribution licenses viz. JBVNL, DVC, Tata Steel, JUSCO and SAIL Bokaro. Two licensees, viz. DVC and JUSCO have overlapping geographical boundaries with the State distribution utility, JBVNL. Out of the total load of 3,255 MW at the state level, about 1,810 MW is served by JBVNL, while the remaining 1,455 MW is served by the other 4 distribution licensees. It is pertinent to mention that except JBVNL, other utilities operating in the state have already achieved 100 percent electrification and nearly 24X7 power availability within their respective areas of operation.

### **Electricity access**

The state is home to nearly 68 lakh households, out of which 38 lakh Households (56 percent) are already electrified. Presently, out of total 50.9 lakh rural households, nearly 22.8 lakh rural households are electrified (44.7 percent), while out of 17.2 lakh urban households, nearly 15.4 lakh urban households are electrified (89.5 percent) in the state. The remaining 28.2 lakh rural households and 1.8 lakh urban households are yet to be electrified. Considering the national house-



hold 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 27,462<sup>1</sup> out of a total of 29,492 villages. The remaining 2,030 villages are expected to be electrified by December 2016 under various central and state government schemes.

The per capita consumption of electricity in Jharkhand is 552 kWh, which is significantly lower than the national average of 1,010 kWh. It signifies that not only a massive electrification drive is required, but also round the clock electric-

ity to all connected consumers is to be ensured.

### Comparative analysis of the energy sector of Jharkhand with the all India average

As can be seen from the table below, if Jharkhand is compared to the all India average, it can be seen that, Jharkhand is lagging behind in almost all the aspects when it comes to energy and power consumption in the state. 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.

<sup>1</sup> Status as on 31st December 2015, Department of Energy, GoJ

**Table 9.1: 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

### Electricity Demand & Supply Position

In terms of demand supply gap, the state has witnessed improvement over the last few years, however, it still doesn't compare well with the national average. The gap between the national and the Jharkhand figures, however, is bridging. As can be seen from the table below, the Peak demand has been increasing year on year and

although the Peak availability has also been increasing, but not at the same rate. In 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 been observed to be decreasing from 8 percent in 2010-11 to 6 percent in 2014-15, the gap is seen to be closing in with the national average figure of 5 percent.

**Table 9.2: 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
Peak Power Demand and Supply						
Peak Demand (MW)	1,790	1,850	1,900	2,060	2,120	1,47,815

Particulars	Jharkhand					India
	2010-11	2011-12	2012-13	2013-14		2014-15
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
<b>Energy Requirement and Availability</b>						
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

Although, Jharkhand already has adequate tied up generation capacities with IPPs, central allocations and state generating sources, a significant part of the above power shortage is attributable to the evacuation and access issues in the state.

One of the key performance parameters of efficiency in electricity distribution, i.e. level of AT&C loss in Jharkhand points towards an immediate need to invest significantly in the electricity distribution infrastructure in the State. The

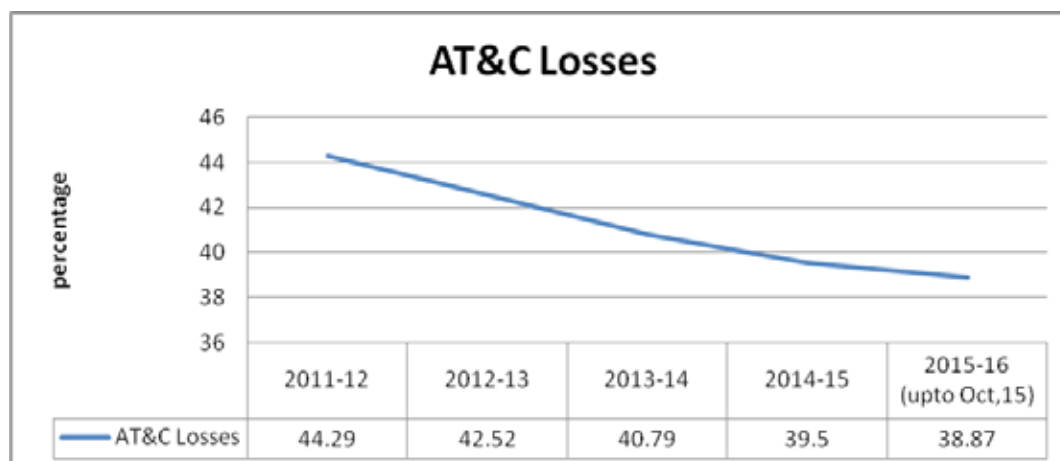
AT&C losses during 2014-15 (FY15) stood at 39.5 percent, as against national average of 23.3 percent. Although, if we compare with the previous years, the AT&C losses are seen to be significantly reducing, but more efforts need to be taken to curb the losses. The plan for the loss reduction trajectory had an estimate AT&C loss for 2015-16 at 36.2 percent, but the percentage has already reached to 38.87 percent by October, 2015.

**Table 9.3: Loss reduction trajectory, AT&C Losses & T&D Losses**

Plan	2014-15	2015-16	2016-17(E)	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	38.87(upto Oct'15)			
T&D Losses(percent)	30	27			

Source: Department of Energy, GoJ

**Figure 9.1: AT&C Losses**



As is clear from the scenario portrayed above, there is immense potential for the state to revamp its power and energy scenario. The need for investment in this sector has been recognised and identified by the state. Hence, the State has embarked on the journey of revamping its power sector and undertaking the challenging task of providing electricity access to all consumers by 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 been 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 Government of India (GoI) and State governments aiming to achieve 24 X 7 availability of reliable power to all households, industrial, commercial establishments and all other electric-

ity consuming entities by the end of 2018-19.

### Connecting the Unconnected

In terms of electrification, the state faces a challenge to electrify nearly 28.18 Lac (56 percent) rural households and 1.8 Lac (10.4 percent) urban households. Additionally, JBVNL is faced with significant demand-supply mismatch with peak deficit of 14.6 percent (310 MW) and energy deficit of about 6.0 percent, as in 2014-15.

In the PFA Roadmap, JBVNL has planned to electrify about 16.4 lakh households under new rural electrification proposals (including DDUGJY) while 11.8 lakh households are being covered under the RGGVY Scheme (12th Plan and spillovers from 10th & 11th Plan), over the next 4 years. The focus areas of this scheme are elaborated in the table below.

**Table 9.4: Focus areas of Power for All Scheme (PFA)**

Sl. No	Area	Target	Achievement
		(for FY 15-16)	(As on 31.12.15)
1	Village Electrification	1309	512
2	Household Electrification - Urban	29,907	19972
3	Household Electrification - Rural	2,58,859	61605
4	Hours of Supply (Rural)	18 Hours	16 Hours
5	Hours of Supply (Urban)	24 Hours	21 Hours
6	AT & C Losses	36.20 percent	38.87 percent (up to Oct-15)

Source: Department of Energy, GoJ

In addition to achieving 100 percent electrification, the state has also planned to ensure 24 hours supply to all consumers, leading to an increase in energy consumption (sales) in JBVNL supply area from 7.6 BU in 2014-15 to 17.3 BU in 2018-19, with households accounting for over 68 percent of the total consumption by 2018-19. The

peak demand in JBVNL area is expected to increase to 3,778 MW in 2018-19. The total energy consumption in the state, with all utilities put together, is expected to increase from 16.54 BU in 2014-15, to nearly 28.3 BU in 2018-19, translating into total peak power requirement of 5,696 MW in FY19.<sup>2</sup>

<sup>2</sup> The data has been taken from a document "Power for All, State of Jharkhand" provided by the Department of Energy, GoJ.

## Generation

The total generation capacity, including central allocation, in Jharkhand as on March 31, 2015 is 2,626 MW. Owing to its proximity to large coal reserves, the fuel mix of the installed generation

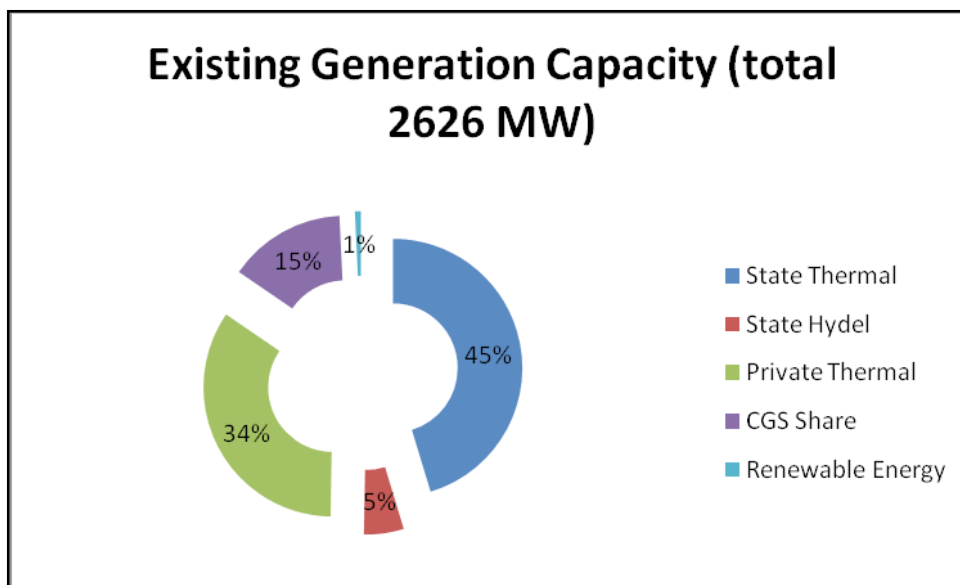
capacity is largely skewed towards thermal, with more than 91 percent of installed capacity being through coal based generation plants.

**Table 9.5: Breakup of ownership of Installed Capacity (MW)**

Ownership	Thermal	Hydro	Renewable Energy	Total
State	1190	130	4	1324
Private	900	0	16	916
Central	315	71	0	386
Total	2405	201	20	2626

Source: Department of Energy, GoJ

**Figure 9.2: Existing Generation Capacity**



The per capita consumption is also showing a wide gap between target and achievement. In 2014-15 the target per capita consumption is 984 kW, whereas the achieved consumption was

490 kW. Similarly, in 2015-16 the target per capita consumption is 1119 kW and the expected achievement is 553 kW.

**Table 9.6: Per Capita Consumption (kWh)**

Plan	2014-15	2015-16	2016-17	2017-18	2018-19
Target	984	1,119	1,241	1,389	1,641
Achievement	490	553(expected)	-	-	-

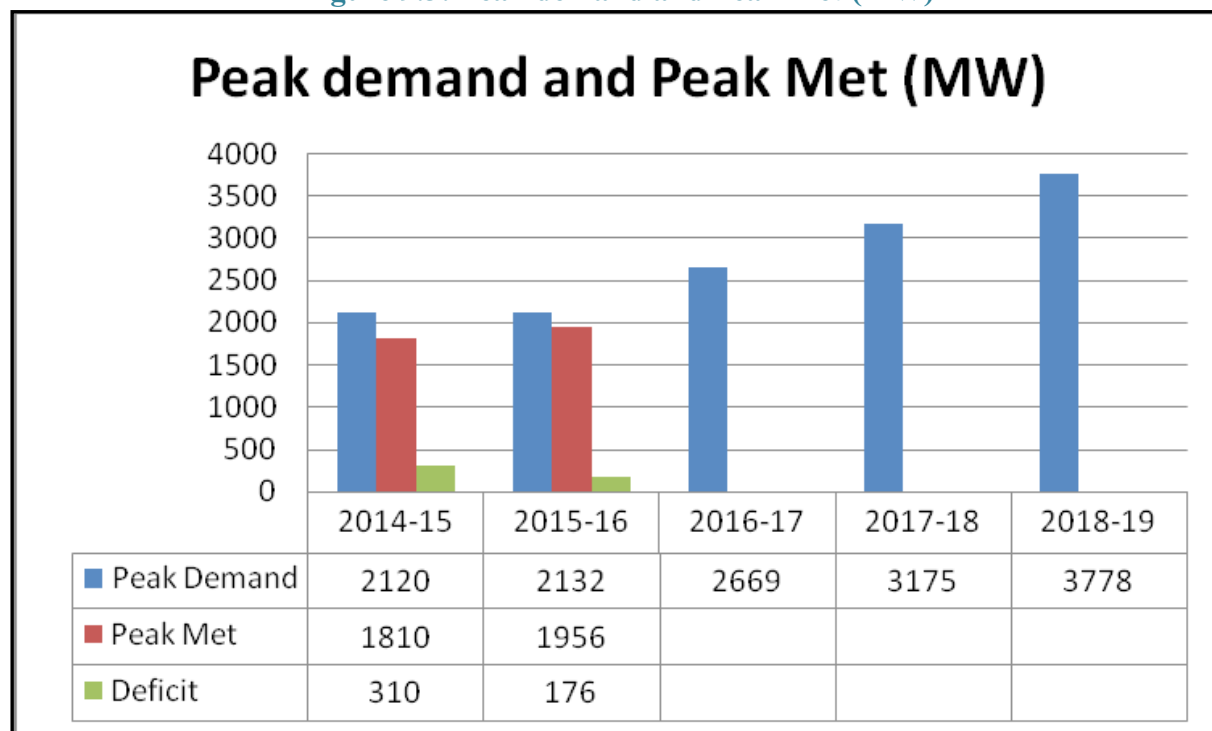
Source: Department of Energy, GoJ

As can be seen, the shortfall in the power sector of Jharkhand is evident from the figure below, where we can see a 310 MW deficit in 2014-15 and a 176 MW deficit in the year 2015-16. And, as can be seen from the figure on the plan for addition in generation capacity, it is clear that by 2018-19, 1765 MW of power will be needed. Although, long term PPAs are beneficial for any util-

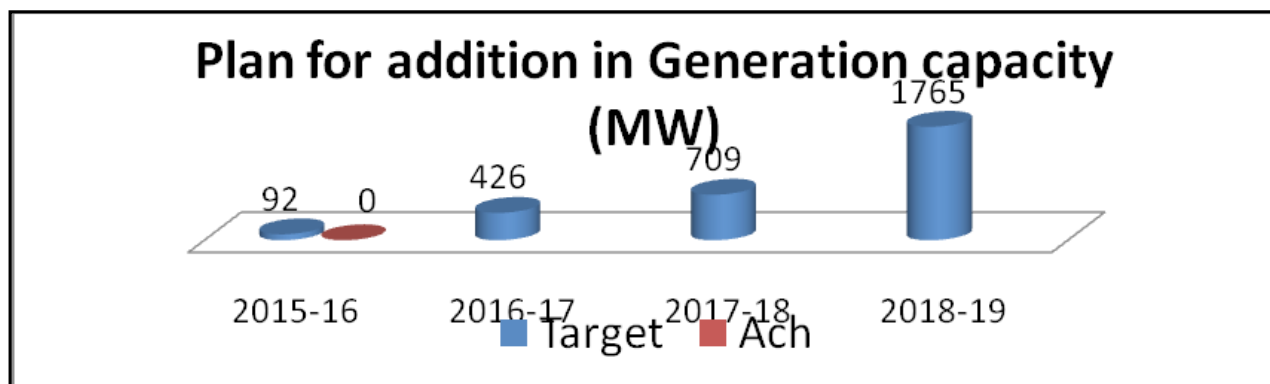
ity, but for the purpose of this plan, it is assumed that such energy shortfall shall be met through open market purchase, including bilateral transactions. The power purchase plan prepared for JBVNL addresses the impact of such purchases.<sup>3</sup>

<sup>3</sup> The data has been taken from a document "Power for All, State of Jharkhand" provided by the Department of Energy, GoJ.

**Figure 9.3: Peak demand and Peak Met (MW)**



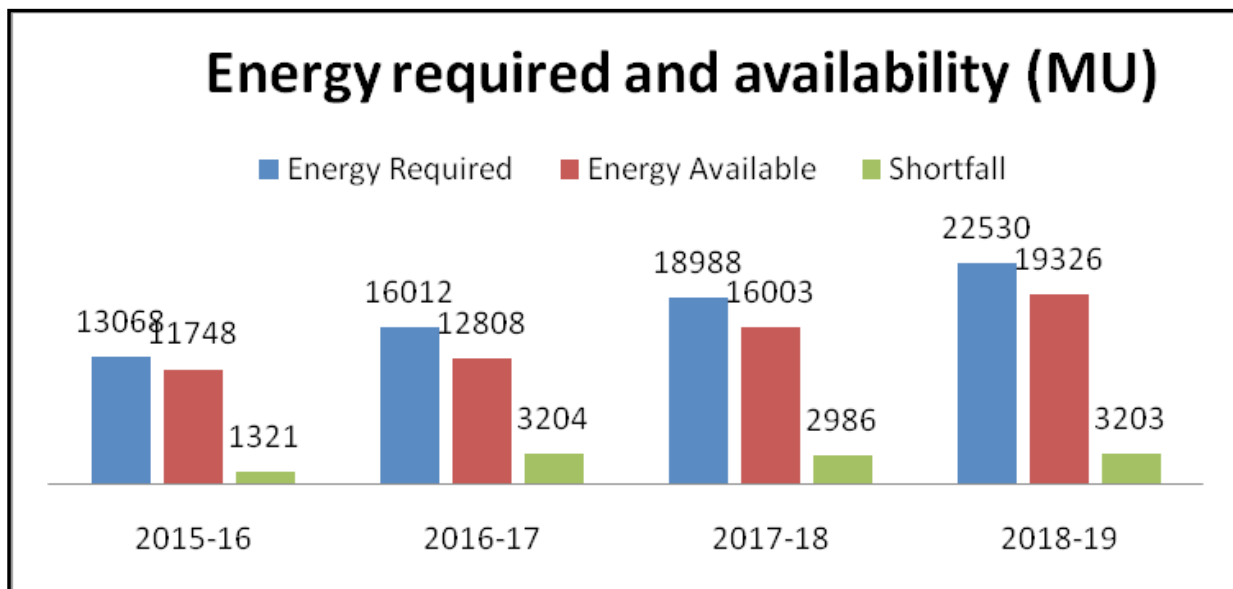
**Figure 9.4: Plan for addition in Generation capacity (MW)**



According to a document by the government of Jharkhand, “Power for All, State of Jharkhand”; in terms of energy availability, the utility may need to explore open market purchase or requisition of additional capacity to meet the energy

requirement sufficiently. The energy deficit can be seen in the figure below, which is expected to increase to 3,203 MU in FY19 from 1,321 MU in FY16.

**Figure 9.5: Energy required and availability (MU) <sup>4</sup>**



<sup>4</sup> The data has been taken from a document “Power for All, State of Jharkhand” provided by the Department of Energy, GoJ.

Furthermore, analysis of the present market dynamics reveals the markets to be in a subdued state in terms of the price. Therefore, it would be prudent for JBVNL to secure tie-ups on Medium Term basis for the interim period first and then the procurement of power on Short Term basis for any remaining quantum. It is expected that the location of Jharkhand in the Eastern Regional Grid would also ensure the availability of power from the market and invite a good response in the bidding processes from the prospective bidders. Another important consideration for JBVNL should be the procurement of hydro power in order to improve its hydro-thermal mix, which is presently at a very low level of about 8 percent. The JBVNL should make a plan towards including the procurement of Hydro Power in the ad-

ditional quantum needed to be procured on long term basis to meet the projected deficits. This would not only result in the improvement of the low hydro-thermal ratio of JBVNL’s power portfolio, but would also provide clean energy for the future. The procurement of Hydro power may be easily done on cost-plus basis, as opined in the document “Power for All, State of Jharkhand”.

Going forward the following generation capacity addition is likely to enhance state’s self-sufficiency in power<sup>5</sup>:

A Joint Venture has been formed between Jharkhand Urja Vikas Nigam Ltd (JUVNL) with NTPC, to revive Patratu Thermal Power Station (PTPS) generating units in the medium term and develop subsequent phases of 3 X 800 MW by

<sup>5</sup> Yojana Alakeh, State Overview, Department of Energy, GoJ

FY20 and 2X800 MW by 2021-22 totalling to 4000 MW.

Capacity addition of 2 X 660 MW at Karanpura is presently under development for which Mourya coal block as has been allocated

2 X 660 MW Tenughat Stage 2 is presently under development by TVNL

Further, in order to meet the burgeoning demand, central allocations to the tune of 1279.87 MW have been made to Jharkhand, which are likely to be operational by 2018-19, as tabulated below.

**Table 9.7: Break-up of State Allocations of 1279.87 MW.**

Name of company	Capacity (MW)	Allocation (MW)
NTPC Daripali STPS	2x800+2x800	145.87
Kanti Bijlee Utapadan Nigam Ltd	2x195	12
NTPC Barh stage I	3x660	202
NTPC Nabinagar	2x660	60
Bihar state Hydro Electric Power Corp.	1+8	9
Bhutan As per MOP		351
NTPC North Karanpura	3x660	500
Total		1279.87

Source: Yojna Alakeh, State Overview, Department of Energy, GoJ

In addition to the above, the state is likely to benefit from the development of various IPPs as detailed below:

MoUs with 7 IPPs with a total capacity of 8,485 MW have been signed, out of which PPA to the tune of 293.4 MW with Adhunik Power Natural Resources Ltd. (135 MW) and Essar Power Ltd. (158.4 MW) has been signed

The state will be home to 2 UMPPs with Tilaya (under development) and Deoghar (under process), from which power allocation will be made

The state also has a firm allocation of 1000 MW from Banka UMPP, Bihar

Solar generation capacity of 1,560 MW and SHP capacity of 25 MW is also expected to be developed in the state by FY2018-19

### Transmission

A well planned and strong transmission system will not only ensure optimal utilization of transmission capacities but also the generation facilities and would also facilitate in achieving the ultimate objective of cost effective delivery of reliable power to end consumers. The intrastate transfer of power within the state of Jharkhand is being done by JUSNL or DVC, while the inter-state transfer is largely done by the ER system of PGCIL and to some extent by DVC.

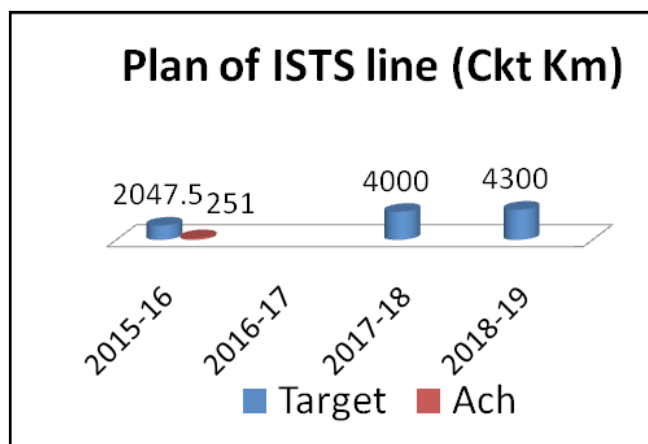
At the time of creation of the state of Jharkhand in 2001, the total transformation capacity of the erstwhile JSEB was 1,435.4 MVA at 220kV and 132 kV level with 18 GSS supported by 1,502.7 km (2,122 ckm) transmission lines. Over the years new GSS have been constructed and augmentation of the existing GSS has been done.

### Inter-state Transmission System

Powergrid at present owns and operates 4 nos. of sub-stations with transformation capacity of 4,890 MVA linked through about 4290 ckm of high capacity lines as listed below. Also, the number of sub stations is proposed to increase by 9 in 2016-17, 23 in 2017-18 and 17 in 2018-19.

- Ranchi – 630 MVA
- Ranchi (New) – 3000 MVA
- Jamshedpur – 630 MVA
- Chaibasa – 630 MV

Figure 9.6: Plan of ISTS Line



### Intra state Transmission System

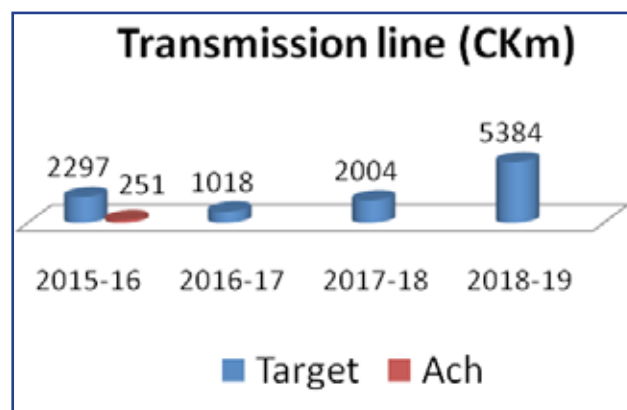
The total grid substation capacity of JUSNL as on January 2015 was 3,690 MVA at 220kV and 132kV with 29 GSS, is as outlined in the table below.

Table 9.8: Intra State Transmission network (as on Jan,2015)

Voltage	No of substation (Nos)	Transformer capacity (MVA)	Associated lines (Km)
400 KV	--	-	180
220 KV	3	1400	839
132 KV	26	2290	1836

Source: Department of Energy, GoJ

Figure 9.7: Transmission Line

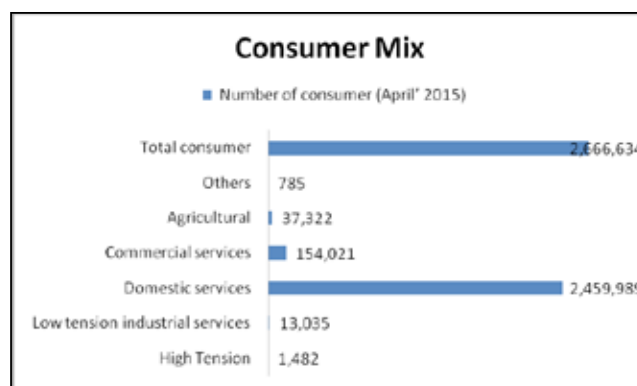


### Distribution

The significant increase in power demand in the state would require commensurate investments in the sub-transmission and distribution infrastructure.

Jharkhand Bijli Vitran Nigam Ltd. (JBVNL) is undertaking the distribution of the erstwhile JSEB, with a consumer base of around 27 Lacs. The consumer wise details as of April' 15 are as follows.

Figure 9.8: Consumer Mix



Accordingly the objectives of the distribution plan, in accordance with the 24 X 7 PFA, includes the following:

Making provision for 24X7 supply to all connected consumers through capacity augmentations and building redundancies in the upstream



network for improving reliability of supply;

Ensuring provision of electricity access to the over 32.78 Lakhs rural and urban unconnected households in the state;

Provision of 24X7 supply to demand growth from existing consumers and that arising from new consumer growth in the state;

Making system improvements for reducing AT&C losses in accordance with the targets agreed with the MoP; and

Adopting appropriate technologies and systems to support RE integration and EE/ DSM measures in the state.

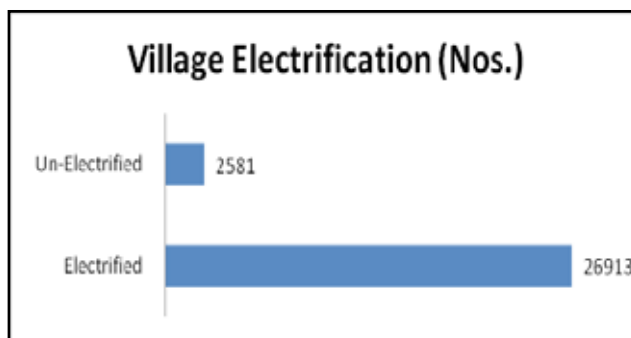
JBVNL endeavours to supply 24X7 electricity to urban and rural areas; however, the same is limited by distribution network and power availability constraints. Additionally, there are significant failures in the distribution system which adversely impacts the power availability at the consumer level. An indication of the same is about 5 percent DT failures<sup>6</sup> recorded during the year 2015-16.

Significant works have been completed under the RGGVY Scheme in the state of Jharkhand since the 10th plan period. Out of the total sanctioned scheme value of Rs. 3,496.8 Cr., works pertaining to Rs. 3,076.4 Cr. have been completed so far by JSEB/ JBVNL, NTPC Electricity Supply Company Ltd. and DVC. The scheme has benefited the state through electrification of 17,902<sup>7</sup> un-electrified villages, intensive electrification in 6,050 electrified villages, providing electricity connections to over 12.67 lakh BPL consumers and setting-up of 89 substations in the state.

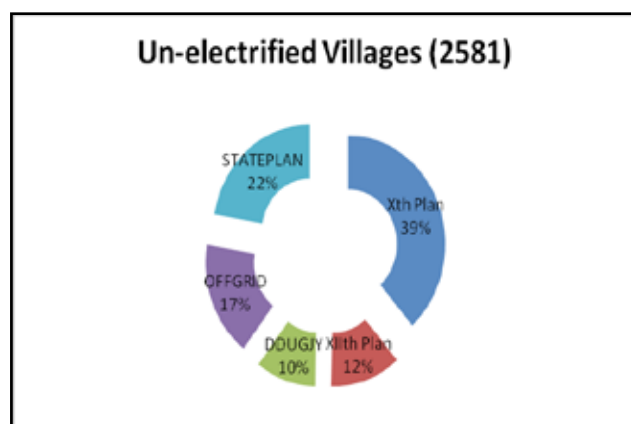
Presently, out of the 29,494 inhabited villages in Jharkhand, 26,795 have been electrified under central and State scheme, while the remain-

ing 2,699 villages are yet to be electrified, which shall be covered under various ongoing and proposed schemes.<sup>8</sup>

**Figure 9.9: No of Electrified and Un-Electrified villages**



**Figure 9.10: Details of Un-Electrified villages through various Plans**



In addition to the above utility, a plan has also been prepared for the electrification of all the rural and urban households over the next 4 years, as detailed in the table below. The utility aims to cover nearly 11.8 lakh rural households under 12th Plan RGGVY, while the remaining 16.4 lakh rural households are expected to be covered under the DDUGJY scheme. Further the remaining 1.8 lakh un-electrified urban households (HHs) are planned to be covered under IPDS scheme.

6. Department of Energy, GoJ

7. The data has been taken from a document “Power for All, State of Jharkhand” provided by the Department of Energy, GoJ.

8. The data has been taken from a document “Power for All, State of Jharkhand” provided by the Department of Energy, GoJ.

**Table 9.9: Electrification plan - Rural Households**

Particulars	Nos
No. of rural HHs	49,89,086
No of un-electrified rural HHs (Beginning of FY16)	28,18,221
Electrification of rural HHs under proposed 12th Plan/ RGGVY	11,79,476
Electrification of rural HHs proposed under DDUGJY	16,38,745
Total HHs proposed to be electrified	28,18,221
Rural HHs to be electrified in FY16	2,58,829
Rural HHs to be electrified in FY17	11,99,309
Rural HHs to be electrified in FY18	9,50,367
Rural HHs to be electrified in FY19	4,09,686

Source: document "Power for All, State of Jharkhand" provided by the Department of Energy, GoJ.

JBVNL's systems comprise of 33 KV sub-transmission systems which form the distribution backbone at the district level and 11 KV and LT distribution systems which delivers electricity to the majority of the end consumers. The abstract of JBVNL's network in terms of installed transformation capacity and line lengths of feeders at various voltage levels is provided in the table below.

**Table 9.10: JBVNL's Network (as on April, 2015)**

Particulars	Total	Metered Status as on 30/06/2015
33 KV feeders (Nos)	375	158
11 KV feeders (Nos)	1,076	359
DT (Nos)	66,836	10140
HT consumers (Nos)	1,476	100 percent (inclusive of defective meters)
Domestic / Commercial consumer (Nos)	26,14,010	79.71 percent (inclusive of defective meters)
Agriculture Consumers (Nos)	5,458	17.75 percent (inclusive of defective meters)

Source: Department of Energy, GoJ

**Table 9.11: Distribution Plan**

Sl. No	Plan	Existing Capacity	Capacity addition during 2015-16	
			Target	Achievement
State Sector				
1	No. of PSS (No)	318	90	4
2	PSS Capacity (MVA)	3673.6	1095	102.95
3	33 kV Lines (Km)	7406.46	844	24
4	11 kV Lines (Km)	52658.3	15,365	595.06
5	11 kV Feeder (Km)	1130	967	8
6	DTR (Nos)	68759	32,963	1586
7	DTR Capacity (MVA)	3762.35	2197	152.611
8	LT Lines (Ckm)	79367.95	12,849	586.154
9	Urban HHs to be electrified	778416	29,907	19972
10	Rural HHs to be electrified	1681550	2,58,859	61605

Source: Department of Energy, GoJ

## Renewable energy

The rising concerns of climate change have been a matter of intensive debate across the globe, emphasizing on the gradual shift towards renewable sources of energy, considered to be a permanent solution to the arising problems. The energy requirement in the state of Jharkhand is largely catered from conventional sources of generation. The installed capacity of RE sources in the state stands at 20.05 MW which is 0.76 percent of the total installed capacity in the state. This is dismal in comparison to the national level of 11.84 percent of installed RE capacities on the overall installed base.

Jharkhand Renewable Energy Development Agency (JREDA), functioning under the Department of Energy, Government of Jharkhand is the nodal agency for promotion of new and renewable sources of energy in the State.

The state has high solar insolation around 300 days of clear sun and offers good sites having a potential of more than 4.5 to 5.5 kWh/m<sup>2</sup>/day, which the state intends to harness to support the energy requirements of the state. As per MNRE, the total solar power generation potential in the state is 18.18 GWp.

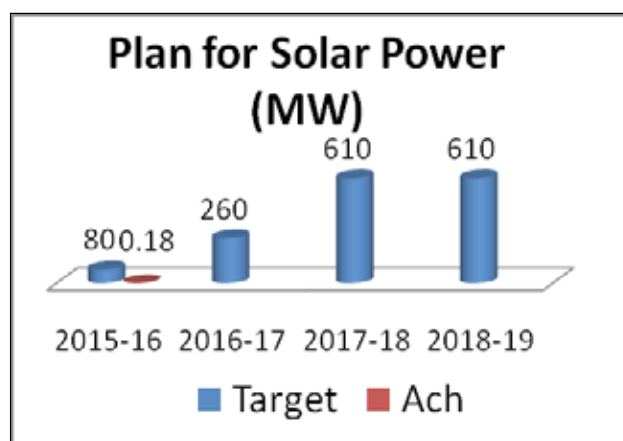
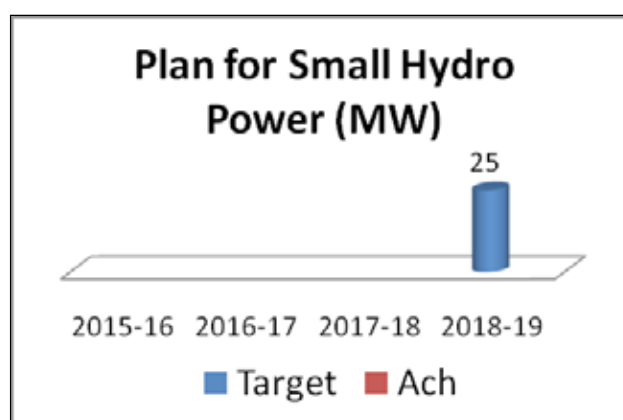
The state has also prepared a plan to add small hydro plants totalling 25 MW every year from FY19 to FY22 with a total estimated cost of Rs 3,400 Cr. With this, nearly 100 MW of small hydro generating capacity is expected to be added in the state. A total of 68 sites have been already identified for the development of hydro generation capacity, however, such development is expected to be achieved only from FY19 onwards.

**Table 9.12: Renewable plan of Jharkhand State**

Particular	Small Hydro (MW)	Solar (MW)	Total (MW)
Existing RE Capacity (MW) (As on Mar,14)	-	16	16
Plan for Capacity addition by Mar 2019	25	1560	1585
Total	25	1576	1601

Source: Department of Energy, GoJ

**Figure 9.11: Plan for Solar Power and Small Hydro Power**



Jharkhand has also started to explore its renewable potential and various measures are being undertaken and planned to develop itself in a renewable energy rich state, including:

Jharkhand state solar power policy has been notified in August 2015, for the development of solar power in the state. Under the scheme, a total of 2,650 MW of solar capacity has been proposed to be added by 2019-20. Out of the above, 550 MW is planned to be added as part of rooftop solar installation.

The process for tariff based competitive bidding of a total of 1,200 MW of solar PV plants is presently underway, which will be developed by a private developer. 100 percent of the electricity developed from the above shall be bought by JBVNL.

The work for development of solar rooftop projects on 90 government buildings is presently underway, which will accumulate to around 5 MW of rooftop solar capacity.

For the development of small hydro plants, 68 potential sites have been shortlisted. The survey and DPR preparation for these sites is presently underway.

An assessment is being carried out to assess the wind energy potential in Jharkhand. Wind masts have been installed on 10-12 probable project sites, to collect the wind energy related data.

Target has been set to complete the assessment of sustainable availability of biomass in the state by 2016-17.

434 villages have been identified to be covered

under DDG scheme.

Apart from this, work is underway for the development of solar lanterns, solar street lights, solar home lights, solar water pumping systems, solar water heaters, biogas plants by means of subsidy.

### Energy efficiency

JREDA/ Energy Department of the state have identified the following interventions to promote energy efficiency and DSM measures in the state:

Lighting sector DSM for domestic projects under Bachat Lamp Yojana; Energy Conservation Building Code (ECBC) and efficiency measures in government buildings; Implementation of municipal DSM project, including LED based street lighting under PPP; and Agriculture DSM project.

The total energy consumption of households in Jharkhand is around 3,065 MU for FY15. A large number of incandescent lamps is still used in households to serve the lighting needs. Incandescent lamps are highly inefficient as 95 percent of electricity used by them is converted to heat. They can be replaced by LED lamps, which are 90 percent more energy efficient.

Penetration of efficient lights in households is constrained by the initial high cost barrier. The incandescent lamps are available at Rs. 10-15 while LED lamps sell at Rs. 400-500 and as a result the penetration of LED bulbs in the household sector is less than 1 percent.

The year wise roll out plan for overall power sector in Jharkhand has been provided in the table below.

**Table 9.13: Roll out Plan for PFA**

Sl No	Plan	Existing Capacity	Rollout Plan				Total	Total of Existing Capacity and Target
			2015-16	2016-17	2017-18	2018-19		
<b>Generation Capacity</b>								
1	State Sector	960	-	( - 85)	-	500	415	1,375
2	DVC	765	-	-	-	-	-	765
3	CGS - Coal	315	92	262	125	434	913	1,228
4	CGS - Hydro	71	-	-	85.97	121.79	208	279
5	Private	200	-	72	72	-	144	344
6	Private Solar	16	80	256	610	635	1,581	1,597
	Total (MW)	2327 (Excl. solar)	92 (Excl. solar)	249 (Excl. solar)	283 (Excl. solar)	1,056 (Excl. solar)		4,007 (Excl. solar)
<b>Transmission</b>								
<b>Inter-State Transmission</b>								
1	765 KV New Line (Ckt Km)	4587	-	-	4000	4300	8330	12,917
<b>Intra-State Transmission</b>								
1	400 KV New Line (Ckt Km)	180	270		1410	1808	3488	3668
2	220 KV New Line (Ckt Km)	839	726	220	218	2668	3832	4671
3	132 KV New Line (Ckt Km)	1836	1301	780	88	1026	3195	5031
4	New Substations (Nos)		12	9	23	17	61	
5	400 KV New substation (MVA)	-	1260	1260	315	2890	5725	5725
6	220 KV New substation (MVA)	1400	1800	1200	1390	2250	6640	8040
7	132 KV New substation (MVA)	2290	800	1020	2050	1600	5470	7760
<b>Distribution</b>								
1	No. of PSS (Nos)	318	90	99	78	55	323	641
2	PSS Capacity (MVA)	3673.6	1095	1126	755	525	3501	7174.6
3	33 KV Lines (Ckm)	7406.46	844	1195	1022	739	3800	11206.46

Sl No	Plan	Existing Capacity	Rollout Plan				Total	Total of Existing Capacity and Target
			2015-16	2016-17	2017-18	2018-19		
4	11 KV Lines (CKm)	52658.3	15365	18572	11,682	14,485	60103	112761.3
5	DTR (Nos)	68759	32,963	37,139	20,959	25,516	1,16,578	185337
6	DTR Capacity (MVA)	3762.35	2197	2373	2406	680	7656	11418.35
7	LT Line (CKm)	79367.95	12,849	15,037	9,175	9,879	46,940	126307.95
8	Urban HHs to be electrified (Nos)	778416	29,907	49,845	49,845	49,845	1,79,442	957858
9	Rural HHs to be electrified (Nos)	1681550	2,58,859	11,99,309	9,50,367	4,09,686	28,18,221	4499771
Renewable Energy								
1	Solar Power (MW)		80	260	610	610	1560	
Energy Efficiency								
1	LED Distribution-Households (Nos)						49.2 Lacs	

Source: Department of Energy, GoJ

## ROAD

Smooth movement of public goods and hassle free public transport system form the backbone of a modern and better administered state. A modern transportation system works as a catalyst for growth oriented public economy and utility services. The Transport Department of Jharkhand is striving to promote road infrastructure support for transportation of goods and passenger, to promote public transport and advanced quality of service, to promote modern, energy-efficient and environment, and eco-friendly surface transport system and to promote road safety and modern traffic management. At the national level the pop-

ulation of vehicles ratio is 83: 1, whereas in the state of Jharkhand this ratio is 100: 1. The Transport Department is trying to achieve the national ratio regarding the availability of vehicles.

As is well known, the 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 connect 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 of the people within the

state. The 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 9.14: The present status of road lengths under various categories (as on 1.04.2015)**

Category of roads	Approx length (kms)
National Highways	2649
Total (excl NH)	8837 (Approx)
Which includes:	
State Highways(SH)	1231.9 (SH-1 to SH-18)
Major District Roads (MDR)	4845.7 km (MDR-1 to MDR-225)
Other PWD Roads	2749.4 km

Source: Road Construction Department, GoJ

The state has 12 National Highways (NH) running through the state; NH-2, NH-6, NH-23, NH-31, NH-32, NH-33, NH-75, NH-78, NH-80, NH-98, NH-99 and NH-100, measuring 2391 kms. The total length of State Highways (including urban roads and MDR) is around 8,385 km. The State's industrial activity is primarily concentrated in an area Southwest of NH-2, which connects Kolkata with Delhi via Jharkhand .

### Upcoming Projects

- Ranchi-Bokaro- Dhanbad 6 lane expressway.
- Industrial Corridor connecting Ranchi, Dhanbad and Jamshedpur forming a 6 lane Golden Triangle.



**Table 9.15: Jharkhand Vs National Indicator: Average Length of Roads (as on 1.04.2015)**

Indicator	Jharkhand	National
SH, MDR, & Other PWD Roads(i.e., Road length excluding NH & Rural Road)	110.86	182.4

Source: Road Construction Department, GoJ

### Road Density

Road density is measured as the length of road per 1000 sq. kms. The present road density of roads (excluding NHs and Rural Roads) that have been transferred to the RCD is 1542 km, which has shown a steep increase from the past years. While in 2012-2013 only 385 km of roads were given for increasing the Road Density, in 2013-2014, 625 km were transferred for improving the Road Density. The number has more than doubled to 1542 km in 2014-2015.

The growth of population and vehicles has burdened the existing road network. This needs to be taken care of by means of maintenance, up-gradation and construction. For this the sanction of Rs. 2922.85 crores has been made till Nov, 2015; which will help construct 1273.65 km of roads. Similarly, Rs. 213.2 crores has been sanctioned, which will benefit and augment the construction of 33 bridges across the state.

The national average Road Density is 182.4 km/

100 km; which shows that the capital is lagging behind by 87.5 km/ 100 km when compared to the national average. The Jharkhand average of Road density (105.19) is also still far below the all India average of 182.40, which shows a gap of 77.21 kms. In order to fill this gap, 6150 kms of roads would have to be included in the Road Construction Department (RCD) and would be required to be brought to the level of State Highways (SH)/ Major District Roads Category (MDR). This would require around Rs. 15,400 crore, if it is phased to 5 years, around 1230 km of roads would have to be upgraded each year requiring an additional budget support of around Rs. 3,100 crores each year.

**Table 9.16: Status of Road Density**

	India	Jharkhand
Total Length of Roads (km)	599662	8837 (Approx)
Road Density	182.40	105.19

Source: Road Construction Department, GoJ.

The table below throws light on the various road networks district wise. The road length is the highest in Ranchi having 718.9 kms, but the road density is very low for the capital of the state, having a road density of 94.9 km. Gumla has the lowest road length of only 75 km. The road density is the highest in Koderma being, 289 km/ 100 km.

**Table 9.17: District-Wise Road Network**

National Average (of Roads excluding NH & Rural Roads): 182.4 km/1000 Sq Km

Serial No.	District	Distt.Area (Sq.Km.)	Road Length(SH,MDR& other PWD Roads in Km on (01.4.15)	District wise Road Density of RCD Roads (SH,MDR&ODR): Km/1000Sq.Km (01.4.15)
1	Ranchi	7573.7	718.9	94.9
2	Khunti	2467.0	371.3	150.5
3	Gumla	5320.9	356.1	66.9



Serial No.	District	Distt.Area (Sq.Km.)	Road Length(SH,MDR& other PWD Roads in Km on (01.4.15)	District wise Road Density of RCD Roads (SH,MDR&ODR): Km/1000Sq.Km (01.4.15)
4	Lohardaga	1490.8	75	50.3
5	Simdega	3756.2	354.8	94.4
6	Jamshedpur	3533.4	446.2	126.3
7	Chaibasa	5290.2	589.0	111.3
8	Saraikela-Kharsawan	2724.6	254.2	93.3
9	Dumka	3716.4	577.2	155.3
10	Jamtara	1802.0	265.2	147.2
11	Godda	2110.5	193.8	91.8
12	Sahebganj	1706.0	219.7	128.8
13	Pakud	1805.6	269.0	149.0
14	Hazaribagh	5965.4	321.5	53.9
15	Koderma	1311.6	379.0	289.0
16	Chatra	3706.2	215.6	58.2
17	Giridih	4887.1	555.2	113.6
18	Bokaro	2860.8	303.2	106.0
19	Dhanbad	2074.7	393.0	189.4
20	Ramgarh	1389.0	172.9	124.5
21	Daltonganj	4015.2	515.3	128.3
22	Latehar	3660.5	343.4	93.8
23	Garhwa	4044.2	456.6	112.9
24	Deoghar	2478.6	490.9	198.1
	<b>TOTAL</b>	<b>79690.3</b>	<b>8837.0</b>	<b>105.19 (avg)</b>

Source: Road Construction Department, GoJ.

As can be seen from the table below, when compared with last year, the progress of the roads has been much faster. In 2014, the JARDP had completed 182 km of roads and in 2015, it has completed 206 km of roads. Overall while in 2014, 3695 km of roads were completed, in 2015, 4936 km of roads has been completed by the RCD.

**Table 9.18: Progress of roads of RCD by different implementing Agencies (as on 1.04.2015):**

Roads under	Length (Km) 2014	Length (Km) 2015
JARDP (PPP on BOT Annuity )	182	206
JSRP-I	310	310
SHAJ	703	920
Work Divisions of Department (25 nos)	2500	3500
<b>Total</b>	<b>3695</b>	<b>4936</b>

Source: Road Construction Department, GoJ

**Table 9.19: Achievement of the 12<sup>th</sup> Five Year Plan**

In the 12<sup>th</sup> Five Year plan, the physical progress achieved is as follows:

Work	2013-2013	2013-2014	Total
Strengthening/ widening of Roads (km)	747	998	1745
Bridges completed (nos)	25	10	35

Source: Annual Plan 2015-2016

**Table 9.20: Important Corridors to Be Taken Up/ Started in 2015-16**

Sl. No	Name of Work	Length (km)
<b>On EPC (Engg., Procurement &amp; Construction)</b>		
1.	Improvement of Chatarpur-Japla Road (MDR-127) to two lane with paved shoulder	32.5
2.	Improvement of Chauparan-Chatra Road (MDR-068) to two lane with paved shoulder	49
3.	Improvement of Garhwa- Shahpur (MDR-120) to two lane	30
<b>Projects on PPP</b>		
<b>On DBFOT (Toll)</b>		
1.	Ranchi Bokaro Expressway	90
<b>On BOT (Annuity)</b>		
1.	Widening to 2 lane with paved shoulder of Nonihat-Kerabani-Bagdaha More Road	62
2.	Four laning of Dumri (on NH-02)- Phusro-Jaina More (on NH-23) (MDR 077 & MDR 073) Road	65
3.	Construction of Six lane of section VII (Kathihar(on NH-75 Ranchi-Daltonganj section) to Karma (on NH-33, Ranchi-Hazaribagh section)) of Ranchi Ring Road	23.6
<b>Roads to be completed in 2015-16</b>		
1.	Strengthening/ Improvement of Riding Qulaity	450
2.	Widening and strengthening of Roads	650
3.	Reconstruction/ Construction of Bridges	30 nos

### State Highways Authority of Jharkhand (SHAJ)

In order to address the requirement of creation of infrastructure, State Highways Authority of Jharkhand (SHAJ) has been created. It is a corporate body under the Road Construction Department. It is mandated to take up bigger corridors of roads and bridges of RCD and other organization as well.

At present the following are under implementation

- 15 road corridors totalling a length of 629 km – RCD funded
- One major bridge is also under construction – RCD funded
- One Road Corridor of 115 Km (approx)

NTPC funded

- Under JSRP – II: 176.6 km: (ADB-II)
- Jharkhand State Road Project (JSRP) – I : (ADB-I)
- Jharkhand State Road Project (JSRP) – I & (ADB-I):
- “Gobindpur – Jamtara-Dumka-Sahebgunj Road” is an Externally Aided Project (EAP) through multilateral funding by loan from Asian Development Bank (ADB). The construction work is in full swing. Total Road length is 310.07 Km in four packages:
- Package – I: Gobindpur–Jamtara (including 10.92 Km Jamtara Bypass) (80.63 Km)
- Package – II : Jamtara – Dumka (including 5.98 Km Dumka Bypass) (81.73 Km)
- Package – III : Dumka – Barhet (98.25 Km)
- Package – IV : Barhet – Sahebjaunj ((49.85 Km)
- Jharkhand State Road Project (JSRP)- II & (ADB - II)

**Table 9.21 : Sanctioned Road Corridors  
(Total 176.60 Km)**

Dumka-Hansdiha Road	: 44.2 km
Khunti-Tamar Road	: 43.7 km
Giridih-Jamua-Chatro-Sarwan Road	: 45.2 km
Giridih-Tundi-Gobindpur Road	: 43.50 km

Source : Annual Plan 2015-16

### Jharkhand Accelerated Road Development Plan (JARDP)

The joint venture between the Govt of Jharkhand and IL&FS Co. Ltd for the development of 1500 lane km of road corridors through Public Private Partnership (PPP) known as Jharkhand Accelerated Road Development Programme (JARDP) is on its path towards success. The concession

period of 17.5 years with 2.5 years as construction period and 15 years as period of operation and maintenance has completed approximately 182.19 km of road construction. The details have been presented in the table below;

**Table 9.22: Status of JARDP**

Completed and under operation and maintainence	Ongoing
Ranchi Ring Road Station-III, IV, V & VI (length – 36.2 Km)	Ranchi Ring Road Section-VII (length-23.575 Km)
Ranchi-Patratu Dam Road (length-35.27 Km)	
Patratu Dam – Ramgarh Road (length – 27.12Km)	
Chaibasa-Saraikela-Kandra-Chowka (68.7 Km)	
Adityapur-Kandra Road (15.1 Km)	

Source : Annual Plan 2015-16

### 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, agricultural production centres are connected with 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.

Existing, extensive, well developed railway system is being modernised, expanded, up-graded with the support of Indian Railways. Railway projects (Rs. 3292 Crore) are underway.

Doeghar-Dumka project is under commissioning and Ranchi-Lohardaga is under operation. New fast railway links have improved connectivity. Inland Container Depot is being set up at Tatanagar to facilitate export and High-speed at Tatanagar to facilitate export and High-speed freight & passenger train services are going to be introduced. Eastern Dedicated Freight Corridor passes through Jharkhand covering all northern states and has connectivity to ports.

The details of the projects are as follows:

- Deoghar-Dumka-Rampurhat Project (124 km)
- Koderma-Ranchi Project (200 km)
- Koderma-Giridih Project (100 km)
- Ranchi-Lohardaga Project (113 km)
- Koderma-Tilaya Project (14 km)
- Hansida-Godda Project (32.46 km)

**S.P.V. (Special Purpose Vehicle)**

A Memorandum of Understanding has been signed between Ministry of Coal, Railway Ministry and Jharkhand Government on the 4<sup>th</sup> of May, 2015 for special purpose vehicle to implement “Coal Connectivity”.

**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 as to implement the existing programmes of enabling youth to get employment in various jobs in the aviation sector. This also includes the construction and equipage of multi-disciplinary aviation academy and infra-

structure set up at Dumka, Palamu and Chaibasa.

The scheme for construction and expansion of runway for district headquarters is also underway.

**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 develop 10-10 acres of land under PPP Mode in Dhanbad, Saraikela-Kharasva and Deoghar for the Heavy Motor Driver Training Institute has been submitted to the government.

**Rural Bus Services**

As is known, connectivity of the rural areas with that of the urban, is an essential component for the development of the 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. In Dumka district 63, Hazaribagh district 55, Palamu District 35 and Ranchi district 83 ways/roads will be identified.

**Superfast AC Delux Bus Service**

On the occasion of Jharkhand foundation day, 15<sup>th</sup> Nov, 2015, a superfast AC Delux bus service was launched. For this, Ranchi to Tata 5 vehicle permits, Ranchi to Hazaribagh 7 vehicle permits, Dhanbad to Hazaribagh 1 vehicle permit, Ranchi to Giridih 2 vehicles permits 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

To reduce the incidence of accidents and to make the roads safer, the Jharkhand government road safety policy, 2015 has been established under the chief. The road safety officials as well as the police department will be provided with modern equipment like alkometer etc. C.C.T.Vs 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 will be changed. The colours of the autos will be decided so that it becomes easy for people to commute. For example, normal autos for both males and females will be that of green colour and those driven by women will be pink in 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 is supposed to be spent during the financial year 2013-14 and an outlay of Rs 35.00 lakh is proposed for the financial year 2014-15.

### Initiatives in the field of communication, especially IT based communication are mentioned as follows:

There have been various achievements in the field of Information technology for the state of Jharkhand, where the government has established JharNet, Pragma Kendras, Video Conferencing in jails and courts for trial of prisoners, and also also successfully computerised land registration and treasury offices along with commercial taxes. E-Nagrik and e-District have enabled citizens to re-

quest for online delivery of services and receive them particularly in respect of various certificates like caste, income, residence, birth date etc.

### SMS Gateway

The State Government has setup SMS Gateway facility with the help of MSDP(Mobile e-governance Delivery Platform),C-DAC. By using this SMS Gateway service the department can deliver the information to the citizens/Govt. officers over the mobile devices by integrating the application or using C-DAC portal.

#### There are two types of SMS services :-

- PUSH SMS - To send the information on mobile
- PULL SMS – To receive the information as per requirement by the client on assigned number and parameters.

### Payment Gateway

Payment Gateway has been launched by DoIT, GoJ in Jharkhand with the help of National Database Management Ltd (NDML). NDML on behalf of DIT has created a common infrastructure that can be used by States/Departments to offer various services through their state portals with a facility to make online payment using the following:-

- Net Banking
- Debit Cards
- Credit Cards
- Cash (VLE may use any mode as above for depositing the fees on behalf of the citizen)
- IMPS
- Cash-card/Prepaid/Wallets

Following departments have been integrated with Payment Gateway and its transactions report:

**Table 9.23: Payment Gateway status**

Department	Live Since	Month of Dec, 2015		Cumulative Till 22 Dec 2015	
		Transactions (Nos.)	Transaction (Amt in Rupees)	Transactions (Nos.)	Transaction (Amt in Rupees)
Registration Department	28-Sep-13	1,527	559,034	14,431	38,919,055
Comm Tax Department	14-Nov-13	8,946	326,674,416	58,960	2,532,300,617
Transport Department	14-Nov-13	45,045	137,998,378	511,687	1,617,721,627
Exam Board Department	22-Mar-14	0	0	30,738	15,171,325
Jharkhand Generic Portal	26-Mar-14	299	60,666,061	2,245	346,718,934
<b>Total</b>		<b>55,817</b>	<b>525,897,889</b>	<b>618,061</b>	<b>4,550,831,558</b>

Source: Department of IT, GoJ

### National Optical Fiber Network (NOFN)

The National Optical Fiber Network (NOFN) is a project initiated in 2011 to provide broadband connectivity to over two Lakh (200,000) Gram Panchayats across India. The project provides Internet access using existing optical fiber and extending it to the gram panchyats. The project was intended to enable the government of India and the government of Jharkhand to provide e-services and e-applications nationally. A Special Purpose vehicle, Bharat Broadband Network

Limited (BBNL) was created as a public Sector undertaking (PSU) for the execution of the project. The project will be funded by the Universal Service Obligation Fund (USOF). In the state of Jharkhand Power Grid Corporation of India Ltd. (PGCIL) is implementing this project on behalf of BBNL. In Jharkhand it will be implemented different phases; deployment of the project has already started for the first phase and several GPs across Bokaro and Ramgarh Districts are already connected.

**Table 9.24: Status of NOFN**

Name of District	No. of GP	GP Bhawan Available	GP Bhawan Under Construction	No. of GP Bhawan unavailable	OFC Completed (In GPs)	OFC work in Progress	OFC pending due to unavailable Bhawan
Bokaro	240	203	12	36	175	20	36
Ramgarh	119	78	25	40	146	22	2
Koderma	115	94	11	4	73	28	4
Hazaribagh	273	169	64	24	69	125	24

Name of District	No. of GP	GP Bhawan Available	GP Bhawan Under Construction	No. of GP Bhawan unavailable	OFC Completed (In GPs)	OFC work in Progress	OFC pending due to unavailable Bhawan
Sahebganj	174	157	4	5	29	65	5
Ranchi	319	275	25	3	94	180	3
Deoghar	204	184	10	0	62	119	0
Total	1474	1160	151	112	684	559	74

Source: Department of IT, GoJ

JAPIT (Jharkhand Agency for promotion of Information Technology)

SWAN (State Wide Area Network) also called JharNet

JharNet is a transport network on which the user Departments builds their exclusive Intranets. It is the information super highway for Jharkhand. With the help of JharNet, the department provides video conferencing facility for jails and court in order to reduce security risk, ease the process, make the system faster and apparently save a lot of government revenue. JharNet also has a network of approximate 3000 IP telephones throughout the state that provides COST FREE, NOISE FREE voice communication facility among the different Government offices and approx. 5000 data connections which provides internet access besides the intranet access which leads to revenue saving.

JharNet has provided valued Video Conference Facility in between State head-quarter and all Districts headquarters of Jharkhand.

JharNet is a broadband IP based e-Governance Network which provides a secure platform to transfer data across the state which has enabled different government departments to get computerized in Client- Server Model and caters ONLINE Services. Treasury, Commercial Tax, Aadhar Enabled Biometric Attendance System (AEBAS) and Registration Departments are fully

computerized and many more are under progress. This has changed the entire previous environment into a purely transparent environment across the state.

### e-District

e-District was initiated by Government of India (GoI), under NeGP (National e-Governance Plan) for work automation of District level G@C (Government to Citizen) services. Accordingly, in the state wide roll phase; the Government of Jharkhand is implementing e-District in all 24 districts of Jharkhand. With e-District, processes have been simplified and have made access to government information easier. The other benefits of e-District include:

- efficiency in services,
- improvement in services delivery,
- standardization of services,
- better accessibility of services and
- more transparency and accountability

Today, the government has 6 services running successfully in all districts via e-District. Launched on 16<sup>th</sup> June 2015, e-District application has received as many as 85 thousand applications among which 42 thousand have been already delivered.

e-District Pilot was launched on 13 Sept, 2011, and later, on 16<sup>th</sup> June 2015 it was rolled out throughout Jharkhand. There are five services which are online- Caste, Income, Residential,

Birth & Death Certificates are being delivered through “Pragya Kendra” and “District Jan Suvidha Kendra”.

Online implementation of RTI, Pension, Govt. dues and recovery, and information services are available with forms. Several hyperlink services like commercial taxes, transport, electoral service, revenue court and consumer courts are available through e-District Pilot application.

The training on e-District working has been completed in all districts, and has been integrated with e-wallet, GIS & e-Taal. It has also been integrated with SMS gateway and citizens receive SMS as their application gets processed. More than 10,00,000 certificates have been received online till date. E-mail alerts are sent to those officers who do not forward/approve the applications on time. Pendency reports at regular intervals are being sent to senior government functionaries for their perusal and necessary action. Along with rural areas coverage, e-District is being extended to the urban areas as well, including the government hospitals.

### SSDG (State Portal Jharkhand.gov.in)

State Portal and e-forms: The citizens can now avail latest information of all the Departments and District of Jharkhand Government through State portal instead of visiting different websites for different departments. They will also be able to avail government services through e-form from anywhere and anytime.

State portal: All departments of the Govt. of Jharkhand, State Agencies and all Districts are placed in a single portal.

e-forms: 17 e-forms are developed in English out of 21 e-forms given to TCS, Hindi e-forms are being developed.

Server Installation: Server is installed at Police data Centres.

### State Data Centre

JAP-IT, SDC was established in the year 2005 and it has been delivering the most important service. JAP-IT Data Centre performs to ensure 99.5 percent uptime or minimal disruption in operations. The facility of the state-of-the-art fire detection and suppression systems to guard against potential losses due to fire has been set up. There is a 24x7 support for more than 100 services like, PaaS- E-District, DWSD, NRHM, File Tracker, JCECEB, RCD, SRDH, Animal Husbandry, OASYS, Law Dept. JAC etc. Co-location Services: DDO, Treasury, GPF, INDIA POST, AEBAS, JSAC, JEPC, e-Nibandhan, Comm. Tax etc; i.e more than 14 Govt. buildings are covered under its LAN Projects. A new State Data Centre is being constructed and the project is awarded to M/s Orange for Supply, Installation, Configuration, Operations and Maintenance of Physical and IT infrastructure for 5 years. Work has been initiated since 21st August 2015 and will be commission by Feb, 2016.

### CSC

JAPIT is the State Designated Agency (SDA) for implementation of the project using guidelines of the Central Govt.

**Table 9.25: Jharkhand – CSC Roll Out Status**

S. No.	Division	Rural CSC	Urban CSC
1	<b>Ranchi</b>	703	45
2	<b>Hazaribagh</b>	1677	5
3	<b>Kolhan</b>	558	20
4	<b>Palamu</b>	590	50
5	<b>Dumka</b>	964	0
<b>Total</b>	<b>4492</b>	<b>90</b>	4562

Source: Department of IT, GoJ



**Table 9.26: CSC Project in Jharkhand – Snapshot**

Particulars	2015 – 2016
CSC Roll out	4562
CSC e-Wallet	3690
CSC Functional	3276
Banking Service	1435 CSCs
Permanent Enrollment Centers	552 CSCs
Aadhar Enrollment through PECs	28 Lacs
RAP VLE (For Insurance License)	102 VLEs
Education	1100 VLEs working
DISHA	15000 registration
IRCTC ticket booking	320 VLEs (2600 tickets)
Telemedicine	76 VLEs doing
Workshops organized	18 Big + 10 Small
DISHA	15000 registration

Source: Department of IT, GoJ



# 10

## **Labour and Employment**

*Achieving high rate of economic growth combined with productive and quality employment opportunities for the rising labour force is one of the major challenges for both the Central and the State Governments. Given the low growth in employment, prevalence of low productive and low quality employment, especially in the unorganized sector, and high unemployment rate among the youth and the educated in the past few years, the state government's policy in recent years has shifted towards expansion of productive, quality and decent employment in a bid to make the growth process more inclusive. The state government is also committed to provide enhanced social security to its old-age population and is determined to protect the interests of its working class both in the organized as well as in the unorganized sectors of the economy.*

In order to achieve these broad objectives, the state government of Jharkhand is focused to participate in all major central initiatives like Indira Gandhi National Old-Age Pension Scheme, Aam Admi Bima Yojna, up-gradation of Industrial Training Institutes (I.T.I.s), and converting I.T.I.s into Centre of Excellence, etc.

Apart from schemes relating to social security and modernization of administrative machinery, the state is also dedicated to set up at least one I.T.I. (General) in all the districts and the sub divisions and at least one I.T.I. (Women) in every district in Jharkhand. The goal is to train at least 10,000 youths through these institutions.

### **Employment Scenario in Jharkhand**

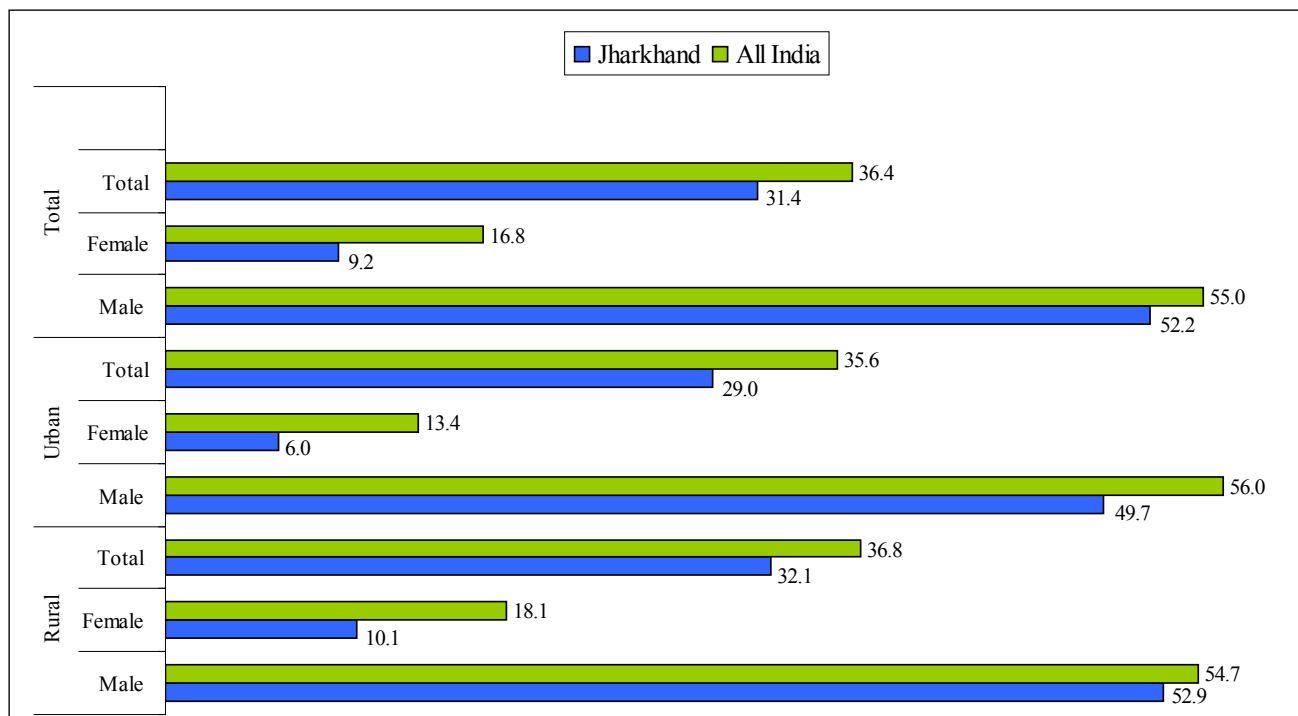
The primary indicators used to understand the employment situation are the Labour Force Participation Rate (LFPR) and Unemployment Rate (UR). LFPR is defined as the proportion of persons/person-days in the labour-force to the total persons/person-days. It is an indicator

reflecting the amount of labour supply in an economy. On the other hand, UR is the ratio of number of unemployed persons/person-days to the number of persons/person-days in the labour force, demonstrating the overall employment situation of an economy. Data from the 68<sup>th</sup> round of National Sample Survey (2011-12) provide information on LFPR and UR for Jharkhand based on the usual principle activity status of the sample population in their working age<sup>1</sup>.

Figures 10.1 and 10.2 show some interesting facts about the employment situation in Jharkhand when compared to the all India level. First, from Figure 10.1 it is observed that Jharkhand has a LFPR of 31.4 percent which is lower than the national average of 36.4 percent. At the same time, from Figure 10.2, it is apparent that it also has a higher level of UR (3.1%) as compared to the all India level UR (2.7%). Figure 10.1 also shows that though India as a whole has a very low level of women labour force participation (16.8%), yet in Jharkhand, even fewer women (9.2%) participate in the labour force. The situation is worse in the urban areas, where the LFPR for women is only 6 percent as compared to that in the rural areas (10.1%). The problem becomes compounded when the low LFPR is combined with a comparatively high level of UR for women in the state (6.8%). Once again, for urban women, the UR is as high as 11 percent compared to 6.2 percent in the rural areas. This indicates that the state needs to do a lot in terms of encouraging women to participate in the labor force and also to reduce their high level of unemployment in order to enhance the productive capacity of the state.

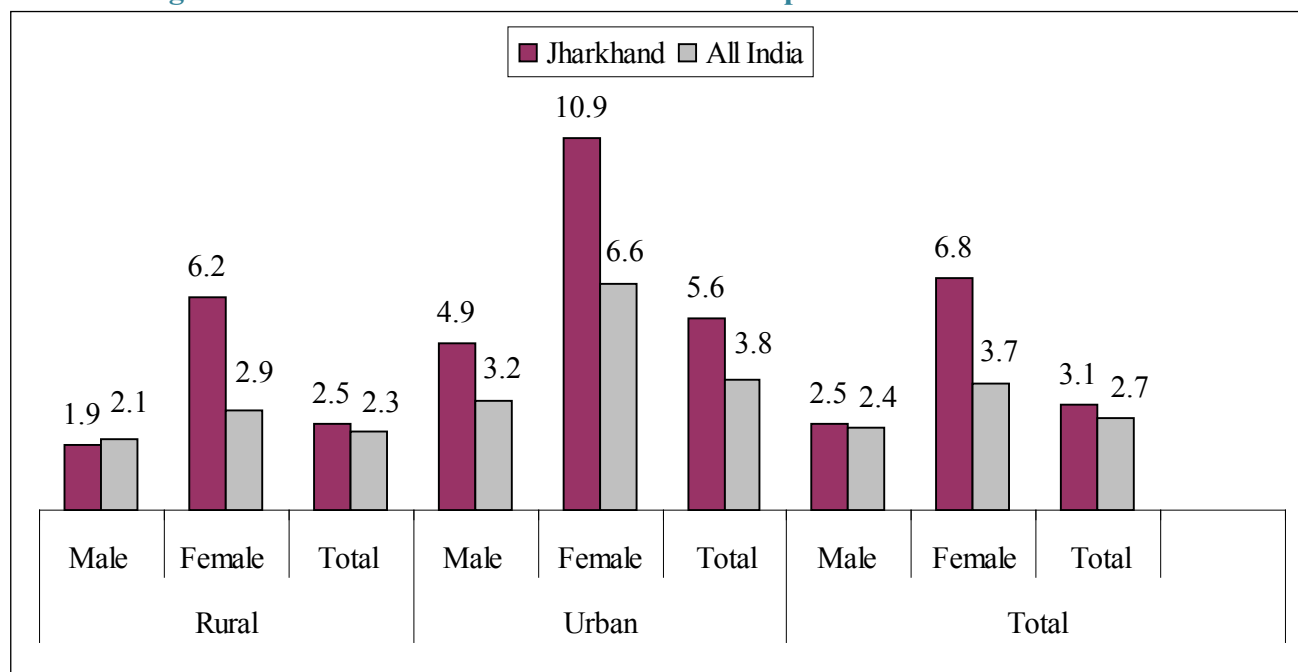
1. NSSO 68<sup>th</sup> round; Jharkhand Sample Size of 12,922

**Figure 10.1: Gender-wise Labour Force Participation in India & Jharkhand**



Source: National Sample Survey (68<sup>th</sup> Round)

**Figure 10.2: Gender-wise Labour Force Participation in India & Jharkhand**



Source: National Sample Survey (68<sup>th</sup> Round)

### Role of Employment Exchange in Guiding the Youth of the State

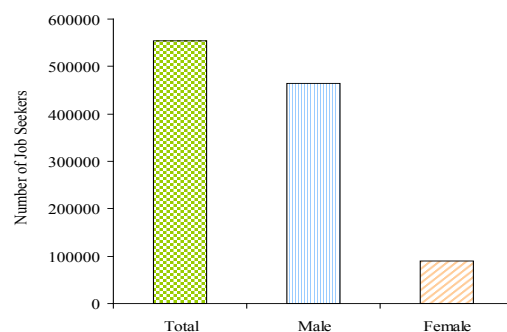
The employment exchange of Jharkhand is dedicated to meeting the demands of the unemployed youth of the state by providing assistance in terms of employment and vocational training. In order to facilitate the process, the state has 47 such offices, including four administrative offices of Deputy Director and three Special Exchanges for 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 that also provides services to the post-graduate degree holders of the state. In order to provide better access, the process of registration is now available across the state through its web portal.

### Registration Details

Figure 10.3 presents the number of job seekers over the last one year (2014-15). The total number of job seekers in Jharkhand stood at 5, 53,349 of which, 4,63,352 or nearly 84 percent were men while only 89,829 or roughly 16 percent were female, reflecting the dismal state of women

work participation in Jharkhand.

**Figure 10.3: Gender-wise Jobseekers in Jharkhand**



**Source:** Directorate of Employment and Training (Employment Wing), Government of Jharkhand

### Rojgar Mela, Recruitment Camp, Career Counseling

In order to provide a wide range of services to the youth of the state, the department conducts several Rojgar Melas (job fairs), Recruitment Camps and Career Counseling sessions throughout the year. Table 10.1 shows that over the last two years, the department has organized 22 rojgar melas and has been able to provide jobs to 14,000 candidates approximately. The department aims to organize many more such melas in the coming years to help the youth of the state.

**Table 10.1: Rojgar Mela**

Sl. No.	Year	Number of Rojgar Mela	Selected Candidates	Target
1	January 2014 to December 2014	13	9403	From January 2016 to March 2016 -23 Rojgar Mela are to be organized
2	January 2015 to December 2015	9	4410	

**Source:** Directorate of Employment and Training (Employment Wing), Government of Jharkhand

In terms of organizing recruitment camps, over the last two years, the department has conducted 66 such camps and has successfully placed

6,160 candidates. The department has a target of conducting 9 such camps in the first three months of 2016 (Table 10.2).

**Table 10.2: Recruitment Camp**

Sl. No.	Year	Number of Recruitment Camp	Selected Candidate	Target
1	January 2014 to December 2014	28	1208	From January 2016 to March 2016 -09 Recruitment Camp are to be organized
2	January 2015 to December 2015	38	3952	

**Source:** Directorate of Employment and Training (Employment Wing), Government of Jharkhand

For gainful employment, it is important that job seekers are provided with proper guidance about their potential and likely job opportunities. Hence, the employment wing of the Labour and Training directorate has conducted several such

sessions over the last few years and has helped thousands of candidates in their search for quality jobs. The details of such sessions are provided in Table 10.3.

**Table 10.3: Career Counseling Sessions**

Sl. No.	Date	Name of the office	Venue	Remarks
1	28-29.01.14	Sub Regional Employment Exchange, Jamshedpur	Sub Regional Employment Exchange, Jamshedpur	1609 candidates selected for skill training
2	12.08.2014	District Employment Exchange, Daltonganj	G.L.A. College, Daltonganj	Career Counselling / Career planning provided to youths
3	13.08.2014	District Employment Exchange, Daltonganj	Y.S.N. Women's College, Daltonganj	
4	10.10.2014	District Employment Exchange, Daltonganj	M.K. DAV Daltonganj	
5	06-07.02.15	Sub Regional Employment Exchange, Jamshedpur	Graduate Women's College, Jamshedpur	800 candidates were provided Vocational Guidance
6	14-15.11.15	Rajya Sthapana Divas	Morhabadi Maidan Ranchi	Pamphlets / Booklets / Career literature regarding Career Plan distributed

**Source:** Directorate of Employment and Training (Employment Wing), Government of Jharkhand

### Distribution of Employment Registration

The registration data of the job seekers demonstrate the distribution of youth in Jharkhand who are looking for jobs. Table 10.4 gives information on the gender-wise number of jobseekers registered in the employment exchange over the last few years. In 2015, the number of registrations has increased by almost 100 percent from the number of registrations in 2014. For both men and women, the increase in the number of registration was

almost double the number of registration in 2014. However, a closer look at the distribution of male and female reveals that registration of female job seekers dropped to 17 percent in 2015 from 19 percent in 2014, indicating that although more women registered themselves at the employment exchange, but their share in total registration dropped by 2 percent.

**Table 10.4: Registration at the Employment Exchange**

Year	Registration		
	Male	Female	Total
2014	45215	10580	55795
2015	92295	19016	111311
<b>Total</b>	<b>137510</b>	<b>29596</b>	<b>167106</b>

Source: Directorate of Employment and Training (Employment Wing), Government of Jharkhand

Data in Table 10.5 show the distribution of job registration among different social categories for the years 2014 and 2015. In 2015, percentage of job seekers belonging to Scheduled Tribe (ST), Backward Class (BC) and General (GEN) categories dropped by nearly 4.5 percent, 3 percent and 1 percent respectively, while the registration for Scheduled Caste (SC) and Other Backward Class (OBC) categories increased by 2.5 percent and 5.7 percent respectively.

**Table 10.5: Registration Distribution among Social Categories**

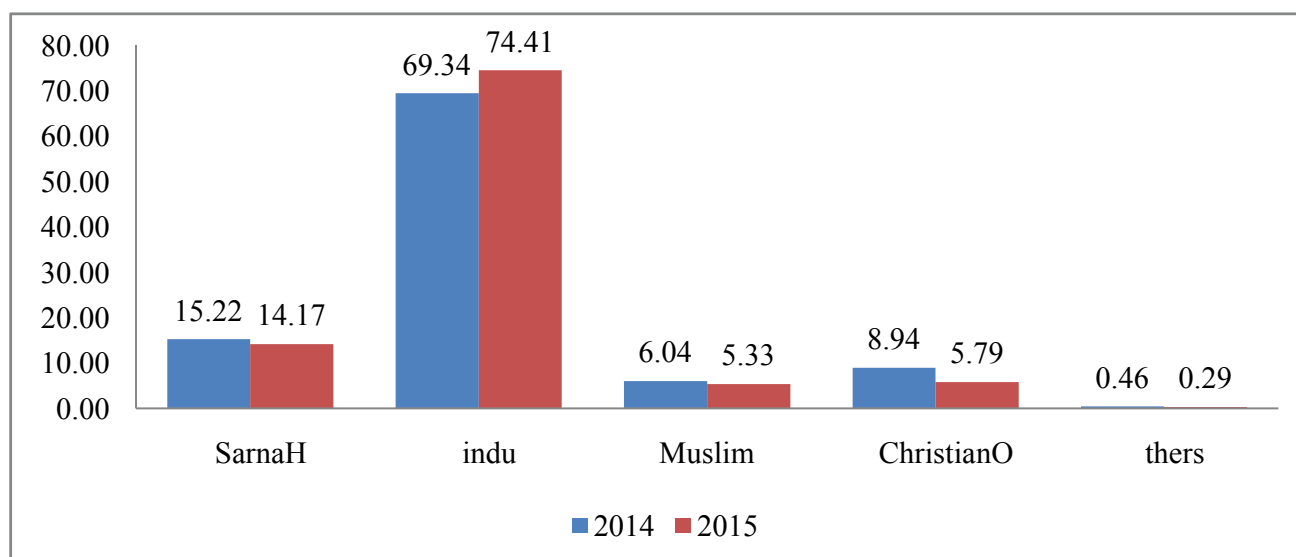
Year	Categories							Total
	ST	SC	BC	GEN	OBC	MB	Other	
2014	31.03	12.21	22.03	18.99	15.16	0.22	0.36	100.00
2015	26.48	14.65	9.21	17.80	21.34	0.48	0.04	100.00

Source: Directorate of Employment and Training (Employment Wing), Government of Jharkhand

Figure 10.4 presents the distribution of employment exchange registration in terms of various socio-religious categories. It is observed that among all the socio religious groups, the percentage change in registration between the years 2014 and 2015 was positive only for Hindus.<sup>2</sup>

<sup>2</sup> Others include Sikh, Buddhism and Jains also.

**Figure 10.4: Registration Distribution among Socio-Religious Groups**



Source: Directorate of Employment and Training (Employment Wing), Government of Jharkhand



It is worth mentioning that in 2015 almost 1281 physically handicapped candidates registered at the employment exchange.

Table 10.6 shows the number of job registration based on educational qualification of the candidates.

**Table 10.6: Educational Qualification-wise Registration (January 2014 to December 2015)**

Qualification	Registration
ITI	14421
Diploma	15958
PG	2143
Middle	6684
10 <sup>th</sup> Pass	55144
12 <sup>th</sup> Pass*	73539
Graduate**	31750

Source: Directorate of Employment and Training (Employment Wing), Government of Jharkhand

\*It also includes 10th pass candidates.

\*\* Graduates in all streams are included. 10th and +2 candidates are also included.

### **New Initiatives Undertaken:**

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 centers at Dumka, Deoghar and Hazaribagh. These centers 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 programs and helping them to make 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.

### **Skill Development in Jharkhand**

Human resource is considered as one of the primary factors of production and a state with productive and skilled labour force will help improve the standard of living of its people. India has a large population of young and aspiring individuals responsible for demographic dividend in the country. In order to properly utilize this demographic dividend, India needs to provide its youth with quality employment, and hence, there is a greater need to enhance the skill of its youths and to make them employable in this rapidly changing world. In order to enhance the skill base of the youth of the state, Jharkhand government has taken several initiatives.

### **Craftsman Training Scheme (CTS)**

With the aim to provide skill based training to its youths, the state is committed to setting up at least one general I.T.I in every district and sub-division and at least one I.T.I for women in every district.

Table 10.7 provides information on the number of I.T.Is under the Craftsman Training Schemes and their existing capacity. At present, the state has 232 I.T.I.s of which 203 are privately run while 27 are run by the government. Two of the I.T.I.s are running in the Public-Private-Partnership (PPP) mode. The total capacity of all the I.T.I.s stands at 37,542 seats.

**Table 10.7: I.T.I.s Running under Craftsman Training Schemes & their Seating Capacity**

ITIs Name		No. of ITIs	Seating capacity
Govt. ITI		27	7000
Private ITI		203	30,000
ITI Running in PPP Mode	ITI Godda with JSPL	1	384
	ITI Tamar with TATA STEEL	1	158

Source: Directorate of Labour, Employment, Training and Skill Development, Government of Jharkhand

Table 10.8 provides the details of the Government run I.T.I.s and the existing capacity of each of these I.T.I.s.

**Table 10.8: Government I.T.I.s & Sanctioned Seat**

Name of ITI	Sanctioned Strength
Total	6939
ITI (General) Ranchi	458
ITI (Welfare) Ranchi	195
ITI (Women) Ranchi	210
ITI Bokaro	442
ITI Dhanbad	638
ITI Dumka	621
ITI (women) Dumka	105
ITI Sahebganj	232
ITI Lalmatia	105
ITI Giridih	200
ITI Hazaribag	385
ITI (Women) Hazaribag	63
ITI Daltonganj	274
ITI Garwaha	200
ITI (women) Latehar	126
ITI Chaibasa	643
ITI (women) Chaibasa	21
ITI Jamshedpur	200
ITI (women) Jamshedpur	126
ITI Kharsawan	200
ITI Deoghar	258
ITI Pakur	242
ITI koderma	200
ITI Lohardaga	258
ITI Gumla	179
ITI Simdega	179
ITI jamtara	179

**Source:** Directorate of Labour, Employment, Training and Skill Development, Government of Jharkhand

Under the Craftsman Training Schemes (CTS), the department provides training in the following two categories: engineering trade and non-engineering trade. In the first category, students

are trained in the following areas: Fitter, Turner, Machinist, Electrician, Wireman, Mechanic Motor Vehicle, Surveyor, Draftsman-Civil, Draftsman-Mechanical, Mechanical General Electronics, IT and ESM, Carpenter, Welder, Foundry man-Technical, Sheet metal Worker, Plumber, Mechanist-Grinder, Marine refrigeration and air conditioning (MRAC), Instrument Mechanic, Mechanic-Diesel, Electroplater, Pattern Maker, Mason, Black Smith, Refractory Mason, Mechanic-Tractor, Mines Electrician, Auto Electrician and Mines Mechanic. In the non-engineering category, students are trained in Stenography (Hindi and English), Computer Operator and Programming assistant (COPA), Cutting and Sewing, Embroidery and Needle Work, Hair and Skin Care.

### Major Initiatives under CTS

Some of the major initiatives taken by the department in recent times include:

Up-gradation, operation and maintenance of 37 (Table 10.9) I.T.Is in Jharkhand through PPP mode.

Setting up 20 I.T.I.s (Figure 12) as per the recommendations of 13<sup>th</sup> Finance Commission

Up-gradation of 10 I.T.I.s in the districts affected by left wing extremism

Quality Council of India (QCI) accreditation and National Council for Vocational Training (NCVT) affiliation/re-affiliation- In order to meet the new guidelines of Directorate General of Employment & Training (DGET) all I.T.I.s should get affiliated/re-affiliated. Most of government run I.T.I.s have uploaded their data in QCI for accreditation purpose.

Establishment of Institute Managing Committee (IMC) in every government I.T.I with 50 percent participation of people from the industry to provide guidance to meet their demand for skilled manpower.

Establishment of Training and Placement Cell (TCPC) to streamline the placement of the students from government run I.T.I.s

**Table 10.9: Status of I.T.I.s to be up-graded under PPP**

Sl. No.	District	Name of ITI	Status of Building
1	Garhwa	ITI Jhagratand	Completed
2	Garhwa	ITI Ranka	Completed
3	Garhwa	ITI Nagartoli	Completed
4	East Singhbhum	ITI Bahargoda	Completed
5	East Singhbhum	ITI Chakulia	Completed
6	East Singhbhum	ITI Ghatshila	Completed
7	West Singhbhum	ITI Chakardharpur	Completed
8	West Singhbhum	ITI Jagannathpur	Completed
9	Sarikela - Kharsawan	ITI Chandil	Not Completed
10	Palamu	ITI Hussainabad	Completed
11	Palamu	ITI Chatrapur	Completed
12	Gumla	ITI Chaghara	Completed
13	Hazaribagh	ITI Barhi	Completed
14	Latehar	ITI Mahuatand	Completed
15	Latehar	ITI Chandva	Completed
16	Bokaro	ITI Bermo	Completed
17	Khunti	ITI Khunti	Completed
18	Ranchi	ITI Bundu	Completed
19	Ranchi	ITI Mandar	Completed
20	Sahebganj	ITI Rajmahal	Completed
21	Deoghar	ITI Madhupur	Completed
22	Ramgarh	ITI (Women)	Completed
23	Giridih	ITI (Women)	Completed
24	Bokaro	ITI (Women)	Completed
25	Dhanbad	ITI (Women)	Completed
26	Sarikela - Kharsawan	ITI (Women)	Completed
27	Garhwa	ITI (Women)	Completed
28	Gumla	ITI (Women)	Completed
29	Palamu	ITI (Women)	Completed
30	Simdega	ITI (Women)	Completed
31	Lohardaga	ITI (Women)	Completed
32	Khunti	ITI (Women)	Completed
33	Pakur	ITI (Women)	Completed
34	Sahebganj	ITI (Women)	Completed
35	Deoghar	ITI (Women)	Completed
36	Godda	ITI (Women)	Completed
37	Jamtara	ITI (Women)	Completed

**Source:** Directorate of Labour, Employment, Training and Skill Development, Government of Jharkhand

**Table 10.10: I.T.I.s under Recommendation of 13th Finance Commission**

Sl. No.	District	Name of ITI	Tentative Seating Capacity	Remarks
1	Dumka	ITI Jarmundi	250	As per State Cabinet decision all future ITIs are to be run under PPP mode
2	Dumka	ITI Saraiyahat	250	
3	Godda	ITI Sunderpahari	250	
4	Godda	ITI Poriyahat	250	
5	Giridih	ITI Dumri	250	
6	Giridih	ITI Bagoder	250	
7	Koderma	ITI Domchach	250	
8	Chatra	ITI Simaria	250	
9	Chatra	ITI Itkhorri	250	
10	Ramgarh	ITI Gola	250	
11	Palamu	ITI Satbarwa	250	
12	Garhwa	ITI Bhandaria	250	
13	West singbhum	ITI Jhikhpani	250	
14	Jamtara	ITI Karmatand-Vidyasagar	250	
15	Dhanbad	ITI Govindpur	250	
16	Dhanbad	ITI Baghmara	250	
17	Bokaro	ITI Kasmar	250	
18	Hazaribagh	ITI Itchak	250	
19	Hazaribagh	ITI Church	250	
20	Lohardaga	ITI Kudu	250	

Source: Directorate of Labour, Employment, Training and Skill Development, Government of Jharkhand

### **Skill Development Initiative Schemes (SDIS) based on Modular Employable Skill (MES):**

Ministry of Labour and Employment, Government of India (GoI), undertook the development of a strategic framework for skill development to provide employable skills to the jobseekers and to test and certify the skills of the on-job workers. The ministry launched the Skill Development Initiative Scheme (SDIS) in May 2007. Directorate General of Employment & Training, GoI, has designed the guidelines for implementation of SDIS through NCVT course modules. This scheme is fully funded by central government and is implemented by the states/ Union Territories (UTs).

The beneficiaries of the scheme primarily include: Workers seeking certification for their skills acquired informally

- Early school leavers
- Existing workers in unorganized sector
- Engaged or liberated child labour
- Others as per SDIS guidelines

At present there are 578 modules running under 68 sectors out of which training is delivered in 30 sectors. The number of registered VTS (vocational training schemes) stands at 93 with 14 being run by the government and rest by the private sector.

Table 10.11 presents the total expenditure and the number of candidates trained in VTPs (vocational training programs) between the financial year 2012-13 and present.

**Table 10.11: Status of VTPs**

Financial Year	Expenditure (in ₹)	No. of Trained Candidates
2012-13	1,99,81,450	9597
2013-14	5,68,98,700	33544
2014-15	2,48,50,016	19638
2015-16	33,74,529	-
Total	10,51,04,695	62779

**Source:** Directorate of Labour, Employment, Training and Skill Development, Government of Jharkhand

### Apprenticeship Training Scheme

In order to augment the skills learned at educational institutions, students also need supplementary training at their actual work place, and

hence for the running of the ATS, four offices of Assistant Director Training (ADT.) have been established at Ranchi, Adityapur, Dumka and Jamshedpur. The details of such apprenticeship training initiatives are provided in Table 10.12.

**Table 10.12: Apprenticeship Training Initiatives**

Sl. No	Name of Examination	Total candidates appeared	Passed	Fail	% Pass
1	96th ART (APP) May 2012	1471	1295	176	88.04%
2	97th AiTT (APP) November 2012	2074	2034	40	98.07%
3	98th AITT (APP) April 2013	1655	1474	181	89.06%
4	99th AITT (APP) October 2013	2163	1940	223	89.69%
5	100th AITT (APP) May 2014	1271	1162	109	91.42%
6	101th AITT (APP) October 2014	2297	2056	241	89.51%
	Total	10931	9961	970	91.13%

**Source:** Directorate of Labour, Employment, Training and Skill Development, Government of Jharkhand

### Training of Trainers through Distance Learning

Seven government run I.T.Is have been supported to run Distant Learning Program (DLP) by providing DLP equipment from GOI/Ministry of Labour & Employment (MoLE) and *Central Staff Training and Research Institute (CSTARI)* Kolkata.

Spoke coordinators have been provided with necessary training for organizing DLP at CSTARI Kolkata

The institutions have been provided with 2MBps VP- NoBB by Bharat Sanchar Nigam Limited (BSNL)

Under the directives of DGET, state is in the process of establishing spoke at every district.

### Establishment of Advanced Training Institute

Government of India has proposed to establish Advance Training Institute (ATI) and Regional Vocational Training Institute (RVTI) in various states. Jharkhand has been allotted with one such ATI. For establishment of ATI, land has already being earmarked at the Panchayat Pithoria, Kanke Block, Ranchi and proposal has been sent to GoI.

### Achievement: Jharkhand ranked 3<sup>rd</sup> in the World Bank report on Ease of doing Business in India

As a result of the reform processes initiated by the Labour Department, Jharkhand ranked third with

a score of 63.07 percent on the World Bank's Ease of Business assessment report released in March 2015. One of the major contributing factors that lead to such a high ranking is the reforms initiated by the labour department. In this criterion, Jharkhand was the only state scoring the maximum possible 100 points. The state realized the need for labour reforms and took multiple initiatives in order to make it easy for businesses to ensure compliance with labour laws.

The emphasis of reforms has been on simplification and rationalization of the existing rules and introduction of information technology to make it more efficient and effective. Major effort has also gone into standardization of inspection process and bringing in Self Certification Schemes for labour laws as well as modifications in the Factories Act of 1948.

The department of labor and employment also took some major initiatives towards reforming the labour sector in the state. The reform process is classified into three major categories: regulatory, facilitative and involvement of information technology. The reform process is expected to bring the needed change that will help generate more investment in the state, which will then create a demand for skilled and unskilled manpower resulting in an increased employment in the state labour force. Some of the initiatives are discussed below:

### **Shramdan-a Solution- Online Application – Online Approval:**

One of the key initiatives undertaken by the Department is to develop a *Corporate Legal Management System* (CLMS) portal, which will allow employers and entrepreneurs to access all departmental services, such as registration, renewal, amendments, licensing, filing returns, etc., online, without visiting the Labour Commissioner's office. This facility has not only increased compliance, but also provided transparency in the process.

### **Self-Certification-One inspection in 5 years**

In order to synchronize several inspections by all the wings of the Labour Commissionerate, there will be one inspection every 5 years instead of multiple inspections several times a year. Further, a self-certification scheme has been launched, where the employer needs to streamline the enforcement procedure of different labour laws for their implementation and are now required to file a single consolidated annual return instead of the existing 36 returns. For major hazardous units, the process involves a simple form along with a self-declaration or an affidavit.

### **Self-Certification Scheme for Boilers**

Jharkhand has notified a self-certification scheme for boilers after third party certification. This scheme allows for certification based on inspection by a third party, approved by the Indian Boiler Board.

### **Labour Manual: A Summary of Applicable Laws**

Creating standard operating procedure for inspections to bring objectivity into the inspection process is an important step towards generating environment for smooth running of businesses. Thus, the department came up with the labour manual with standard operating procedures. It elaborates the inspection process, type of inspections, the procedure adopted, checklists for inspection under various labour laws and format for inspection. It also documents the roles and responsibilities of various inspectors. The labour manual provides a clear description on compilation and inspection and will help in better compliances of the concerned laws.

### **Inspection Reforms**

Another reform process that is implemented in the state is the reduction in the time of uploading inspection report from 72 hours to 24 hours from the time of inspection. Apart from providing flexibility, it also improves transparency and objectivity in the inspection process. Moreover,

inspection now will be based on computerized risk assessment for each unit.

### **Amendments under various laws and schemes**

Apart from implementing procedures to facilitate businesses in the state, the government also felt the need to update some of the labour laws based on the need of the hour, while keeping the basic interest of the worker in sync with the prevailing economy.

### **Some of the amendments are mentioned below:**

Amendments in the Jharkhand Shops and Establishments Act 1953 which provides

Relaxation from filling returns for firms employing less than 10 employees and this would benefit more than 60,000 establishments. Another amendment is made, which would allow women workers to work beyond 8:00 PM on specific approval from the Government. This will create more opportunities for women giving impetus to the IT industry.

Amendments in The Jharkhand Factories Rules 1950 aiming at simplification of processes by removing repetitive and redundant processes, ensuring better safety against occupational hazards and providing better working conditions for the workers. It is made mandatory for the 'dust generating units' to carry out pre-employment and yearly medical examination of all workers employed. There are about such 3,000 dust generating unit and about 50,000 workers employed in these factories who will benefit from this provision.

Amendments have been made in The Inter State Migrant Workman (Regulation of Employment and Conditions of Service) Rules, 1980, The Payment of Wages Rules 1937, The Minimum Wages Rules 1951 and The Contract Labour (Regulation and Abolition) Rules, 1972 which are all now required to maintain the registers online, which will lead to better compliance and employee benefits. Employers have been allowed

to maintain registers in digital format and submit online returns.

Amendment in the Contract Labour (Regulation and Abolition) Act, 1970 to exclude

certain activities such as sanitation works, security service, canteen and catering service, loading and un-loading operations, courier services, civil and other construction works, gardening, house-keeping and laundry services, transport services, Corporate Social Responsibility (CSR) etc., from being considered as "Core Activity of Establishment". This will facilitate engagement of contract labour in non-core activity of the establishment without any dispute. It is expected that this amendment of law will lead to much lesser number of disputes and will make it easier for small establishments to employ more people and grow fast. This will also lead to better compliance and enforcement.

The Factories Act, 1948, amendments have been brought to enhance the definition of a

factory and make offences under this act compoundable except for hazardous process industries and dangerous operations industries. This change would allow for prosecution to be launched or filed under factories act to be decided by the Lok Adalats and Mega Lok Adalats implying delivery of quick justice for the concerned parties.

The Industrial Disputes Act, 1947 with provisions allowing for a better exit option to

workers as well as better social security provisions for them.

### **Schemes aimed at promoting welfare of the labourers**

Moreover, the state also launched several initiatives, which specifically looked into the welfare aspect of the labourers.

### The Modified Migrant Labour Scheme

In order to protect the interest of the migrant workers, Modified Migrant Labour Scheme has been launched for extending death and accidental benefits to migrant workers. Panchayats are incentivized for registration of such workers to see that benefits are made available. This scheme has been appreciated at many forums by International Labour Organization (ILO) and cited as a best practice.

### Occupational Health Laboratory

Ensuring safety of workers at work place is extremely important for both the government and the industry bodies. Hence, an occupational health laboratory is set up by the department to ensure better health services for workers working in dangerous operations and major accident prone units. A mobile laboratory has also been set up to check health of workers at the project site.

### Easy dispute resolution

There is a formal mechanism to resolve complaints received at the office of Labour Commissionerate, which involves giving a patient hearing to both the employers and the workers. Options are suggested to both the parties as per interpretation of the applicable laws. This mediation works well in most of the cases and helps build better relation by setting right expectations among all the parties.

### Scholarship for children of workers

Under the unorganized workers Social Security Act, children of the workers from unorganized sectors are given scholarships to support their education.

### Social Security

The objective of any reform process is to bring about changes which will benefit the society at large. The reforms process initiated by the department of labour not only ensures better business conditions for the business community, but also enhanced social security for the workforce. With procedures facilitating employee-employer relationship, productivity is enhanced and in turn leads to higher demand for productive employment leading to higher wages of the workers. 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. 210 per day, as compared to Rs. 187 earlier. This will benefit a large number of workers (about 90%) in the unorganized sectors of Jharkhand. For contract workers, working in factories, and for skilled workers also minimum wage is revised at the rate of Rs. 252 per person. The details of the minimum wages prevailing in Jharkhand are provided in Table 10.13. Similarly, the wage rates for contract labourers are provided in Table 10.14.

**Table 10.13: Minimum Wages in Jharkhand (Daily rate in rupees)**

Type of Workers	Minimum Wages as on March 2015	Variable Dearness Allowance w.e.f.-April 2015	Total Minimum Wages	Minimum Wages w.e.f. August 2015	Variable Dearness Allowance w.e.f. October 2015	Existing Minimum Wages
Unskilled	127.00	60.43	187.43	210.00	2.47	212.47
Semi-skilled	131.00	62.34	193.34	220.00	2.59	222.59
Skilled	176.00	83.75	259.75	290.00	3.42	293.42
Highly Skilled	203.00	96.60	299.60	335.00	3.95	338.95
Clerical	176.00	83.75	259.75	290.00	3.42	293.42

Source: Director Employment and Training, Government of Jharkhand



**Table 10.14: Wage Rates for Contract Labourers (Monthly rate in Rupees)**

Wages on 31.03.2015 (Monthly Rate in Rs)	Dearness Allowance wef-01.04.2015 (Monthly Rate in Rs )	Total Minimum Wages (Monthly Rate in Rs)	Minimum Wages w.e.f. 26.08. 2015 (Monthly Rate in Rs )	Variable Dearness Allowance w.e.f - 01.10.2015 (Monthly Rate in Rs )	Existing Wages ((Monthly Rate in Rs )
Unskilled- 3808.00	1757.02	5565.02	6550	77.29	6627.29
Semiskilled- 4006.00	1757.02	5763.02	6860	80.94	6940.94
skilled- 4873.00	1954.99	6827.99	9120	107.61	9227.61
Highly- skilled 5920.00	2363.31	8283.31	10450	123.31	10573.31

Source: Director Employment and Training, Government of Jharkhand

### Child Labour in Jharkhand

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.

Majority of child labour in Jharkhand are 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. According to NSSO (66th round of Survey) data on child labour in major Indian states, 2009-10 for the age group 5-14 years, Jharkhand has 82,468 child labour, which constitutes about 1.65 percent of its total labour force of which 67,807 are boys and 14,661 are girls. An estimated 33,000 girls are trafficked each year from Jharkhand. Most of these children below 18 years of age are victims of trafficking and exploitation and are either illiterate or semi-literate and are forced to work in household, brothels, restaurants and factories.

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 holistic development of children.

#### Existing systems in place for identification of working children

The first part in the elimination of child labour is the identification of child labour engaged in various places. In order to conduct periodic

inspections for identification of working children, Department of Labour, GoJ, has a well structured enforcement machinery, Block Level Monitoring Committee (BLMC)) at the block level. BLMC works in close co-ordination with the Block Child Protection Committee as well as the Village Child Protection Committee under the Integrated Child Protection Scheme (ICPS). Awareness generation activities and constitution of Child Welfare Committees (CWCs) are encouraged through community participation. In some areas Parent Committees act as the focal point for community mobilization and for elimination of child labour. This committee work closely with the School Management Committee, Community Based Organizations (CBOs) and parents to ensure that all children attend school and do not get engaged in any sort of wage employment or hazardous employment or trafficked for labour. The department also conducts periodic surveys on issues related to child labour.

#### Collaboration of departments and agencies for prevention of child labour

In the effort to eliminate child labour, a comprehensive action has been taken by the labour department of Jharkhand in collaboration with several other departments of the state to prevent

child labour practices in the state. For example, the Jharkhand Police is implementing “Operation Muskan”, Department of Social Welfare has constituted “SCPCR” (State commission for protection of Child Rights) and “CWCs” which are working efficiently in the State. Some of the trade unions are also involved in the process of elimination of child labour in the state through their by-laws. Sensitive policing, sensitization of parents/guardians of vulnerable children, creation of child friendly communities at the village/ward level, increasing outreach of government schemes and improving accessibility to quality educational facilities and skill building programmes are some of the initiatives undertaken by the community level workers, media, NGOs and department officials for the cause.

### **ILO Converging Against Child Labour: Support for India’s Model**

Government of Jharkhand has implemented a pilot project in collaboration with ILO, Converging Against Child Labour: Support for India’s Model. It is an effective convergence-based model for elimination and prevention of child labour, including child trafficking/migration. It seeks to establish permanent coordination system at the state and the national level. The social partners would be equipped to play a lead role in keeping the attention focused on the issue. It sought to establish effective systems and processes by using existing schemes.

The approach and objective of the model are as following:

A holistic approach with different government ministries/departments, social partners and civil society organizations coordinating and converging their efforts and resources at the district, state and the national level to eliminate child labour.

Building on existing structures, schemes and programs rather than establishing new ones. This would require action to complement features of some major national programs like National

Child Labour Project (NCLP), Skill Development Initiative Scheme (SDIS), Sarva Shiksha Abhiyan (SSA) and National Rural Employment Guarantee Scheme (NREGS), as well as poverty alleviation and health programs in order to ensure that their benefits impact child labourers and their families.

A family-centered approach where educational rehabilitation of the child is accompanied by economic betterment of the family

### **Some benefits/ results are as follows:**

NCLP schools being run in formal school premises

One educator from SSA placed in each NCLP school

PTA meetings held on monthly basis. Health check-ups being done through NRHM (National Rural Health Mission)

### **Pre-school kits & toys at anganwadi centres**

Welfare department has shared its list of residential schools for enrolment of the rescued minority children

Volley ball and net provided to all NCLP schools at Sahebganj by Nehru Yuva Kendra Sangathan

Uniforms, stationery, shoes, school bags through JBCOWB

### **Mid day meals in convergence with SSA**

Bridge Course materials and other TLMs provided by UNICEF

About 1700 Family formats filled on preferences of families to be linked to government schemes and vocational training programs

Beneficiary families in the process of being linked to Rashtriya Swasthya Beema Yojana, Jan Shree Beema Yojana and other Social Security Schemes like monthly pension scheme.

Jharcraft to link families to its vocational training programs

About 1700 Family formats filled on preferences

of families to be linked to government schemes and vocational training programs.

### **Jharkhand Skill Mission Society**

Jharkhand Skill Development Mission Society (JSDMS) registered on 1st October, 2013 under the Societies Registration Act, 1860 to function as an autonomous organization under the Department of Planning and Development, Government of Jharkhand. However, JSDMS was made an autonomous institution under the Department of Labour, Employment, Training & Skill Development, Government of Jharkhand, through the state government notification dated 18 June, 2015.

In order to augment the skill development process in the state, JSDMS wants to enhance the employability of the youth and empower them to take part in the economic growth of Jharkhand as well as India. The aim is to offer professional and skill training in modern and market driven professions at reasonable cost and monitor its delivery. JSDMS is also focused on delivering quality programs through its partners and has put emphasis on the development of a competent curriculum, which should be based on the National Occupational Standards (NOS) and Qualification Packs (QPs) developed by the Sector Skill Councils established under the National Skill Development Corporation (NSDC). The focus of the training should be on the 'high impact' sectors of Jharkhand, which include Agriculture,

Food Processing, Domestic Workers, Security, Handicrafts, Construction, Mining, Power & Utilities, Tourism & Hospitality, Retail, Telecom, Apparel, Beauty & Wellness, Transportation & Logistics, Automotive, IT/ITES, etc. The training curriculum must have mandatory modules on soft skills, computer literacy, financial literacy and entrepreneurship and adequate practical and on-job training/internship opportunities.

### **Conclusion**

Jharkhand has a very low labour force participation rate; especially women labour force participation rate is extremely low in the state. The state unemployment rate is higher than the national average. However, government of Jharkhand has taken major steps to improve the labour market outcome in the state including reforms in the labour laws and incorporation of skill development initiatives for its youth. The government has decided to set up I.T.I.s in all the districts of the state including development of Women I.T.I.s. Due the recent initiatives taken up by the government of Jharkhand, it ranked 3rd among all the states in India in the ease of doing business ranking by the World Bank.



11

## Education

*Education plays an important role in the development of a nation. It acts as a catalyst for economic prosperity. Education enhances human capital, which in turn helps in increasing the productivity of an economy. In all modern societies literacy is considered essential in human lives and is an important indicator of human, social, and economic development of a country. Literacy rate is the most widely used and a relevant measure of the existing stock of human capital. Apart from literacy, the higher and the technical education levels are also important drivers of economic mobility and are essential for the improvement of the standard of living of a country. Jharkhand has made tremendous progress in terms of improving its literacy rate and inclusive coverage of primary and secondary education. It has also taken many steps in order*

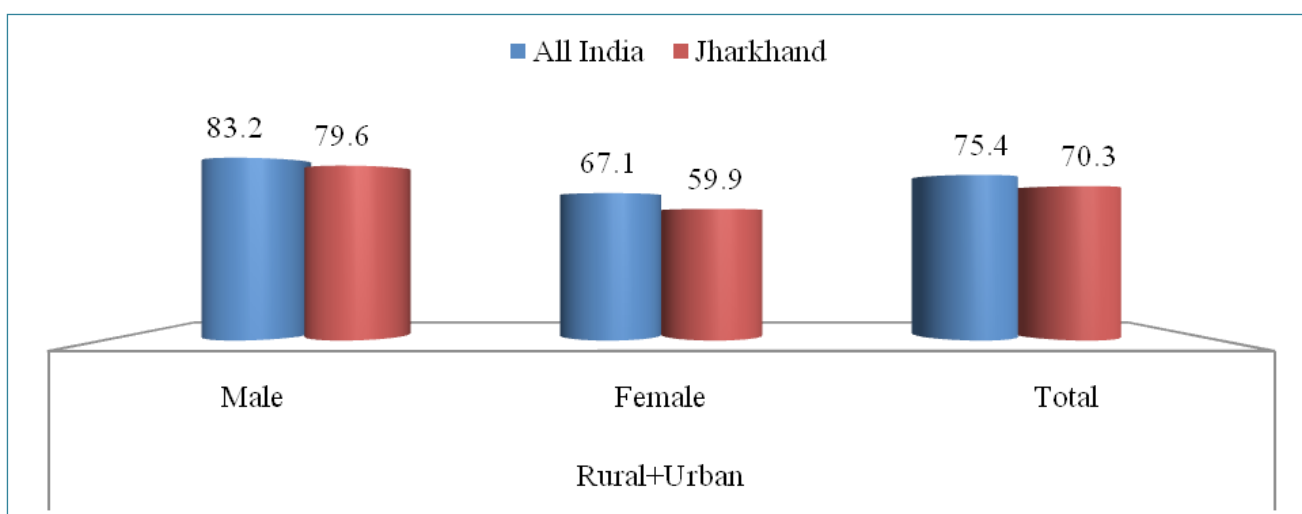
*to improve the skill levels of its youth to make them employable in a continuously evolving knowledge-based economy.*

### Educational Attainment in Jharkhand

In order to understand the overall educational attainment of the state, the data from the Social Consumption in India Education, 71<sup>st</sup> National Sample Survey (NSS) round, 2014, have been used. NSS measures literacy in terms of percentage of people age 7 years and above who can read and write.

Figure 11.1 reveals that the overall literacy in India was about 75.4 percent in 2014. However, in Jharkhand the overall literacy rate was around 70.3 percent. Jharkhand shows a gap of 7.2 percent in terms of female literacy rate in comparison to that at the all India level (67.1%).

**Figure 11.1: Literacy Rate in Jharkhand and India**

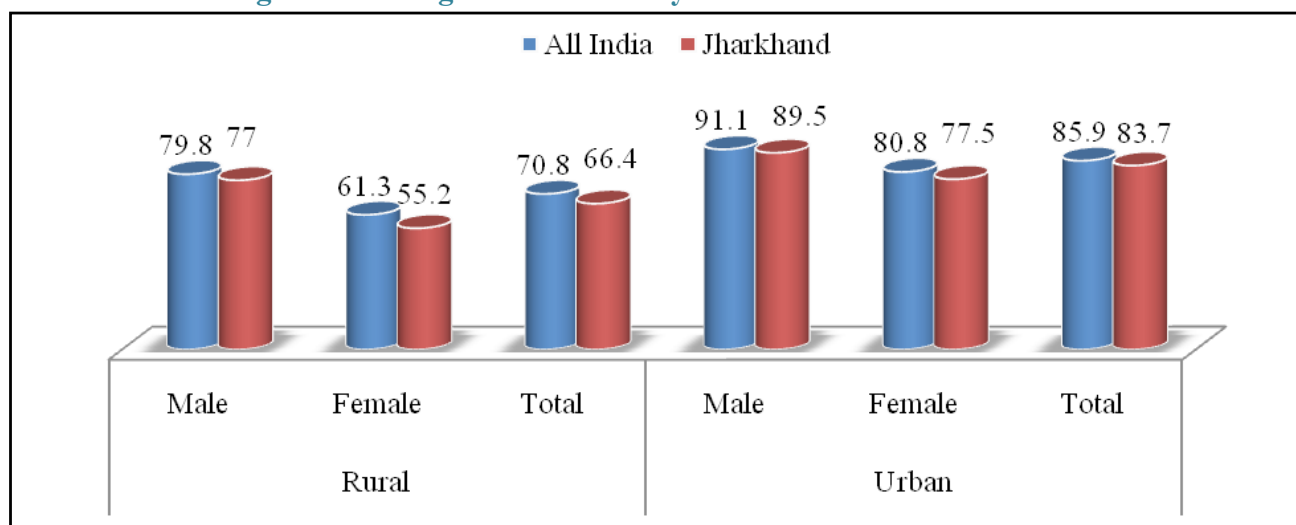


Source: NSSO 71<sup>st</sup> round survey, 2014

Figure 11.2 shows the distribution of literacy levels across rural and urban regions of Jharkhand and India. Female literacy in the urban areas of Jharkhand was 77.5 percent compared to about

55.2 percent in the rural areas, showing a need to put more emphasis on the improvement of the female literacy level in the state.

**Figure 11.2: Region wise Literacy Rate in Jharkhand and India**

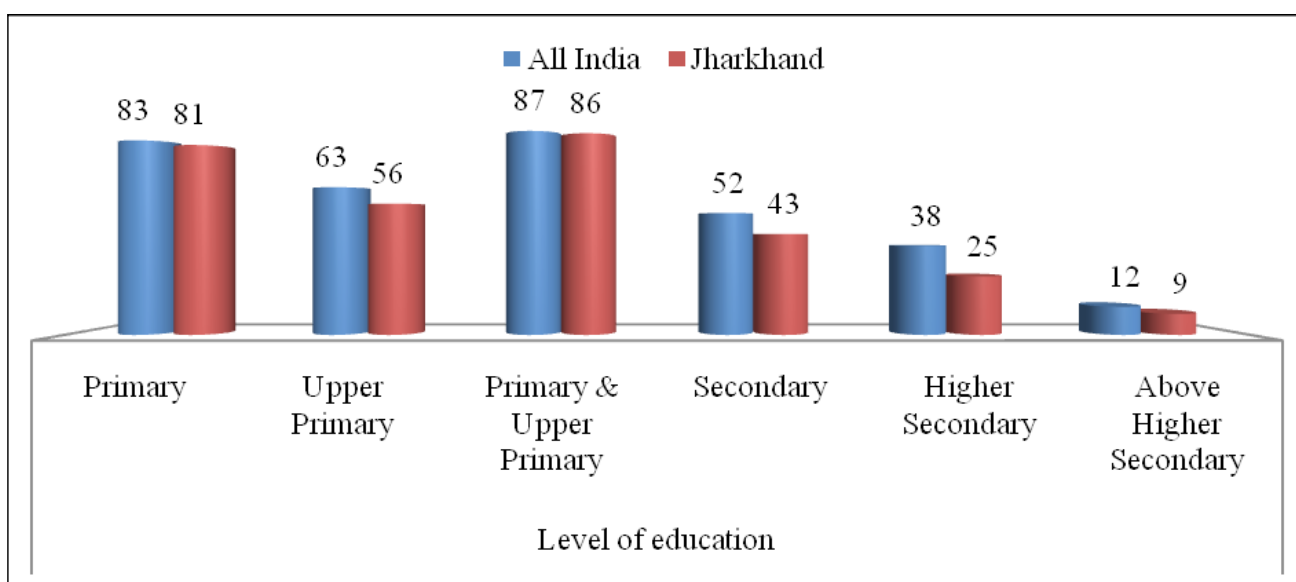


Source: NSSO 71<sup>st</sup> round survey, 2014

Figure 11.3 shows a comparison between Jharkhand and India in terms of net attendance ratio at various levels of education. The net attendance ratio for Jharkhand was lower at all the levels of education as compared to that of

India. This was more prominent in the case of higher secondary education in Jharkhand, where the net attendance ratio was 13 percent lower than that in India.

**Figure 11.3: Net Attendance Ratio for Different Levels of Education in Jharkhand and India**



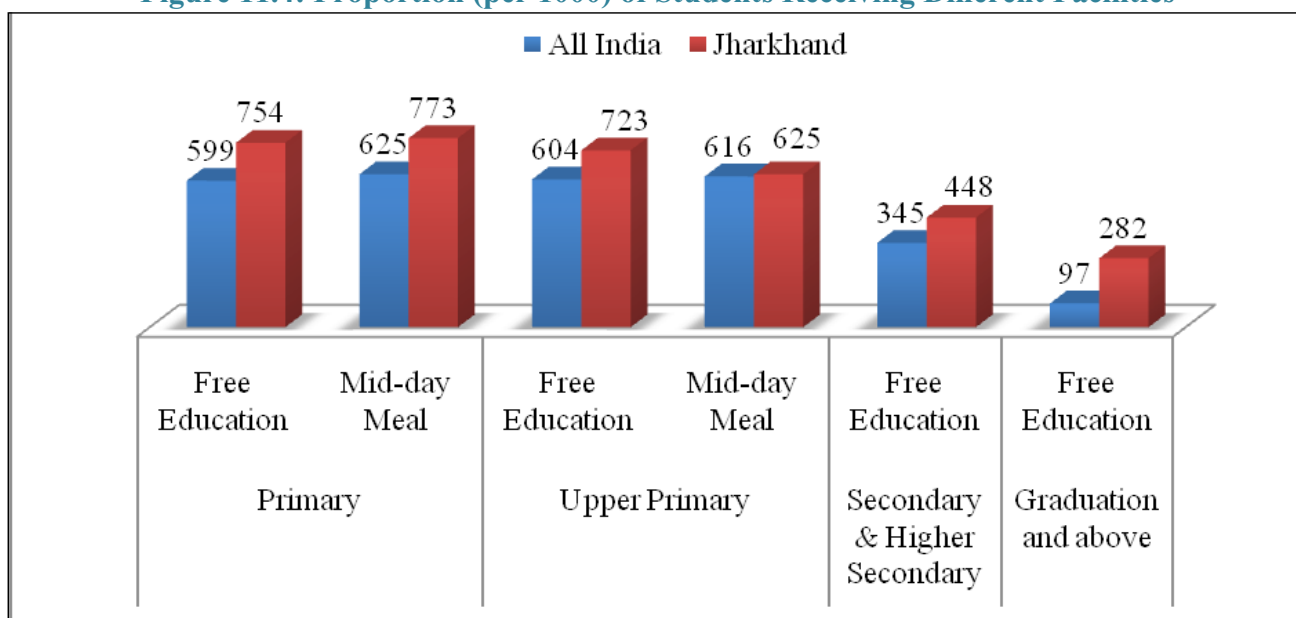
Source: NSSO 71<sup>st</sup> round survey, 2014

The data on the proportion of students who availed different school facilities in 2014 in Figure 11.4 reveal some interesting facts. On an average, in Jharkhand, more students had access to facilities like free education and mid-day-meal in the primary and the upper primary

levels of education as compared to that at the national level. Students from secondary, higher secondary, and graduation levels also had greater access to free educational services than students in the same levels of education at the all India level. Moreover, as evident from Figure 11.5, the

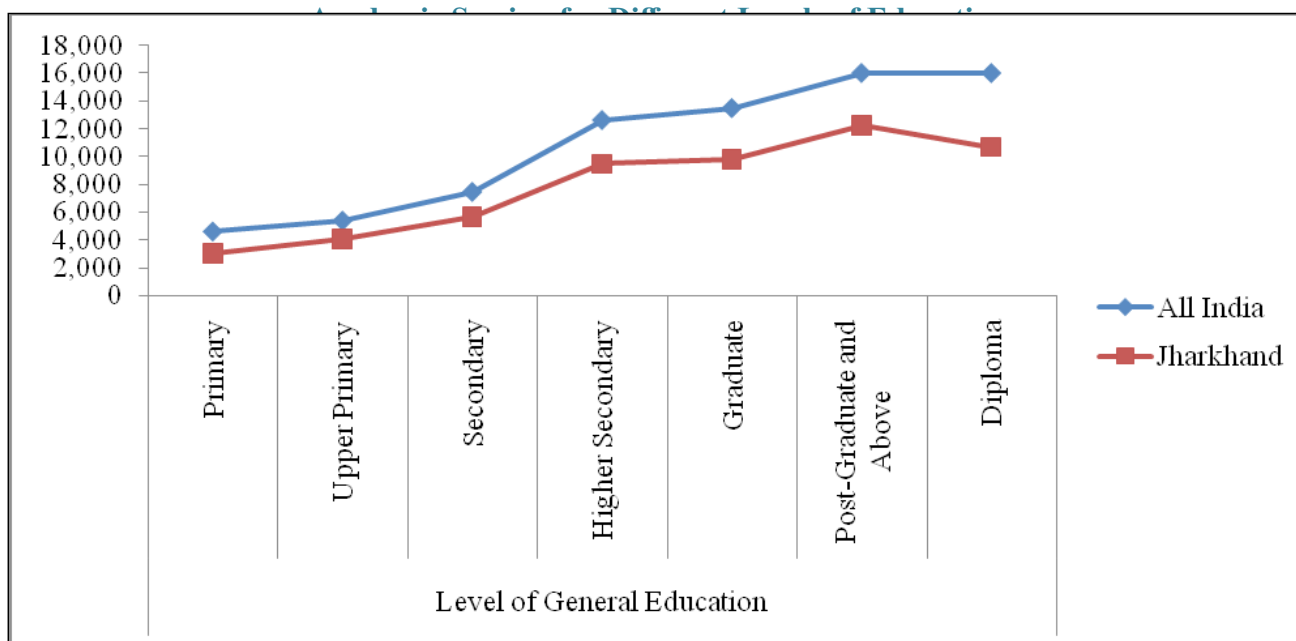
average cost of education in Jharkhand was lower than that of India in 2014.

**Figure 11.4: Proportion (per 1000) of Students Receiving Different Facilities**



Source: NSSO 71<sup>st</sup> round survey, 2014

**Figure 11.5: Average Expenditure per Student Pursuing General Education during Current**



Source: NSSO 71<sup>st</sup> round survey, 2014

### Elementary Education in Jharkhand

The Government of Jharkhand is committed towards universalization of quality elementary education through its Sarva Shiksha Abhiyan (SSA). Using Elementary Education Report Card, 2013-2014, from the District Information

System for Education (DISE), the trend and status of elementary education in Jharkhand are presented in Table 11.1. The data show that there was a steady increase in the number of elementary schools in the state from 2009-10 to 2014-15. In 2014-15, the total number of elementary schools



in the state stood at 46,773 out of which 40,603 were government run schools, while 2354 were private schools. The number of schools with

enrolment of less than 50 students went up in the state, from 17 percent in 2009-10 to 29.4 percent in 2014-15.

**Table 11.1: Trends in Elementary Education in Jharkhand – School Indicators.**

School Indicators	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
Number of District Covered	24		24	24	24	24
Total No. of Schools	41875	44675	44835	45760	46348	46773
Total No. of Govt. Schools	39624	40505	40343	40674	40666	40603
Total No. of Private Schools	2250	2703	2475	2583	2335	2354
Ratio of Primary to Upper Primary School/Secondary School	2.6	2.4	2.5	2.5	2.4	2.4
Primary School/Secondary School per 1000 child population	12	13	13	13	11	11
Upper Primary School/Secondary School Per 1000 child population	7	8	8	8	9	9
% Single-Teacher School with Enrolment.>15	7.9	9.5	12.2	12.5	14.4	15.8
% Enrolment in Single - Teacher School	4.1	4.1	5.2	5.3	6.3	7.0
% School with Enrolment <50	17.0	19.7	22.7	25.4	27.4	29.4
% School with female Teachers	54.8	57.4	59.1	59.4	60.9	54.6

Source: Elementary Education in India: Progress towards UEE-Flash Statistics, NUEPA and GoI, New Delhi 2005-6 to 2014-15

**Some of the achievements of the state in terms of school indicators in 2014-15 include:**

- Only 0.9 percent primary schools had less than 200 working days, while only 1.3 percent of the upper primary schools/sections had less than 220 working days.
- 11.1 percent out-of-school children in government schools had been provided with special training during 2013-14 academic years.
- 28.6 percent schools at the primary level and 32.5 percent schools at the upper primary level had Student-Classroom Ratio (SCR)

greater than 30 and 35, respectively.

- 17.1 percent primary only schools with enrollment greater than 150 and 17.7 percent upper primary schools/sections with enrollment greater than 100 had headmasters. 98.6 percent schools had constituted School Management Committee (SMC) in 2014-15.

Table 11.2 presents some of the facility indicators in Jharkhand elementary schools from 2009-10 to 2014-15. Over the years, SCR in Jharkhand dropped from a significantly high 47 in 2009-10 to a comparatively moderate 27 in 2014-15, indicating an improvement in the infrastructure

of the elementary schools in the state. More schools in 2014-15 had drinking water facilities, toilets for girls, and ramps for disabled students

in comparison to the schools in 2009-10. The coverage of Mid-day Meal (MDM) stood at 98 percent in 2014-15 in Jharkhand.

**Table 11.2: Trends in Elementary Education in Jharkhand – Facility Indicators**

Facility Indicators	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
Student classroom ratio	47	37	33	30	28	27
% School with drinking water	85.4	87.4	90	90.8	91.2	91.8
% School with Boys' Toilet	32.7	52.1	75.4	60.8*	89.6*	90.1*
% School with Girls' Toilet	49.3	60	68.2	87.3*	84.8*	84.2
% Schools with Boundary wall	21.5	25.2	26.5	25	26.9	30.5
% School with ramp	14	31.2	36.6	63.6**	67.5**	60.1**
% School having electricity	7.5	9.8	10.4	11.1	12	16.9
% School with Computer	6	7.2	8.1	8.3	8.7	9.3
% Schools providing Mid-day Meal*	95	92.3	97.1	96.8	97.5	98

Source: Elementary Education in India: Progress towards UEE-Flash Statistics, NUEPA and Government of India (GoI), New Delhi 2005-6 to 2014-15

Notes: \*Single toilet in co-educational school is considered as boys' toilet and multiple toilets as toilets for both boys and girls.

\*Government and aided school

\*\*Schools required and have ramp

**Some of the achievements of the state in terms of facility indicators in 2014-15 include:**

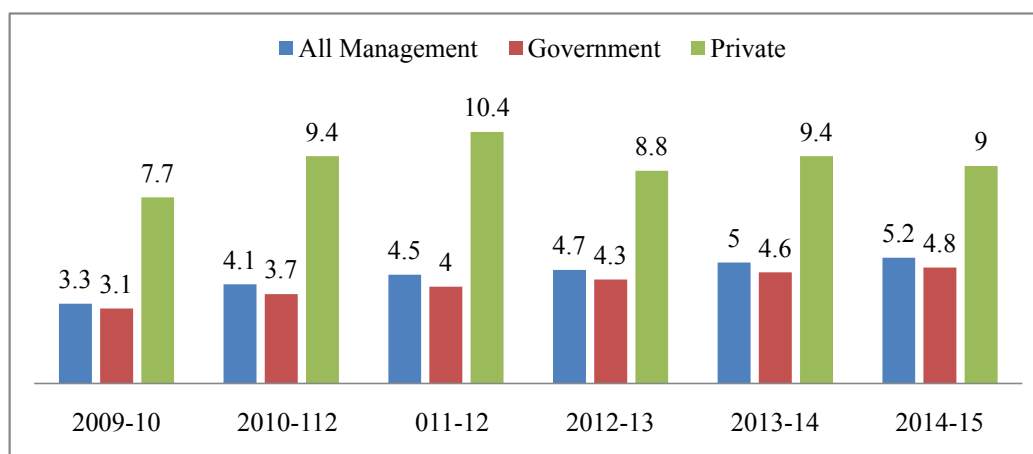
- 13.5 percent upper primary schools/sections had Computer Aided Learning labs.
- 91.9 percent schools had library
- 32.7 percent schools had playground facility
- 6.2 percent schools had both electricity and computer
- 19.3 percent schools had hand wash facility near school premises
- 64.2 percent schools with kitchen shed had

provided MDM

- 97.1 percent government schools had received textbooks

Figure 11.6 plots the average number of classrooms from 2009-10 to 2014-15 by the type of school management in Jharkhand. In 2014-15, the average number of classrooms in private schools (9) was higher than that of the government schools (4.8). For all types of school management, the number of classrooms was 5.2 on an average.

**Figure 11.6: Average Number of Classrooms**



Source: Elementary Education in India: Progress towards UEE-Flash Statistics, NUEPA and Government of India (GoI), New Delhi 2005-6 to 2014-15

Table 11.3 presents the enrolment indicators in Jharkhand elementary schools from 2009-10 to 2014-15. At the primary and the upper primary levels, the percentage of girls' enrolment remained stagnant at 50 percent over the years. Similar stagnation was observed in the enrolment of students belonging to SC and ST population of the state. Enrolment for Muslim students stood at

12.8 percent at the primary and the upper primary levels of education in 2014-15. Jharkhand performed well in terms of keeping the primary level student dropout rate at 6.4 percent in 2014-15. The transition rate of students moving from primary level to upper primary level went up in the state from 74.2 percent during 2009-10 to 82.8 percent in 2014-15.

**Table 11.3: Trends in Elementary Education in Jharkhand –Enrolment Indicators**

Enrolment Indicators	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
Enrolment Classes I-V	4939161	5017173	4753088	4653133	4582759	4463367
Enrolment Classes VI-VIII	1584772	1823571	1907171	1965317	2042264	2077422
Enrolment Classes I-V Government	4437680	4172351	3892148	3647149	3528498	3348595
Enrolment Classes VI-VIII Government	1319844	1419978	1476527	1497416	1493054	1479273
Enrolment Classes I-V Private	501481	574640	535594	610035	539604	525393
Enrolment Classes VI-VIII Private	264928	312311	313054	349911	361248	377241
% Girls' Enrolment: Primary Level	49.5	49.2	49	49.1	49	49
% Girls' Enrolment: Upper Primary Level	48.8	49.1	49.8	50	50	50

Enrolment Indicators	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
Ratio of Girls Enrolment to Boys: Primary	0.98	0.97	0.96	0.96	0.96	0.96
Ratio of Girls Enrolment to Boys: Upper Primary	0.95	0.96	0.99	1	1	1
% SC Enrolment: Classes I-VIII	14.9	14.4	14.7	14.8	14.7	14.8
% ST Enrolment: Classes I-VIII	29.8	29.2	29	28.9	28.5	28.4
% OBC Enrolment: Primary Level	44.2	45.3	45.8	44.4	44.5	44.7
% OBC Enrolment: Upper Primary Level	47.5	48.5	50.1	49	49.1	49.2
% Muslim Enrolment: Primary Level	13.3	13.6	14.5	13.8	13	12.8
% Muslim Enrolment: Upper Primary Level	11.8	12.8	13.7	13.7	12.8	12.8
Ratio of Grade V to I	62	74	77	84	84	89
Avg. Repetition Rate: Primary Level	6.5	8.9	5.6	3.5	2.8	2.2
Avg. Repetition Rate: Upper Primary Level	1.7	2.6	1.6	1.1	1.2	0.7
Avg. Dropout Rate: Primary Level	15.8	10.5	12.6	7.5	7.2	6.4
Retention Rate: Primary Level	53.1	47.7	51.5	60.2	65.1	69.3
Transition Rate: Primary to Upper Primary	74.2	79.2	76	78.7	80.2	82.8

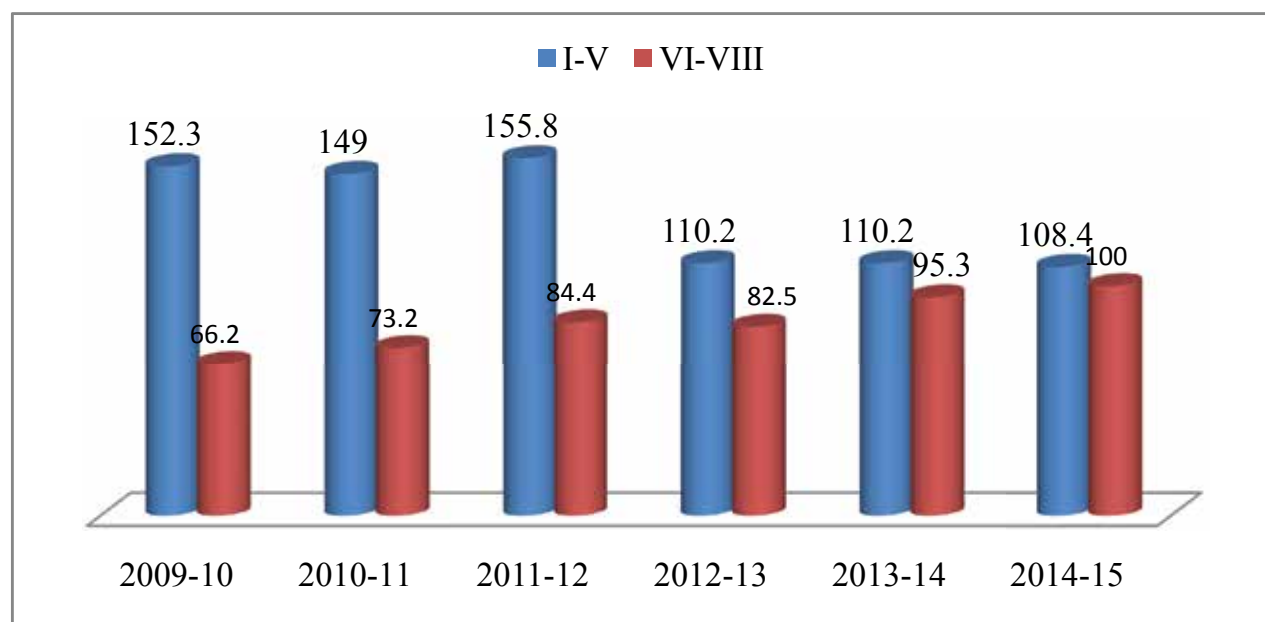
Source: Elementary Education in India: Progress towards UEE-Flash Statistics, NUEPA and GoI, New Delhi 2005-6 to 2014-15

Some of the achievements of the state in terms of enrolment indicators in 2014-15 include:

- 57.1 percent of the total primary enrolment and 31.9 percent of the total upper primary enrolment were in schools with *Pupil-Teacher-Ratio* (PTR) greater than 30 and 35, respectively.
- 98.6 percent boys and 98.7 percent girls passed grade V.
- 57 percent boys and 56 percent girls passed grade V with more than 60 percent marks.
- 98.7 percent boys and girls passed grade VIII.
- 58.2 percent boys and 57.2 percent girls passed grade VIII with more than 60 percent marks.

Figure 11.7 plots the gross enrolment ratio (GER) for students in grades I-V and VI-VII, respectively. For grades I-V, GER stood at 108.4, while for grades VI-VII, GER stood at 100 during 2014-15.

**Figure 11.7: Gross Enrolment Ratio**



Source: Elementary Education in India: Progress towards UEE-Flash Statistics, NUEPA and GoI, New Delhi 2005-6 to 2014-15

Table 11.4 presents the indicators related to teachers in Jharkhand elementary schools from 2009-10 to 2014-15. The data show a steady increase in the number of teachers in the elementary schools in the state with 1,71,573 teachers in 2014-15. Moreover, Pupil Teacher Ratio (PTR) dropped in the state, from 44 during 2009-10 to 38 during 2014-15. The percentage of female teachers in the

state improved from 27.7 percent during 2009-10 to 33.3 percent during 2014-15. However, the percentages of teachers belonging to SC, ST and OBC categories dropped in the state over the years. In addition, the percentage of teachers (both permanent and contractual teachers) who received in-service training also went up in 2014-15

**Table 11.4: Trends in Elementary Education in Jharkhand – Teacher Indicators**

Teachers Indicators	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
Total Teachers (Elementary)	147804	166672	166766	170509	170189	171573
% Teachers: Government	89.7	80.8	75.9	74.4	71.4	68.5
% Teachers: Private Aided	4.8	4.2	4	3.8	3.6	3.3
% Teachers: Private Unaided	5.5	8.6	10.5	10.7	10.3	11.3
Pupil - Teacher Ratio: Elementary	44	41	40	39	39	38
% of Female Teachers	27.7	29.2	31.7	31.7	32.4	33.3
% of SC Teachers	8.4	7.8	7.5	7.4	7.3	7.2
% of ST Teachers	26.2	24.8	24.2	23.8	23.5	23.2
% of OBC Teachers	41	38.1	36.1	36.1	36.2	36.2
% of Teachers Received in Service Training	21	42.7	49.3	28.6	33.2	25.7
% of Contract Teachers to Total Teachers	50.8	49.4	49.5	-	-	52.4

Source: Elementary Education in India: Progress towards UEE-Flash Statistics, NUEPA and GoI, New Delhi 2005-6 to 2014-15

Some of the achievements of the state in terms of teachers related indicators in 2014-15 include:

- 45.1 percent schools at the primary level had PTR greater than 30 and 15.8 percent

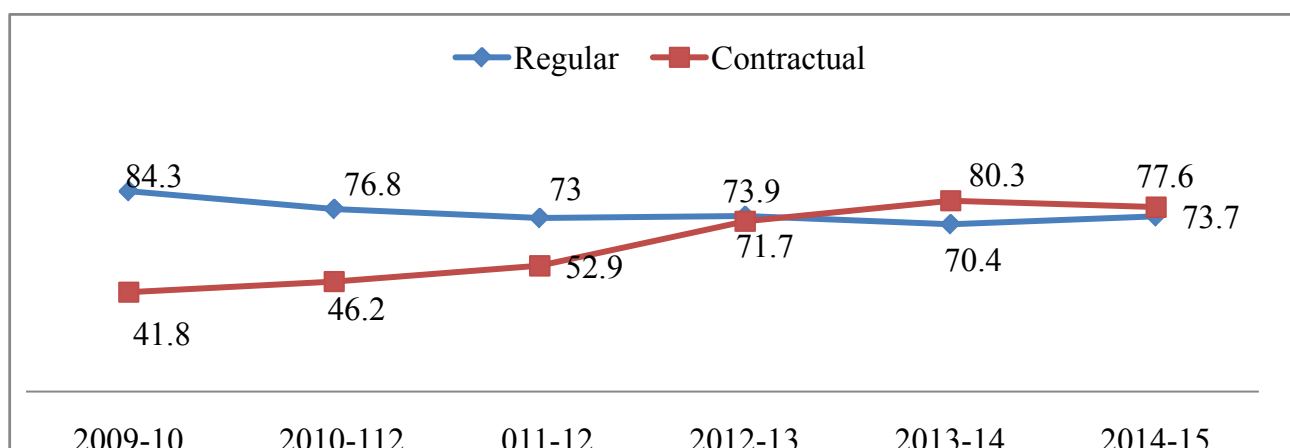
schools at the upper primary level had PTR greater than 35.

- PTR in government schools stood at 40, in private aided schools at 52, while in private unaided schools at 32.
- 7.4 percent teachers were aged above 55

years.

Figure 11.8 plots the percentage of teachers with professional qualifications. Over the years, a higher number of contractual teachers received some form of professional trainings in comparison to the number of regular teachers.

**Figure 11.8: Percentage of Teachers with Professional Qualifications**



Source: Elementary Education in India: Progress towards UEE-Flash Statistics, NUEPA and GoI, New Delhi 2009-10 to 2014-15

### Secondary Education in Jharkhand

The state of secondary education in Jharkhand is presented using information from the Secondary Education Report Card of 2014-15 by the National University of Educational Planning & Administration, New Delhi.

in the state stood at 4,563 during 2014-15, out of which 662 were secondary only and 186 had both secondary and higher secondary sections. Most of the schools (78.9%) were in the rural areas of the state. The total enrolment in these schools stood at 1,576,107 and the total number of teachers in these schools was 23,878.

Table 11.5 shows that the total number of schools with secondary and/or higher secondary sections

**Table 11.5: Key Indicators of Secondary Education- Jharkhand 2014-15**

Key Data	Primary with U.P.& Sec.& Hr.Sec.	U.P. with Sec. & Hr.Sec.	Pri. with U.P.& Sec.	U.P. with Sec.	Sec. Only	Sec. with Hr. Sec.	Hr. Sec. only	Others	Total
Total Schools	363	397	2,070	629	662	186	256	-	4,563
Schools: Rural Areas	156	337	1,793	481	513	149	169	-	3,598
Schools: Urban Areas	207	60	277	148	149	37	87	-	965
Total Enrolment	172,982	98,193	273,129	204,120	270,288	205,997	350,535	863	1,576,107

Key Data	Primary with U.P.& Sec.& Hr.Sec.	U.P. with Sec. & Hr.Sec.	Pri. with U.P.& Sec.	U.P. with Sec.	Sec. Only	Sec. with Hr. Sec.	Hr. Sec. only	Others	Total
Enrolment: Rural Areas	52,536	62,921	233,858	159,943	204,751	157,787	206,604	655	1,079,055
Enrolment: Urban Areas	120,446	35,272	39,271	44,177	65,537	48,210	143,931	208	497,052
Total Teachers	4,100	1,938	4,061	3,881	3,324	1,834	2,797	1,943	23,878
Teachers: Rural Areas	1,294	1,342	3,016	2,737	2,351	1,316	1,842	1,484	15,382
Teachers: Urban Areas	2,806	596	1,045	1,144	973	518	955	459	8,496

Source: Secondary Education Report Card 2014-15, National University of Educational Planning & Administration, New Delhi.

Looking at some of the performance indicators at the state level as presented in Table 11.6, shows some interesting facts. Although 91.85 percent schools had toilets for girls, only 9.56 percent schools had toilet for Children with Special Needs (CWSN). In schools with only secondary sections, this percentage stood at 8.6 percent, while for schools with higher secondary sections only, this number was 19.14 percent. The overall pupil-teacher ratio in the state was 66, but for higher

classes, this ratio was very high. For schools with only secondary sections, the pupil-teacher ratio stood at 81, for schools with both secondary and higher secondary sections it was 112, while for schools with only higher secondary sections, this ratio was as high as 125. The situation was similar for indicators related to the percentage of female teachers in schools and the percentage of girls' enrolment in these schools.

**Table 11.6: Performance Indicators at Different Schools in Jharkhand**

Performance Indicators	Pri. With U.P.& Sec.& Hr.Sec.	U.P.with Sec. & Hr.Sec.	Pri. With U.P.& Sec	U.P. with Sec.	Sec. Only	Sec. with Hr.Sec.	Hr.Sec. only	Total
% Single-Classroom Schools	0.55	1.76	0.87	0.48	0.15	0	0	0.68
% Single-Teacher Schools	1.38	3.27	1.3	1.27	7.4	0.54	3.52	2.45
% Schools with Building	99.45	97.73	99.57	99.68	99.55	100	100	99.45
% Schools with Girls Toilet	95.24	88.37	94.07	90.89	88.24	88.1	88.24	91.85
% Schools with Boys Toilet	95.8	79.01	92.37	84.71	82.95	87.36	87.32	89.41
% Schools with Toilet for CWSN	14.88	9.07	8.84	6.2	8.61	9.68	19.14	9.56
% Schools with Drinking Water	99.17	92.44	97.2	96.18	96.37	97.85	96.48	96.67
% Schools with Electricity	88.15	66.75	43.57	55.01	58.01	70.43	76.95	55.77
% Schools with Ramp, if Needed	42.37	31.07	68.65	28.36	33.72	35.19	45.88	51.69

Performance Indicators	Pri. With U.P.& Sec.& Hr.Sec.	U.P.with Sec. & Hr.Sec.	Pri. With U.P.& Sec	U.P. with Sec.	Sec. Only	Sec. with Hr.Sec.	Hr.Sec. only	Total
% Schools with Library	95.04	77.58	91.06	90.3	89.73	93.55	87.89	89.83
% Schools with Full time Librarian	29.75	8.31	6.38	7	5.74	5.91	36.72	10.08
% Schools with Boundary wall	92.01	73.8	57.87	66.61	66.31	76.34	83.59	66.6
% Schools Exclusively for CWSN	3.86	5.54	0.97	2.07	1.36	0.54	4.69	1.99
% Schools with Lab. Assistant	49.31	8.06	4.59	3.82	2.57	12.9	43.36	10.56
% Schools with Head Master Room	90.08	57.93	69.95	81.4	72.05	73.66	72.66	72.69
% Schools with Hostel for Boys	6.34	8.82	2.75	4.77	4.53	11.83	8.59	4.8
% Schools with Hostel for Girls	3.58	36.27	1.69	4.13	2.42	1.61	5.47	5.5
% Schools with Computer & Internet	70.8	26.7	11.59	13.35	6.04	8.6	18.75	17.34
% Schools with ICT Laboratory	49.04	16.37	8.74	13.04	7.25	5.91	24.22	13.74
% Schools with Playground Facility	84.02	52.64	49.95	75.2	64.35	80.65	69.92	60.84
% Schools Conducted Med. Check-up	65.84	61.96	59.76	49.6	43.66	41.94	28.52	54.22
% Schools Having SMDC	29.2	65.99	64.64	53.9	80.66	92.47	26.17	61.76
% Schools with Sch. Bld. Committee	20.39	27.46	19.95	20.83	37.01	44.09	15.23	23.95
% Schools Having PTA	24.79	35.01	18.84	26.71	38.22	45.7	14.45	25.47
% Schools Established Since 2006	5.51	56.93	5.31	6.04	1.96	0.54	15.63	9.82
Pupil-Teacher Ratio	42	51	67	53	81	112	125	66
Student-Classroom Ratio	46	52	62	85	70	102	113	73
Avg. No. of Teachers per School	11	5	2	6	5	10	11	5
% Female Teachers	42.12	45.41	31.17	35.12	29.33	22.14	23.7	33.18
% Girls Enrolment	39.72	56.48	49.86	53.32	55.51	37.12	47.65	48.42

Source: Secondary Education Report Card 2014-15, National University of Educational Planning & Administration, New Delhi.

Looking at the performances of the students in 2014-15 as shown in Table 11.7, it appeared that

91.44 percent boys from the general category passed the grade X exam in 2014-15, while only



88.05 percent girls passed the same exam in the same year. The performance of the SC girls was the poorest with only 70.91 percent girls passed grade X exam.

Table 11.8 presents the examination results for students who appeared in grade XII exams from different social categories.

**Table 11.7: Examination Results Grade X**

Caste	Students Appeared		% Students Passed	
	Boys	Girls	Boys	Girls
Gen.	29392	25814	91.44	88.05
SC	25316	22982	78.99	70.91
ST	47420	47536	78.59	72.58
OBC	103536	99598	84.81	79.35

Source: Secondary Education Report Card 2014-15, National University of Educational Planning & Administration, New Delhi.

**Table 11.8: Examination Results Grade XII**

Stream	Student Appeared								Student Passed							
	General		SC		ST		OBC		General		SC		ST		OBC	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
Arts	7448	8305	5405	5437	9679	13446	16657	20152	96.15	88.3	80.59	79.36	85.78	81.45	80.54	80.5
Sci.	16349	7203	3848	1506	5530	3274	13852	5555	79.45	74.97	73.05	79.48	69.1	100	71.51	68.41
Com.	7616	5188	1973	1125	2759	1877	6068	3855	84.38	84.64	77.5	74.31	77.02	81.35	72.35	71.34
Voc.	104	48	53	44	145	148	246	161	84.62	100	92.45	77.27	93.79	90.54	92.68	100
Others	80	74	22	5	67	56	604	648	90	93.24	81.82	80.00	88.06	91.07	91.89	92.75

Source: Secondary Education Report Card 2014-15, National University of Educational Planning & Administration, New Delhi.

### Higher Education in Jharkhand

Even though India has made enormous progress in terms of the universalization of primary and secondary education, however, tertiary or higher education remains a major challenge for India. This section analyzes the situation of higher education in Jharkhand using All India Survey Report on Higher Education (AISHE), 2015 (Provisional).

Table 11.9 presents the number of different types of universities in Jharkhand and India. There were 13 universities in Jharkhand, which was about 1.72 percent of all the universities in India in the year 2014-15. Out of these 13 universities in the state, 7 were state public universities and

only 2 were private universities.

**Table 11.9: Types of Universities - Jharkhand and India**

Types of Universities	Jharkhand	India	All India Share
Central University	1	43	2.33
Central Open University	0	1	0.00
Institute of National Importance	1	69	1.45
Others	0	6	0.00
State Public University	7	316	2.22
Institute Under State Legislature Act	0	5	0.00

Types of Universities	Jharkhand	India	All India Share
State Open University	0	13	0.00
State Private Univ.	2	176	1.14
State Private Open Univ.	0	1	0.00
Deemed Univ.-Govt.	1	37	2.70
Deemed Univ.-Govt. Aided	0	11	0.00
Deemed Univ.-Private	1	79	1.27
Total	13	757	1.72

Source: All India Survey on Higher Education, 2014-15 (Provisional)

**Table 11.10: Number of Colleges per Lakh Population (18-23 years) and Enrolment per College**

	Jharkhand	India	All India Share
No. of Colleges	294	38056	0.77
College per lakh Population	8	27	29.63
Enrolment- Private Unaided	25121	9641591	0.26
Enrolment -Private Aided	53656	5102851	1.05
Enrolment -Government	350931	7810338	4.49
Enrolment Total	429708	22554780	1.91

Source: All India Survey on Higher Education, 2014-15 (Provisional)

Table 11.10 presents the number of colleges per lakh population (18-23 years) and enrolment per college based on the actual responses from different educational institutions. Jharkhand had 294 colleges which was a mere 0.77 percent of the total number of colleges in India in 2014-15. There were about 4, 29,708 students enrolled in these colleges, which again comprised about 2 percent of the total enrolment in India.

Table 11.11 provides the enrolment of students at the various levels of higher education in Jharkhand and its share at the all India level. There were

about 498,328 students enrolled in Jharkhand at the various levels of higher education, including Ph.D, M.Phil, and Postgraduate, Undergraduate, PG Diploma, Diploma, Certificate and Integrated programmes. The total number of male students was 262,800 (52.7 %), while the number of female students was 235,528 (47.3%). The total share of enrolment in Jharkhand at the all India level stood at 1.79 percent at all levels. The number of Ph.D students enrolled in Jharkhand stood at 1,720 out of which 1,204 (70%) were male and only 516 (30%) were female. Interestingly at Postgraduate and M.Phil levels there were more female students (56.7 % and 56.6 %, respectively) than the male (43.3% and 43.4%, respectively) students.

**Table 11.11: Enrolment at Various Levels of Higher Education - Jharkhand and India**

Educational Level	Gender	Jharkhand	India
Ph.D.	Male	1,204	67,330
	Female	516	45,482
	Total	1,720	1,12,812
M.Phil.	Male	62	13,676
	Female	81	18,695
	Total	143	32,371
Postgraduate	Male	19,043	18,47,651
	Female	24,951	19,61,671
	Total	43,994	38,09,322
Undergraduate	Male	2,33,830	140,88,649
	Female	2,06,711	124,87,491
	Total	4,40,541	265,76,140
PG Diploma	Male	2,609	1,09,371
	Female	876	77,177
	Total	3,485	1,86,548
Diploma	Male	3,861	16,18,329

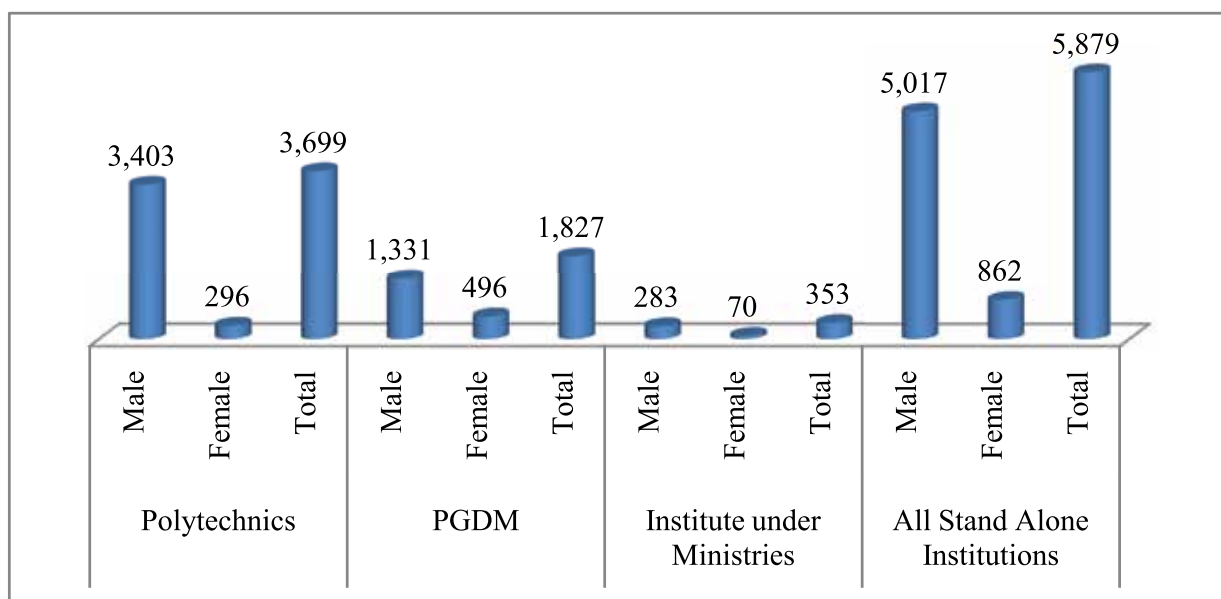
Educational Level	Gender	Jharkhand	India
	Female	863	6,29,101
	Total	4,724	22,47,430
Certificate	Male	80	78,597
	Female	187	97,310
	Total	267	1,75,907
Integrated	Male	2,111	83,101
	Female	1,343	49,091
	Total	3,454	1,32,192
Total	Male	2,62,800	179,06,704
	Female	2,35,528	153,66,018
	Total	4,98,328	332,72,722

Source: All India Survey on Higher Education, 2014-15 (Provisional)

Figure 11.9 plots the enrolment of students in various stand-alone institutions in Jharkhand, including Polytechnics, Postgraduate Diploma in Management (PGDM), Nursing, Teachers Training and Institute under Ministries.<sup>1</sup> There were about 5,879 students enrolled in various stand-alone institutions in the state, out of which 3,699 students were enrolled in polytechnics and 1,827 students enrolled in PGDM programmes. Interestingly, only 296 female students were enrolled in polytechnics.

<sup>1</sup> Data for Jharkhand on the enrolment in the Nursing and Teachers Training schools were not available in the AISHE report.

**Figure 11.9: Enrolment in Stand Alone Institutions**

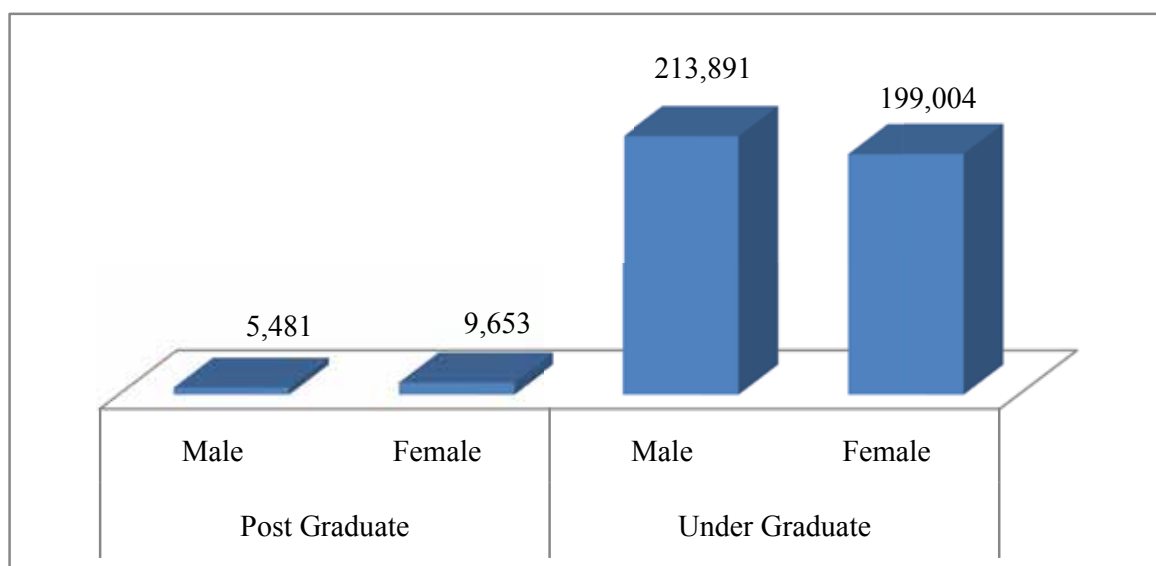


Source: All India Survey on Higher Education, 2014-15 (Provisional)

Figure 11.10 shows the estimated number of students enrolled in the different colleges of Jharkhand both at the Undergraduate and Post Graduate levels. There were about 4, 12,895 students enrolled in the undergraduate programmes in the different colleges of Jharkhand, out of

which 48 percent were female. In the postgraduate programmes, there were about 15,134 students enrolled in the different colleges of Jharkhand with female students consisting of 64 percent of the total enrolment.

**Figure 11.10: Estimated enrolment in Colleges**

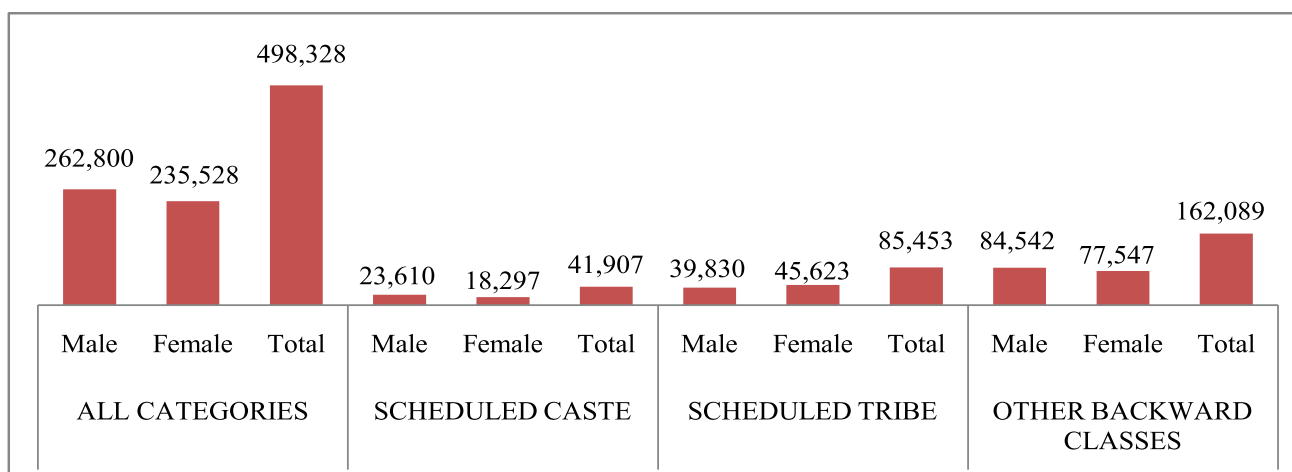


Source: All India Survey on Higher Education, 2014-15 (Provisional)

The demographic profile of the students enrolled in higher education in the state is presented in Figure 11.11. In terms of social-categories, the enrolment for SC and OBC females was less than the enrolment of SC and OBC males, respectively.. For SCs, the female enrolment was 43.67 percent, while for OBCs the enrolment for female was 47.84 percent. However, for STs, higher percentages of women (53.4%) were enrolled in higher education than the percentage of men (46. 6%) in the same level of education.

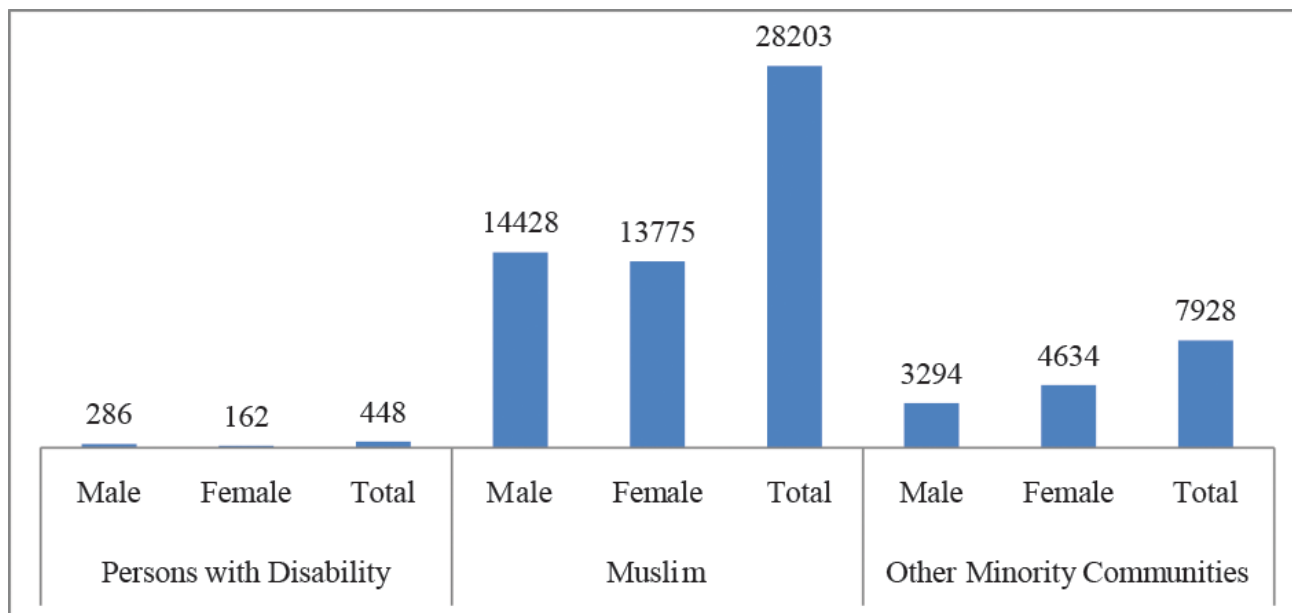
Similarly, Figure 11.12 plots the higher education enrolment for persons with disabilities (PWD) and for the minority communities of the state. Only 448 students with some form of disability were enrolled in different higher educational institutes of the state. The total enrolment for Muslims stood at 28,203, out of which 13,775 (48.8%) were female. While for other minority communities the percentage of women enrolment was 58.5 percent.

**Figure 11.11: Enrolment of Students belonging to Different Social Categories**



Source: All India Survey on Higher Education, 2014-15 (Provisional)

**Figure 11.12: Enrolment among Persons with disability (PWD) and Minority Communities**

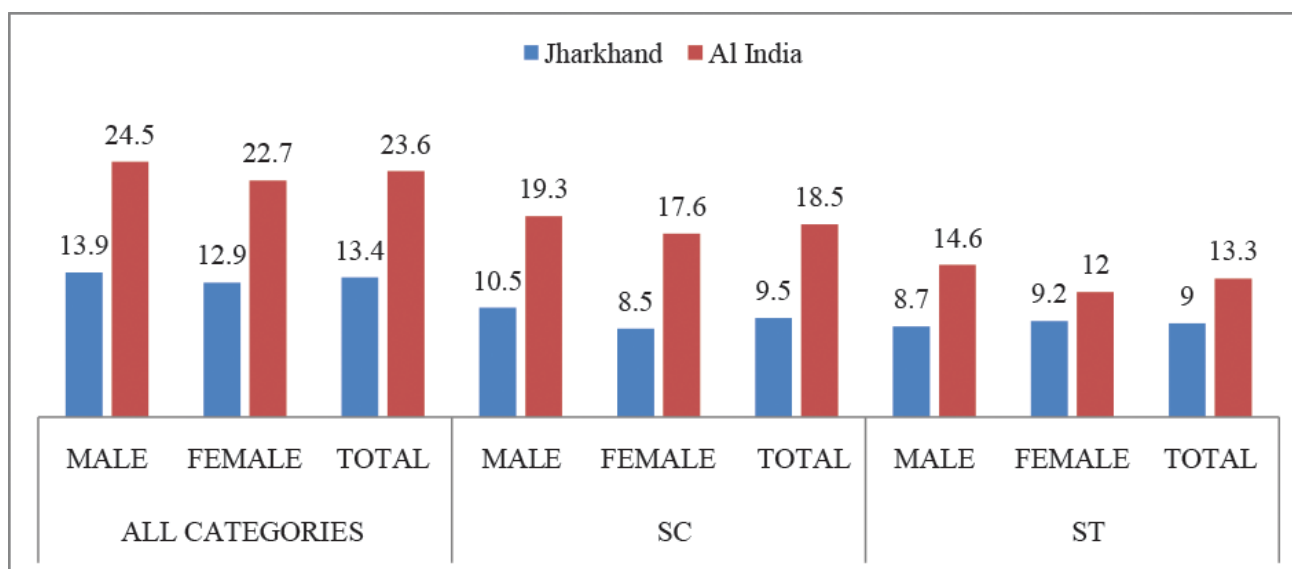


Source: All India Survey on Higher Education, 2014-15 (Provisional)

Figure 11.13 presents the Gross Enrolment Ratio (GER) for the different social categories and a comparison with the all India averages. It is observed that overall GER of Jharkhand at the higher education level was about 13.4 compared

to the all India GER of 23.6. Between males and females, GER for females stood at 12.9, while for males it was 13.9. Interestingly, GER for ST students stood at 9, compared to the all India average of 13.3.

**Figure 11.13: Gross Enrolment Ratio- Higher Education**



Source: All India Survey on Higher Education, 2014-15 (Provisional)

Table 11.12 shows the distribution of teachers of the state in higher educational institutions among different social categories. In total 8,335 faculty

were working in different higher educational institutions in the state, which constitutes about 0.6 percent of the faculty at the all India level.

**Table 11.12: Distribution of Faculty based on Social Categories**

		Jharkhand	All India
Total	Male	6222	867187
	Female	2113	551202
	Total	8335	1418389
SC	Male	164	67046
	Female	47	35488
	Total	211	102534
ST	Male	280	18621
	Female	323	11455
	Total	603	30076
OBC	Male	1408	217247
	Female	394	134913
	Total	1802	352160

Source: All India Survey on Higher Education, 2014-15 (Provisional)

As shown in Table 11.13, in 2014-15, the state

employed only 75 faculty members belonging to PWD and 87 from the Muslim community, out of which only 12 were Muslim females.

**Table 11.13: Distribution of Faculty- Persons with Disability and Minority Community Social**

	PWD			Muslim			Other Minority Communities		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Jharkhand	59	16	75	75	12	87	31	4	35
All India	3526	1704	5230	8284	2316	10600	4220	4057	8277

Source: All India Survey on Higher Education, 2014-15 (Provisional)

As presented in Table 11.14, the PTR in higher education in Jharkhand was higher than that of the national level. In the universities and

colleges, the combined PTR at the regular and the distance learning modes was 61 in Jharkhand in comparison to 24 in India.

**Table 11.14: Pupil Teacher Ratio-Higher Education**

	All Institutions		University & Colleges		University & its Constituent Units	
	Regular & Distance Mode	Regular Mode	Regular & Distance Mode	Regular Mode	Regular & Distance Mode	Regular Mode
Jharkhand	60	55	61	57	48	20
All India	23	21	24	21	39	15

Source: All India Survey on Higher Education, 2014-15 (Provisional)

## State Government Plans in Elementary Education

### Continuing Plans

- Free distribution of Text-Books to students belonging to General and OBC categories and not covered under Sarva Siksha Abhiyan. During 2015-16 nearly 12.50 lakh children will benefit from this scheme.
- Construction, strengthening, renovation, and up-gradation of the 17 District Institutes of Education and Training (DIETs) and Primary Teachers Training Colleges (PTTCs) to conduct pre and in-service training programmes for elementary teachers.
- Support to government recognized unaided elementary schools in the state under the provisions of Jharkhand State Unaided Educational Institution (Grant) Act, 2004 and rules formed under this Act.
- Compensation to private schools for admitting students from the weaker section of the state under Right to Free and Compulsory Education Act, 2009 (RTE).
- Training to state education and subordinate education service officers to enhance their capacity and efficiency.
- Distribution of free uniform to an approximate 7 lakh boys belonging to ALP category.
- Providing supplementary nutrients to children to complement the food provided under MDM. The state government will provide one egg or fruit thrice a week to approximately 35 lakh children during 2015-16. The funds will be reimbursed to Jharkhand Madhyam Bhojan Pradhikaran as Grants- in- Aid.
- Additional state assistance for MDM in the form of increasing the honorarium of

the cooks to Rs. 1,500 per month from the existing Rs 1,000 per month.

- Appointment of 4401 Urdu teachers in the state.
- Releasing the salary to Ex-Adult/Non-formal Education employees

### New Initiatives

- **Mukhyamantri Vidyalakshmi (MVY) Yojana:** The scheme will cover nearly 75,000 ST girls and 45,000 SC girls during 2015-16. In order to reduce the dropout rates and promote the enrolment of girl children belonging to SC/ST communities in middle schools and ensure to their retention until they reach 14 years. Married girls and girl children studying in private schools will not be covered under this scheme. Under this scheme, a sum of Rs. 2,000 will be deposited as term deposit or fixed deposit in a public sector bank or in a post office in the name of every eligible girl child.
- **Jharkhand Balika Awasiya Vidyalaya (JBAV) Yojna:** The state government plans to establish 57 Jharkhand Balika Awasiya Vidyalaya (JBAV) with a capacity of 350 children per school. Seventy-five percent of the enrolment in JBAV will be reserved for girls from ST, SC and minority groups while the remaining 25 percent will remain open for girls belonging to the BPL category. JBAV schools will be modeled on Kasturba Gandhi Balika Vidyalas (KGBV) and have classes from VI to XII. The funds will be reimbursed to Jharkhand Education Project Council as Grants- in-Aid. This project will help about 19,950 dropout girls to continue their education.
- **Capacity Enhancement of KGBVs:** The state government has upgraded these schools in order to include students up to class XII. This will help an estimated

10,150 girl students.

- **Free Distribution of School Kit to Children:** The government plans to provide free school kit including notebooks, and writing materials, as well a pair of shoes and socks. This scheme will be benefiting nearly 34, 87,202 children in the primary classes and 14, 62,347 children in the upper primary classes studying in the government schools.
- Additionally, the state government has initiated some district specific schemes including merit scholarship to support minority students studying in class VIII-X by providing scholarship of Rs. 200 per month; organizing seminars, symposiums, special events, study tours, excursions and rewarding the teachers for their excellent academic efforts.

## State Government Plans in Secondary Education

### Continuing Plans

- The establishment of Jharkhand Council for Educational Research and Training (JCERT) to support the existing teacher training institutions in the state.
- Skill Development Mission and Vocational Education in higher secondary schools to fulfill the requirements of different industrial sectors.
- Strengthening of B.Ed. Colleges for Teacher Education (CTE) and other training institutions .The Government of India has sanctioned 3 Colleges of Teacher Education (CTE) and one Institute for Advance Studies in Education (IASE) for Jharkhand by upgrading the existing 4 B.Ed. Colleges in Ranchi, Hazaribagh and Deoghar districts.
- Appointment of nearly 1,900 newly created posts to be required for the upgraded

schools in the state.

- Grants-in-Aid to Vitta Rahit Vidyalayas to promote private sector participation in the educational sector of the state.
- Scholarship to the students enrolled in Rashtriya Indian Military College (RIMC) Dehradun and Merit-cum-Means Scholarship to students of the state. The state government is providing Rs. 15,000 annual scholarships to the students of Jharkhand enrolled in RIMC, Dehradun. Department of Education is also providing Merit-cum-Means scholarship to students belonging to BPL families where 20 students (10 girls and 10 boys) are selected from each block thorough a state-level examination.
- The establishment of new district libraries and strengthening of existing district libraries, including creation of additional reading facilities as per the recommendation of the Knowledge Commission.
- The organization of seminars, symposium and short-term training courses to provide exposure to students and teachers.
- Development fund for Netarhat Awasiya Vidyalaya, Indira Gandhi Balika Vidyalaya and Grant-in-aid to Sainik School, Tilaya.
- Rewarding the teachers with proven academic excellence modeled under National Teachers Award. The state will reward 2 secondary school teachers from each district with a sum of Rs. 25,000, 5 secondary school teachers from each district will with a sum of Rs. 15,000, and 5 secondary school teachers from each sub-division to get Rs. 5,000 as cash prizes.
- Provision of On-line Education via Satellite in Secondary Schools. To enhance connectivity. Indian Space Research Organization (ISRO) is preparing a hub in Ranchi.



- Distribution of free cycles to girls enrolled in the government schools to improve their attendance.
- Provision of free education for girls up to the intermediate level. Examination fees are not being charged by the Jharkhand Academic Council (JAC) from girl students.
- Facilitate technical education through coaching. In order to help students belonging to the weaker sections of the society and prepare them for the Joint Engineering Entrance Examination and Joint Medical Entrance Examination, the Department of Education is also planning to run coaching centres in the district headquarters.
- Free distribution of school uniforms, text books to girl students to promote girls' education at secondary and senior secondary levels of education.
- Organizing Kala Utsav for the promotion of performing arts in secondary schools for showcasing the talents at the national annual events.

## Conclusion

Predominantly, Jharkhand has been a state with low educational attainment. However, in the recent past, Jharkhand has made enormous progress in terms of the universalization of the education and promotion of higher and technical education. In recent years, Jharkhand has been able to improve its overall literacy rate, universalization of primary and secondary education by taking strong steps, including an increased coverage of MDM and other benefits to the students. However, higher education remains a significant challenge for Jharkhand.



12

**Health**

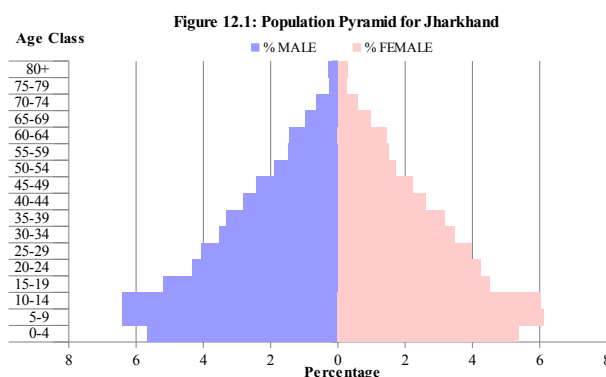
*Health for all is a basic human right and the Government of Jharkhand (GoJ) has undertaken several initiatives to improve the health of its people. During the last one year, the state has shown remarkable improvements in several major health indicators.*

The enrolment of pregnant women in schemes like Janani Suraksha Yojna (JSY) to total antenatal care (ANC) registration increased by nearly eight percent between 2012-13 and 2014-15. Higher number of pregnant mothers accessed and utilized antenatal care and opted for institutional deliveries during childbirth, thereby reducing pregnancy and childbirth related morbidity and mortality. Coverage of Mission Indradhanush, a mission aimed at increasing the rate of full immunisation, particularly among the underprivileged and the dropout children, increased from six districts in its first phase to ten districts in its current phase (phase-II). Having said that we have progressed well on some major health indicators, we will now discuss in more detail, with regard to different diseases, the state has also shown a declining trend in its annual parasite episodes due to early detection and treatment. Annual detection of leprosy cases also increased. Jharkhand is the first state to initiate the process of eradication of Kala-azar. The state is also attempting towards increasing people's enrolment in the national health insurance scheme (Rashtriya Swasthya Bima Yojna) to reduce their out-of-pocket health care expenditure by creating awareness and educating people about health insurance benefits through community mobilisation. Among the other health plans in the current financial year, the state is also focusing towards improving its health infrastructure and health workers' skills, and reducing the incidence of malnutrition among children.

This chapter discusses the basic demographic and health profile of Jharkhand for better understanding of the health needs of the population of the state.

## Basic Demographic Profile of Jharkhand

According to Census 2011, Jharkhand had a population of 3.29 crores, nearly 2.72 percent of the India's total population. The state had a predominantly high rural population (76%). The decadal population growth in the state was nearly 22 percent in 2011. A sizeable percentage (roughly 26%) of the population belonged to the disadvantaged community of Scheduled Tribes (STs). Out of the total population, nearly 16 percent were children below six years of age. The Population pyramid for Jharkhand in Figure 12.1 shows that the state had a high population of children aged 0 to 14 years.



Source: Census 2011

## Basic Health Profile of Jharkhand

Mortality is one of the major indicators in determining changes in the population of a country or a state and is essential for showing population projections. Several key mortality measures, such as Under-five Mortality Rate (U5MR), Infant Mortality Rate (IMR), Maternal Mortality Rate (MMR), and Crude Death Rate (CDR) are used to indicate a country's or a state's overall health. Of the eight Millennium Development Goals, reduction of U5MR, IMR, and MMR is important for ensuring good health in children and mothers, who form a significant portion of the population.<sup>1</sup>

<sup>1</sup> IMR measures the number of deaths of infants less than one year of age per 1,000 live births.

U5MR measures the number of deaths of children less than five years of age per 1,000 live births.

MMR measures number of women in their reproductive age (15-49 years) dying due to pregnancy and childbirth related causes

Jharkhand had a high U5MR of 51 per 1,000 live births (Annual Health Survey, 2012-13), IMR of 37 per 1,000 population (Sample Registration System (SRS), September 2014), and a high MMR of 219 per 100,000 live births (SRS, 2010-12). During the same years, IMR in the state was lower than the national average of 40 per 1,000 live births, but MMR was higher than the national average of 178 per 100,000 live births. With regard to the other important health indicators, CDR in Jharkhand was 6.8 per 1,000 populations, somewhat below the national average of 7 per 1,000 population. Crude Birth Rate (CBR) was 24.6 per 1,000 population and Total Fertility Rate (TFR) was 2.7 per 1,000 women, both were higher than the national averages of 21.4 and 2.3 per 1,000 population, respectively, in 2013 (SRS, September 2014).<sup>2</sup>

### **Vision, Goal, and Strategy of the Government for FY 2015-16**

The Government of Jharkhand is constantly trying to provide accessible and affordable health care for all in order to improve the health status of its population. With the objective of providing quality, equitable, and efficient health care for all, especially the disadvantaged and the marginalized sections of the society, the government has formulated several health schemes. The state has also collaborated with the private sectors, Non-Governmental Organizations (NGO), organized sectors, cooperative sectors, and all the other stakeholders for the improvement of its people's health. The emphasis lies upon building capacities by strengthening health infrastructure, through renovations of the existing health centre buildings and construction of new health care facilities with basic amenities to advance health care services. Along with enhancing skills of health workers

per 100,000 live births.

CDR measures the total number of deaths per 1,000 population per year.

<sup>2</sup> The crude birth rate (CBR) is the number of live births in a given year per 1,000 mid-year population.

through training programmes, recruitment of qualified health workers, particularly specialised doctors in all the First Referral Units (FRUs) and Community Health Centres (CHCs), will be done for the delivery of quality health care services. The focus is also on reducing the maternal and the infant mortality rates, as well as promoting institutional and safe deliveries. The government also emphasizes on increasing the number of full immunisation cases among children, supporting facility-based and home-based newborn care, and creating awareness about family planning practices. In the Annual Health Plan, 2015-16 of the government, the targets are as following:

- To reduce MMR from 219 in 2011 to 100 in 2017 per 100,000 live births, IMR from 37 in 2013 to 25 in 2017 per 1,000 live births, and TFR from 2.8 in 2012 to 2.1 by 2017.
- To reduce and prevent anaemia in women (aged 15-49 yrs) from 70.4 per cent to 28 per cent by 2017. To decrease the annual incidences and mortality from tuberculosis by half as compared to the rates that prevailed during 1990. To reduce the prevalence of leprosy to less than 1 per 1,000 populations in all the blocks of the state. Finally to diminish the annual parasite (malaria) incidences from 2.93 to less than 1 per 1,000 populations, and microfilaria prevalence to less than 1 percent in all the districts of the state.
- The government also aims at eliminating Kala-azar by 2017, particularly in the worst affected four districts of the state.
- To improve the sex ratio (children 0-6 years of age) from 943 females per 1,000 males to 950 females per 1,000 males by 2016-17 is another goal of the government.

In order to fulfill the planned targets, the government is trying to develop and improve health infrastructure and health services delivery in the state. Some of the on-going and the planned

state schemes are as follows:

- Two-fifty-Six Health Sub-Centres (HSCs) are ongoing schemes for 2015-16 including 208 HSCs from the 2014-15 plan. One-fifty new HSCs are to be constructed in 2015-16.
- Thirty-eight Primary Health Centres (PHCs) are in the government's ongoing plan for 2015-16, and 30 new PHCs are to be constructed.
- The construction of 31 Community Health Centres (CHCs) are ongoing and 5 more CHCs are to be constructed in 2015-16.
- Total 9 Maternal and Child Health Centres (MCHCs) are ongoing projects and are on the verge of completion.
- Ongoing schemes also cover construction of eight 100-bedded hospitals; one regional hospital at Dumka; five 100-bedded hospitals at Kharsawan; and one new block and 100 more beds to be added in the existing hospital buildings of Hazaribagh and Chaibasa for setting up of medical colleges. Many more funds are disbursed for the construction of referral hospitals, civil surgeon offices, and sub-divisional hospitals in the state.
- Emphasis is being laid upon construction and completion of ANM schools, Homeopathic and UNANI medical colleges in Godda and Giridih, respectively.
- The construction of 10 District Joint Hospitals and 50 State Dispensaries is ongoing from the FY 2014-15 plan. An additional 50 new State Dispensaries have been proposed for FY 2015-16.
- Funds have been allocated for National Tobacco Control Programmes, National Tuberculosis Control Programme, Communicable (TB and Malaria) and Non-Communicable (Leprosy and Blindness)

diseases.

- Under the Menstrual Hygiene Scheme, low cost sanitary napkins are being provided to adolescent girls in government schools and Anganwadi Centres through Sahiya in five districts of Ranchi, Hazaribagh, Dhanbad, Bokaro and Giridih.

### **Box 12.1 : Snapshot of Major Hospitals in the State**

Rajendra Institute of Medical Sciences is a 1000-bedded hospital located in Ranchi. It has sanction for annual intake of 150 MBBS admissions and 179 PG admissions, including 66 diploma courses. Government provides 100% grants from plan and non-plan sources for its development and operation.

Pataliputra Medical College and Hospital (PMCH) is a 500-bedded hospital with the permission to admit 100 MBBS students annually. Government of Jharkhand provides fund for its development and operation, including SSLNT Hospital, Dhanbad that is part of PMCH.

Mahatma Gandhi Memorial Medical College (MGM) is located at Jamshedpur. It is a 575-bedded hospital with the permission to admit 100 MBBS students annually. Government of Jharkhand provides fund for its development and operation.

Ranchi Institute of Neuro- Psychiatry and allied Sciences (RINPAS) is one of the oldest mental hospitals in the country. It is a 500-bedded hospital to treat patients with mental disorders. It conducts PG degree and Diploma courses in Neuro-Psychiatry. The institute mainly depends on government funds for its development and operation. Government provides 100% grants for its development and operation.

**Source:** Annual Health Plan 2015-16, Department of Health, Medical Education, and Family Welfare, Government of Jharkhand

Moreover, training of health workers through

up-gradation of postgraduate courses in medical colleges, setting up of new medical colleges at Hazaribagh, Dumka, and Palamu, release of funds by both the central and the state governments for setting up of ANM/GNM schools and other medical schools have also been proposed. The government aims at managing and controlling public health services at the local and the household levels by supporting, promoting, and training Accredited Social Health Activist (ASHA) and the NGOs working especially in the underserved areas, and by encouraging community participation through involvement of local community members (village health committee and panchayats) in the formulation and implementation of health plans.

The plan is also to develop capacities for preventive and curative health care at the sub-centres, CHCs, and PHCs levels, and to integrate vertical health and family welfare programmes of the state, districts, and the blocks. Further, technical support for better health management has been planned for the state and the district health missions. Strengthening data collection, monitoring, evaluation, and Private-Public-Partnership are also on the task bar. Promoting

AYUSH and preventing communicable diseases to achieve the public health goals are some of the priority initiatives of the government. Emphasis has also been laid upon promoting healthy life styles and in reducing tobacco and alcohol consumption.

The government also targets at ensuring regulation of private sector, including informal rural practitioners by providing quality health services to people and promoting medical education to support rural health issues. The government is offering several training programmes for nurses, technicians, assistants, ASHA/Sahiya, and other health personnel to enhance their skills and capacities.

Among the other plans, the government is providing Grant-in-Aid to supplement National Health Mission (NHM) for setting up Information, Education, and Communication (IEC)/Behavioural Communication Change (BCC) bureau to promote IEC activities for creating awareness among the people on various health related issues, government health schemes and programmes, and activities for the promotion of behavioural changes.

### Box 12.2 : A toll free Health Helpline

‘104-health information helplines’ established in Ranchi. The facility provides toll-free number for increasing the number of calls concerning 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.

Source: Annual Health Plan 2015-16, Department of Health, Medical Education, and Family Welfare, Government of Jharkhand

Along with the renovation of the old health care centres and the provision of new ambulance facilities, initiatives have also been taken for developing coordination among the hospitals/health centres for better patient care, automation of licensed drugs and food shops, establishment of paramedical Institute in Dhanbad and Jamshedpur, and the mechanisation of blood banks in FY 2015-16. There are plans to develop existing 5 CHCs, 25 PHCs, and 50 HSCs as model health

facilities that meet the standards of Indian Public Health Standards (IPHS) by providing them with basic health care amenities (which they lack) along with the hiring of the requisite number of trained health personnel for improved quality health services. These facilities will offer patient friendly environment, free medicines, necessary diagnostics, computerization of services, and bio-waste disposal system along with quality control measures. In addition, the government plans to

establish physical therapy units in all the district hospitals (DHs) and medical college hospitals and Intensive Care Units (ICU) in DHs.

### Box 12.3 : New Dialysis Units

Renal failure is a common disease, which requires frequent haemodialysis/peritoneal dialysis; however, hemodialysis facility/unit in Jharkhand is only available in private hospitals and Rajendra Institute of Medical Sciences (RIMS) in Ranchi, and private hospitals in Jamshedpur and Bokaro. Therefore, the government has proposed to set up one dialysis unit in each of the divisional level hospitals in the districts and two units in each of the medical college hospitals.

Source: Annual Health Plan 2015-16, Department of Health, Medical Education, and Family Welfare, Government of Jharkhand

### Existing Health Infrastructure & Health Human Resource Scenario

Jharkhand has an extensive network of public health facilities in the state. According to the Rural Health Statistics (RHS) March 2015 as presented in Table 12.1, Jharkhand has 3957 active Sub-Centres (SCs), 327 Primary Health Centres (PHCs), and 188 Community Health Centres (CHCs), 10 Sub-Divisional Hospitals (SDHs), 24

District Hospital (DHs), and 101 Mobile Medical Units (MMUs). In spite of that, data up to March 2015 show that there is a shortfall of 35 percent SCs, 66 percent PHCs, and 22 percent CHCs.<sup>3,4</sup>

3 Shortfall in health infrastructure as per 2011 population in India and the states.

4 SC: PHC: first point of health care access from a qualified doctor in the government health care centres; CHC: the secondary level of health care for optimal specialist health care and to provide referrals;

**Table 12.1: Number of Active Health Facilities**

	Required as on March 2014	Active as on March 2014	% Shortfall in 2014	Required as on March 2015	Active as on March 2015	% Shortfall in 2015
Sub-centres (SCs)	6060	3958	35.0	6060	3957	35.0
Primary Health Centres (PHCs)	966	330	66.0	966	327	66.0
Community Health Centres (CHCs)	241	188	22.0	241	188	22.0
Sub-Divisional Hospitals (SDHs)		10			10	
District Hospitals (DHs)		24			24	
Mobile Medical Units		100			101	

Source: Rural Health Statistics 2014 and 2015; Health Management Information System (HMIS) Portal, Retrieved from <https://nrhm-mis.nic.in/SitePages/HMIS-Publications.aspx> on January 23, 2016

In terms of health workers as shown in Table 12.2, Jharkhand has more than the required number (required 4284, in position 7170) of female health workers/Auxiliary Nurse Midwife (ANM) in SCs and PHCs, and doctors in the PHCs (required 327, in position 372). But, it faces shortage in terms of male health workers in the SCs by almost 90 percent (required 3957, in position 386), female and male health assistants at PHCs by nearly 95 and 92 percent, respectively, number of

specialists by roughly 83 percent, radiographers in the CHCs by 69 percent, pharmacists by 41 percent, laboratory technicians by 42 percent, and nursing staff by near about 25 percent in the PHCs and the CHCs together.<sup>5</sup>

5 Specialist, including Surgeons, Obstetricians and Gynecologists (OB&GY), Physicians, and Pediatricians.



**Table 12.2: Number of Health Personnel**

Type of Health Workers	Required	In Position	% Shortfall
Health Worker (Female)/ANM at SCs & PHCs	4284	7170	-
Health Worker (Male) at SCs	3957	386	90.2
Health Assistants (Female)/LHV at PHCs	327	16	95.1
Health Assistant (Male) at PHCs	327	27	91.7
Doctors at PHCs	327	372	-
Total specialists at CHCs (Surgeons, OB&GY, Physicians, Paediatricians)	752	128	83.0
Radiographers at CHCs	188	58	69.1
Pharmacists at PHCs & CHCs	515	305	40.8
Laboratory Technicians at PHCs & CHCs	515	301	41.6
Nursing Staff at PHCs & CHCs	1643	1230	25.1

**Source:** Rural Health Statistics 2015; Health Management Information System (HMIS) Portal, retrieved from <https://nrhm-mis.nic.in/SitePages/HMIS-Publications.aspx> on January 23, 2016

ANM: Auxiliary Nurse Midwife; LHV: Lady Health Worker

Some of these health facilities also lack certain basic amenities. Table 12.3 shows that nearly 69 percent sub-centres (SCs) lack regular water supply, 81 percent lack electric supply, and 26 percent do not have all-weather approachable road. For PHCs, almost 15 percent are without any regular water supply, 13 percent are without electric supply, and 15 percent without any all-weather approachable road. Only 62 percent PHCs have labour/delivery room for delivery and

childbirth, 26 percent have Operation Theatres (O.T.), 43 percent with at least 4 beds, and 17 percent with transport facility for referral visits. With regard to the CHCs, only 9 percent have all four specialists, 93 percent have functional laboratory, 88 percent with functional O.T., 90 percent with delivery room, and 90 percent with newborn care facility. Roughly 22 percent CHCs have at least 30 beds and a regular supply of AYUSH drugs for common ailments, and a meager 11 percent have functional stabilization units for newborn care.

**Table 12.3: Status of Facilities Available in the Health Centres**

Sub-Centre (SC)	Total 3957
Without Regular Water Supply	68.5%
Without Electric Supply	80.7%
Without All-Weather Motor able Approach Road	25.5%
Primary Health Centre (PHC)	Total 327
Without Regular Water Supply	14.8%
Without Electric Supply	12.7%
Without All Weather Motor able Approach Road	15.4%
With Labour Room	62.1%
With Operation Theatre	26.0%
With at least 4 beds	42.5%
With Referral Transport	17.4%

Sub-Centre (SC)	Total 3957
Community Health Centre (CHC)	Total 188
With all four specialists (Surgeons, OB&GY, Physicians, Paediatricians)	9.0%
With functional Laboratory	92.6%
With functional O.T.	87.8%
With functional Labour Room	90.4%
With functional stabilization units for new Born	10.6%
With New Born Care Corner	90.4%
With at least 30 beds	21.8%
With Referral Transport	100.0%
With Regular Supply of Allopathic drugs for common ailments	100.0%
With Regular supply of AYUSH drugs for common ailments	21.8%

**Source:** Rural Health Statistics 2015; Health Management Information System (HMIS) Portal, retrieved from <https://nrhm-mis.nic.in/SitePages/HMIS-Publications.aspx> on January 23, 2016

Based on the above figures, it is apparent that the state needs to improve its health care infrastructure and health care human resources. The state is making efforts towards reducing these shortfalls.

According to the latest figures from the Health Management Information System (HMIS), the numbers of SCs, PHCs, and CHCs have increased from 3958, 330, and 188 in March 2015 to 3964, 357, 258 respectively by January 2016, reducing noticeably the shortages in the number of these facilities. Moreover, the total number of SDHs has also marginally increased from 10 in March 2015 to 13 in January 2016.<sup>6</sup>

<sup>6</sup> Figure obtained from HMIS, National Health Mission (NHM), Ministry of Health & Family Welfare (MoHFW), Government of India (GOI). Retrieved from <https://nrhm-mis.nic.in/SitePages/Home.aspx> on January 23, 2016.

According to Table 12.4, the government has also initiated the construction of several new health and training institutions to improve health care delivery and develop human skills in health care. There are in all 10 functional ANM training schools. Seventeen more schools have already been constructed and five schools are under construction. Three General Nursing and Midwifery (GNM) schools, three Trauma centres, three medical colleges, and four Maternal and Child Health Centres (MCHCs) are already functional. Eight GNM schools, 2 more Trauma centres, and 10 MCHCs are under construction. One Ayurvedic Medical College at Chaibasa, two Unani Medical Colleges in Giridih, one Homeopathic Medical College in Godda, and one Ayurvedic Pharmacy College in Sahebganj are in the pipeline for construction.

**Table 12.4: Other Health Institutions in Health Department**

Institutions	Functional Institutes	New Facilities Constructed	New Facilities under Construction
ANM Training School	10	17	5
GNM School	3	1	8
Trauma Centre	3	-	2
Medical Colleges	3	-	-
MCH Centre	4	3	10
Regional Training Center Hazaribagh	1	-	-

Institutions	Functional Institutes	New Facilities Constructed	New Facilities under Construction
Pharmacy College Bariatu, Ranchi	1	-	-
Ayurvedic Medical Colleges (Chaibasa)	-	-	1
Unani Medical Colleges (Giridih)	-	-	2
Homeopathic Medical Colleges (Godda)	1	-	1
Ayurvedic Pharmacy College (Sahebganj)	1	-	1
Other Hospitals	-	1	1
RINPAS	1	-	-

Source: Department of Health & Family Welfare, Government of Jharkhand, State RCH Office

### National Health Mission (NHM)

National Health Mission (NHM) is a flagship programme of the Government of India (GoI), which seeks to provide effective health care to the population. This mission launched as the National Rural Health Mission (NRHM) in 2005 to provide accessible, affordable, and quality health care to the rural population of India. Later in 2013, NRHM renamed as the National Health Mission after the inclusion of National Urban Health Mission (NUHM) as another sub-mission with the aim of addressing the health care needs of the urban population, especially the urban poor.<sup>7</sup> NHM covers several components, such as health systems strengthening, Reproductive, Maternal, Child Health, and Adolescent health (RMCH+A), family planning, and National Disease Control Programmes (NDCPs).

### Health System Strengthening under NHM

In order to strengthen the health care system, including need based recruitment of nurses, doctors, and specialists on contract; financial support has been provided to the states. In FY 2015-16, out of the total 11487 approved posts for different health personnel positions, 7149

posts have been filled up and still 4338 posts have remained vacant.

### Mobile Medical Unit (MMU)

To address the health and unmet needs of the rural communities, especially those residing in the un-served, under-served and hard to reach areas of Jharkhand, total 101 to 95 Mobile Medical Units (MMUs) are operational through Public-Private-Partnership (PPP) in all the 24 Districts of Jharkhand. Several health care services are offered through these MMUs. As shown in Table 12.5, more than 17 lakh patients when for health diagnosis and more than 2.5 lakh went for pathological tests. Total 23,345 and 8,187 patients, respectively, had X-ray and ECG done, and almost 40 thousand cases were sent for referral visits in 2014-15. In FY 2015-16 (until September 2015), more than 8 lakh patients had health diagnosis done, more than 1 lakh had some pathological tests done, 9,985 and 3,015 respectively had X-ray and ECG done, and finally 18,488 cases were sent for referrals.

<sup>7</sup> At first, the government launched NRHM in 2005, but later in May 2013 NUHM was included as a sub-mission of the extensive NHM.

**Table 12.5: Number of Patients Received Health Services through Mobile Medical Units (MMU)**

Type of Services	No. of Patients during	No. of Patients during
	2014-15	2015-16 (till September 2015)
Diagnosis of patients	17,33,872	8,03,195
Pathological Test	2,58,858	1,10,819
X-ray	23,345	9,985
ECG	8,187	3,015
Referred Case	40,014	18,488

Source: Department of Health & Family Welfare, Government of Jharkhand, State RCH Office

### Major Health Programmes under NHM Maternal Health

Several maternal health schemes are being run under NHM, such as Janani Suraksha Yojna (JSY) and Janani Shishu Suraksha Karyakram (JSSK). As presented in Table 12.6, total 45 percent women utilized JSY, 15.6 percent women used JSSK, and 14.1 percent availed both the programmes in 2013-14. Higher number of women in the rural areas accessed these

programmes (nearly 48.8% JSY, 16.2% JSSK, and 14.8% both) than the number of women in the urban areas (nearly 32.9% JSY, 13.4% JSSK, and 11.7% both). Among the social-groups, utilization of these programmes was highest among the STs (58.1 percent JSY, 23.5 percent JSSK, and 22.6 percent both), and lowest among the SCs (39 percent JSY, 7.8 percent JSSK, and 5.1 percent both).<sup>8</sup>

8 SCs: Schedules Castes.

**Table 12.6: Percentage of Availed Benefit for National Programme for Safe Motherhood**

	Janani Suraksha Yojna (JSY)	Jananai Shishu Suraksha Karyakram (JSSK)	Both JSY & JSSK
Region of Residence			
Total	45.0	15.6	14.1
Rural	48.8	16.2	14.8
Urban	32.9	13.4	11.7
Social Category			
Schedule Castes (SCs)	39.0	7.8	5.1
Scheduled Tribes (STs)	58.1	23.5	22.6
Other Backward Classes (OBCs)	39.2	11.6	10.2
Others	44.5	22.0	22.0

Source: Jharkhand Fact sheet, Rapid Survey on Children 2013-14.

### Janani Suraksha Yojna

Janani Suraksha Yojna (JSY) ensures safe motherhood and delivery. The scheme has the goal of reducing maternal and neonatal mortality. Under this scheme, cash assistance is given

to pregnant mothers to ensure their increased participation in antenatal care (ANC) services and institutional deliveries.<sup>9</sup> As in Figure 12.2,

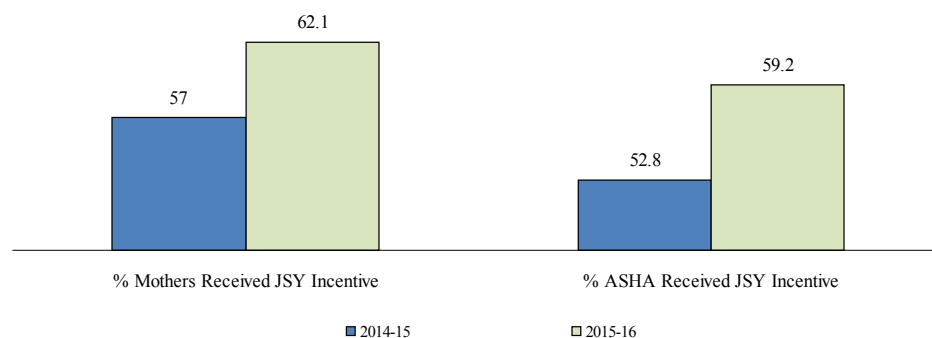
9 Under JSY scheme, sums of Rs. 1400 and Rs. 1000 given to pregnant women in the rural and the urban areas, respectively, for conducting institutional delivery.

the percentage of mothers and Accredited Social Health Activist (ASHA) who received JSY incentive, increased from 57 percent and 52.8 percent, respectively, in 2014-15, to 62.1 percent and 59.2 percent, respectively, in 2015-16 (up to November 2015).<sup>10</sup> The figures for 2015-16 are

<sup>10</sup> For FY 2015-16, only provisional figures obtained from HMIS for the period April to November.

expected to increase further by the end of the fourth quarter of FY 2015-16. Therefore, in both these years mothers have received more cash incentives than what ASHA earned. Furthermore, as both mothers and ASHA received more JSY incentives, therefore, it is expected that both ANC use and institutional deliveries among mothers should increase in 2015-16.

**Figure 12.2: Percentage of Mothers & ASHA Received JSY Incentives for Delivery at Public Institutions to Total Public Deliveries**

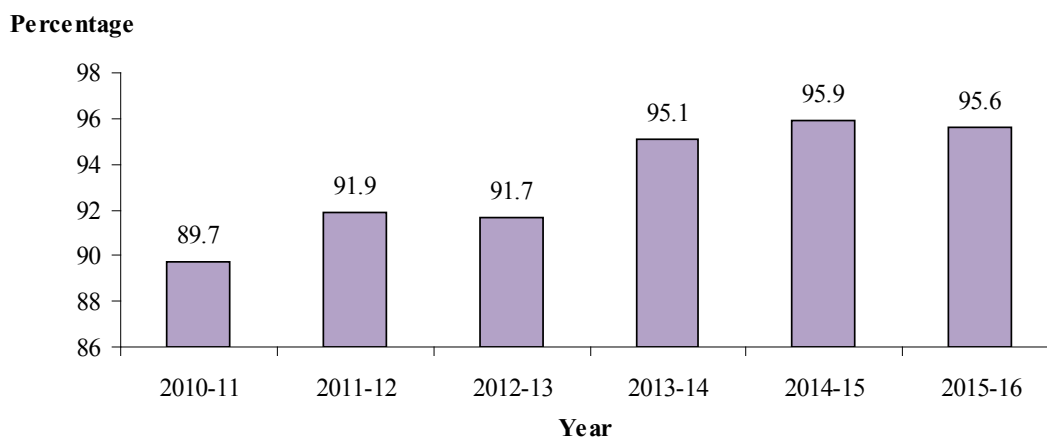


**Source:** Health Management Information System (HMIS) Portal, retrieved from <https://nrhm-mis.nic.in/SitePages/HMIS-Publications.aspx> on January 23, 2016

As shown in Figure 12.3, percentage of women who registered for JSY to total ANC registration also increased from 89.7 percent in 2010-11 to

95.9 percent in 2014-15 and up to 95.6 percent in FY 2015-16 (up to November 2015).

**Figure 12.3: Percentage of JSY Registration to Total Antenatal Care Registration**



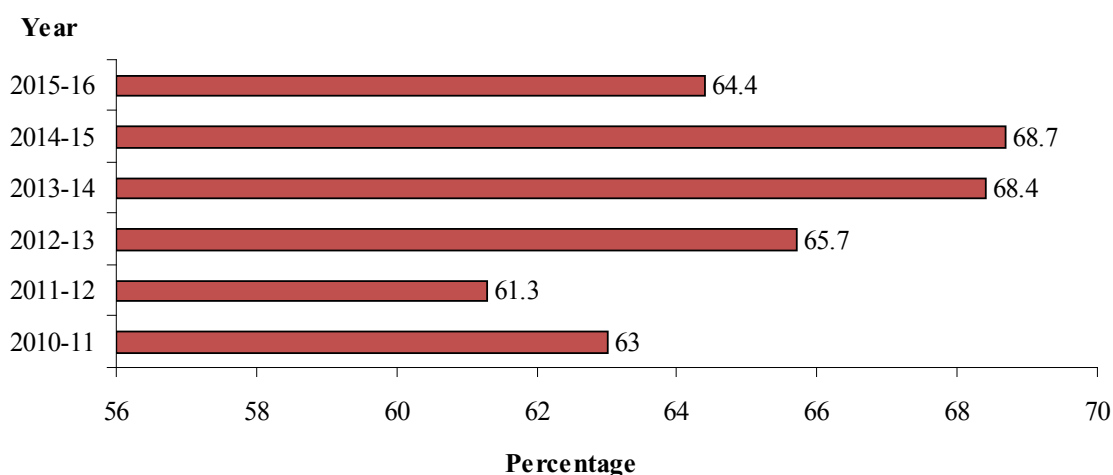
**Source:** Rural Health Statistics 2015; Health Management Information System (HMIS) Portal, retrieved from <https://nrhm-mis.nic.in/>

SitePages/HMIS-Publications.aspx on January 23, 2016

Figures 12.4 to 12.6 show positive trend in antenatal care use and institutional deliveries in Jharkhand. As per Figure 12.4 out of the total number of women who registered for ANC in 2010-11, nearly 63 percent went for at least three

ANC checkups. This number further increased to 68.7 percent in 2014-15 and 64.4 percent in 2015-16 up to the third quarter of FY 2015-16, which is likely to increase more by the end of the FY 2015-16.

**Figure 12.4: Percentage of Pregnant Women Received at least 3 ANC Checkup to Total ANC Registration**

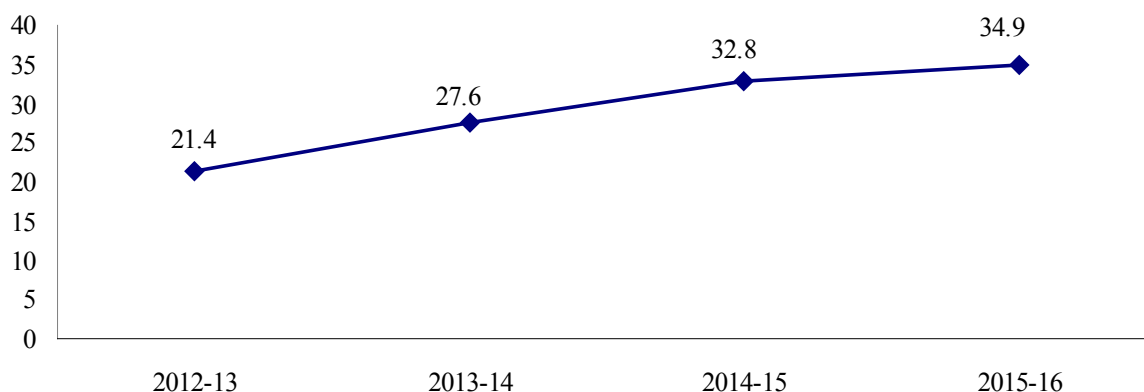


**Source:** Health Management Information System (HMIS) Portal, retrieved from <https://nrhm-mis.nic.in/SitePages/HMIS-Publications.aspx> on January 23, 2016

As evident from Figure 12.5, the percentage of women who registered for ANC in their first trimester of pregnancy also went up from 21.4

percent in 2012-13 to 34.9 percent in 2015-16 (up to November 2015).

**Figure 12.5: Percentage of 1<sup>st</sup> Trimester ANC Registration to Total ANC Registration**

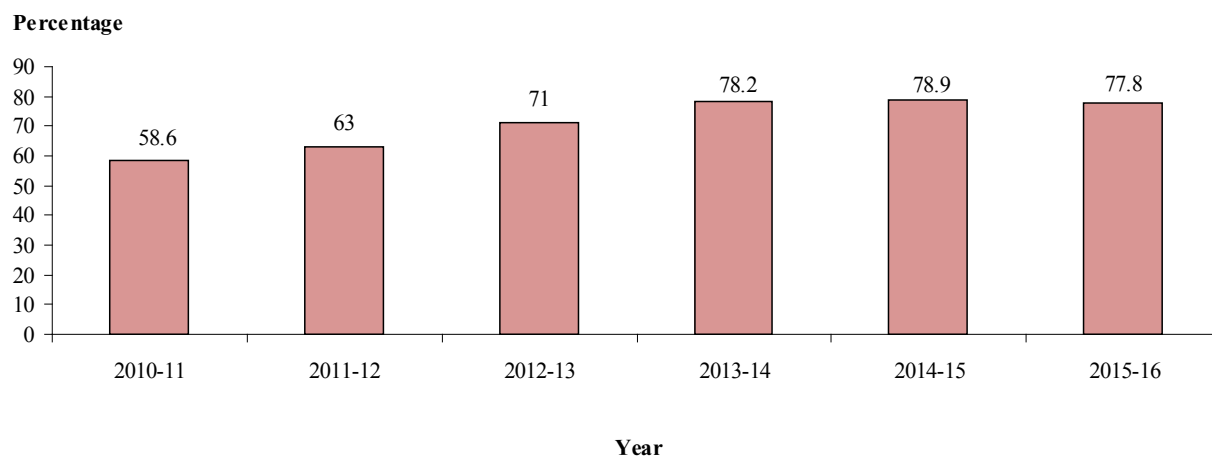


**Source:** Health Management Information System (HMIS) Portal, retrieved from <https://nrhm-mis.nic.in/SitePages/HMIS-Publications.aspx> on January 23, 2016

Data on institutional deliveries to total reported deliveries in Figure 12.6 show that institutional deliveries in Jharkhand have increased from 58.6 percent in 2010-11 to 78.9 percent in 2014-15. The data further show that so far in 2015-16

(till November 2015), 78 percent women have already opted for institutional deliveries and this figure is expected to be higher by the end of the fiscal term.

**Figure 12.6: Percentage of Institutional Deliveries to Total Reported Deliveries**



**Source:** Health Management Information System (HMIS) Portal, retrieved from <https://nrhm-mis.nic.in/SitePages/HMIS-Publications.aspx> on January 23, 2016

### Janani Shishu Suraksha Karyakram

JSY has resulted in a phenomenal growth in the institutional deliveries; however, families still suffer from huge out-of-pocket (OOP) expenditure due to pregnancy and childbirth related health care expenses. Therefore, high percentage of women still deliver at home and many neonatal deaths occur due to inability to access and afford health care. In order to address this issue, Janani Shishu Suraksha Karyakram, a new initiative undertaken by the Ministry of Health and Family Welfare launched in June 2011 to assure free health care services to all pregnant women and sick neonates attending public health institutions. The programme encourages institutional deliveries under skilled birth attendant (SBA) by providing cashless services to pregnant women for both normal deliveries and cesarean sections (C-sections) and supports treatment for sick newborn (up to 30 days after birth) in all government health care centres.

The JSSK programme also includes free supplies of drugs, free diagnostic tests, free referrals, free blood facility, and provision for diet to pregnant women for three days in case of normal delivery and for seven days in case of C-section delivery. As shown in Table 12.7, under this scheme, 2.67 lakh pregnant women received free drugs, 2.05 lakhs received free diagnostics, 3.93 lakhs received free referral services, 1415 received free blood tests, and 2.45 lakh received free diet during their pregnancy in 2014-15. Data for FY 2015-16 up to September 2015 show that nearly 1.5 lakh women received free drugs, 1.22 lakhs received free diagnostic, 1.45 lakhs received free referrals, 814 received free blood tests, and 1.36 lakh pregnant women received free diet.

**Table 12.7: Services Received by Pregnant Women under Janani Shishu Suraksha Karyakram (JSSK)**

Services	2014-15	2015-16 (Until Sept.)
Free Drug	2.67 Lakhs Pregnant Women	1.5 Lakhs Pregnant Women
Free Diagnostic	2.05 Lakhs Pregnant Women	1.22 Lakhs Pregnant Women
Free Referral	3.93 Lakhs Pregnant Women	1.45 Lakhs Pregnant Women
Free Diet	2.45 Lakhs Pregnant Women	1.36 Lakhs Pregnant Women
Free Blood	1415 Pregnant Women	814 Pregnant Women

Source: Department of Health & Family Welfare, Government of Jharkhand, State RCH Office

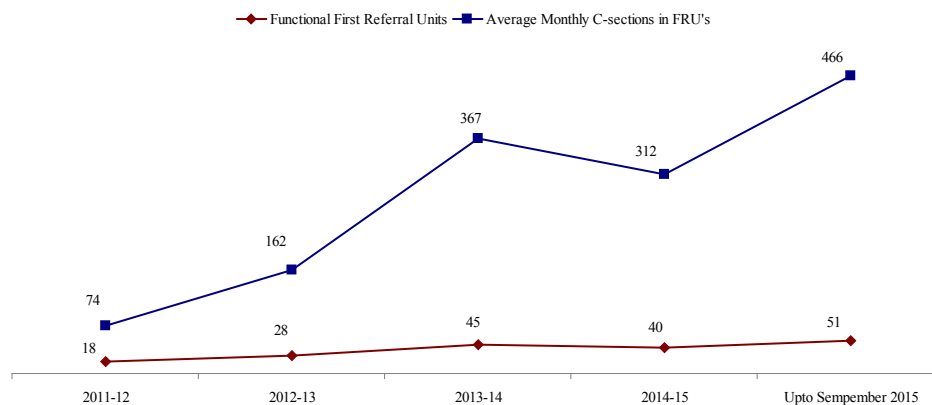
### First Referral Units

NHM has planned to provide 24-hour service at the district or sub-divisional hospital or community health centres. In addition to all the services available at a Primary Health Centre, it also provides specialist services. First Referral Units (FRUs) are set up to provide 24-hour specialist services in medicine, obstetrics and gynecology, surgery and pediatric care, and blood transfusion. The services also include Caesarian section (C-section), mid-trimester abortion, medical management of severe hypertensive

disorder, and blood transfusion during pregnancy and childbirth.

As shown in Figure 12.7, total number of FRUs in Jharkhand increased from 18 in 2011-12 to 40 in 2014-15 and 51 in 2015-16 (up to September 2015). The average monthly number of C-sections conducted in these FRUs also increased from 74 in 2011-12 to 312 in 2014-15 and 466 in 2015-16 (up to September, 2015). Therefore, there is an increasing trend in both the number of FRUs and in the number of c-sections conducted in these FRUs.

**Figure 12.7: First Referral Units (FRUs) and Average Monthly C-sections in FRUs**



Source: Department of Health & Family Welfare, Government of Jharkhand, State RCH Office

Due to 24-hour specialist services at various levels of health care services (such as PHCs, CHCs, SDHs, and DHs), number of women who were attended and treated for various pregnancy related complications increased between 2014-15 and 2015-16. Figure 12.8 shows that the percentage of total obstetrics complications attended out

of the total reported deliveries increased from 5.2 percent in 2014-15 to 5.7 percent 2015-16.<sup>11, 12</sup> Percentage of women with severe anemia (Hemoglobin (Hb) level <7) treated to the total

11 Obstetrics complications abbreviated as 'obc' in Figure 12.8.

12 FY 2015-16 figures are up to November 2015.



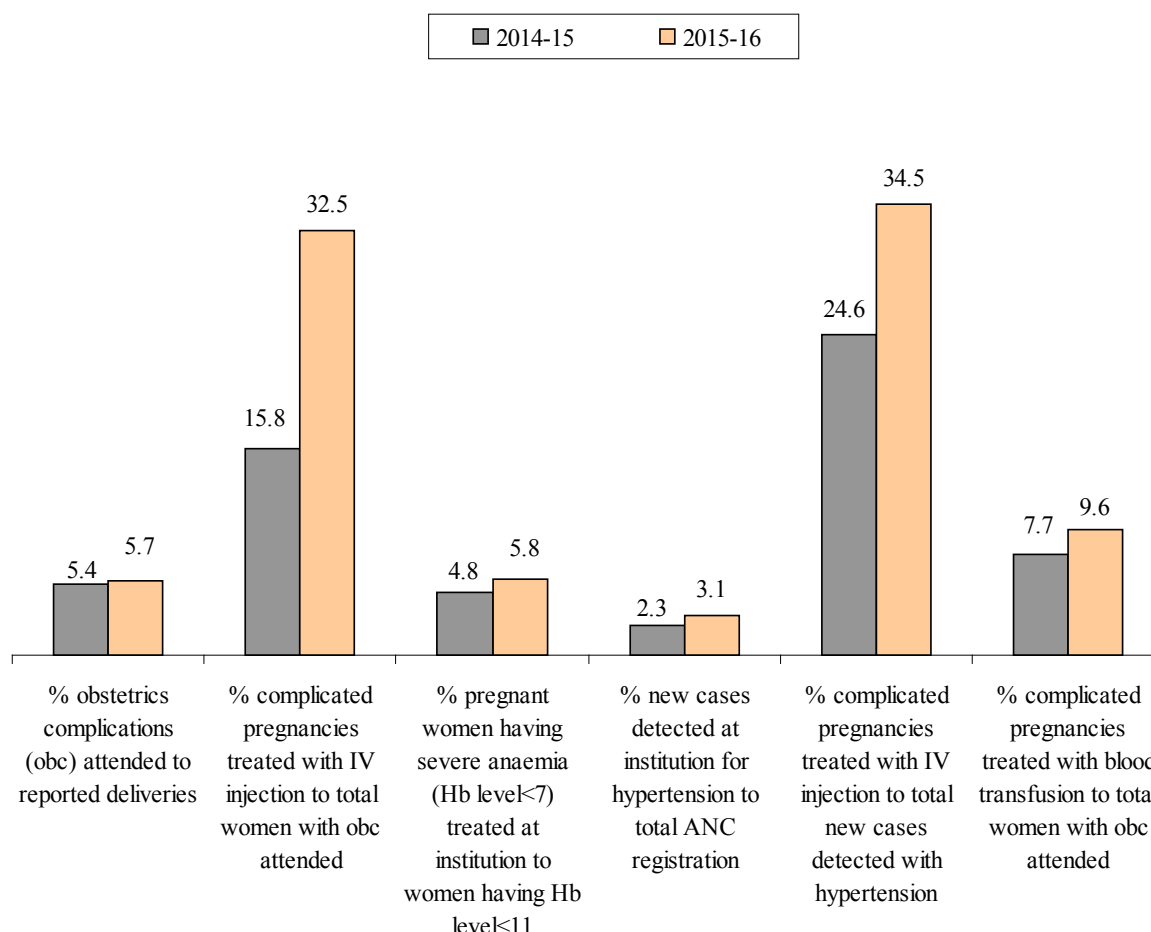
number of women with Hb<11, increased by nearly 1 percent (from 4.8% in 2014-15 to 5.8% in 2015-16). The percentage of new cases detected at the health institutions for hypertension to total ANC registration went up roughly by 0.8 percent (from 2.3% in 2014-15 to 3.1% in 2015-16). The percentage of complicated pregnancies treated with blood transfusion to total women with obstetrics complications attended also rose by approximately 1.8 percent that is from 7.7 percent in 2014-15 to 9.6 percent in 2015-16.<sup>13</sup>

Percentage of women with difficult pregnancies treated with Intravenous (IV) antihypertensive/ Magsalph injection out of the total women with obstetrics complications attended went up by nearly 16.7 percent from 15.8 percent in 2014-15 to 32.5 percent in 2015-16. In addition, percentage of women with pregnancy complications treated out of the total number of women reported with hypertension saw an upsurge of almost 10 percent from 24.6 in 2014-15 to 34.5 in 2015-16.

11 considered as mild anemic and women with HB<7 are considered as severely anemic.

13 Women with Hemoglobin level (HB) less than

**Figure 12.8: Pregnancy Related Health Complications Treated/Attended in Health Institutions**



**Source:** Health Management Information System (HMIS) Portal, retrieved from <https://nrhm-mis.nic.in/SitePages/HMIS-Publications.aspx> on January 23, 2016

### Child Health

Several schemes under NHM also focus on improving child health, such as Infant and Under-

five, Mortality Rates through routine immunisation as well as home-based and immediate newborn care. Besides, child nutrition has been improved

through malnutrition treatment, modification of child-feeding practices and diet, and through micronutrient supplementation.

### Janani Shishu Suraksha Karyakram

Under the JSSK scheme, free referral services, free drugs, and free diagnostic services have been provided to sick infant below the age of

one year. As presented in Table 12.8, data until September 2015 show that 5,875 infants received free referral services for health checkups and treatment, 15,793 received free drugs, and 6,464 infants received free diagnostic services. These numbers for FY 2015-16 may increase by the end of the fiscal term.

**Table 12.8: Services Received by Infants under Janani Shishu Suraksha Karyakram (JSSK)**

Services	2014-15	2015-16 (Until Sept.)
Free Drug	42,685 infant	15,793 infant
Free Diagnostic	18,739 infant	6,464 infant
Free Referral	22,738 infant	5,875 infant

Source: Department of Health & Family Welfare, Government of Jharkhand, State RCH Office

### Routine 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 of India and the Indian Academy of Pediatrics (IAP) recommend some vaccinations that are compulsory for every child. 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. As shown in Table 12.9, nearly 90.4 percent children aged 12-23 months possessed a MCP or immunisation

card in the urban areas and 81.5 percent in the rural areas of Jharkhand in 2013-14. Almost 75.7 percent children in the urban areas and 61.5 percent children in the rural areas received full immunisation. Roughly 5.2 percent children aged 12-23 months in the urban areas and 12.8 percent in the rural areas received no vaccination. Almost 8.1 percent and 8.9 percent children in the urban areas and 12.5 percent and 13.7 percent children in the rural areas, dropped out of vaccination programme and failed to make a transition from three doses of DPT vaccination to three doses of oral polio vaccination (OPV), respectively.<sup>14</sup>

14 DPT is given for the prevention of diphtheria, pertussis (whooping cough), and tetanus. OPV is given for the prevention of three types of polio viruses.

**Table 12.9: Immunisation of Children Aged 12-23 Months (Percentage)**

	Having MCP/ Immun. card	Fully Immunized	Received no Vaccin.	Drop out in vaccination		Received first dose of measles vaccine	Place of Vaccination		
				DPT2 to DPT3	OPV2 to OPV3		AWC	Public Health Facility	Private Health Facility
Total	83.6	64.9	11.0	11.3	12.4	75.9	76.4	9.9	12.8
Rural	81.5	61.5	12.8	12.5	13.7	73.8	86.1	4.9	7.8
Urban	90.4	75.7	5.2	8.1	8.9	82.4	48.3	24.3	27.4

Source: Jharkhand Fact Sheet, Rapid Survey on Children 2013-14;

Abbreviation: Immun.: Immunisation; Vaccine.: Vaccination; AWC: Anganwadi Centre

Measles is one of the highly contagious diseases and is still one of the leading causes of deaths among young children in India. There exists safe and effective measles vaccine, which has helped in reducing measles related deaths in the country. Between 2000 and 2011, deaths due to measles decreased by almost 39,000 (WHO, 2013).<sup>15</sup> However, because of its highly contagious nature the country needs to ensure that at least 95 percent of all children receive at least two doses of the vaccine. In Jharkhand, nearly 82.4 percent children aged 12-23 months in the urban

<sup>15</sup> WHO, 2013 retrieved from [www.who.int/features/2013/india\\_measles/en/](http://www.who.int/features/2013/india_measles/en/) on January 23, 2016.

areas and 73.8 percent children in the same age group in the rural areas received the first dose of measles vaccine in 2013-14.

In 2013-14, approximately 48.3 percent children in the urban areas and 86.1 percent children in the rural areas used Anganwadi Centres (AWC) for vaccination. Nearly 24.3 percent and 27.4 percent children in the urban areas and only 4.9 percent and 7.8 percent in the rural areas received some form of vaccination from the public and the private health care facilities, respectively.

As shown in Table 12.10, in FY 2014-15 (until September 2015) a total of 6.43 lakh children and in FY 2015-16 a total of 3.44 lakh children completed full immunisation.

**Table 12.10: Total Number of Children Fully Immunized**

FY 2014-15	6.43 Lakh children
FY 2015-16 (till September 2015)	3.44 Lakh children

Source: Department of Health & Family Welfare, Government of Jharkhand, State RCH Office

The government has undertaken several initiatives in FY 2015-16 to increase the number of children getting full immunisation. Under Mission Indradhanush Phase I, implemented in six districts of Jharkhand (Sahebganj, Pakur, Godda, Deoghar, Giridih & Dhanbad), in all 2.46 lakh children were fully immunised in four rounds.. At present, the Mission Indradhanush Phase 2 is implemented in 10 districts of Jharkhand (Sahebganj, Pakur, Dhanbad, Ranchi, Hazaribagh, Palamu, Garhwa, Koderma, Chatra, Latehar) and already 0.71 lakh children have been vaccinated in round one.

### Newborn Care

Newborn care is yet another child health scheme under NHM initiated to prevent neonatal and early childhood mortalities. Emphasis has been laid on reducing high neonatal deaths through facility based and home based care. In facility based care, special newborn care units, newborn stabilization units, newborn care corners are made

functional under NHM. As per a specific schedule, ASHA make home visits to all newborns up to 42 days of life and receive cash incentives for home based newborn care.<sup>16</sup> 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.<sup>17, 18</sup>

According to Table 12.11, in 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.

<sup>16</sup> ASHA receives cash incentives at the rate of rupees 50 per home for one hour

<sup>17</sup> BCG vaccine: Bacillus Calmette-Guérin

<sup>18</sup> NHM retrieved from [nrhm.gov.in/nrhm-components/rmnch-a/child-health-immunisation/child-health/schemes.html](http://nrhm.gov.in/nrhm-components/rmnch-a/child-health-immunisation/child-health/schemes.html).

**Table 12.11: 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

As presented in Table 12.12, total 37271 SAHIYAs received training for home-based care out of a total of 40964 SAHIYAs in HBNC. In FY 2014-15 and FY 2015-16 (until September 2015) total 3.24 lakh and 1.11 lakh children, respectively, were visited by the SAHIYAs,

**Table 12.12: Total Number of Home-Based Children Visit by SAHIYA or ASHA**

FY 2014-15	3.24 Lakh children
FY 2015-16 (till September 2015)	1.11 Lakh children

Source: Department of Health & Family Welfare, Government of Jharkhand, State RCH Office

### Malnutrition

According to the National Family Health Survey (NFHS), 2005-06, a large number of Indians, especially children, suffer from malnutrition. Nearly 38.4 percent children under three years of age were stunted (that is, shorter than the required age-specific height), 46 percent were underweight (that is, too thin than the required age-specific weight), and 19 percent were wasted (that is, having abnormally low weight-for-height) in 2005-06. Girls and boys were equally likely to be suffering from malnutrition. Higher rates of malnutrition were evident in the rural areas in comparison to that in the urban areas. In addition, most children below three years of age were anemic (79.2%).

Malnutrition and anemia are two most common health problems also among the adults. Women, especially in their reproductive age, and men and women from rural areas, poor and underprivileged groups are especially vulnerable to these two health problems. Low socio-economic status, poor variety of diet, poor hygiene conditions, and limited access to iron supplementation are often

associated with higher prevalence of malnutrition and anemia.

While breast-feeding in India is nearly universal, but less than half of children (46%) are breastfed during their first six months of life. Exclusive breastfeeding is more common among non-educated mothers in the rural areas than among educated mothers and mothers in the urban areas.

Inadequate nutrition is a countrywide problem, but the situation is worse in some states, like Madhya Pradesh, Uttar Pradesh, Bihar, and Jharkhand. According to Table 12.13, in 2013-14, nearly 47 percent and 24 percent children, respectively, under age five years (0-59 months) were stunted and severely stunted in Jharkhand. Stunted growth among children in the rural areas (stunted 50.2% and severely stunted 25.9%) of Jharkhand was higher than among children in the urban areas (stunted 37.2% and severely stunted 16%) of the state. Rural children were likely to be almost 1.3 percent and 0.4 percent more wasted and severely wasted, respectively, than children in the urban areas. Nearly 45.8 percent children were underweight and 17.5 percent were

severely underweight in the rural areas, whereas 28.7 percent were underweight and 10.7 percent were severely underweight in the urban areas in 2013-14.

**Table 12.13: Nutritional Status of Children Aged 0-59 Months**

	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)
<b>Region of Residence</b>						
Total (%)	47.4	23.7	15.6	3.7	42.1	16.1
Rural (%)	50.2	25.9	15.9	3.8	45.8	17.5
Urban (%)	37.2	16.0	14.6	3.4	28.7	10.7
<b>Social Category</b>						
Schedule Castes (SCs) (%)	48.4	23.7	15.2	4.8	43.8	18.5
Scheduled Tribes (STs) (%)	53.4	29.8	19.9	4.4	51.1	23.2
Other Backward Classes (OBCs) (%)	45.4	21.3	14.9	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

Among children in different social categories, 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 slightly higher percent of children (0.4%) severely wasted among the SCs.

The department of health in Jharkhand in association with the department of social security, women and child development have initiated several child nutrition programmes and set up Malnutrition Treatment Centres (MTCs). Total 86 MTCs are functional in the state. As presented in Table 12.14, total 7112 and 4502 children received treatment for malnutrition in FY 2014-

15 and FY 2015-16 (until September 2015), respectively.

**Table 12.14: Total Children Treated for Malnutrition**

FY 2014-15	7112 children
FY 2015-16 (till September 2015)	4502 children

Source: Department of Health & Family Welfare, Government of Jharkhand, State RCH Office

### Family Planning

According to WHO, family planning helps in the attainment of desired number of children and provides flexibility to couples in deciding about child spacing and childbirth timing, which is achieved through contraceptive methods and

treatment for involuntary infertility. Moreover, family planning also helps in the prevention of sexually transmitted infections (STIs), including HIV/AIDS. It reduces unwarranted pregnancies and thus prevents uncalled for and unsafe abortions, and thereby reduces maternal and child mortality.

In order to encourage couples to use contraceptive methods for family planning, cash incentives are given to the beneficiaries. Under the sterilization scheme sums of Rs. 2000 and Rs. 1400 are given to male and female beneficiaries respectively for accepting sterilization method for birth control.

Under the Intrauterine Contraceptive Device (IUCD), a sum of rupees 20 is given to the beneficiary for accepting IUCD as the method.

According to the latest figures from the HMIS as shown in Table 12.15, total 18,683 sterilization and 57,799 IUCD insertions conducted, and 19,32,321 condoms and 3,92,892 oral contraceptive pills distributed in FY 2015-16 (till November 2015). However, in comparison to the numbers of condom pieces and oral pills distributed, only 40,256 and 45,534 users, respectively, are using condoms and oral pills for contraception and family planning.

**Table 12.15: Family Planning**

	Total Sterilisation Conducted	IUCD Insertions	Total Condom Pieces Distributed	Total Oral Pills Distributed	Total Condom-User	Total Oral Pills Users
FY 2015-16 (till November 2015)	18,683	57,799	19,32,321	3,92,892	40,256	45,534

**Source:** Health Management Information System (HMIS) Portal, retrieved from <https://nrhm-mis.nic.in/SitePages/HMIS-Publications.aspx> on January 23, 2016

### Rashtriya Kishor Swasthya Karyakram (RKSK)

Adolescents (age 10-19 years) comprise nearly one-fifth of India's total population. The increasing share of adolescent population in India's total population makes it necessary to focus different policies towards the betterment of this group. Therefore, the central government has come up with programmes, like Rashtriya Kishor Swasthya Karyakram (RKSK); with the aim of enabling adolescents (aged 10-19 years) realise their full potential by making informed and responsible health and well-being related decisions. The six priority areas of RKSK are to improve nutrition, maintain sexual and reproductive health and hygiene, enhance mental health, prevent injuries and violence, prevent substance misuse, and check Non-Communicable Diseases (NCDs) in adolescents.

Some ongoing programmes in Jharkhand under RKSK are Adolescent Friendly Health Clinics

(AFHCs or Yuva Maitree Kendra) and Weekly Iron and Folic Acid Supplementation (WIFS) Programmes are running in all the 24 districts of the state. In addition, Menstrual Hygiene Scheme (MHS) in 5 districts of Jharkhand, namely Ranchi, Hazaribagh, Dhanbad, Bokaro, and Giridhi, and procurement and free distribution of sanitary napkins to all school going girls (from class 6 to 12) are under the process of implementation.

In Table 12.16 the target for FY 2015-16 and the achievement until September 2015 show that out of the targeted 206 AFHCs, nearly 201 are already established. Out of the total target of 39 lakh WIFS programmes, a monthly average of nine lakh WIFS programmes are continuing. Finally, out of the total 8.03 lakh adolescent girls targeted for the distribution of sanitary napkins for proper maintenance of menstrual hygiene, a monthly average of 60,000 girls have so far received sanitary pads.

**Table 12.16 : Targets & Achievements of RSKK**

Programme	Target 2015-16	Progress till Sept. 2015
Establishment of AFHS Clinics	206	201
WIFS	39 lakhs	Monthly average of 9 Lakhs (or nearly 23 %)
Menstrual Hygiene (Sanitary Napkins)	8.03 lakhs Adolescent Girls	Monthly average of 60 thousand Adolescent Girls

Source: Department of Health & Family Welfare, Government of Jharkhand, State RCH Office

### Rashtriya Bal Swasthya Karyakram (RBSK)

Rashtriya Bal Swasthya Karyakram (RBSK) is an important programme undertaken by the government aiming at early detection and management of 4Ds, namely defects at birth, diseases in children, deficiency conditions and developmental delays, including disabilities, as prevalent in children from birth to 18 years of age.

In Jharkhand, mobile health teams, including one male and one female medical officer (AYUSH/MBBS), one ANM/staff nurse, and one pharmacist having proficiency in computer, conduct child health screening and early intervention services for children aged 0-6 years and 6-18 years. As presented in Figure 12.9, so far a total of 69,105 children screened in 2015-16 (till August 2015), higher than the number of

children screened (8,833) in 2014-15.

**Figure 12.9: Total Number of Children Undergone Health Screening**



Source: Department of Health & Family Welfare, Government of Jharkhand, State RCH Office

As in Table 12.17, out of the total 69,015 children screened in FY 2015-16 (till August 2015),

17,351 children aged 0-6 years screened at the Anganwadi Centres, 50,182 children aged 6-18 years at government schools and government aided schools (where they were enrolled), and 1,260 were screened at the delivery points.

**Table 12.17: Child Health Screening & Early Intervention Services**

Children screened	69015
0-6 years, Anganwadi Centres (AWCs)	17351
6-18 years enrolled in Government and Government aided schools	50182
No of children screened at delivery points	1260
No of children screened by ASHA	222

Source: Department of Health & Family Welfare, Government of Jharkhand, State RCH Office

### Urban Health

A sub-scheme under NHM is National Urban Health Mission (NUHM), which aims at providing efficient, accessible, and affordable health care services to the urban poor. NUHM is currently running in 16 districts of Jharkhand.

Several steps have been taken with respect to the implementation of the scheme. Out of a target 53 urban PHCs (U-PHCs) and six urban CHCs (U-CHCs), 40 U-PHCs and 4 U-CHCs are already established and functioning in the urban areas of the state. In other facilities, doctors and

paramedical staff are on deputation. Out of a total vacancy of 24 specialists, 4 specialists joined, 14 full-time and 11 part-time doctors are in position, 134 outreach camps were conducted, total 376 multi-agent system (MAs) were formed, and 149 urban ASHA were selected. Several services

provided through urban health facilities. From Table 12.18, total 96,385 check ups managed in the out-patient departments (OPDs), 564 institutional deliveries and 7 C-sections conducted, 89 family planning operations and 7430 full immunisation sessions were carried out in FY 2015-16.

**Table 12.18: Services provided through Urban Health Facilities**

OPD Conducted	Delivery Conducted	C-Section Delivery Conducted	Family Planning Operations	Full Immunisation Sessions
96,385	564	7	89	7430

Source: Department of Health & Family Welfare, Government of Jharkhand, State RCH Office

**Ayurveda, Yoga and Naturopathy, Unani, Siddha and Homeopathy (AYUSH)**

As presented in Table 12.19, out of the total 289 standalone AYUSH health facilities, 163 are state ayurvedic dispensaries, 72 state homeopathy dispensaries, 32 state Unani dispensaries, and 22 district dispensary (including ayurvedic, homeopathy, Unani). Almost 295 co-located AYUSH facilities. Twenty-two ayurvedic

facilities, 19 homeopathy clinics, and 7 Unani clinics are co-located with CHCs, Whereas, 96 ayurvedic clinics, 99 homeopathy clinics, and 52 Unani clinics are co-located with PHCs. Forty-eight new AYUSH clinics operational in CHCs and 97 new AYUSH clinics operational in PHCs. A geriatric ayurvedic clinic for elderly care and a mother and child homeopathic health clinic are set up in Deoghar. A state Yoga centre is there in Ranchi.

**Table 12.19: AYUSH Health Facilities**

Standalone AYUSH Facilities	Number
State Ayurvedic Dispensary	163
State Homeopathy Dispensary	72
State Unani Dispensary	32
District Dispensary (Ayurveda, Homeopathy & Unani)	22
Total	289
Co-located AYUSH Facilities	Number
Co-located Ayurveda Clinic at CHC	22
Co-located Homeopathy Clinic at CHC	19
Co-located Unani Clinic at CHC	7
Co-located Ayurveda Clinic at PHC	96
Co-located Homeopathy Clinic at PHC	99
Co-located Unani Clinic at PHC	52
Total	295

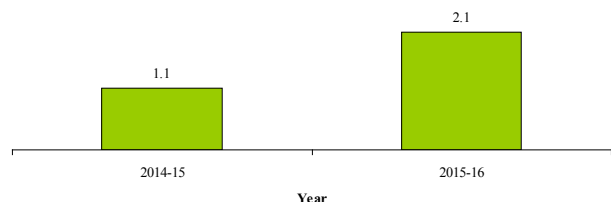
Source: Department of Health & Family Welfare, Government of Jharkhand, State RCH Office

Figure 12.10 shows that the percentage of AYUSH OPD to total OPD increased by nearly

1 percent from 1.1 in 2014-15 to 2.1 in 2015-16 (until November 2015).



**Figure 12.10: % AYUSH OPD to Total OPD**



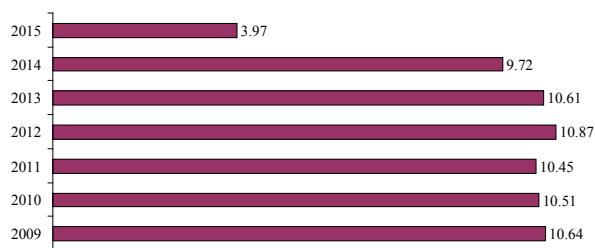
**Source:** Health Management Information System (HMIS) Portal, retrieved from <https://nrhm-mis.nic.in/SitePages/HMIS-Publications.aspx> on January 23, 2016

From April 2015 to September 2015, 1,31,085 OPD patients visited and seen in AYUSH facilities. Steps have also been taken for proper record keeping (documentation, validation, and enlistment) of ‘Hodopathy’ (local health tradition) practitioners.

### Blood Examination Rate

As per the Department of Health and Family Welfare, GOJ, annual blood examination rate should be more than 10. For Jharkhand, annual blood examination rate was nearly 10 from 2009 to 2014. However, it experienced a sudden drop to 3.97 in 2015 due to the withdrawal of Multi-purpose health workers (MPW) from the programme.

**Figure 12.11: Year-wise Annual Blood Examination Rate**



**Source:** Department of Health & Family Welfare, Government of Jharkhand, State RCH Office

### Vector-Bourne Diseases (VBDs)

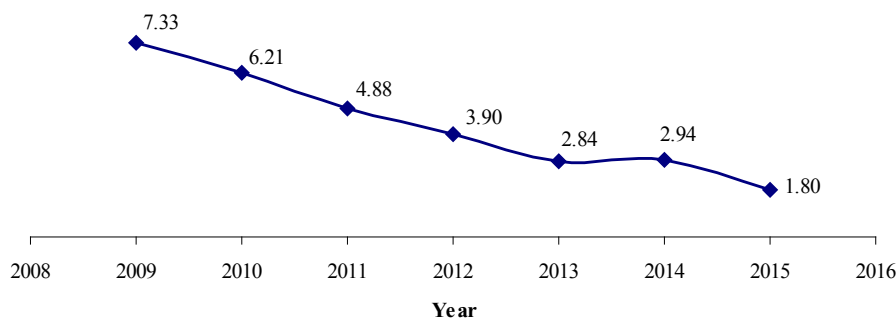
Vector Bourne Diseases (VBDs) are communicable diseases transmitted through mosquitoes and other vectors. A large number of people suffer from VBDs in Jharkhand as reflected from the number of cases of morbidity and mortality from Malaria, Dengue, Chikungunya, Japanese Encephalitis (JE), Kala-azar and Lymphatic filariasis.

### Malaria Situation

Figure 12.12 shows a decreasing trend in the year wise annual parasite incidence, which is mainly because of early diagnosis, complete treatment, and integrated vector control measures undertaken by the government.<sup>19</sup>

<sup>19</sup> Figure for 2015 is showing information for up to September 2015.

**Figure 12.12: Year-wise Annual Parasite Incidence**



**Source:** Department of Health & Family Welfare, Government of Jharkhand, State RCH Office.

### Filaria Situation

Since 2005, total 1,65,003 filaria (Lymphoedema) cases have been detected in Jharkhand. Out of the total cases, 48,787 hydrocele cases have been detected and 9,925 cases have been operated upon. One of the strategies for eliminating lymphatic filaria is through Mass Drug Administration (MDA) and since 2004, Jharkhand observes MDA annually. So far in FY 2015-16 (up to September 2015), the number of cases of filaria detected (2,198) is slightly lower than the number of cases of filaria detected (2341) in 2014-15. Given the government’s measures against filaria and the current health scenario in the state, it can be expected that filarial cases in Jharkhand will not proliferate by the end of FY 2015-16.

Source: Department of Health & Family Welfare, Government of Jharkhand, State RCH Office.

### Kala-azar Situation

Among all the states in India, Jharkhand is the first state to have begun the process of elimination of Kala-azar. The government with the help of CARE India has taken several initiatives to eradicate Kala-azar from the state through sensitization campaigns, active case search, insecticidal spray, and with the injection of a single dose of Ambisome to prevent the spread and prevalence of Kala-azar and to ensure cure of Kala-azar affected patients. As shown in Figure 12.14, between 2014 and 2015 (until September 2015), the number of cases of Kala-azar have increased, but the number of deaths due to Kala-azar have decreased over the years, with no death occurred so far in the last three years.

Figure 12.13: Year-wise Filaria Cases

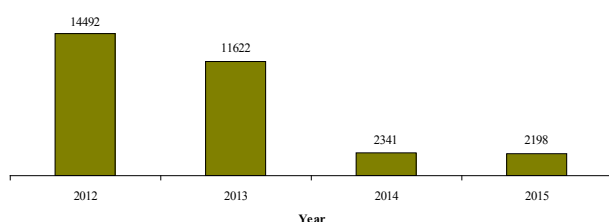
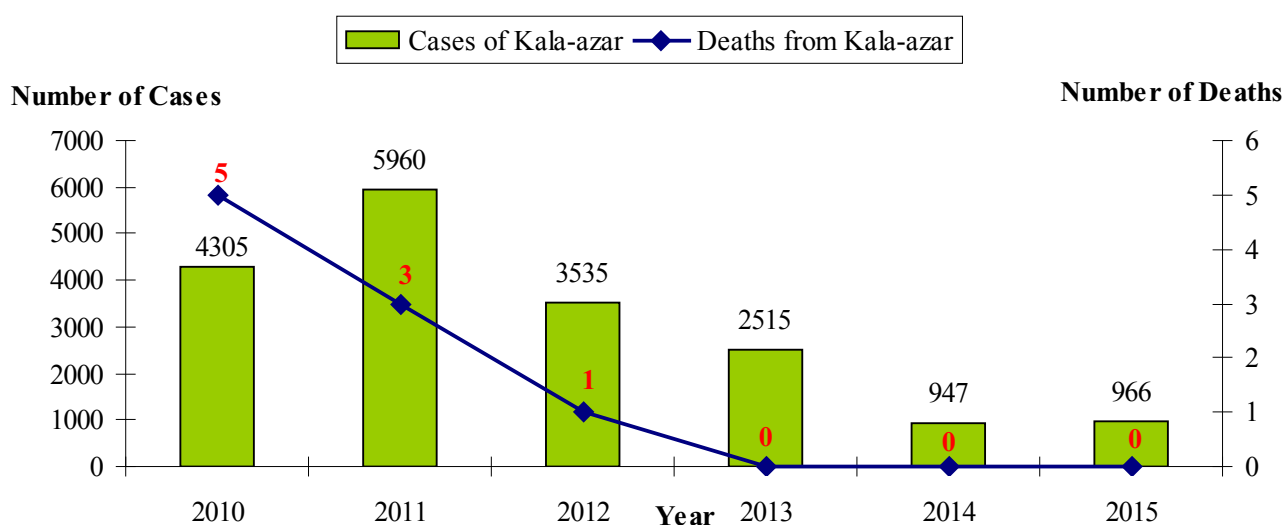


Figure 12.14: Year-wise Kala-azar Cases & Deaths



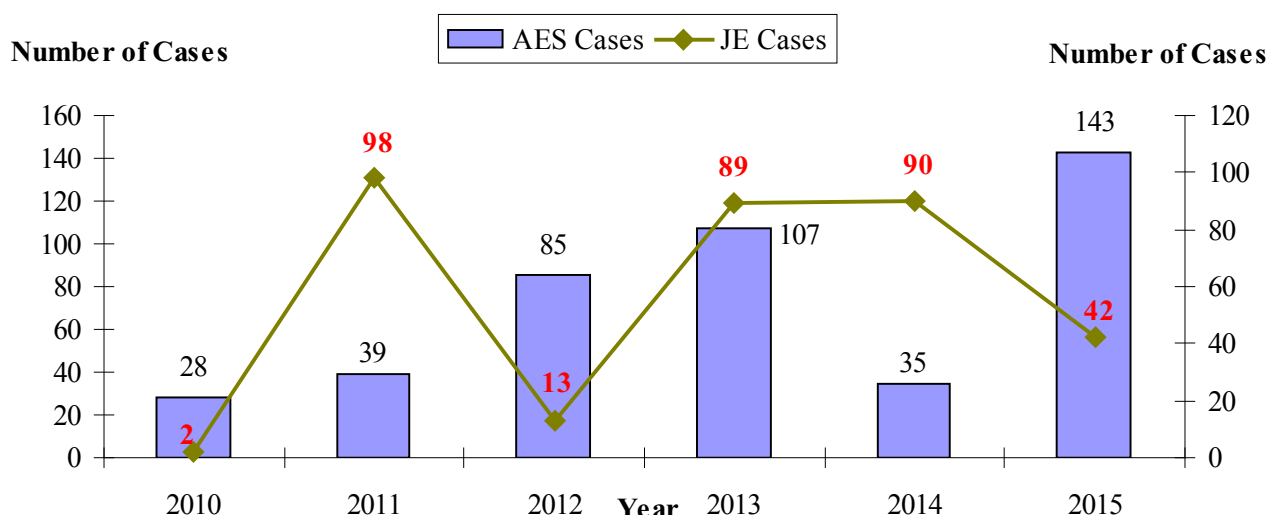
Source: Department of Health & Family Welfare, Government of Jharkhand, State RCH Office.

### Acute Encephalitic Syndrome/Japanese Encephalitic (AES/JE) Situation

As presented in Figure 12.15, the cases of Japanese

Encephalitis (JE) decreased from 90 in 2014 to 42 in 2015 (until September 2015). However, the cases of Acute Encephalitis Syndrome (AES) increased from 35 in 2014 to 143 in 2015.

**Figure 12.15: Year-wise AES/JE Cases**



Source: Department of Health & Family Welfare, Government of Jharkhand, State RCH Office.

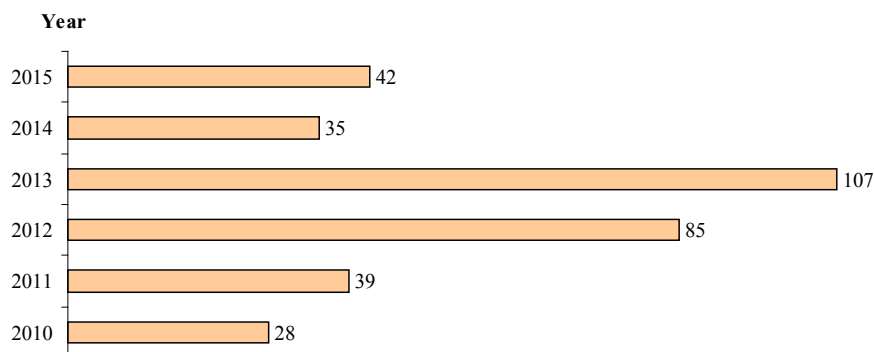
The government is taking several initiatives to reduce the cases of AES/JE. The government is administering JE vaccination through Routine Immunisation (RI) in children between 9 to 12 months (1st dose) and 16 to 24 months (2<sup>nd</sup> dose) of age in four districts of Jharkhand, namely Palamu, Giridih, Pakur & East Singhbhum. Vaccination is planned in four more districts of the state, Ranchi, Jamtara, Sahibganj and West Singhbhum. The government is preparing to

administer the next round of vaccination in East Singhbhum and Saraikela.

### Dengue Situation

As shown in Figure 12.16, incidence of dengue increased from 35 in 2014 to 42 in 2015 (until September 2015). Continuous rain and blocked drains make the situation even worse. The government needs to devise ways to fight dengue cases in the state.

**Figure 12.16: Year-wise Dengue Cases**



Source: Department of Health & Family Welfare, Government of Jharkhand, State RCH Office.

### HIV/AIDS

In order to prevent and reverse the epidemic of HIV/AIDS in India, the Government of India has launched the National Aids Control Programme (NACP) in 1992. NACP Phase-IV (2012-2017) launched to speed up the process of reversal and further support the epidemic response in India with a special focus on High Risk Groups (HRG) and vulnerable population. The objectives of the programme are to reduce new infections and provide complete care, counselling, and support to people affected by HIV/AIDS.

In Jharkhand, percentage prevalence of HIV/AIDS is low in comparison to the rest of the country. But Jharkhand is considered as a highly vulnerable state. As presented in Table 12.20,

nearly 17 percent adults aged 15-45 years estimated to get HIV infections in 2015, lower than the national average of 26 percent adults in the same age group. In the same year, an estimated 34,386 adults and children suffer from HIV infections in the state. Although the incidence of new HIV infection in individuals aged 15 years and above in India is estimated to have gone down from 77,351 in 2014 to 75,948 in 2015, but the incidence of new HIV infections in Jharkhand has gone up from 1,885 in 2014 to 1,910 in 2015. However, the number of AIDS related deaths is estimated to have decreased in 2015 from the previous two years (2013 and 2014) both at the national level (from 76,494 in 2014 to 67,612 in 2015) and at the state level (from 1,366 in 2014 to 1,355 in 2015).

**Table 12.20: Estimated Number of HIV/AIDS Infection and AIDS Related Deaths in Jharkhand**

	Jharkhand			India		
	2013	2014	2015	2013	2014	2015
Adult(15-45 years) % Prevalence	17	17	17	27	27	26
Number of HIV infections (Adult & Children)	32,299	33,835	34,386	2,127,958	2,119,881	2,116,581
Estimated number of New HIV infections (15+ years)	2,031	1,885	1,910	78,613	77,351	75,948
Number of annual AIDS related deaths	1,243	1,366	1,355	87,946	76,494	67,612

**Source:** India HIV Estimations 2015 (Technical Report), National AIDS control Organization & National Institute of Medical Statistics, 2015 estimates

In Jharkhand, Integrated Counselling and Testing Centres (ICTCs) are set up to conduct HIV diagnostic tests, provide basic information on the modes of HIV infection transmission, promote behavioral changes to reduce vulnerability, and to link people with other HIV prevention, care, and treatment services. Clients may visit an ICTC based on her/his free will (client-initiated visit) or a clinician may offer HIV counselling and testing services to patients under her/his care (provider-initiated visit).

According to the data from Jharkhand State Aids

Control Society (JSACS) on ICTCs (March 2014-15 to April 2014-15), almost 23,500 clients (excluding pregnant women) received client initiated pre-test counselling or information and 92,529 clients (excluding pregnant women) received provider initiated counselling or information. Nearly 23,810 clients and 90,873 clients were tested for HIV infections under client and provider initiated visits, respectively. After three HIV tests, 1,896 clients were diagnosed with HIV positive. A total of 2,816 clients and 5052 clients, respectively, received follow-up

counselling under client and provider initiatives. Among pregnant women, a total of 35,633 and 25,968 pregnant women, respectively, received pre and post-test counselling during ANC and labour. Thirty-five-thousand-ninety-seven women tested for HIV during ANC and labour and 6,493 diagnosed of having HIV infections in their first, second, and third trimesters of pregnancy.

### Revised National Tuberculosis Control Programme (RNTCP)

Revised National Tuberculosis Control Programme (RNTCP) is a state-run tuberculosis

(TB) programme of the Government of India. The programme has the vision of achieving a “TB free India”, and targets at achieving universal access to TB control services.

As evident from Table 12.21, total number of examination of patients suspected with TB increased from 14 lakhs in 2014 to 15.4 lakhs in 2015 (until September 2015). Total 4.21 lakh cases notified for treatment. Number of patients with drug resistance examined for TB also increased from 6,900 in 2014 to 8,028 in 2015 with 708 patients undergoing treatment in 2015.

**Table 12.21: RNTCP: Programme Performance**

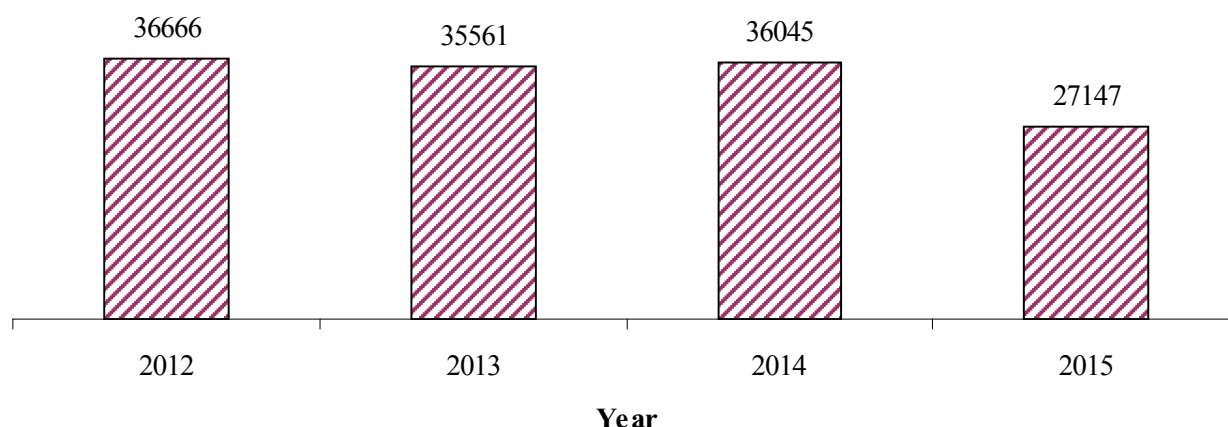
Indicators	2014	2015
TB Suspect Examined	14 lakhs	15.4 lakhs
Total TB cases notified for treatment	3.94 lakhs	4.21 lakhs
Drug Resistant TB Suspects Examined	6900	8028
Drug Resistant TB patients put on treatment	642	708

Source: Department of Health & Family Welfare, Government of Jharkhand, State RCH Office.

As presented in Table 12.17, total reported cases of TB declined from 36,045 in 2014 to 27,147 in 2015. In addition, the government has made

TB notification mandatory in online portal ([www.nikshay.gov.in](http://www.nikshay.gov.in)).

**Figure 12.17: Total Reported Cases of Tuberculosis**



Source: Department of Health & Family Welfare, Government of Jharkhand, State RCH Office.

### National Leprosy Eradication Programme (NLEP)

National Leprosy Eradication Programme

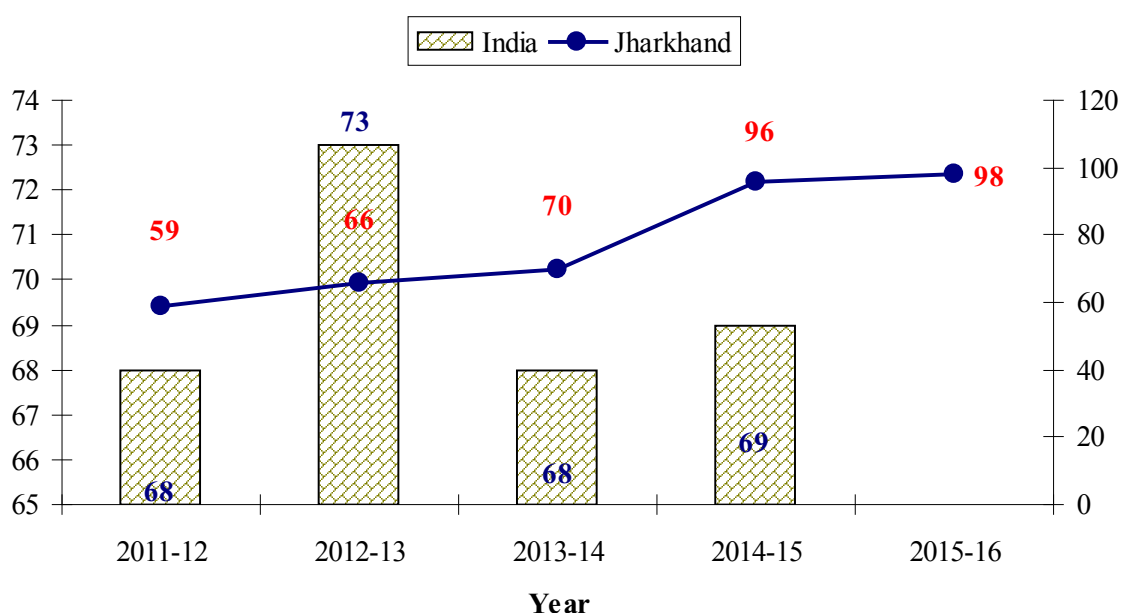
(NLEP) is a centrally sponsored health scheme of the MoHFW, GOI. While the strategies for NLEP are planned centrally, but the programme

is executed by the states and the union territories.

Leprosy prevalence rate in India has declined from 73 cases per 10,000 populations in 2012-13 to 69 cases per 10,000 populations in 2014-15. However, the state has experienced an increase

in the leprosy prevalence rate from 66 cases in 2012-13 to 96 cases in 2014-15 and 98 cases per 10,000 population in 2015-16 (till September). The government attributes this increase in leprosy prevalence rate to active search since January 2015. Figure 12.18 supports this claim.

**Figure 12.18: Leprosy Prevalence Rate (PR) in India & Jharkhand (PR/10,000 Population)**



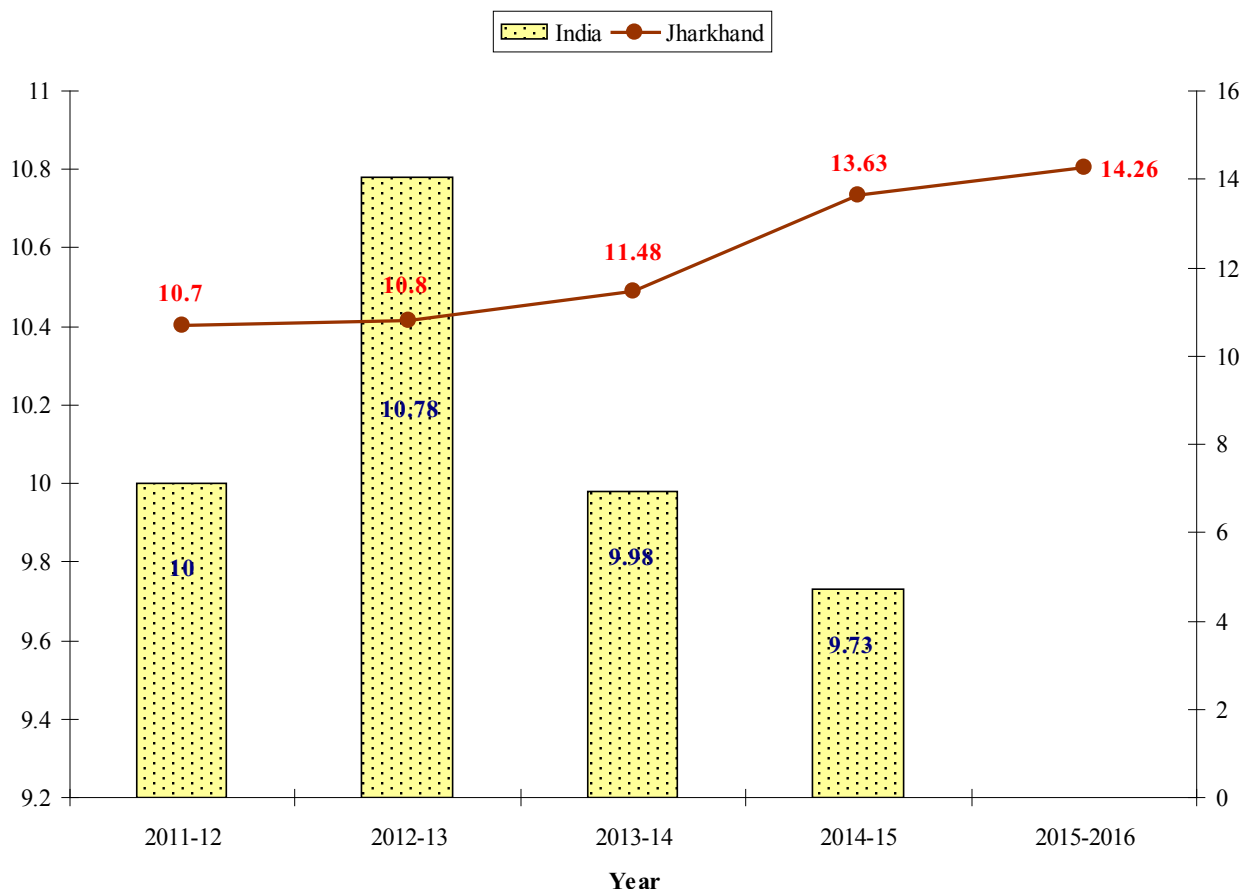
**Source:** Department of Health & Family Welfare, Government of Jharkhand, State RCH Office.

Figures for India are given in blue and for Jharkhand in red.

The trend in Annual Case Detection Rate (ANCDR) of NLEP in Figure 12.19 shows that ANCDR for NLEP has a decreasing trend for India. In 2012-13, the ANCDR for India was 10.78 cases per 100,000 populations, which

decreased to 9.73 cases per 100,000 populations in 2014-15. While for Jharkhand, the ANCDR in 2012-13 was 10.8 cases per 100,000 populations, which increased to 13.63 cases in 2014-15 and 14.26 cases per 100,000 populations in 2015-16 (until September 2015).

**Figure 12.19: Leprosy Annual Case detection Rate (ANCDR) in India & Jharkhand (ANCDR per 100,000 Population)**



**Source:** Department of Health & Family Welfare, Government of Jharkhand, State RCH Office.

Figures for India are given in blue and for Jharkhand in red.

### National Blindness Control Programme (NBCP)

National Programme for Control of Blindness launched in the year 1976 is a 100 percent centrally sponsored scheme with the goal to reduce the incidence of blindness in India.

As shown in Table 12.22, total 8,859-cataract surgery conducted out of a total target of 1, 14,000 cases in 2015-16 (until September 2015). The achievement for 2014-15 shows that out of a total target of 1,02,600 school children for eye

examination, a higher number of 7,32,824 school children examined for eye problems and out of a total 15,000 children targeted for free distribution of spectacles, only 6,000 children received free spectacles in schools. Whereas in 2015-16, out of a total target of 11,11,000 school children, a total of 2,65,036 eye examinations already conducted in schools and out of a total target of 20,000 free spectacle distribution, 2,327 spectacles already distributed among school children. Nearly 85 vision care centres were functional in 2014-15 and procurement of an additional 30 vision care centres are in progress in 2015-16. There was one eye-banking centre in PMCH, Dhanbad in 2014-

15, another eye-bank centre is in the process of opening in MGM, Jamshedpur in 2015-16.

**Table 12.22: National Blind Control Programme (NBCP) Activity and Achievement**

Activity	2014-15		2015-16	
	Achievement	Target/ Remarks	Achievement	Target/ Remarks
Cataract surgery with IOL	77683	114000	8859	114000
School Eye Screening				
Total Examined	732824	102600	265036	1111000
Free Spectacles Distributor	6000	15000	2327	20000
Vision Centre	85 functional	30	Procurement for 30 in process	To be spent
Eye Banking	PMCH Dhanbad	1	MGM, Jamshedpur	In Process

Source: Department of Health & Family Welfare, Government of Jharkhand, State RCH Office.

National Programme for Prevention and Control of Cancer, Diabetes, Cardiovascular Diseases, and Stroke (NPCDCS)

**National Programme for Prevention and Control of Cancer, Diabetes, Cardiovascular Disease & Stroke (NPCDCS)**

As presented in Table 12.23, from April 2011 to September 2015, the number of persons screened for diabetes was highest in Ranchi (1,391,599) and lowest in Latehar (584) district of Jharkhand.

Nearly, 68,172 people in Ranchi and 60 people in Latehar suspected with diabetes (level >140). Number of hypertension (level > 90) cases detected was also high in Ranchi (74,569) and low in Latehar (21). Whereas, out of the total number of persons screened for diabetes in each district, the highest number of people detected with diabetes was from Latehar (10.27%) and lowest from Ranchi (4.9%). Maximum number of cases detected with hypertension were from Deoghar (10.06%), whereas the minimum number being from Latehar (3.6%).

**Table 12.23: NPCDCS Programme Physical Status/Achievement (Screening report of Diabetes and Hypertension) (April 2011-September 2015)**

Districts	No. of persons Screened	Suspected for Diabetes (>140)	Hypertension (>90)	% of Diabetes	% of Hypertension
Bokaro	391585	32416	38595	8.28	9.86
Dhanbad	455443	42215	31642	9.27	6.95
Ranchi	1391599	68172	74569	4.9	5.36
Deoghar	83608	6122	8415	7.32	10.06
Latehar	584	60	21	10.27	3.6
Total	2322819	148985	153242	6.41	6.6

Source: Department of Health & Family Welfare, Government of Jharkhand, State RCH Office.



## Quality Assurance

Along with providing accessible and affordable health care, quality assurance in health care is also crucial for better quality delivery of health care services. Quality improvement programmes in public health care facilities work through a network of Primary Health Centres (PHCs), Community Health Centres (CHCs), District Hospitals and Medical Colleges. Quality assurance has two components, quality assessment and quality improvement. Quality assessment helps in identifying the gaps in performance of PHCs/CHCs and health workers, whereas quality improvement helps in reducing these gaps.

In FY 2015-16, a State Quality Assurance Committee (SQAC) formed in Jharkhand. Following GOI guidelines, the District Quality Assurance Committee (DQAC), District Quality Assurance Unit, and District Quality team were also formed. So far, three SQAC meetings held in the state. Two districts, Gumla and Jamshedpur selected as modal districts and 5 CHCs, 25 PHCs and 50 HSCs selected as modal health facilities. In addition, five District Hospitals selected for national level certification and 14 District Hospitals for state level certification. Finally, 227 facilities have deep burial pit, 229 facilities have sharp pit and 10 facilities have incinerators

## KAYAKALP

Cleanliness and hygiene in hospitals are essential for preventing the spread of infections and thus incidence of infectious diseases. Therefore, it is important to keep all health care facilities clean and adhere to infection control practices. In recognition of such efforts of ensuring quality assurance at public health facilities, the Ministry of Health & Family Welfare, Government of India, has introduced a national initiative to give awards 'KAYAKALP' to those public health facilities that exhibit high levels of cleanliness (including waste management and bio-waste disposal), hygiene and infection control. The

idea of KAYAKALP is to promote cleanliness, hygiene, and control infection in public health care facilities by identifying facilities that show excellent cleanliness and hygiene maintenance performance by incentivizing these facilities through recognition and awards. Under KAYAKALP, first rank and second rank awardees at District Hospital will receive a sum of Rs. 50 lakhs and Rs. 20 lakhs, respectively. While Rs.15 lakhs and Rs. 10 lakhs will be given to community health centres/sub-district hospital for maintaining cleanliness and hygiene in these health centres. Under this scheme, winners at the PHCs will receive a sum of Rs. 2 lakhs. In FY 2015-16, state level workshops were conducted to promote cleanliness, hygiene, and infection control. A State Award Nomination Committee also formed. District Award Nomination Committee and hospital cleanliness and infection committee formed in six districts of the state. Finally, a baseline assessment of 23 District Hospitals was conducted.

## Health care financing through Rashtriya Swasthya Bima Yojna (RSBY)

According to the National Sample Survey (NSS) 71<sup>st</sup> round (2014), 86 percent of the rural population and 82 percent of urban population in India were not covered under any health insurance scheme in 2014. The survey found that poor households in both the rural and the urban areas are especially deprived of any health insurance coverage. Government was able to cover only 13 percent rural population and 12 percent urban population under its health insurance scheme, Rashtriya Swasthya Bima Yojna (RSBY). This scheme launched by the Ministry of Labour and Employment, Government of India, and came into force in April 01, 2008. The objective of RSBY is to protect below poverty line (BPL) households from huge out-of-pocket expenditure due to sudden health shocks that involve

hospitalization. If BPL families register for the scheme with a bare minimum fee of Rs. 30, then they are entitled for more than 700 in-patient procedures with total health care cost coverage of up to Rs. 30,000 per year. Unlike many private health insurance schemes in India, RSBY even covers pre-existing conditions with no maximum age bar. RSBY coverage extends to the head of the household, spouse and up to three dependent children or parents. RSBY smart cards are given to the households for use during health care visits. On April 1, 2015, RSBY was transferred to the Ministry of Health and Family Affairs, GOI.

As shown in Table 12.24, out of the total 39, 68,109 families in Jharkhand targeted for RSBY enrolment, 17,14,552 families enrolled in 2013. A total of 279 private hospitals and 156 public hospitals were empanelled under RSBY in the same year. The maximum numbers of RSBY covered households were from the districts of

Giridih (1, 19,727) and Ranchi (1, 15,375) and the minimum number from the district of Kodarma (22,292). Palamu had the highest number (16) of public hospitals empanelled under RSBY followed by Dumka (14), whereas only one public hospital empanelled from Gumla and two from Giridih and Pakur each. Fifty private hospitals empanelled under RSBY from Palamu. Only three private hospitals from each district of Dumka, Garhwa, Giridih, and Gumla empanelled under RSBY. Therefore, in 2013, overall empanelment of both public and private hospitals was highest in the district of Palamu (66). Gumla (4) and Giridih (5) had the lowest number of total empanelled hospitals. Therefore, although in 2013 maximum number of households were enrolled under RSBY from Giridih, but very low number of hospitals were empanelled under RSBY in this particular district of the state, showing a need for higher empanelment of hospitals for better care.

**Table 12.24: District-Wise RSBY Coverage**

S.No.	District	Total Target Families		Hospitals Empanelled	
		Total	Enrolled	Private	Public
1	Bokaro	137735	67223	13	13
2	Chatra	162094	59784	7	6
3	Deoghar	165638	77302	13	6
4	Dhanbad	172582	100554	25	7
5	Dumka	197424	92086	5	2
6	Garhwa	273138	110316	19	5
7	Giridih	267498	119727	16	-
8	Godda	153775	59954	5	8
9	Gumla	122837	60689	6	5
10	Hazaribag	148178	96956	17	12
11	Jamtara	120333	70326	3	1

S.No.	District	Total Target Families		Hospitals Empanelled	
		Total	Enrolled	Private	Public
12	Khunti	71452	27783	4	6
13	Kodarma	58560	22292	6	7
14	Latehar	119606	52624	7	12
15	Lohardaga	69088	27533	4	5
16	Pakur	149056	50452	6	6
17	Palamu	322050	104536	28	4
18	Pashchimi Singhbhum	214591	85713	3	14
19	Purbi Singhbhum	225872	88023	12	4
20	Ramgarh	104216	54382	14	4
21	Ranchi	254896	115375	50	16
22	Sahibganj	171919	56601	3	7
23	Saraikela	193542	86107	10	4
24	Simdega	92029	28214	3	2
	<b>Total</b>	3968109	1714552	279	156

**Source:** online source, retrieved from <http://www.rsby.gov.in/Statewise.aspx?state=30> on January 23, 2015

According to the latest information (2015) from the State Nodal Agency (SNA) RSBY, GOJ, total three insurance service providers (Cholmandalam MS General Insurance, Star Health and Allied Insurance, and ICICI Lombard General Insurance) are working in Jharkhand. Total 215 public hospitals empanelled under RSBY. This shows an increase of total 59 public hospitals from 2013. The number of families enrolled under RSBY also increased from 17, 14,552 in 2013 to 18, and 10,047 in 2015. Only 4.13 percent families benefited from the total 74,732 claims raised in 2015. A large number (21.69%) of claims are still pending and 5 percent claims rejected so far.

In order to reduce out-of-pocket health care

expenditure of the families and encourage them to enroll under RSBY, the state needs not only to increase the enrolment in RSBY, but also the coverage and approval of the claims. With the objective of spreading knowledge and awareness about RSBY to increase its uptake and utilization, the Poorest Areas Civil Society (PACS) in collaboration with Jharkhand State Labour Welfare Society (JASLAWs), GOJ, launched RSBY Mitras in the districts of Chaibasa and West Singhbhum in 2014. RSBY Mitras are community level facilitators chosen from the local community members and some among the PACS CBO members. These facilitators exclusively trained to enable the community to increase their enrolment in RSBY by providing

access and information on RSBY and the required support in the utilization and uptake of RSBY services and entitlements. Total 400 members in the two districts of West Singhbhum and Sahebganj are already working as RSBY Mitras. Moreover, mobile-based RSBY helpline also piloted with the aim to provide people with a platform to submit their grievances in the access and utilizing of RSBY smart cards. The data generated through the grievance system will help the service providers and the government to improve implementation of RSBY in the state.

### **New Initiatives undertaken by the Government of Jharkhand in FY 2015-16**

The government has taken several new initiatives to improve health of people in the state. Some of these new initiatives are as follows:<sup>20</sup>

- To provide mother and child kit (“Janani evam Shishu Kit”) to the families of all newborn babies and all mothers who deliver in government health facilities.
- To build special health care centres for rape and gender based violence victims in Ranchi & Dumka.
- The government has started palliative care homes in all Divisional Hospitals, which run through Non-Governmental Organizations (NGOs)/ community participation.
- The government has also initiated the process of providing hospital dress for all inpatients.
- Established a state urology & nephrology centre and a State Diabetes Care Centre in Ranchi.
- Created a hospital management information system and a software based disability

certification system.

- Keeping in mind the cleanliness and hygiene initiatives of the country, the government has constructed a central bio-medical waste disposal unit in Ranchi (Jhiri) and centralized sterilization and laundry system in all Divisional Hospitals and Medical Colleges & Hospitals.
- Jharkhand has a large population of tribals. Therefore, focusing on the tribals, the government has introduced a special health care package for the primitive Tribes.
- It has also initiated construction of new buildings for 200 Health Sub-Centres (HSCs), 50 Primary Health Centres (PHCs), 10 Community Health Centres (CHCs) and 50 AYUSH dispensaries.
- There is a plan for construction of a 500-bedded hospital within campus of Mahatma Gandhi Medical College, Jamshedpur.
- The government has put in place new ambulance services for 12 Sub-Divisional Hospitals (SDH), and 100 CHCs.
- New buses to run for Patliputra Medical College & Hospital (PMCH) and Mahatma Gandhi Medical College & Hospital (MGMCH).
- It has a plan to build Intensive Care Units (ICU) in the remaining 20 District Hospitals.
- In order to develop health human resource, the Government Pharmacy Institute at Bariatu, Ranchi is offering a B. Pharma course. In addition, a B.Sc. community health course has been included in the undergraduate curriculum.
- Government is also providing two wheeler medical mobility facilities for supervisory staff at CHCs.
- It has also initiated the scaling up of model

<sup>20</sup> Source: Annual Health Plan 2015-16, Department of Health, Medical Education, and Family Welfare, Government of Jharkhand

health centres.

- Acknowledging the important of Public-Private-Partnership (PPP) in health service delivery, the government has planned to run selected MCHs/CHCs on PPP mode.
- In order to bridge the Infrastructure gap, the government has planned to increase the number of undergraduate seats to 150 in

PMCH and MGMCH and 250 in Rajendra Institute of Medical Sciences (RIMS).

- The government has also planned to build a medical college and hospital at Karma in Koderma.

Additional government activities in FY 2015-16, their targets and status are summarized in Table 12.25.

**Table 12.25: New Activities/Initiatives of GOJ in FY 2015-16**

Activity summary	Target/ Focus
Procurement of Vit. A for Jharkhand Matri Shishu Swasthya evam Poshan Maah	Children (9 months – 5years)
Free Diagnostic System through PPP mode	All District Hospitals
Biomedical equipment maintenance AMC	All health facilities except HSCs
Initiation of establishment for DVDMIS with assistance of C-DAC	Logistic Management / Supply chain
Institutionalization of Supportive Supervision Check-list provided by MoHFW, GoI	All health facilities
Establishment of Model Health Facilities 5 CHC 25 PHC & 50 HSCs	80 selected health facilities
Nirmala General - Leprosy RCS Hospital, Govindpur, Dhanbad nominated for surgery of Disabled Patients	Disabled Patients
Introduction of Pentavalent Vaccine	Children (up to 1 years)
Mission Indradhanush in 11 districts	Left Out Children under 2 Years
IEC/BCC through Folk Media	11 High Priority Districts
Signing of Memorandum of Understanding (MoU) with National Health System Resource Centre (NHSRC) for recruitment of Vacant NHM Positions	1135 Posts
Signing of MoU with National Institute of Health and Family Welfare (NIHFW) for conducting Trainings in Institute of Public Health	Medical Officers (MOs) & Paramedical Staff
MoU has been signed with Ziqitza Health Care Limited for operationalization of 108 Ambulance Service	All Districts
Purchase order for supply of 289 BLS & 40 ALS been placed.	
451 Health Camps Organised	35013 Beneficiaries
Establishment of State level Iodine Laboratory for salt test	All Districts
Establishment of Geriatric Ward and 4 Bedded Cardiac Care Unit at PMCH	Elderly Patient

Activity summary	Target/ Focus
Introduction of single dose Ambisome drug for Kala-azar Patient	Kala-azar Patient
Establishment of 12 new TB Unit & 6 New Designated Microscopy Centre	TB Patient

**Source:** Annual Health Plan 2015-16, Department of Health, Medical Education, and Family Welfare, Government of Jharkhand

The following innovations and good practices have been followed by the government:

- “Mamta vahan” – its free referral facilities for all pregnant women for delivery and for one-year-old sick newborn babies.
- “Sahiya help desk” – In district hospital for managing sahiya’s.
- “Scooty distribution” – In every district, one best sahiya will be awarded with one two wheeler (Scooty).
- ANM incentive for Mother Child Tracking System updating through USSD (approved by GoI in FY 2014-15).
- ASHA/Sahiya Website Development, Deployment and Maintenance FY 2014-15.
- Universal Health Coverage (pilot) approved by GoI in FY 2014-15

- Establishment of State Blood Cell at State Head quarter , approved in FY 2015-16 by GoI.
- State Quality Assurance Committee (SQAC) formed to monitor quality of health services.

### Conclusion

The Department of Health, Medical Education, and Family Welfare, Government of Jharkhand, has taken up several initiatives to improve the health of people in Jharkhand. If the government can successfully implement the policies and schemes formulated in FY 2015-16 and constantly monitor and evaluate the progress of these initiatives, then the state is expected to experience a remarkable change in the its public health system and condition.

# 13

## **Drinking Water and Sanitation**

*Universal access to clean water and sanitation is one of the 17 Global Goals that make up the 2030 Agenda for Sustainable Development. Linked with malnutrition stunting and such malaise, the central and the state governments are also leaving no stones unturned in moving towards achieving this SDG. At all India level we saw a central release of Rs.6749 crores and combined state release of Rs.4930 crores for all program funds dedicated to the drinking water and sanitation department including NRDWP and SBMG. The department of Drinking water and sanitation in the state of Jharkhand received a central release of about 84.39crores and a state release of 138.46 crores for rural drinking water and sanitation program.*

*In a nutshell the state received 2.28 percent of Central NRDWP release. The state expend was only 57.47 percent as against the national average expend of 65.51 percent. A state wise break up reveals that Jharkhand spent 75.49 percent of the state release funds as against the national average of state release expend of 47.31 percent.*

*Vis-a'-vis the SBMG program- the state has overreached its expend at 243.96 percent as against the national state average of 94.1 percent. This is an indicator of the momentum of activities under this program during 2015-16 which will be discussed in the sections to follow.*

The state rural drinking water and sanitation program also has made commendable progress in some directions such as installation of water quality testing labs in all 24 districts and provision of water to all government run schools. However much still needs to be done in provision of piped water supply where the state figure reads a dismal 10.41 percent as against the national average of 40.81 percent.

There is a growing need to address the twin problem of sustainability of water resource and water quality and the approach over the past few decades has shifted from a government

driven supply oriented approach to people oriented demand responsive approach to ensure community participation for sustainability. The state government while imbibing this philosophy has gradually devolved roles and responsibilities to the Gram Panchayats which will be explained in the sections that follow.

The health burden of poor water quality and sanitation mechanisms is enormous and an estimated 37.7 million Indians die of water borne diseases annually in India out of which 15 million are children who die due to diarrhoea. Further an estimated 73 million working days are lost each year resulting in an economic burden of 600 million U.S. dollars each year (**“Drinking water quality in rural India: Issues and Approaches”**- Indira Khurana and Romit Sen, Water Aid).

The chapter is divided into two broad sections – rural drinking water and sanitation program and urban drinking water and sanitation program.

## **Section A: Rural Drinking water supply and Sanitation**

The department of drinking water and sanitation has two umbrella programs- the National Rural Drinking Water Program (NRDWP) and the Swacch Bharat Mission- Gramin (SBMG)

### **NRDWP: National Rural Drinking Water Program**

The table below presents the central and state funds released for rural drinking water supply programs in the state. Matching the historical trends we find that once again lowest share of the central and state release has been towards drinking water and sanitation programs for the schedule caste population, 10.69 percent, while the general category population get the lion's share of 73 percent and the rest has gone to the schedule caste population. The centre and the state governments have released about Rs.114 and 138 crores respectively for the state's rural drinking water supply programs. Both the central



and state funds have been comparatively low as compared to 2014-15 and 2013-14.

To put the figures in a slightly different perspective-when making allocation by caste category we need to remember that at least in the context of

Jharkhand it is more about equitable rather than proportional allocation. Looking at the historical trends at least in the past five years we find this missing especially for Central allocation.

**Table 13.1: Consolidated Financial progress 2015-16**

Financial Progress Program funds (Rs in Crore) as on 19/01/2016:						
Year	Opening Balance	Central Allocation	Central Release	State Release	Exp(Central) of avl Central fund	% Exp(Central) of avl Central fund
2010-2011	85.3	157.63	129.95	119.84	127.92	59.43
2011-12 Total	87.33	149.22	140.82	205.69	167.4	73.37
2011-12 SC	15.72	29.99	31.89	39	30.7	64.47
2011-12 ST	24.45	45.62	44.42	57.93	46.45	67.45
2011-12 GEN	47.16	73.61	64.51	108.76	90.25	80.82
2012-13 Total	65.11	171.18	263.64	208.61	196.1	59.65
2012-13 SC	11.72	32.98	46.61	37.57	35.78	61.34
2012-13 ST	18.23	51.79	73.17	58.34	54.43	59.55
2012-13 GEN	35.16	86.41	143.86	112.7	105.89	59.15
2013-14 Total	119.61	153.85	237.33	327.51	266.87	74.76
2013-14 SC	20.87	26.4	39.01	58.95	51.26	85.59
2013-14 ST	45	47.8	70.64	91.73	80.41	69.54
2013-14 GEN	53.75	79.65	127.69	176.83	135.2	74.52
2014-15 Total	84.33	151.26	187.48	408.58	195.51	71.93
2014-15 SC	8.12	22.64	22.53	60.97	29.88	97.49
2014-15 ST	21.86	47.5	47.27	129.22	59.5	86.07
2014-15 GEN	54.36	81.12	117.67	218.39	106.14	61.7
2015-16 Total	70.28	0	114.16	138.46	78.38	42.5
2015-16 SC	10.56	0	12.21	23.59	14.25	62.57
2015-16 ST	22.02	0	18.54	41.95	23.84	58.76
2015-16 GEN	37.69	0	83.41	72.92	40.34	33.31

Source: mdws.gov.in

The table below captures the trends in Central and state fund allocation release and expenditure on support activities carried out by the Drinking water and sanitation department vis-a-vis the rural drinking water supply programs.

The support activities are the backbone of a strong and healthy water supply system and include awareness creation through trainings and workshops, providing hardware and software support for MIS to bring in more accountability

and various other activities under water quality maintenance and surveillance (WQM & S) such as IEC and HRD, supply of field test kits (FTKs) and setting up and maintaining the water quality testing labs.

As on 21-01-2016- expenditure has been very low as compared to the past five years. With the financial year approaching the end, we do not expect any major pick up in this trend.

**Table 13.2: Financial progress of support activities 2015-16**

Financial Progress Support Activities (Rs in Crore) as on 19/01/2016:						
Year	Opening Balance	Central Allocation	Central Release	State Release	Exp(Central) of avl Central fund	% Exp(Central) of avl Central fund
2010-2011	4.52	8.3	0	0	0.27	6.06
2011-2012	4.3	7.79	4.32	0	2.44	28.34
2012-2013	6.18	12.92	0.51	0	5.76	86.04
2013-2014	1.59	11.88	10.08	0	8.72	74.71
2014-2015	4.46	11.62	6.73	0	7.89	70.48
2015-2016	5.57	0	2.67	0	4.14	50.26

Source: mdws.gov.in

The table below is a snapshot of the support activities undertaken during 2015-16. The table points to at least two areas crying out for attention- training of water and sanitation committee members and water quality testing. As a matter of fact only 7 water quality tests using FTKs were done in this financial year and all were in the district of Ramgarh. 6 of these tests were done for chemical contamination and one for bacterial.

**Table 13.3: Physical progress in Water quality maintenance and surveillance (WQM&S)**

RFD Targets and Achievements (up to 19/01/2016) 2015-2016:	
Activity	Achievement
No. of Persons to be Trained for water quality testing using FTKs	0
No. of water quality tests done in labs	34735
No. of water quality tests done using FTKs	7
No. of Sub division Labs set up	0
Provision of Water Supply in Schools	888
No of Sustainability structures constructed	19
No PWSS handed over to panchayats	168
No. of VWSC members Trained	0

Source: mdws.gov.in

The table below on district wise break up for laboratory water testing done indicates that approximately 34594 sample sources were

tested for contamination with Garhwa, West Singhbhum, Ramgarh and Hazaribagh leading in the number of tests done. There was no VWSC trainings conducted in the financial year 2015-16. This should also be a priority area since the onus of use and maintenance should always be on the end user for long term sustainability.

**Table 13.4: District wise water quality testing – Laboratory during 2015-16**

District	Total Sources Tested	Total Samples Tested
BOKARO	255	255
CHATRA	2215	2217
DEOGHAR	500	502
DHANBAD	1070	1073
DUMKA	797	797
GARHWA	4274	4395
GIRIDIH	343	351
GODDA	2043	2377
GUMLA	1364	1388
HAZARIBAG	2460	2509
JAMTARA	987	989
KHUTI	1691	1770
KODERMA	417	449
LATEHAR	1178	1523
LOHARDAGA	945	1001
PAKUR	2197	2232
PALAMU	730	770
PASCHIM SINGHBHUM	2729	2751
PURBI SINGHBHUM	187	197
RAMGARH	2645	2664

District	Total Sources Tested	Total Samples Tested
RANCHI	651	652
SAHIBGANJ	1872	1878
SAREIKELA AND KHARSAWAN	1064	1071
SIMDEGA	780	783
<b>TOTAL</b>	<b>33394</b>	<b>34594</b>

Source: mdws.gov.in

### Box 13.a : Accreditation of government owned water testing laboratory

The state has recently applied to the National Accreditation Board for Testing and Calibration Laboratories (NABL) for accreditation of its government owned water testing laboratory in Ranchi district. Once approved this will be a major step forward for the state in water quality monitoring and surveillance (WQMSP) program. We hope going forward all the 24 such laboratories in the state will get NABL accreditation.

The department has made concerted efforts to reach out to minority sections of the society which is detailed in the table below. Seemingly the priority was the hitherto partially covered districts followed closely on the heels by the districts affected with left wing extremism which are sensitive and therefore difficult to reach. However the rate of achievement against the target mandated against each category calls for faster momentum. There was no action in the water-quality affected districts. According to department statistics there are only 33 water quality affected (contamination wise- fluoride-arsenic-nitrate-iron and salinity) habitations in the state as on 01-01-2015.

**Table 13.5: Habitation wise physical progress during 2015-16**

Physical Progress during 2015-16 as on 19/01/2016:		
Particulars	Target Marked Habitations	Achievement
Partially Covered	3645	1341
Quality Affected	0	0
Minority Districts	413	190
Minority Blocks	542	254
LWE Districts	2360	751
SC Dominated	231	144
ST Dominated	1410	574

Source: mdws.gov.in

We delved deeper in each of the minority categories to get the outreach to the number of habitations and the results are presented in the table below. These numbers present the achievement since the inception of various rural drinking water supply schemes. A particular habitation may be covered in more than one category or may not be included in any of them. The worst hit LWE districts present their own issue specific difficulties making any intervention effort arduous. However we are making progress and fast at that.

**Table 13.6: Coverage of SC/ST/Minority Habitations (as on 21/01/2016):**

Coverage Of SC/ST/Minority Habitations (Coverage as on 19/01/2016):		
Particulars	Total Habitations	% Coverage
SC Concentrated Habitations	11105	99.25
ST Concentrated Habitations	55352	96.04
Habitations in Minority Concentrated Districts	17573	99.83
LWE Concentrated Habitations	82941	96

Source: mdws.gov.in

We compared the percentage coverage of habitations in the state with the national figures and the results are presented below. We outperform the national figures only for habitations covered

by hand pumps and bore wells. And even then the functionality of the installed hand pumps is questionable. A look at the habitations covered by Piped water supply schemes (PWSS) is discouraging since we have achieved only 10.91 percent coverage as against the national average of 40.81 percent. Piped water supply is a crucial need not just to ensure easy access to cleaner and safer water but also to encourage people to use toilets at home.

**Table 13.7: Comparing State and Nation in Piped water supply scheme**

Scheme Details as on 19/01/2016:		
Particulars	State Percentage	India Percentage
Habitations covered by PWSS	<b>10.91</b>	40.81
Habitations covered by Hand pumps / Bore wells	84.72	51.26
Habitations covered by Others	1.33	2.71
Habitations where scheme detail Not entered in IMIS	3.04	5.21
Total	100	100

Source: mdws.gov.in

The table below shows district wise coverage with piped water supply. Piped water supply (PWS) schemes are complete in about 12018 habitations while 1501 habitations have schemes underway. We must bear in mind that there are 119667 habitations in India and so we indeed have miles to go before we sleep.

**Table 13.8: District wise coverage for Piped water supply schemes**

District	Number of Habitations with Piped Water Supply Schemes			
	With Ongoing Schemes	With Completed Schemes	With New Schemes	Total
Bokaro	76	614	0	658
Chatra	6	410	0	415
Deoghar	0	364	0	364
Dhanbad	68	297	0	343
Dumka	342	<b>1427</b>	0	1662

District	Number of Habitations with Piped Water Supply Schemes			
	With Ongoing Schemes	With Completed Schemes	With New Schemes	Total
Garhwa	87	534	0	574
Giridih	23	684	0	698
Godda	58	449	0	451
Gumla	24	540	0	553
Hazaribag	44	462	0	483
Jamtara	0	155	0	155
Khuti	31	326	0	349
Koderma	88	<b>50</b>	0	130
Latehar	9	221	0	225
Lohardaga	3	159	0	161
Pakur	39	243	0	269
Palamu	372	420	0	715
Paschim Singhbhum	4	<b>2717</b>	0	<b>2718</b>
Purbi Singhbhum	57	433	0	476
Ramgarh	11	162	0	169
Ranchi	65	685	0	738
Sahibganj	5	275	0	276
Sareikela And Kharsawan	86	208	0	273
Simdega	3	183	0	184
Total	1501	12018	0	13039

Source: mdws.gov.in

**JALMANI:** The Jalmani scheme was launched for installation of standalone water purification systems in rural schools to provide safe and clean drinking water to school children. However the scheme saw no fund release during the financial year 2015-16. The table below shows the consolidated achievements as on 19/01/2016. The scheme experienced no activity in 2015-16. A plausible reason could be that the structures created so far have been rendered non functional due to either poor quality of the structure or lack of maintenance or both. The Jalmani scheme has so far been unsuccessful in its implementation in the state.

**Table 13.9: Status of Jalmani scheme**

Jalmani Achievement up to 19/01/2016:			
Released Amount (Rs. in Lakh)	Utilization	Target Schools	Achieved Schools
250.59	94.23	1253	1467

Source: mdws.gov.in

The table below presents a consolidated picture of all the schemes under NRDWP for the past two financial years 2014-16. There hasn't been any desert development scheme which is self explanatory. But there hasn't been any for region affected by left wing extremism and quality affected habitations either which definitely

demands an evaluation. The last category apparently has only 33 habitations which does not necessarily preclude their removal from the program schemes. The state has moved forward by leaps and bounds in covering schools and therefore that too saw no new schemes dedicated to it in the current financial year 2015-16.

**Table 13.10: Habitation wise scheme details**

	Schemes for SC concentrated Habs	Schemes for ST concentrated Habs	Schemes for DDP	Schemes for QA Habs	Schemes for Schools	Schemes for LWE	Schemes for Pilot Project
2014-15	378	1088	0	0	69	0	81
2015-16	334	612	0	0	0	0	4

Source: mdws.gov.in

In the table below we present the NRDWP plan for schools and anganwadis in the financial year 2015-16. 5000 government run rural school toilets were expected to be supplied with running water at a cost of Rs.180 crores. In terms of the total financial outlay on coverage including those

on schools and anganwadis, the latter got 40.12 percent of the total funds. However it is not clear why no allocation was made for the anganwadis of the state given that they are preschool centres as well centres for supplementary nutrition and referral centres for cases of malnutrition.

**Table 13.11: School and Anganwadi Plan for 2015-16 (amt. in lakhs)**

Particulars	Physical Target 2015-2016	Estimated Cost of Schemes	Expected expenditure during 2015-2016 on Schemes
No. of Govt. rural schools to be provided with water supply	0	0	0
No. of Govt. rural school toilets to be provided with running water supply	5000	18000	15621.46
Jalmani **	0	0	0
No. of Anganwadis to be provided with water supply	0	0	0
Total Outlay on Schemes for Schools and Anganwadis	5000	18000	15621.46
Total Outlay on Schemes for Coverage including on Schools and Anganwadis	24175	44859.37	31876.86

\*\*No new release was expected under Jalmani scheme

Source: mdws.gov.in

As the table below shows the funds released by the centre under NRDWP have been progressively declining over the past few years and was a meagre Rs64.16 crores for the financial year 2015-16, a substantial portion of which was used by the Public Health and Engineering department on other expenses including material

charges. The Gram Panchayats across the state received only 4 lakhs which is a paltry sum in the backdrop of the fact that devolution of role and responsibilities to local bodies such as Gram Panchayats has been found to be important for ownership and sustainability.

**Table 13.12: Financial progress of NRDWP (in lakhs) – 2012-2016**

	Opening Balance (Central)	NRDWP Allocation (Central)	NRDWP Release (Central)	Permissible Limit (OB + 10% of Release)	** O & M expenditure under NRDWP by PHED/Board				Amt. Transferred to Gram Panchayat
					Establishment	Electricity	Others (Including Material Charges)	Total	
2012-13	1264	17034	24177	4890	0	0	1954	1954	70
2013-14	1640	15308	22734	5051	7	0	2067	2074	329
2014-15	2647	15053	16441	5113	156	0	2110	2266	44
2015-16	2768	0	6416	3731	17	0	502	518	4

Source: mdws.gov.in

The table below summarizes the physical and financial progress of NRDWP across the 24 districts in the state. Around 9273 new schemes have been launched while 432 schemes are ongoing. East Singhbhum which did not see much activity last year has had the maximum spend, 20.09 crores, till the writing of this report followed by Pakur, a severely maoist struck district, where

this figure reads 5.34 crores. The coal district of Dhanbad had the maximum number of new schemes launched, 2101, at a proposed expense of 37.07 crores. However, work in some districts like Palamu and Hazaribagh and for that matter even in Dhanbad, has been sluggish in spite of a good proposed expend.

**Table 13.13: District- wise coverage of NRDWP- physical and financial – 2015-16 (amt. In crores)**

District	Total no. of schemes taken up				Total Cost	Propo. Exp in 2015-2016	Actual Expenditure till date
	On- going	New	Ach	Habs TakenUp			
BOKARO	0	25	1	21	0.16	0.08	0
CHATRA	0	190	0	152	1.43	0.71	0.05
DEOGHAR	0	0	0	0	0	0	0
DHANBAD	4	2101	5	1120	75.02	37.07	2.88
DUMKA	0	0	0	0	0	0	0
GARHWA	1	0	0	1	1.39	0	0.34
GIRIDIH	16	27	2	33	9.04	0.16	0
GODDA	0	0	0	0	0	0	0

District	Total no. of schemes taken up				Total Cost	Propo. Exp in 2015-2016	Actual Expenditure till date
	On- going	New	Ach	Habs TakenUp			
GUMLA	0	0	0	0	0	0	0
HAZARIBAG	1	1848	1	823	18.9	9.24	0.04
JAMTARA	0	0	0	0	0	0	0
KHUTI	0	644	0	374	3.91	1.95	0.09
KODERMA	31	482	0	428	11.31	5.49	0.42
LATEHAR	0	0	0	0	0	0	0
LOHARDAGA	0	0	0	0	0	0	0
PAKUR	0	749	1	497	15.36	7.64	5.34
PALAMU	377	1158	3	1281	81.86	39.82	0.24
PASCHIM SINGHBHUM	2	1214	0	925	20.9	5.43	2.63
PURBI SINGHBHUM	0	831	2	495	213.15	92.26	20.09
RAMGARH	0	0	0	0	0	0	0
RANCHI	0	3	0	2	0.02	0.01	0
SAHIBGANJ	0	1	1	1	1.06	0.53	1
SAREIKELA AND KHARSAWAN	0	0	0	0	0	0	0
SIMDEGA	0	0	0	0	0	0	0
<b>TOTAL</b>	432	9273	16	6153	453.51	200.39	33.12

Source: mdws.gov.in

### SBM-G: Swachh Bharat Mission-Gramin

Since the state has for a welcome change experienced some political stability since December 2014, the spotlight has sharpened on safe and clean India or more precisely a swachh and therefore swastha Bharat. In October 2014 the Swachh Bharat Abhiyan (the restructured erstwhile Nirmal Bharat Abhiyan) Gramin and Urban was launched with much fanfare.

The government of Jharkhand has also strived hard to pursue this dream. Tables 13.14 and 13.15 capture the work done under SBM-G in the state. There are two important indicators that deserve mention. The drive to ensure every school has a toilet needs a special mention with coverage

of 97.11%. However as the table depicts we are far from our project objective. On some of the indicators. We are lagging way behind the national statistics in building sanitary complexes.

The Individual Household Latrine program, a component of SBM, has faced several roadblocks and prominent amongst them is the aversion of the rural population who still prefer open defecation for a milieu of reasons. But the often voiced reason lies in deeply rooted habits and behaviour. Second the lack of water supply to these toilets soon renders them unusable. At the same time we cannot overemphasize that the program is often criticized for its failure to sensitize people about

the necessity of using toilets at home both for health and safety reasons failing which most of the toilets remain unused or at least not used for the intended purpose. This is where we need to go on an overdrive on a two pronged approach- on ensuring water supply to every toilet we build and second on IEC activities for the masses.

An analysis of the data hosted on the department website and summarized in the table below suggests that in the financial year 2015-16 the state had a miniscule share of 0.45 percent (Rs.16.95 crores) in the total Central release for all states

towards SBM-G, less than the state's share in 2014-15 (0.85 percent). The states of West Bengal, Uttar Pradesh, Rajasthan, Karnataka and Orissa get the major share of these funds. However the state ranks 12<sup>th</sup> in terms of percentage utilization of earmarked funds and therefore its activities call for an immediate impetus.

As the table below indicates that while the state has made commendable progress in coverage of schools, we are far from the mark in the coverage of toilets in APL, sanitary complexes and anganwadis, in that order.

**Table 13.14: Report Card status of Swachh Bharat Mission (SBM) as on 19 /1/2016**

Component	Project Objective	Project Performance	%age Achievement
IHHL BPL	2327306	1591795	68.40
IHHL APL	1402189	393985	28.10
IHHL TOTAL	3729495	1985780	53.25
School Toilets	42687	41454	97.11
Sanitary Complex	1203	366	30.42
Anganwadi Toilets	11472	7809	68.07
RSM/PC	249	753	302.41

sbm.gov.in

**Table 13.15: Financial Progress (Funds in Lakhs)**

Share	Approved	Funds Received	Utilization	%age of Utilization against release
GOI	60485.48	38362.47	47907.71	124.88
State Share	22185.77	20318.08	20556.34	101.17
Benf. Share	8057.18	3363.62	2389.66	71.04
Total	90728.43	62044.17	70853.71	114.20

sbm.gov.in

Taking a cue from its performance till 2015 under Total Sanitation Campaign (TSC), the state SBMG department activities were galvanized towards APL i.e. 65 percent of the total toilets build in the financial year 2015-16 fell under the APL category as seen in the table below.

Surprisingly there was no toilet constructed at the state anganwadis albeit the performance of the TSC for this category of beneficiary is only 68 percent till date and therefore is an area of concern.

**Table 13.16: Physical progress under SBMG for 2015-16 compared with that in 2014-15**

District	TOTAL		BPL		APL		Schools		Sanitary complex		Anganwadi	
	2014-15	2015-16	2014-15	2015-16	2014-15	2015-16	2014-15	2015-16	2014-15	2015-16	2014-15	2015-16
Bokaro	1240	5145	566	1390	674	3755	42	4	0	0	0	0
Chatra	2736	10246	2374	1775	362	8471	113	0	0	0	0	0



District	TOTAL		BPL		APL		Schools		Sanitary complex		Anganwadi	
	2014-15	2015-16	2014-15	2015-16	2014-15	2015-16	2014-15	2015-16	2014-15	2015-16	2014-15	2015-16
Deoghar	7420	5899	0	0	7420	5899	257	0	2	0	0	0
Dhanbad	4740	5898	2145	2122	2595	3776	0	0	0	0	0	0
Dumka	8015	6432	4681	3234	3334	3198	95	0	2	14	0	0
Garhwa	388	2320	102	59	286	2261	18	0	1	0	0	0
Giridih	6913	13798	2349	1901	4564	11897	50	9	0	0	0	0
Godda	9435	8020	3074	3103	6361	4917	179	0	0	0	0	0
Gumla	6135	5769	2590	1558	3545	4211	0	0	1	0	0	0
Hazaribagh	3164	14406	1272	3068	1892	11338	72	6	0	0	0	0
Jamtara	3583	2496	2301	952	1282	1544	0	0	0	0	0	0
Khunti	3812	3716	582	861	3230	2855	22	0	2	0	0	0
Koderma	697	3301	337	525	360	2776	62	0	0	0	0	0
Latehar	1746	4917	584	2353	1162	2564	0	0	2	0	0	0
Lohardaga	2147	4465	1145	1028	1002	3437	0	0	0	0	0	0
Pakur	2535	3557	1637	1345	898	2212	0	0	0	5	117	0
Palamu	2342	4761	477	911	1865	3850	25	0	0	0	0	0
Paschim singhbhum	11858	10292	9790	6409	2068	3883	285	0	4	0	0	0
Purbi singhbhum	1904	6625	0	0	1904	6625	0	0	11	0	0	0
Ramgarh	2522	9621	897	3152	1625	6469	62	0	0	0	0	0
Ranchi	3971	10070	1832	3243	2139	6827	23	0	1	0	0	0
Sahibganj	3407	19324	3388	12734	19	6590	150	3	3	0	11	0
Seraikela kharsawan	3714	9092	2586	6303	1128	2789	0	0	2	0	0	0
Simdega	4088	5196	3758	3299	330	1897	119	0	4	0	29	0
TOTAL	98512	176469	48467	61494	50045	114975	1574	22	35	19	157	0

The following table details the district wise physical progress under the Total Sanitation Campaign. Percentage coverage of school toilets is 97.11 percent and the only two districts where a few government run rural schools still don't have

toilets are Khunti and Ranchi where the coverage is 71 percent and 55 percent respectively. The coverage of anganwadis in Garwah-Giridih and Jamatra is abysmally low at 11 percent 21 percent and 36 percent respectively.

### Box 13.b: The case of Chiru: learning and strategy

The village of Chiru is the first Gram Panchayat in Latehar district to be declared Open Defecation Free (ODF) in the year 2015. An astounding 1262 toilets were constructed within a short span of 4 months through eager and enthusiastic community participation. This GP has become a role model for other Gram Panchayats in the district and the learnings from here have helped the district administration roll out a similar plan in other GPS of the district. The Mahila Mukhya of this GP championed the cause of ODF and tirelessly worked to create awareness and motivation.

The highlights of the successful strategy which are now being replicated elsewhere in the district and state are encapsulated below.

- The TSC here was demand driven which was created by the Mahila Mukhya implying that we need to find a local champion and train her to take forward the cause of TSC
- CLTS (community led total sanitation), which is a methodology whereby communities are facilitated to conduct their own appraisal and analysis of open defecation (OD) and take their own action to become ODF, resource persons from Water Sanitation program kept a close watch on the community
- There was no contractor or NGO engaged for toilet construction. While some households used their own resources and labour others were constructed by VWSCs
- Ward wise “nigrani” committees were formed to keep an eye on OD especially during the morning and evening hours when people are more likely to resort to OD
- PRI representatives were given a lead role in the campaign and timely release of funds to VWSCs
- Chiru is a good example of community participation for faster implementation as well as sustainability of TSC

The table below indicates that the two districts of Khunti and Ranchi are the red flag areas in so far as availability of toilets in government run rural schools are concerned. Similarly anganwadis

in the districts of Garwha, Giridih and Jamatra are lagging far behind the others in the TSC campaign. Action under sanitary complexes also needs a major and urgent thrust.

**Table 13.17: District wise Physical progress report of State Total Sanitation Campaign as on 25-01-16**

Distrcit	% coverage IHL-BPL	% coverage IHL-APL	% coverage IHL-Total	% coverage Sanitary complex	%coverage School Toilets	%coverage Anganwadi toilets
BOKARO	35.13	10.12	22.77	15	100	100
CHATRA	65.27	55.82	63.34	38	100	46.01
DEOGHAR	100	42.71	69.07	6	100	82.21
DHANBAD	50.3	26.03	39.13	38.71	100	100
DUMKA	92.61	49.94	83.21	36	100	100
GARHWA	62.17	8.47	39.62	52	100	11.48
GIRIDIH	46.39	51.1	47.43	22	100	20.89
GODDA	57.67	16.58	35.32	70	100	78.73
GUMLA	61.5	15.68	38.05	10	100	100

Distrcit	% coverage IIHL-BPL	% coverage IIHL-APL	% coverage IIHL-Total	% coverage Sanitary complex	%coverage School Toilets	%coverage Anganwadi toilets
HAZARIBAGH	78.83	45.57	67.62	31.43	100	100
JAMTARA	70.88	11.44	42.45	4	100	35.97
KHUNTI	31.83	99.56	45.42	25	70.91	90.31
KODERMA	55.29	9.78	33.37	0	100	72.73
LATEHAR	88.18	59.93	83.82	60	100	100
LOHARDAGA	100	94.72	100	20	100	100
PAKUR	92.86	34.99	76.25	10	100	60.58
PALAMU	78.08	16.1	40.69	16	100	100
PASCHIM SINGHBHUM	59.27	29.6	54.4	90	100	100
PURBI SINGHBHUM	100	24.7	72.15	26.92	100	100
RAMGARH	50.99	57.08	52.55	2.5	100	100
RANCHI	67.76	58.24	66.13	69.05	55	59.5
SAHIBGANJ	75.26	100	81.95	52	100	100
SERAIKELA KHARSAWAN	49.28	15.09	36.53	6	100	100
SIMDEGA	44.18	8.46	28.04	20	100	100
TOTAL	68.4	28.1	53.25	30.42	97.11	68.07

(Source: sbm.gov.in)

### The Namani Ganga Project

Under the Namani Ganga project 1657 Gram Panchayats in 253 blocks of 53 districts adjoining the river Ganga in the 5 riparian states of Bihar Jharkhand Uttar Pradesh Uttarakhand and West

Bengal are to be made ODF on a priority basis.

Village Paltanganj of Gram Panchayat Bari Baghiyamari in Sahibgunj district was the first village to be declared ODF under the Namani Ganga Plan in the state of Jharkhand.

### Box 13.C: New Initiatives and achievements under SBMG

The state government launched the SBMG logo this year and is working in a fast track mode towards making the state an Open Defecation Free (ODF) state. There are 54 ODF panchayats, 23 accomplished during 2013-14 and the rest 31 during 2015-16. They are being closely monitored.

The department is going full throttle on trainings and workshops for key stakeholders including the Zila Panchayat Adhyaksha, District commissioners, district coordinators and executive engineers and last but not the least the end users. 4 regional workshops were conducted during the financial year 2015-16 as part of capacity building activities.

Jharkhand is leading by example as the number one state in the number of beneficiaries uploading photographs through mobile application on IMIS (a management software solution used by the department for monitoring purposes and release of beneficiary funds).

5000 masons have been trained especially in the work of toilet construction and 4000 of them have been directly engaged in this work. This was deemed essential given that infrastructure sustainability was cited as a grave concern by the rural population.

There was a seminar conducted in the last week of September which was an effort at convergence of various departments in the Total Sanitation campaign. The purpose of the seminar was to drive home the point that total sanitation can be achieved only if all these departments pool their efforts and work together in tandem.

### Challenges

The challenges are manifold ranging from lack of demand, and motivation, behavioural patterns related to mindset of individuals and families, technicalities of poor and unsustainable infrastructure of the toilets to name just a few.

The field teams often cite the disinterest of villagers for having toilets at home. It may be worthwhile to point out that economic condition of a particular household does not have much bearing on a whether it has a toilet or not. A particular household may have vehicles, a television and a refrigerator and yet no toilet which speaks volumes about the lack of a felt need for the latter. And every village abounds in such examples. So what we need is a citizen's movement to change the mindset towards cleanliness and open defecation. We have to create a demand.

Poor infrastructure of the toilets that are built also set a bad example. There have been an instance too many when the toilets built under the program funds have not survived the first rains which puts a question mark on the quality of inputs and methods used. This is where mason training and monitoring of contractors who are engaged for the work become critical to the sustainability of the mission.

IEC training and training of these trainers is equally crucial to make the dream of an ODF state become reality. Open defecation has dangers especially for women and girls who fall prey to perverts when they go out in the dark as well as huge health implications for the community at large. Demonstrations and workshops with the young minds who are the future change agents of

our society may go a long way in helping create a demand. The Jal Shaiyas and the VWSCs play a critical role in the drive to make a Gram Panchayat ODF.

Any discussion of these challenges in TSC would be incomplete minus a reference to the case of the missing toilets. The state should learn from the past and the only solution to avoid a repetition is close monitoring and surveillance with strict checks and balances at every step of the TSC.

### Urban Drinking Water and Sanitation Program

The department of Urban Development is committed to providing better, safe, healthy and sustainable living conditions to the 24 percent urban populace in the state of Jharkhand. In consonance with this theme, the department in consultation with the Urban Local Bodies (ULBs) developed an **action plan for the year 2015-16** which is presented below.

- All ULBs to be provided with clean and safe drinking water by the year 2017
- All individual households to be provided with toilets within their premises along with community toilets in every ULB by 2<sup>nd</sup> October 2019
- An efficient and effective solid waste management system with garbage collection at doorstep, its treatment and techniques for recycling by 2<sup>nd</sup> October 2019
- 11 selected cities of the state to have their sewerage coverage extended from 14 percent to 50 percent by the year 2019
- Better and effective system of e-governance
- Skill based training to be provided to about 50000 youth for self employment. The ULBs are expected to play a very proactive role for fulfilling this vision

## BSUP

The ever increasing number of slum dwellers causes tremendous pressure on urban basic services and infrastructure. In order to cope with the massive problems that have emerged as a result of rapid urban growth, Government of India launched this project, Basic Services to Urban Poor (BSUP), in selected cities on mission mode.

The main thrust of the sub-Mission of BSUP will be on integrated development of slums through projects for providing shelter, basic services and other related civic amenities with a view to provide utilities to the urban poor. The services covered under this program include:

- Integrated development of slums, i.e. housing and development of infrastructure projects in the slums in the identified cities.
- Projects involving development/improvement/maintenance of basic services to the urban poor.
- Slum improvement and rehabilitation projects
- Projects of water supply/sewerage/drainage, community toilets/baths etc.
- Houses at affordable costs for slum dwellers/urban poor/EWS/UG categories.
- Construction and improvement of drains/storm water drains.
- Environmental improvement of slums and solid waste management.
- Street lighting
- Civic amenities, like, community halls, child care centers, etc.
- Operation and maintenance of assets created under this component.
- Convergence of health, education and social security schemes for the urban poor.

The progress under the BSUP program in three major urban local bodies (ULBs) i.e. Ranchi, Dhanbad and Jamshedpur are detailed below. Lot of action can be observed in the Ranchi ULB where 8928 housing units were covered with basic services under the BSUP program which also includes supply of drinking water and construction of sewerage/drainage system. A total of 16722 households were covered in these 3 ULBs.

**Table 13.18: Physical progress in supply of drinking water to ULBs**

ULB	No. of Housing units
Ranchi Municipal Corporation	8928
Dhanbad Municipal Corporation	3618
Jamshedpur (U/A) Municipal Corporation	4176
<b>Total</b>	<b>16722</b>

Source: Department of Urban Development, Government of Jharkhand

## Urban Drinking water supply schemes

### Jharkhand Urban Infrastructure Development (JUIDCO)

The following work is under execution by JUIDCO:

- Renovation and beautification of river Harmu at Ranchi
- Preparation of detailed project report for sewerage and drainage infrastructure development in 12 ULBs which include Mango, Jugsalai, Adityapur, Giridih, Medininagar and Chaibasa under first phase and Dhanbad,, Hazaribagh, Deoghar, Dumka and Chas under phase-2.

## Achievements in 2014-15 in drinking water supply to ULBs

### Completed schemes

Drinking water supply schemes were completed in 8 ULBs through the department of drinking water and sanitation as “deposit work” since

these the Municipal corporations in these ULBs did not possess the technical wherewithal to implement the work themselves. These ULBs include Dumka, Gumla-phase1, Mango-phase1, Lohardaga, Katras, Jugsalai, Birsanagar Bagunhat and Modinagar-phase 1.

### Ongoing schemes

At present water supply schemes are under progress at 13ULBs as summarized in the table below. The table indicates that funds were released for water supply schemes in 4 additional ULBs i.e. Chatra, Deoghar, Bundu, Sariaikela as also under Ranchi missing link-2 program. As is observed by the numbers in the table, the momentum of work had taken a slack in 2013-14 as compared to the preceding year but picked up again in 2014-15.

**Table 13.19: Financial progress of ongoing water supply schemes**

Ongoing water supply schemes	Funds released in 2012-13 (lakh)	Funds released in 2013-14 (lakh)	Funds released in 2014-15 (lakh)
<b>Name of the scheme</b>			
Chakradharpur water supply scheme	500	0	0
Pakur water supply scheme	1176.962	1000	0
Jamtara water supply scheme	500	0	0
Mihijam Jamtara water supply scheme	1407.91	0	358.77
Ranchi Missing Link Jamtara water supply scheme	642.285	0	0
Harmu (replacing the rusted pipes with new ones)	0	8.936	0
Garwha Jamtara water supply scheme	500	1500	0

Jhumritilaia urban Jamtara water supply scheme	2258.8	0	424.49
Bundu urban Jamtara water supply scheme	0	0	400
Sraikela urban Jamtara water supply scheme	0	0	500
Ranchi missing link-2 Jamtara water supply scheme	0	0	1651
Deoghar Saloni Tand Jamtara water supply scheme	0	0	377.26
Chatra urban Jamtara water supply scheme	0	0	346.63
<b>Total</b>	<b>6985.957</b>	<b>2508.936</b>	<b>4058.15</b>

Source: Department of Urban Development, Government of Jharkhand

### Swachh Bharat Mission-Urban

The “Swachh Bharat Mission-Urban” (SBM-U) is a major initiative of the Ministry of Urban Development (MoUD), Government of India. Launched on the birth Anniversary of Mahatma Gandhi on 2nd October 2014, the mission aspires to attain his vision of a ‘Clean India’ by his 150th birthday in 2019.

The objectives of the SBM-U, translated into a set of Mission components, include the following:

1. Individual Household Latrine (IHHL)
2. Community toilets
3. Public toilets
4. Solid waste management
5. IEC & public awareness
6. Capacity building and Administrative & Office Expenses (A&OE)

### Individual Household Latrine (IHHL)

- Proposed physical target for IHHL in FY 2015-16 is 94,500.

- Total Application received (as on 16.12.2015) is 82,189.
- Total Application sanctioned (as on 16.12.2015) is 45,326.
- Total Application entered online (as on 16.12.2015) is 63,817.

### Community toilet (CT)

Tendering process for construction of Community Toilet under PPP mode has been started and preferred bidder would be selected shortly and then work will begin.

### Sewerage and drainage infrastructure

Plans were proposed for building sewerage and drainage infrastructure for effective disposal of liquid and solid waste. The ULBs were given money for constructing small and big drains covering approximately 150 kilometers at an expected cost of 27 lakhs per kilometer.

### Solid Waste Management (SWM)

Solid Waste Management has become one of the major challenges of the urban planner today. With high annual growth in urban population and rapid pace of urbanization the situation is worsening with the passage of time. Management of solid waste is a primary responsibility of the urban local bodies.

Nearly all the ULBs in the state were asked to prepare detailed project report for effective solid waste management in their area. The proposals are currently under scrutiny and pending approval at the department.

Solid waste management needs two pronged strategizing- first for efficient collection of solid waste/garbage and second for effective treatment of this waste and its possible use after recycling. The space required to serve as land fill site is huge and not easy to find. The Department has directed the ULBs to make concerted effort to provide such space.

The achievements under SWM in 2015-16 are

highlighted below:

- High Power Committee under the chairmanship of Chief Secretary, Jharkhand has been constituted for monitoring.
- Concessionaire has been selected for Ranchi Municipal Corporation for Waste to energy under Solid Waste Management.
- Land Availability – Land is available in 19 ULBs and for remaining ULBs acquisition/transfer of land is under process.
- User Charges for Solid Waste Management service – User charges 2015 has been prepared and is in the process of approval.
- Detail Project Report (DPR) for the 6 ULBs has been prepared and for remaining ULBs, it is under process.
- Consultant has been selected for preparation of city sanitation plan of 24 ULBs.

### BOX 13.d: RMC, ESSEL join hands for solid waste management in capital

Moving ahead in its ambitious solid waste management project, Ranchi Municipal Corporation handed over a 'Letter of Intent' regarding the initiative to Essel Infraprojects Limited. Beginning operations in two-and-a-half years, the Mumbai-based company will begin garbage collection within six months and set up a 'garbage-to-electricity' power plant in Jhiri.

The plan envisages setting up a door-to-door network for garbage collection, transportation of the collected garbage and then facility for its disposal. For efficient disposal, a plant for generating electricity by incinerating the collected refuse will be erected near dumping grounds in Jhiri with a production capacity of 11.5 MW.

A part of the generated power is to be consumed in-house and the rest will be marketed by the company for revenue. The entire project is to be worth 77 crore rupees, 60 per cent of which will be paid by RMC.

## IEC

- Hoardings in all 41 ULBs (in every main visible spots)
- Hoardings in all 858 wards
- Painting of Swachhta messages
- Printing of SBM Logo on remaining equipments, vehicles etc
- Nukkad natak in 41 ULBs/ 858 wards
- Cleanliness drives in every 15 days
- Swachhta Sammelan including Swachhta doot/ Senior citizens /community members in main spots/ chauraha /cinema halls
- Awareness meeting/workshops with swachhta doot/Senior citizens/ community members to define their roles in increasing the use of toilets in the community
- District level review and monitoring committee meetings
- Organize workshop for senior citizens, swachhta doot, safai mitr, ward parshads, chairman & deputy chairman.

## At schools /colleges/professional institutions

- Prabhat pherry
- Essay competition /Drawing /wall painting Competition
- Quiz competition
- Slogan/jingle competition
- Talks/debate

## Other Events

- Distribution of dustbins
- Distribution of swachhta stickers SBM Logo stickers amongst commoners
- Meetings with bus, auto & rickshaw owner association
- 18 cleanliness drives in bus stands/auto stands etc.

To summarize, the table below lays out the fund allocation under State and Central plan for drinking water supply and sanitation programs in the state. The table gives the category wise break up for schedule caste, schedule tribe and others.

**Table 13.20: Fund allocation for various schemes 2015-16**

Financial Funds Allocation 2015-16 (lakh)				
Name of Schemes	OSP	SCSP	TSP	Total
State Plan Outlay				
Urban Water Supply	8000	1000	11000	20000
Solid Waste Management	760	240	1000	2000
Sewerage & Drainage	3000	700	4500	8200
Central Sponsored Schemes				
Swachh Bharat Mission	400	0	600	1000
Central Assistance for CSS Schemes				
Swachh Bharat Mission	1200	0	1800	3000
	13360	1940	18900	34200

Source: Department of Urban Development, Government of Jharkhand

## Conclusion

Clean and safe drinking water and availability of sanitation are fundamental rights of every citizen globally. The Jharkhand government has adopted turnkey shifts in its approach and execution of the Total Sanitation Campaign.

Though the NBA (which is now restructured as SBM) was launched in India as long ago as 2002-03, the census 2011 figures were appalling with only 7.7 percent household in rural Jharkhand having toilets making it the state with the highest rate of open defecation in India.

Learning from its past mistakes, the government adopted a policy shift and targeted IEC drive at every village to spread awareness and create a demand. It made mandatory for every household in the community to participate. A revolving fund was set up by the district authorities with the help of supporting agencies. Once all the households



in the community have toilets which have been in use for three continuous months and there are no reports of open defecation (OD), then the VWSA submits a report to the district authorities to claim the subsidy. A major incentive that works is that ODF villages have been promised piped water supply. Bringing about a behavioural change holds the key to sustainability of the transformation and today there are 54 ODF GPs in the state.

However, we are still lagging behind in piped water supply and the focus hitherto seems to have been installation of hand pumps and bore wells in villages. The anganwadis also need better attention.

In the BSUP program, there are several ongoing water supply schemes. The Municipal corporations of Ranchi, Dhanbad and Jamshedpur have leapfrogged in the work and we hope to see the rest of the ULBs also follow in their footsteps with the same enthusiasm. We hope solid waste management, which will also deter spread of several air and water borne disease in urban slums in the state, will soon see the same transformation as the ODF drive.



14

**Women, Child  
Development and Social  
Security**

*Women and children comprise nearly two-third of India's total population and it is impossible for a country, like India, to achieve a sustainable development with a high and equitable growth without the development of its women and children. Thus, the Government of Jharkhand (GoJ), with the vision of empowering women and ensuring proper development, care, and protection of children has come up with several crosscutting policies, schemes, and programmes. These policies aim at providing education, nutrition, health, hygiene, social protection and legislative support to women and children in the state. In addition, several educational programmes have been implemented to create awareness about economic, social, and cultural rights of women and children in the state.*

The Government of Jharkhand (GoJ) created the Department of Social Welfare, Women and Child Development (DSWWCD) as an independent department in 2002 to address the various issues related to women and child development and social welfare. The department has undertaken several steps to ensure proper empowerment of women, their protection and rescue, and rehabilitation of migrant women, children and adolescent girls.

The government has also performed adequately in reducing malnutrition among children aged 0 to 6 years. Different government programmes and schemes have effectively reached children in the poorest families of the state ensuring adequate supplementary nutrition for the overall mental and physical development of the children. The department in collaboration with the Department of Health and Family Welfare, GoJ, has also been working on various women and child related immunization programmes and has achieved success in increasing the rate of routine immunization cases among the children.

According to the Census (2011), nearly 2.34 percent of the total population of Jharkhand had some forms of disabilities. Out of the total

disabled persons, roughly 45 percent females and 55 percent males were differently abled.

The government has taken several measures such as the provision of special support equipment for the disabled, scholarships for the handicapped, three per cent reservation for the disabled in the poverty alleviation programme, and workshops for the upliftment of the disabled in order to help people with disabilities in the state.

The state has also been working on the welfare of the elderly people, the poor widows, the captivity free labour, and on various child protection schemes.

The following programmes have been running under the initiatives of the department:

**Women Development Programmes:** These programmes aim at providing support for nutrition, finance, and mental development of adolescent girls, pregnant women and lactating mothers, and homeless and single women. They also work towards preventing child and female trafficking. There are several provisions in the women's development programmes to provide hostels for working women and prevent sexual harassment at work place. The government has setup women help-line for quick resolution of various women related issues and has also been working towards preventing repulsive customs like witch hunt, dowry system and child marriage.

**Child Development Programmes:** Different welfare programmes for children aged 0-6 years have been formulated by the department to ensure the overall physical and mental well-being of the children. These programmes operate through 38,432 Anganwadi Centres (AWCs) across the state. The department has also been working towards preventing child prostitution and sexual exploitation and has been administering special programmes for the destitute and homeless children. Pre-school education and health care programmes have also been conducted through different child development services.

**Social Welfare Programmes:** In the area of social welfare, the department has designed welfare schemes for the disabled people, the elderly people, and the widows in the state. There have been old age and widow pension schemes and welfare schemes for persons affected by autism, cerebral palsy and other disabilities. The department has also been organizing education and training programmes for the physically challenged (blind, deaf and dumb) children.

### Department's Work Plan for the Financial Year (FY) 2015-16

The Department of Social Security, Women and Child Development (DSSWCD) has been focusing on the following areas in FY 2015-16:

**Consolidated Child Development Scheme-** This scheme will cover 224 Child Development Programmes and will help in the establishment of 20 district social welfare offices.

**Distribution of Medical Kits-** Medical kits will be distributed in all the AWCs in order to provide basic health care services for common ailments. In addition, complete treatment and cure referrals will be given for health check-ups in the nearest health centres or hospitals.

**Distribution of Pre-School Educational Kits-** Through this scheme, informal education will be provided to children through AWCs in a play-way method and will ensure the overall physical, social, mental and psychological development of children. For the effective delivery of informal pre-school education among children, pre-school kits will be supplied to the AWCs.

**Promotion, Education, and Awareness-** Under this scheme, electronic and print media will be used for promotional, educational, and awareness related programmes on women and child development issues.

**Weighing Machines and Growth Charts in**

**Anganwadi Centres -** Most AWCs have been lacking proper growth and nutrition monitoring tools. However, in order to track and prevent malnutrition in children, it is important to ensure that AWCs have new and proper weighing machines and growth charts. Therefore, government has planned to supply new weighing scales and growth charts following the World Health Organization's (WHO) growth standards.

**Uniform for Sevikas/Sahayikas in the AWCs-** The state funds up to 25 per cent of the total expenses related to this scheme. Under this scheme, two pairs of uniforms will be provided to each helper at the AWCs.

**Complimentary Nutrition Programme-** Under this scheme, portable ration will be provided to all the girls aged between 15 and 18 years and particularly to the young girls aged between 11 and 14 years who have dropped out of school.

### Status & Achievements of Different Programmes

#### Integrated Child Development Scheme (ICDS)

Integrated Child Development Scheme (ICDS), a centrally sponsored scheme, is an efficient mechanism for the reduction of poverty and institutional strengthening through integrated development of children from prenatal to six years of age. It is a unique programme for early childhood development by adopting 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 1975 in the Noamundi block of the current West Singhbhum district. At present altogether 224 ICDS projects have been 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 who 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

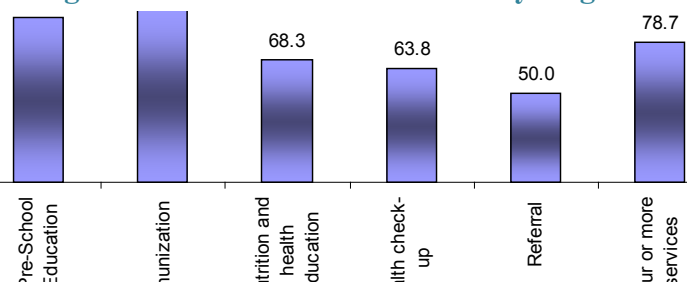
among family members on childcare related behavioural changes, safe-delivery practices, antenatal care (ANC) use, and nutrition through counselling and guidance. Mothers have also been encouraged to practise breastfeeding for the proper growth and development of their children. Adolescent girls have 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 lakhs women and children in the state.

### Status & Progress of ICDS

Data from the Rapid Survey on Children, presented in Figure 14.1, show the percentage of different services managed by the AWCs in 2013-14. Among all the other services in 2013-14, AWCs provided nearly 98 percent supplementary nutrition services followed by 96.3 percent immunization services, and 92.4 percent pre-school education services. However, only 50 percent referral services were provided in 2013-14. The percentage of provision of four or more services was nearly 78.7 percent and the percentage of provision of all the six services was 33.9 percent.

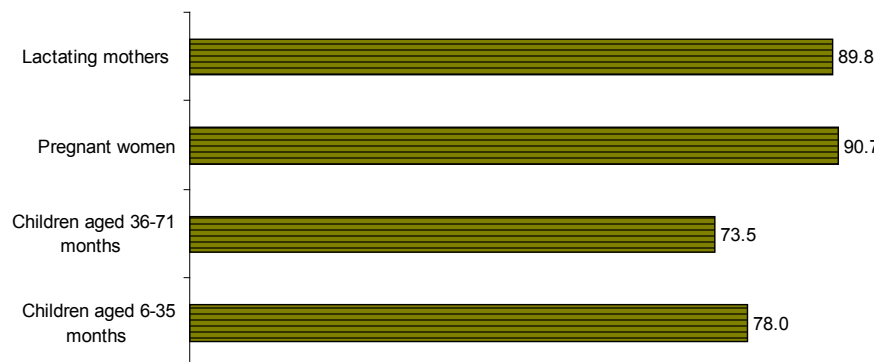
**Figure 14.1: Percentage of Different Services offered by Anganwadi Centres (AWCs)**



Source: Jharkhand Fact Sheet, Rapid Survey on Children, 2013-14

Figure 14.2 shows that pregnant women (90.7%) received the maximum number of supplementary nutrition benefit closely followed by the lactating mothers (89.8%). Almost 73.5 percent children aged between 36 and 71 months, and 78 percent children aged between 6 and 35 months received supplementary nutrition in 2013-14.

**Figure 14.2: Percentage of Coverage of Beneficiaries for Supplementary Nutrition**

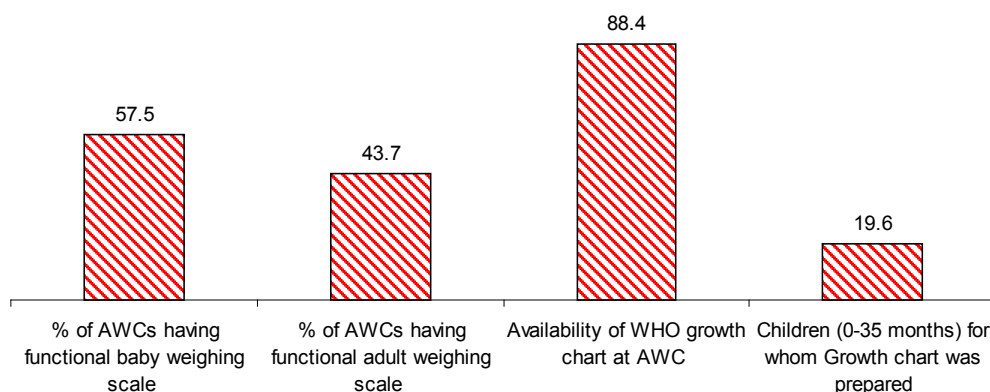


**Source:** Jharkhand Fact Sheet, Rapid Survey on Children, 2013-14

As presented in Figure 14.3, in 2013-14, most of the AWCs (88.4%) had growth charts provided by the World Health Organization (WHO), but only 19.6 percent children in the age group 0-35

months had their growth charts prepared. 57.5 percent AWCs had functional baby weighing machines and only 43.7 percent had adult weighing machines.

**Figure 14.3: Percentage of Anganwadi Centres with Functional Growth Monitoring Tools**



**Source:** Jharkhand Fact Sheet, Rapid Survey on Children, 2013-14

Table 14.1 shows that in 2013-14, the awareness about the availability of supplementary food and health check-up facilities in AWCs were higher among the rural pregnant women (93.4% and 40.1%, respectively) than among the urban pregnant women (78.7% and 27.7%, respectively). Whereas on programmes, such as immunization, referral services, nutrition and health education

respectively, urban pregnant women (93.6%, 10.6%, and 14.9%) showed more awareness than their rural counterparts (83.6%, 9.9%, and 8.6%). Overall, pregnant women in the urban areas (6.4%) were more aware of all the available ICDS services in the AWCs in comparison to that of the pregnant women in the rural areas (4%).

**Table 14.1: Awareness about Various ICDS Programmes 2013-14**

	Pregnant women aware of services at AWC					
	Supplementary food	Immunization	Health check-up	Referral service	Nutrition and health education	All Services
Place of Residence						
Total (%)	91.6	85.5	37.3	9.4	9.6	4
Rural (%)	93.4	83.6	40.1	9.9	8.6	4
Urban (%)	78.7	93.6	27.7	10.6	14.9	6.4

Source: Jharkhand Fact Sheet, Rapid Survey on Children, 2013-14

One of the four recommendations of Infant and Young Child Feeding (IYCF) programme has been the early initiation of breastfeeding. Colostrum, the first-milk, is considered as a life-giver and immunity booster in infants if given within an hour of birth. Moreover, exclusive breastfeeding has been found to generate good health in children, preventing them from various diseases and building their nutritional store.

According to Table 14.2, 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 2013-14. The percentage breastfed immediately or within 24 hours of birth was higher among the urban children (44.8%) than among the rural children (29.5%). This may be because of the higher level of awareness about the benefits of the first-milk (colostrum) among the mothers in the urban areas than those in the rural areas. However, exclusive breastfeeding

was more common among mothers in the rural areas (67.9%) than among mothers in the urban areas (44.4%), perhaps due to the urban mothers' time constraint and/ easy availability and accessibility of alternative foods in the urban areas. Nearly 53.7 percent children (aged 6-8 months) were provided with complementary foods. A higher number of children in the urban areas (61.5%) received complementary foods than those in the rural areas (52%). In 2013-14, among all the social categories, mainly children from Scheduled Tribes (37.4%) were put to breast immediately after birth, followed by children in the general category (34.6%). Only 32.6 percent Scheduled Caste (SC) children and 29.5 percent of Other Backward Class (OBC) children were breastfed immediately or within 24 hours of birth. The highest number of children aged 0-5 months in the SC category (66.7%) were exclusively breastfed. Roughly, 61.3 percent Scheduled Tribe (ST) children were given complementary food in 2013-14.

**Table 14.2: 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
<b>Region of Residence</b>			
Total	32.7	64.3	53.7
Rural	29.5	67.9	52



	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
Urban	44.8	44.4	61.5
<b>Social Categories</b>			
Schedule Castes (SCs)	32.6	66.7	*
Scheduled Tribes (STs)	37.4	58.8	61.3
Other Backward Classes (OBCs)	29.5	64.1	53.7
Others	34.6	55.6	*

Source: Jharkhand Fact Sheet, Rapid Survey on Children, 2013-14

The provision of micronutrients and de-worming is important for the proper growth and development of children. As shown in Table 14.3, the total percentage of children aged 6-59 months who received Vitamin A dose was 18.7 percent with 23.2 percent from the urban areas and 17.4 percent from the rural areas of Jharkhand in

2013-14. Nearly 6.3 percent children (aged 6-59 months) received IFA supplementation with 6.6 percent children 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 2013-14.

**Table 14.3: 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

Under ICDS programme, pre-school education is given to children aged 3-6 years. As presented in Table 14.4, in 2013-14, almost 47.6 percent and 11.2 percent rural children in the age group of 3-6 years attended pre-schools in AWCs and in private schools, respectively. In contrast, nearly 23 percent of urban children of age 3-6 years went for pre-school in AWCs and 44.5 percent

children went for the same in private schools. Literacy among children aged six years and above was higher in the urban areas (83.3 percent) than among the children in the rural areas (63.6 percent).

**Table 14.4: Pre-School Education & Literacy**

	Percent of children aged 3-6 years in preschool education (PSE)			Literacy Rate 6 Year & above
	Attending in Anganwadi centre	Attending in Privately run institution (Play school, nursery etc.)	Not attending	
<b>Place of Residence</b>				
Total	42	18.7	35.1	68
Rural	47.6	11.2	37.3	63.6
Urban	23	44.5	27.7	83.3

Source: Jharkhand Fact Sheet, Rapid Survey on Children, 2013-14

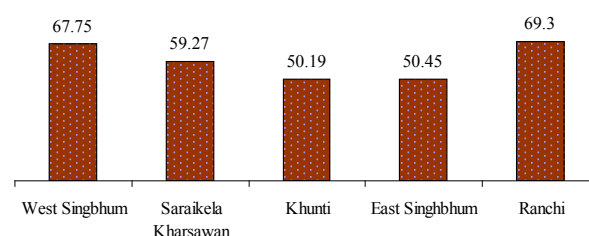
The government has also been planning to improve the quality of ICDS and Dular services through the intensification of counselling activities by Anganwadi Workers (AWWs), piloting of maternal nutrition programme and infant anaemia programme and through social mobilization campaigns on IYCN using ICDS and health networks.

Anemia has been one of the major causes of malnourishment in women and children and stunting in children. According to the latest figures from the Jharkhand Department of Social Welfare, nearly 78 percent women have been affected with anemia in the state. It is important to prevent anaemia in women, as they are the bearers of the future generation. A weak mother is expected to give birth to a weak child and the vicious cycle of malnutrition will continue to persist. Therefore, with the objective of managing anaemia in the state, the Anaemia Control Programme for adolescent girls has been extended to women in their reproductive age. This programme has also been aimed at managing anaemia in school going and non-school going girls.

The supply of iron and folic acid (IFA) tablets, needed to prevent anaemia, has been coordinated through the Health and Family Welfare Department. The latest available data from the Jharkhand Department of Social Welfare as shown in Figure 14.4, reveal that among the other districts of the state, Ranchi has 69.3 percent non-school going girls, who have registered for iron

and folic acid supplement, followed by West Singhbhum (67.75%). Nearly 59.27 percent, 50.45 percent, and 50.19 percent non-school going girls have registered for IFA from Saraikela Kharsawan, East Singhbhum, and Khunti, respectively. The target has however been to achieve 100 percent compliance for IFA.

**Figure 14.4: Registration of IFA among Non-School Going Girls (NSG)**



Source: Jharkhand Department of Social Welfare, latest figures. Retrieved from [www.socialwelfarejhar.com](http://www.socialwelfarejhar.com) on February 6, 2016.

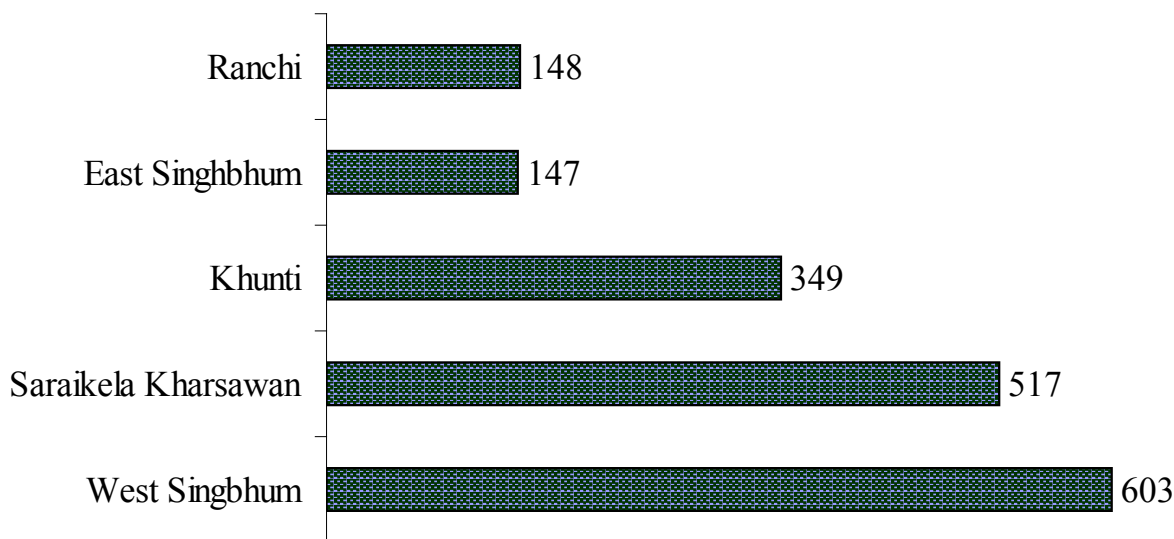
The provision of antenatal care (ANC) in the AWCs for pregnant women is the first step towards ensuring the good health of mothers and children. The target for ANC registration has been 100 percent. While most of the districts have shown high percentage of ANC registration, none has so far achieved the target.

Malnutrition in children has been a major cause of concern for the state. It has therefore become important that counselling and growth monitoring systems be strengthened. Dular takes a preventive approach towards malnutrition. It stresses upon

breaking the vicious cycle of malnutrition through proper nourishment of pregnant women and hence focuses on their care and nutrition. Referrals have been provided for the treatment of malnutrition.

Among the five districts of Jharkhand as shown in Figure 14.5, West Singbhum (603) has shown the highest number of referrals followed by Saraikela Kharsawan (517).

**Figure 14.5: Malnutrition Treatment Centre (MTC) Referrals**



**Source:** Jharkhand Department of Social Welfare, latest figures. Retrieved from [www.socialwelfarejhar.com](http://www.socialwelfarejhar.com) on February 6, 2016.

In 2015-16, over 38,000 AWCs have been managing different ICDS programmes in the state. Under this scheme in 2015-16, the AWC workers, Sevikas and Sahayikas, have received rupees 700 and rupees 350 in addition to rupees 3,000/2,500 and rupees 1,500, respectively, as stipends. Different training programmes have been running in 17 training centres across 15 districts of the state for the training of Sevikas and Sahayikas.

Under the supplementary nutrition scheme, children aged 6-72 months, and pregnant women as well as lactating mothers have been receiving ready-to-eat food through AWCs. In the financial year (FY) 2015-16 (up to the third quarter), total 38,05,919 beneficiaries (30,38,623 children and 76,296 mothers) have received supplementary nutritional benefits.

In addition, medicine kits for primary health care have been distributed at 38,432 AWCs, pre-school education programmes have been

conducted at all the AWCs and 35,881 Sahayikas have received their uniforms (Sarees).

Along with the delivery of different services, the GoJ has also been focusing on improving the quality of the existing programmes in order to achieve better results. The government has targeted system strengthening through capacity building, monitoring and programme management in order to fulfil the needs of the local communities.

### **Jharkhand Women Development Society (JWDS)**

It is an autonomous body under the Department of Social Welfare, Women and Child Development, GoJ. JWDS 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 the various agricultural activities and protects women's rights, safety and privileges in the household and society.

The following programmes are implemented by the JWDS:

**Support to Training and employment Programme for Women (STEP)**– STEP is a GoI aided programme, which works with the objective of mobilizing women in small viable groups and giving them access to credit and skill development training programmes to build their entrepreneurial capacity and improve their home and job related skills. 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.

**A Scheme for Women in Difficult Circumstances (SWADHAR)**– It is also a GoI aided programme. The objective of this programme is to provide women with legal aid and guidance to enable them to take steps for their readjustment in families and society. At present, this scheme has been made operational in two districts of the state, namely Palamu and Bokaro.

**National Mission for Women Empowerment (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).

**Women Helpline**- A women-helpline has also been set up in Ranchi. The helpline has received 585 calls or complaints on several women related issues in 2015-16, out of which actions have been taken in 342 cases and 240 cases have been executed. So far (up to the third quarter of FY 2015-16), 68 cases are under procedure and 34

cases have already been closed.

**Kishori Shakti Yojna/Adolescent Empowerment Scheme**– This scheme aims at the improvement of the overall health and nutrition of adolescent girls in the age group of 11-19 years. It also aims at providing training to these girls in order to improve and upgrade their home-based and vocational skills. The implementation of this scheme has taken place with the help of the ICDS infrastructure of the state. A total of 17 districts (non-SABLA), namely Khunti, Simdega, Lohardaga, Ramgarh, Chatra, Koderma, Dhanbad, Bokaro, East Singhbhum, Saraikela-Kharsawan, Dumka, Jamtara, Godda, Pakur, Deoghar, Palamu and Latehar, have been covered under this scheme. In aggregation, almost 123 projects have been operational under 24,325 AWCs. A total of 4,76,966 girls have benefited under this scheme.

**Adolescent Girls Help Line-Cum-Counselling (Umang)**- The basic idea of this helpline is to identify and prevent the occurrence of suicide among adolescents through support and counselling by experts. A centre for adolescent girls help-line-cum-counselling has been approved by the Department of Social Welfare, GOJ, to be setup at the **Ranchi Institute of Neuro-Psychiatry & Allied Sciences (RINPAS)**, Ranchi. In the financial year (FY) 2014-15, total 131 calls have been received by Umang of which 96 calls were related to telephonic consultation services and 25 calls on in-person consultation. In FY 2015-16 (until November 2015), in all 269 calls have been received, out of which 230 calls were for telephonic consultation services and 139 for in-person consultation services.

**Rajiv Gandhi Scheme for Empowerment of Adolescent Girls (RGSEAG) SABLA**–This scheme has been running in seven districts of Jharkhand, namely Ranchi, Hazaribagh, Gumla, Sahibganj, Giridih, West Singhbhum and Lohardaga on a pilot basis. 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 (aged 11 to 18 years) through various skill development training programmes and provision of nutrition, health and legal awareness related information. The girls under this scheme have been made aware of their health, family welfare and hygiene related issues through guidance from experts. In addition, the target has been to bring the out-of-school girls in the age group of 11 to 14 years back to school.

SABLA Kits have been distributed to all the AWCs. The centre and the state equally share the budgetary provision for the nutritional components under the SABLA scheme. In FY 2015-16, 14,052 AWCs have been working on 81 plans covered under the scheme. In aggregation, 14,052 teenage teams/groups have been formed. The total identified number of Sakhi-Saheli has been 48,156 and the number of trained Sakhi-Saheli has been 12,418.<sup>1</sup> Furthermore, 31,036 girls have been trained for life skills. The number of girls who have been receiving nutrition and health related education counts to 64,010. In totality, 4,90,530 girls have been provided with complete IFA.

**Indira Gandhi Matritva Sahyog Yojna (IGMSY) or Indira Gandhi Maternal Support Scheme**– This is a centrally sponsored scheme under the Ministry of Women and Child Development (MWCD), GoJ. It has been operational in two districts of the state, namely East Singhbhum and Simdega, on a pilot basis. It is a conditional cash transfer scheme for pregnant women and lactating mothers in their reproductive age. Cash benefits are given for the first two live births in order to ensure safe delivery, good nutrition and feeding practices

among the mothers and the children. It also provides partial wage compensation to women for wage-loss due to childbirth and care. In FY 2015-16 (up to the third quarter), 17 projects have been completed with a coverage of 1,897 ANWCs and 22,350 women beneficiaries have received cash benefits under the scheme. It has been decided that the financial disbursement for the project will be done through Public Financial Management System (PFMS).

### **Integrated Child Protection Scheme (ICPS)**

This is a state/central sponsored scheme, which has been running with the objective of protecting child rights, providing juvenile justice, ensuring the welfare of abandoned and homeless children, and maintaining adoption and juvenile homes. A number of committees and programmes have been running for the proper care and development of the underprivileged children. Jharkhand has adopted the model juvenile justice rule 2007 and has been implementing the provisions of juvenile justice (Care and Protection of Children) Act 2000/2006 in the state. In addition, Jharkhand State Child Protection Society (JSCPS) has been setup to protect the interests of children in the state. JSCPS, District Child Protection Society, Child Welfare Committee, and Juvenile Justice Board are some of the registered institutions committed to the protection, welfare, and rehabilitation of orphan and destitute children and juvenile convicts in the state. Several government organizations or NGOs have been working under the ICPS in different districts in order to monitor the condition of child protection and welfare programmes in these districts. Regular workshops have been organized for different departments under ICPS to examine the extent of child rights abuse and its prevention in the state.

### **Child Problems in Jharkhand**

As per the latest information obtained from the Department of Social security, Women and Child

<sup>1</sup> Sakhi Saheli is a Non Government Organisation working to promote women empowerment, health, recreation and education.

Development, GoJ, among all the other districts of Jharkhand, Simdega, has the highest prevalence of children working as domestic helpers followed by Ranchi, Ramgarh, Pakur, and Saraikela Kharsawan. The children in Ranchi have been mainly involved in working in places, such as Dhabas or Hotels or Shops. A large number of children in West Singhbhum and Simdega also work at such places.

Pakur has the highest incidence of children involved in mining work followed by Sahibganj, Koderma, and West Singhbhum.

Many children have also been involved in working in unorganized sectors, like brick furnace and bidi making. Pakur & Sahibganj have the highest proportion of children involved in brick kilns and bidi making. This scenario has also been prominent in other districts of the state. However, the proportion of children working in the unorganised sectors has been lower in these districts than that in Pakur and Sahibganj.

As compared to the other districts of the state, the number of children working as rag pickers has been the highest in Ranchi. This is probably because Ranchi is the capital city and the most urbanized district of the state (Department of Social security, Women and Child Development, GoJ). A high prevalence of rag pickers has also been found in Dhanbad and Bokaro. In Ranchi, Dhanbad, and Chaibasa, many children have been working on streets and railway platforms.

Child trafficking for domestic help has been high in some districts of the state. Two districts, Pakur and West Singhbhum, reported the highest prevalence of children being trafficked for working as domestic helpers, followed closely by Simdega. Child trafficking for sexual offences has been the highest in Pakur, followed by Ramgarh. The trafficking of adolescent girls has been high in Pakur and Simdega.

Child marriages have been common in some parts of the state. The reasons for child marriages could

be illiteracy, poverty or social dogma. Pakur has shown the highest incidence of child marriage. Koderma, Ranchi, Ramgarh, and Sahibganj have also reported high cases of child marriages. The other districts except Deoghar, West Singhbhum, Giridih, Lohardaga, Dumka, and Simdega have reported average incidence of child marriages.

Some districts of the state have also been known for the high transportation of girls for fake marriages. Pakur and Sahibganj have ranked the highest in this aspect, but the frequency has also been high in the districts of Ramgarh, Koderma, Hazaribagh and Khunti.

Gumla followed by Ramgarh has reported the highest incidence of HIV/AIDS among children.

Left Wing Extremism (LWE) activities have been widespread in the state. Children have also been involved in naxalite activities. Koderma has the highest prevalence of children involved in naxal activities.<sup>2</sup> Chatra, Ramgarh, and Khunti closely followed Koderma in this regard.

The number of child offenders has been high in Pakur followed by Godda. Children in the districts of Chatra and Pakur followed by Ramgarh have been involved in serious offences. Koderma and Godda also have shown a high prevalence of such children.

Runaway children and children without families have been the highest in West Singhbhum. Ramgarh has reported the highest prevalence of street children. In addition, child abuse cases in schools have also been the highest in Ramgarh, followed by Pakur, Koderma and Ranchi.

### **Status & Progress of ICPS**

Jharkhand State Child Protection Society (JSCPS) is registered under the Societies Registrations Act, 1860. The JSCPS along with the State Project Support Unit (SPSU) and State Adoption Resource Agency (SARA) have been functioning

<sup>2</sup> This is reported through the stakeholders' workshops and revalidation of data.

from the Directorate of Social Welfare.

In the financial year (FY) 2015-16, so far the first phase of appointment for technical posts in SPSU, JSCPS, SARA and District Child Protection Society (DCPS) has been completed. The final process for the appointment of other staff is under way. DCPS has been established in all the 24 districts of the state. At present, 22 District Child Protection Officer (DCPO), 23 Legal-cum-Probation Officer (LPO), and 4 counsellors have been working on 24 DCPS. Five specialized child adoption agencies are functional in Jharkhand. In addition, Juvenile Justice Board (JJB) and Child Welfare Committee (CWC) have also been formed in all the 24 districts of the state.

Several observation homes, children’s homes, and special homes have been running in the state for temporary reception of the children in need of protection and care during their pending inquiry, when they are in conflict with the law

or otherwise, and subsequently for their care, treatment, education, training, development, and rehabilitation. Tables 14.5 and 14.6 present the details of government run and NGO-run homes in the different districts of Jharkhand. Ten government run Observation Homes, two Children Homes, and one Special Home have been running in the state to provide temporary shelter to the children. The state government has established two NGO-run children’s homes for girls in Ranchi and Gumla districts of the state. For the financial year (FY) 2015-16, the government has proposed to provide NGO-run children’s homes for boys in the districts of West Singhbhum, Bokaro, Sahibganj, Palamu, Khunti, Pakur, Ramgarh, Godda, Latehar, and NGO-run children’s homes for girls in the districts of Hazaribagh and West Singhbhum. In addition, a shelter home for girls has also been planned at Giridih.

**Table 14.5: Institutional Services (Government run homes)**

Type of Home	Existing
Observation Home	Ranchi, Gumla, Simdega, East Singhbhum, West Singhbhum, Bokaro, Dhanbad, Hazaribagh, Dumka and Deoghar
Children Home	East Singhbhum and Deoghar
Special Home	Dhanbad

**Source:** Jharkhand State Child Protection Society, Department of Women and Child Development and Social Security, Government of Jharkhand

**Table 14.6: Institutional Services (NGO run homes)**

Type of Home	Existing	Proposed for the Year 2105 - 16
Children Home	Ranchi (for girls) and Gumla (for girls)	West Singhbhum, Bokaro, Sahibganj, Palamu, Khunti, Pakur, Ramgarh, Godda, Latehar for boys
		Hazaribagh and West Singhbhum for Girls
Shelter Home	-	Giridih (for Girls)

**Source:** Jharkhand State Child Protection Society, Department of Women and Child Development and Social Security, Government of Jharkhand

Notable achievements have been made under the ICPS and JJ system. Until now in FY 2015-16,

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 2015-16. Committees for child protection at the district, block, and village levels have been formed. Orientation and sensitization of stakeholders have 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.

### Social Security

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:

**National Old Age Pension Scheme (NOAPS)** renamed as **Indira Gandhi National Old Age Pension Scheme (IGNOAPS)** in 2007 - Under this scheme, individuals aged 60-79 years belonging to the below poverty line (BPL) families are entitled to receive a pension of rupees 600 per month and individuals aged 80 years and above are entitled for rupees 700 per month. So far until November 2015, funds have already been disbursed among 6,77,037 beneficiaries.

**Annapurna** - Senior citizens who are eligible but not covered under NOAPS have been receiving 10 kilogram of food grains every month.

**Indira Gandhi National Widow Pension Scheme (IGNWPS)**— Each widow in a BPL family aged between 40 and 79 years has been entitled to receive a monthly pension of rupees 600. In FY 2015-16 (until November 2015), funds for 2,66,982 beneficiaries have already been allocated.

**Indira Gandhi National Disability Pension Scheme (IGNDPS)**— Under this scheme, individuals in the BPL families aged between 18 and 79 years with severe and multiple disabilities, as defined by the Persons with Disabilities Act (PWD Act), 1995/National Trust for the Welfare of Persons with Autism, Cerebral Palsy, Mental Retardation and Multiple Disabilities Act (National Trust Act), 1990, have been provisioned to receive a monthly pension of rupees 200. Up to November 2015, funds have already been disbursed to cover 16,791 eligible pensioners.

**National Family Welfare and Benefit Scheme**— Under this scheme, the dependent family member of a deceased earning member (female or male aged 18-59 years) in a BPL household has been provided with a lump sum amount of rupees 20,000 as financial support. In the financial year 2015-16 (until November 2015), funds have already been allocated to 1,154 beneficiaries.

**State Social Security Pension Scheme**— This scheme originally started in 1979 and amended twice in 1983 and 2007, serves the poor widows, old-aged people, handicapped, and captive free workers. Under this scheme, the persons aged 60 years and above, disabled or old, and individuals aged 18 years and above, the widows, handicapped and captive free labourers, with an annual income of less than rupees 10, 500 in rural area and less than rupees 12,500 in an urban areas have been entitled to receive rupees 600 per person per month. Already 1,85,393 eligible



pensioners have been covered under this scheme in the financial year 2015-16 (until November, 2015).

**Pension Scheme for Primitive Tribal**— Under this scheme, a pension of rupees 600 per person per month has been provided to married women aged 18 years and above belonging to the families of primitive tribes in the state. The scheme has been specifically focused towards the welfare of the following tribes: Asur, Birhor, Birjiya, Hill-Khariya, Korwa, Mal Phadiya, Parhiya, Soriya Phadiya and Sabar etc. In the financial year 2015-16, funds have already been allocated to these groups according to the area of their domain.

**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.

**Swami Vivekananda Encouragement of Self Reliance for Disabled**- This scheme has been towards providing cash benefits to the eligible disabled persons of the state. The amount of benefit depends on the age and severity of the disability. Through this scheme, the state has been providing a monthly stipend of rupees 400 to any person above the age of five years, with some forms of physical challenges.

**Chief Minister's Laxmi Ladli Scheme**- In order to improve the sex ratio and prevent child marriage, the Government of Jharkhand, has launched the Chief Minister Laxmi Ladli Scheme. Under this scheme, the state has been depositing funds in the name of the girl child of the eligible households. The girl child will receive a specific amount every 5 years until she is 18 years of age. She will also receive a lump-sum amount of rupees 1,08,000 when she turns 21, provided she has not been married before turning 18.

This scheme is only applicable if the first and/or second child is a girl.

**Inter-Caste Marriage**- Eligible couples entering into inter-caste marriage have been entitled to receive a National Saving Certificate worth rupees 25,000.

**Malnourishment Treatment Centers for severely malnourished children**- Free treatment has been provided to the severely malnourished children at the village level.

**Training of women in efficiency and entrepreneurship skill development**- Training in business skill has been provided to help women start their own business and improve their financial condition.

**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 licenses from the District Deputy Commissioners in case they hire five or more migrant workers.

Besides the above schemes, the Government of Jharkhand is also working on the following areas:

### **Running/functioning of the State Resources Centers in Ranchi & New Delhi for the Prevention of Trafficking**

Human trafficking is a crime against humanity and Jharkhand has been committed in preventing human trafficking in the state. The Government of Jharkhand has a State Resource Centre (SRC) in Ranchi as well as an Integrated Resettlement and Resource Centre (IRRC) in New Delhi. The SRC has been running under the CID

(Criminal Investigation department) and has so far been able to rescue 28 out of the 199 children reported missing. Additionally, the IRRC in Delhi has rescued 32 girls and rehabilitated them successfully.

### **Functioning of Nari Niketan “Snehashray” in the Ranchi District**

Jharkhand Mahila Vikas Samiti has launched the Nari Niketan Snehashray initiative on June 25, 2015 to provide shelter to the rescued adolescent girls and women. The centre has presently been running from a government building in Arsande, Kanke.

### **Beti Bachao, Beti Padho**

In order to promote the cause of girl child, the State Women Empowerment Mission has launched the Beti Bachao, Beti Padhao scheme in February 2015. Dhanbad has been chosen as the first district to implement this scheme because of its low sex ratio.

### **Scheme for Capacity Building of women and teenage/adolescent girls**

Skill development in women especially among the adolescent girls, is extremely important for empowering the women of the state. Jharkhand Skill Development Mission in collaboration with Jharkhand Women Development Committee has been preparing the work plan to identify the key areas of skill development for adolescent girls and women.

## **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**

*Inclusive development of the state has been the major areas of focus of the state from its initiation. Recent studies have also opined on the importance of inclusive development for the sustainable and steady development of any state or for that matter any country. The challenge with Jharkhand lies in the inclusive development of the Scheduled Tribes, Scheduled Castes and other underprivileged sections of the society.*

*In a state with more than 3 crores of population, the Scheduled Tribes constitute 26.21 percent of the total population of the state, according to the Census 2011 data. The Scheduled Caste occupies 12.08 percent of the population of the state.*

*With this fact in mind, the government is making continual efforts to uplift and promote these underprivileged communities and to bring them to the forefront in the development paradigm of the state. The government, to make these underprivileged sections prosper, and to make them walk hand in hand with the development strategies of the state, has taken various initiatives in the field of education like providing*

*scholarships, residential schools, ashram schools etc; in the field of health by providing them with village hospitals in the hard to reach areas, health centres, food subsidy etc; in the field of livelihood by providing agriculture mechanisation schemes, JTDP, marketing strategies for lac etc. The government is taking special steps for the minority sections by providing a Multi Sectoral Development Plan, which will help them in various fields like education, livelihood, infrastructural development etc.*

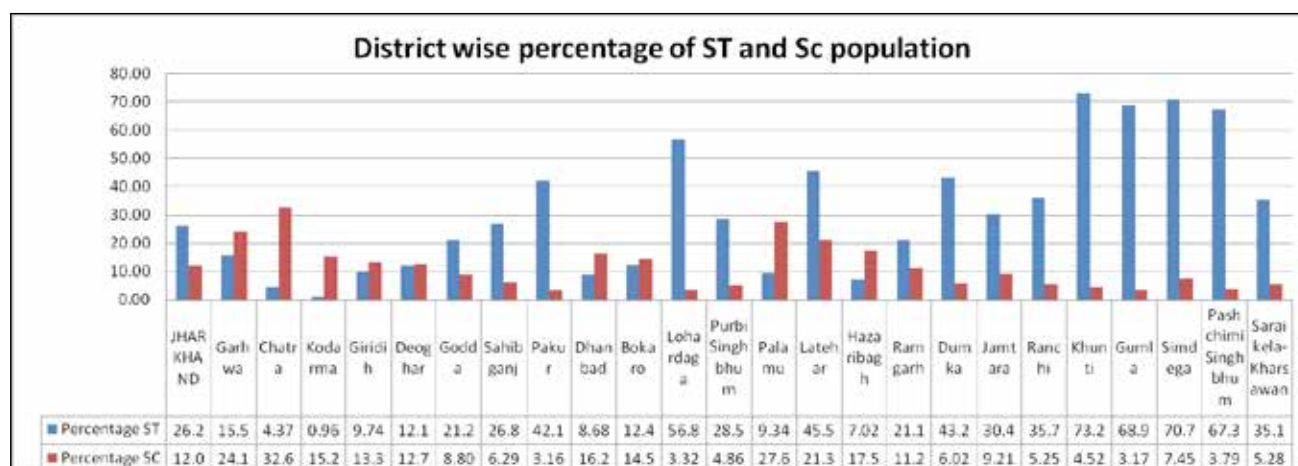
According to census 2011, the population of Jharkhand comprises 32 types of tribes. Some of the districts of Jharkhand like Khunti, Simdega, Gumla, and West Singhbhum have more than 60 percent of their population as Scheduled Tribes. Chatra, Palamu, Garhwa and Latehar are the districts that have the highest Scheduled Caste population. Hence, from its inception, the major thrust of policymaking in the state was to pull out the underprivileged communities of the state from the dark shadow of long prevailing deprivation.

**Table 15.1: Top 5 districts having highest Scheduled Tribe and Scheduled Caste Population**

Top 5 districts having highest Scheduled Tribe Population	Percentage of the total population the district	Top 5 districts having highest Scheduled Caste Population	Percentage of the total population the district
Khunti	73.25	Chatra	32.65
Simdega	70.78	Palamu	27.65
Gumla	68.94	Garhwa	24.19
West Singhbhum	67.31	Latehar	21.31
Lohardaga	56.89	Hazaribagh	17.50

Source: Census 2011

**Figure 15.1: District wise ST and SC population**



The new socio economic caste Census 2011, which studies the rural areas of the country, reflected that the total Scheduled Tribe population of Jharkhand is 8,645,042, out of which 91.01 percent reside in rural areas. About 29.12 percent of the rural households in Jharkhand are from Scheduled Tribe community including 0.97 percent of primitive tribal groups (PTG) households. Jharkhand not only hosts a huge tribal population, but also inhabits a wide variety of tribal communities in the state.

**Table 15.2: Percentage of SC and ST households in Jharkhand**

	All India	Jharkhand
Total No of Households	179721817	5044234
Percentage of ST household	10.97	29.12
Percentage of SC Households	12.95	18.45

Source: Socio-Economic Caste Census, 2011

The tribals normally live in contiguous areas unlike other communities. Their lives are closely associated with nature as they eke out their livelihoods from the natural environment of streams, trees, plants, animals etc. It is, therefore, recognized that maintaining their identities would

invariably mean keeping their environment intact with them. Given the contiguous inhabitations, it also becomes simpler to have an area approach for development activities and also regulatory provisions to protect their interests. In order to protect the interests of the Scheduled tribes, the provision of “Fifth Schedule” is enshrined in the Constitution under article 244 (2). The Fifth Schedule under article 244 (2) of the Constitution defines "Scheduled Areas" as such areas which the President may by Order declare to be Scheduled Areas after consultation with the governor of that State. The criteria for declaring any area as a "Scheduled Area "under the Fifth Schedule are:

- 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 the neighbouring areas.

The social assessment has identified that program interventions will not adversely affect the tribals, but, as groups having distinct socio-cultural identity and being normally “excluded”, special attention will be required to ensure their inclusion and equity.

The social assessment study brought out the following<sup>1</sup>:

- The tribal groups have a distinct cultural identity as compared to other groups.
- They are socially and economically disadvantaged in comparison to others.
- They have special developmental needs in terms of access to services and facilities compared to other backward groups.
- They are perpetually excluded from the decision making.

The 15 year old state still has few issues on these communities that need major focus. Some of

1 Jharkhand TRIBAL DEVELOPMENT PLAN; IPE Global Pvt. Ltd., 2013

these issues are as follows:

- Lesser participation of these communities in proper salaried jobs
- Literacy of the family members of 25 years and above is very low
- Majority of the landless households derive their livelihood from casual labour

The long debated marginalisation and deprivation of the above said communities is well substantiated by the results of the Caste Census 2011<sup>2</sup>. It can be seen that about 80 percent of the scheduled tribe households and about 82 percent of the scheduled caste households have an income less than Rs. 5000 per month. Only 6.07 percent of the ST households and 8.2 percent of SC households have a salaried job; cultivation and manual labour being the dominant sources of livelihood.

2 Socio Economic Cast Census survey was conducted only for rural and peri-urban households. See annexure for detailed results of SECC 2011 of Jharkhand

**Table 15.3: Major Source of income of the deprived communities in Jharkhand**

	% Households with casual income source				% Households with salaried income source		
	Cultivation	Manual Casual Labour	Part-time or Full-Time Domestic Service	Others	Government	Public Sector	Private Sector
Scheduled Tribe	42.55	44.68	4.13	8.17	3.49	0.95	1.64
Scheduled Caste	15.59	68.25	3.71	11.86	5.08	1.62	1.46

Source: Socio-Economic and Caste Census, 2011

In other parameters of well-being too, the scheduled caste and scheduled tribes are found at the bottom rungs. Among SC's, housing amenity was found to be poorer than the STs in rural Jharkhand. About 20 percent of the SC household and 16 percent of the ST households were found to be living in one room kuccha house. Although, the decadal change in literacy level shows

improvement, they are still lagging behind the satisfactory benchmark. The overall literacy among Scheduled tribes of Jharkhand is 57.1 percent in 2011. Still, 33.95 percent households are such where no adult above 25 year of age is literate. This number is even poorer among SC households where about 41 percent households have no literate adults.

**Table 15.4 : Condition of deprivation of SCs and STs in Jharkhand**

	Percentage of households		
	Only one room with kucha walls and kucha roof	No literate adult above 25 years	Landless households
Scheduled Tribe	15.79	33.95	13.23
Scheduled Caste	19.62	41.03	29.77

Source: Socio-Economic and Caste Census, 2011

Further if the status of the households assets of the ST and SCs is seen, the STs perform slightly better than the SCs, but have significant low numbers. Only, 1.65 percent and 1.31 percent of STs and SCs respectively own mechanized three/four wheeler agricultural equipments. A mere 1.78 percent of STs and 1.40 percent of SCs have kisan credit cards with the credit limit of Rs. 50000 and above.

**Table 15.5: Status of Household Assets of SCs and STs in Jharkhand**

	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 owning mechanized three/four wheeler agricultural equipments
Scheduled Tribe	14.99	1.78	1.65
Scheduled Caste	12.71	1.40	1.31

Source: Socio-Economic and Caste Census, 2011

Though continual efforts from the government in improvement in the condition of the underprivileged in the state have been improving, but still efforts need to be done to push them from the periphery to the centre.

In this context, the government of Jharkhand has taken several steps for framing policies that ensure speedy socio-economic development of the underprivileged sections.

### Government Initiatives

Framing appropriate policies are needed to design and implement various welfare programs such that a favourable environment for ensuring speedy socio economic development of underprivileged sections of the society is created. The Welfare Department of the Government of Jharkhand is mandated for a very focused multidisciplinary development of underprivileged sections like the Scheduled Tribes (STs), the Scheduled Castes (SCs), the Other Backward Classes (OBCs) in the state, specifically, in the areas of education,

health, infrastructure, economic activity and their lawful protection. Socially disadvantaged groups of Scheduled Castes/ Scheduled Tribes have received special focus over the years for their social and economic advancements. For the well being of these communities, special target-oriented programs are being implemented by earmarking funds, providing subsidies, offering reservations in employment and educational institutions etc.

### Initiatives taken for improving Education

#### Pre-matric scholarship

Majority of the tribal students of the state come from poor backgrounds and hence the government tries to provide extra incentive to those students for continual school education. In the year 2015-16, a total of Rs. 26150 lakh has been allocated for this purpose. This scholarship is provided at three levels, namely primary (Class 1 to 4), middle

(Class 5 & 6) and higher school (Classes 7 to 10). A total of 34, 26,667 students have been provided with scholarships across the state comprising of 7,30,000 Scheduled tribe students, 15,20,000 Scheduled Caste students and 11,76,667 students from other backward caste.

### Scholarship for students in technical Education

Government also aims to encourage the students from marginalized communities to pursue higher education which can help generate jobs for them. For this purpose the state provides Rs 50,000 per student as tuition fees and maintenance expenses to those students who pursue technical education within or outside the state. A total of 17,782 Scheduled Caste students, 67,252 Scheduled tribe students and 79,468 from other backward classes have been provided with this scholarship in 2015-16. In addition to this 3,27,000 new applications have also been accepted which are in the process of scrutiny by the department.

### Cycle Distribution Plan

As a strategy to cope with high number of dropouts of students from middle and high schools, mainly due to long distance between high schools and their villages, the government started the cycle distribution program. For this purpose, from the year 2014-15, the department has decided to give Rs 3000 per student through direct benefit cash transfer system. Under this scheme, a total of 3,13,264 students have been provided with cash to buy cycles which includes 44,266 Scheduled caste students, 92,333 scheduled tribe students, 1,33,333 and 43,332 students from other backward class and minority community students.

**Table 15.6: Physical progress of Cycle Distribution Plan in Jharkhand**

Social Category	Gender	Number of beneficiaries
Scheduled Caste	Boys	22576
	Girls	21690

Social Category	Gender	Number of beneficiaries
Scheduled Tribe	Boys	47090
	Girls	45243
Other Backward classes	Boys	68000
	Girls	65333
Minorities	Boys	22098
	Girls	21234
Total	Boys	159764
	Girls	153500
Total Students		313264

Source : Department of Welfare, Government of Jharkhand

### Distribution of uniform to girl students of Scheduled Caste and Scheduled Tribe

With the advent of education for all, the government has aimed for minimizing financial burden regarding school education as much as possible, especially for the parents of the students coming from marginalised communities. In this context, the department of welfare initiated this scheme to supply free uniform to girl students of Scheduled Caste and Scheduled Tribe categories studying in government schools. Under this scheme girl students of SC and ST are given two sets of white shirt and navy blue skirt worth Rs 500 per student. For this, the department has sent Rs 150 lakh for scheduled caste students and 300 lakh for scheduled Tribe students to all the blocks of the state. In the current financial year, about 25,000 scheduled caste students and 50,000 scheduled tribe students have been provided with these uniforms.

### Residential Schools

The state government makes an effort to build centres, which can provide an environment for the holistic development of the students coming from underprivileged communities. To realise this, the government through the Department of Welfare runs 132 Residential Schools for the SC, ST, OBC and PVTG students; more than twenty



thousand boys and girls are receiving education in such schools. The schools provide free residential facility, food, dress, study material and other necessary items to the students. Apart from this, for procuring newspapers and magazines, Rs 3000 per school per year for higher secondary schools, Rs 2000 for high schools and Rs 1500 for primary schools are being provided. For the maintenance of the library in these residential schools Rs 5000 per school per year for higher secondary schools, Rs 3000 for high schools and Rs 1000 for primary schools are being provided.

**Table 15.7: Items provided in School**

S. No	Items provided in Schools	Cost of the items
1.	Dress	500
2.	Books and study material	
	Class 1-6	400
	Class 7-10	700
	Class 11-12	850

S. No	Items provided in Schools	Cost of the items
3.	Medicine	100
4.	Washing and Bathing Soap	50 per month
5.	Shoes and shocks	225
6.	Sweater	200
7.	Schools Bag	105

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Currently, among 132 schools, 74 schools provide elementary education, 49 schools provide secondary level education, while in 9 residential schools, and education for the +2 level has been started. Sensing the demographic pressure, the department is in constant pursuit to convert the middle schools into high schools and some of the high schools to higher secondary schools.

**Table 15.8: Number of Residential schools for students of SC, ST and OBC communities**

Residential School	Scheduled Tribe		Total	Scheduled Caste		Total	Other Backward classes		Total	Primitive Tribal Group		Total	Total number of Schools
	Boys	Girls		Boys	Girls		Boys	Girls		Boys	Girls		
+2 Schools	5	4	9	0	0	0	0	0	0	0	0	0	9
High School	24	9	33	12	0	12	0	4	4	0	0	0	49
Middle School	34	11	45	1	0	1	0	0	0	0	0	0	46
Primary School	8	1	9	5	5	10	0	0	0	5	4	9	28
Total	71	25	95	18	5	23	0	4	4	5	4	9	132

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### Eklavya and Ashram Vidyalay

The Eklavya Model Residential Schools and Ashram schools aim to provide best opportunities in education to Scheduled Tribe (ST) students 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 avail admission in high and professional educational courses as well as jobs in government, public and private sectors. At present, in Jharkhand with the help of NGOs, 300 bedded 4 eklavya schools and 200 bedded 3 ashram schools are running successfully in districts like Dumka, Sahebganj,

West Singhum, Gumla, Saraikela, Jamtara and Ranchi. At present, about 1200 and 600 students reside in the Eklavya and Aahram Schools in the state respectively.

**Table 15.9: List of the Eklavya Model Schools In Jharkhand**

Sl_no	District	Name Of School	Name of the NGOs Responsible
1	Dumka	Eklavya Model Awasiy School, Katijuriya	Buddha Education Develop
2	Sahebganj	Eklavya Model Awasiy School, Bhogna Dih Barhet	Sewa, Dumka
3	Ranchi	Eklavya Model Awasiy School, Salgadih Tamar	Keral Public School Trust, Jamsedpur
4	West Singhum	Eklavya Model Awasiy School, Tersundari Chaibasa	ASRA Chaibasa

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### Others schemes related to residential, Eklavya and Ashram schools

Construction and renovation of tribal residential school- Under this scheme, in the year 2015-16, 37 tribal residential schools were renovated, where basic facilities like washrooms and roofs were renovated.

Ashram schools in Naxal effected areas- Special effort has been made to improve and provide good quality education in Naxal effected areas of the state. Under this scheme construction of 2 more Ashram school was initiated in addition to the work of existing 7 similar projects.

### Construction of Hostels and their maintenance for SC, ST, OBC and Minorities Students

In a quest to encourage the students from underprivileged communities to continue

their higher education, department of welfare constructs and maintains hostels for ST, SC, OBC and minority students. After the formation of the state, government aimed at opening of 507 such hostels, out of which 373 hostels are successfully running. Out of 373 hostels, 104 hostels have been built for SC students, 173 for ST students, 58 for OBC students and 40 for minority students. In the year 2015-16, under this scheme 7 SC hostels, 19 ST and 15 OBC hostels have been renovated.

### Providing better Health for the underprivileged

#### Village Hospitals in hard to reach area

Many tribal villages of Jharkhand fall under hard to reach areas, where due to dense forest or difficult terrain, reach of the quality health services was a challenge. Owing to this problem, the department has set up 14 village hospitals out of which 9 hospitals are been managed by NGOs. In the year 2015-16, about 1.50 lakh patients have been treated in these hospitals.

**Table 15.10 : List of the hospitals under Village hospital Schemes in Jharkhand**

S. No	Name of Place	Name of the NGOs responsible
1	Katikund, Dumka	Richi Trust Hospital, KathalMor, Ranchi
2	Litti Para, Pakur	Richi Trust Hospital, KathalMor, Ranchi
3	Jhona, Ranchi	Richi Trust Hospital, KathalMor, Ranchi
4	Arki, Khunti	Richi Trust Hospital, KathalMor, Ranchi
5	ParsoDih, Lohardaga	I.C.I.R.T. P.P. Compound Ranchi
6	Kucghai, Saraykela	I.C.I.R.T. P.P. Compound Ranchi
7	Pathna, Sahebganj	Dainemic Tarang, Kokar, Ranchi
8	Nala, Jamtara	Dainemic Tarang, Kokar, Ranchi

S. No	Name of Place	Name of the NGOs responsible
9	Bahara Gora, Jamsedpur	Vikash Bharti Vishanpur Gumla

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### Ayurvedic Chikitsa Kendra

For providing effective ayurvedic treatment to the underprivileged, 35 ayurvedic centres are running in the tribal dominated areas of the state. Through these centres people from scheduled tribe communities are given free medical consultation and medicines. Every ayurvedic centre has one Ayurvedic Medical Officer and one assistant to the run the centre.

### Sub-health centre for Pahariya tribe

Sauriya Pahariya tribe is one of the most marginalised communities of the state who reside mainly in the hilly regions of the Santhal Pargana. Keeping in mind the poor health facilities in the area and alarming health indicators of this tribe, under a special scheme, 18 Pahariya Swastya Upkendra are being operated. Through these sub-centers, people from Pahariya tribes are provided with vital health services and free consultancy.

### Chief Ministers Special Food Security Scheme for Primitive Tribe Groups

Many studies have shown that the Primitive Tribe group of Jharkhand ranks very low on indicators pertaining to food security and nutrition. Keeping this in mind the department of welfare has started the Chief Ministers Special Food Security Scheme for these Tribal groups. Under this scheme food grains (rice and wheat) are being made available to all families of Primitive Tribes. Under this scheme each family of Primitive Tribe gets 35 kg of rice per month at the rate of Rs 1 per Kg. Under this scheme, in the year 2015-16, 79,108 PTG families have been benefited.

## A step towards Social Empowerment of the underprivileged

### Forest Rights act

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 2015, 46,899 claims have been received in which in 19,102 case titles for the claimed lands were distributed after scrutiny. In 2014-15, it was realised that the actual number of cases that were claimed was much lower than the expectation, and hence from April 2015 to November 2015, a special drive campaign was launched by the department of welfare in association with social groups like Vanadhikar Manch and NGOs like PACS. In this period, a total 36,654 claims have been received out of which in 24,023 new case titles were distributed. Up till now, under the Forest Rights Act, 87,990 acres of forest land has been distributed.

### Mukhaya mantri Scheduled Tribe Gram Vikas Yojna

A new scheme was launched by the department of welfare for social and economic upliftment of the scheduled tribe people in 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 generation of livelihood opportunities. In 2015-16, a total of 1000 villages are targeted under the scheme in which the district level committee has been formed in October 2015 for selection of the beneficiaries.

### **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 development issues of tribals and will help the government to formulate policies for the same. In May and August 2015, two meetings were organised which was presided by the Chief Minister of the State.

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.

### **Van Bandhu Kalyan Yojna**

In October 2014, the scheme Van Bandhu Kalyan Yojna has been launched by the central government, which aims for a holistic development of those tribal dominated districts which rank low in human development indicators. The scheme through convergence of other continual program tries to provide better living standard and quality of life, improve access to and quality of education, generating resources for long-term and sustainable growth, bridge infrastructural gaps and protect tribal culture and heritage. Initially, Littipada block of Pakud District was chosen for a pilot implementation. With the success of the program, the state department has made a proposal to extend this program to all tribal dominated districts in 2015-16.

### **Inclusive Schemes for Tribal groups**

#### **Birsa Munda Awas Nirman**

As seen above, the tribal community comprises a major part of the Jharkhand population. Out of these, nine communities namely Asur, Birhor, Birajia, Korba, Hill Kharia, Mal Pahariya, Sauriya Paharia, Parahriya and Sabar have

been marked as primitive tribal groups. These Primitive Tribe Groups are found in all the 24 districts of the state and their total number, as per the last survey is 193,827. Their concentration is highest in the districts of Sahebjanj and Dumka. It has been found that due to their nomadic lifestyle, their human development indicators are very low. Even the development schemes launched by the government do not reach them effectively due to the unstable residential location. Hence, Department of welfare with the help of Department of Rural Development launched Birsa Munda Awas Nirman under which, people of these tribe are being provided land and housing facilities, so that they can get a permanent residential status. Since the formation of the state, 33,524 houses were targeted out of which 24,572 houses have already been built. In the year 2015-16, for building 768 houses, Rs. 499.20 Lakh has already been transferred to the concerned districts. In addition to this, through another scheme by the department- building of Manjhi house, 100 units have already been constructed.

### **Boundary construction for places of Sarna/ Masna/ Jaher**

Sarna, Mansa and Jaher are the religious places of tribal community group. 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 community the department has started to mark these places by constructing boundaries around them. In the year 2015-16, about 134 such places have been protected by constructing boundaries around them.

### **Towards Improving Livelihood**

#### **Agriculture Mechanisation Scheme**

Among the tribal communities, use of primitive agricultural practices has been a major hurdle in accepting agriculture as their main livelihood. With restrictive forest policies, the tribal

communities have to shift their livelihood base as agriculture, but traditional processes couldn't even earn them two square meals a day. Thus, keeping this in mind the Central government under this scheme, started distributing farm implements like power tiller, rotavator, paddy transplanter, diesel pump set etc. In Jharkhand, through department of welfare, this scheme has been implemented. From 2014-15, 875 diesel pump sets, 193 rotavators, 136 paddy transplanters and 197 power tillers have been distributed to the tribal farmers free of cost.

### **Micro (Sprinkler) Irrigation System**

From past few decades irrigation has been a major concern among tribal farmers. In absence of a robust irrigation system, most of the farmers are rain dependent and practice 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 agriculture land benefiting on an average 50 tribal families. In the last financial year, 4 units were installed in Hazaribagh district benefiting about 200 families, 12 units were installed in Chatra District benefiting about 600 families, 3 units in Ranchi district, 12 units in Deoghar district and in Dumka a single unit was installed.

### **Jharkhand Tribal Development Program**

Jharkhand Tribal Development Program aims to develop and implement a replicable model that ensures household food security and improve livelihood opportunities and overall quality of life of the tribal population based on sustainable and equitable use of natural resources. It got its approval in April, 1999.

The operational area under JTDP comprises 14 tribal sub plan areas covering 30 blocks. For its implementation, among these 30 blocks 1,259 tribal dominated villages have been selected including 347 villages where primitive tribal

groups reside. These villages are specially selected which are located in the most remote areas where access to road and means of transportation is limited. It is expected that from this project about 1.53 lakh tribal household will be benefited.

### **Jharkhand Tribal Empowerment Livelihood Program**

A tripartite agreement among the Government of India, IFAD and the State of Jharkhand is signed and launched to run various livelihood schemes aimed at improving the livelihood conditions of the tribal rural poor. The main objective of the program is to empower the weaker and marginalised sections of the society, so that they can become self reliant in earning their livelihood and can frame their own need-based policies for socio-economic development.

Jharkhand Tribal Empowerment & Livelihood Project (JTELP) is being implemented in 14 TSP districts of the State (i.e. Ranchi, Khunti, E. Singhbhum, W. Singhbhum, Saria-kela-Kharsawan, Gumla, Simdega, Lohardaga, Latehar, Dumka, Jamtara, Sahebganj, Godda and Pakur Districts). Under this program, 1,259 remote gram panchayats have already been marked in which activities to empower the panchayat are going on through the *Gram Sabha Samiti*. In addition to this, 2,442 women Self-help groups have been established, through which around 29,300 women are being connected. Apart from women, youth are also shown a new way to earn livelihood through *Gramin Yuva Sangathan*. At present, 243 such youth groups have been formed in the selected panchayats.

Through the components, the program plans to reach 1,36,000 households in between the year 2013 to 2020. The major components under JTELP are:-

1. Community Empowerment
2. Integrated Natural Resource Management
3. Livelihood Support

#### 4. Project Management

##### Special Central Support Sub-plan

Under this program, an effort has been made to encourage rural micro-entrepreneurship in selected villages. In the last fiscal year, support was provided to open up 220 poultry units benefiting 2,200 households, 40 piggery units benefiting 400 households and 166 goat rearing units benefiting 1,660 households. In addition to this, for increasing agricultural productivity, 1,800 marginal farmers were distributed high yielding variety seeds. In the gram sabhas special training classes were conducted with the help of the department to disseminate knowledge about production of pulses like arhar and moong and seeds of whole grams and groundnuts were distributed.

##### Birsa Udmita Kendra

For village's self resource utilization, 74 Birsa udmita centres have opened on a pilot basis in which women through self help groups carry out activities like husking, grounding wheat, flour, spices and edible oil.

##### Procurement and Marketing of Lac and other minor forest goods

Jharkhand's forest is rich with Lac host plants, mahua, bamboo, tendu etc. Thus, traditionally tribes of Jharkhand have gained an expertise in production of lac, products made of lac, mahua and other minor forest products. But due to the presence of mediators, the traditional producers couldn't get their returns both with respect to economic return and recognition in the market. Thus, department of welfare has started this scheme in the scheduled areas of the state under which lac and other forest based products are directly procured and marketed by the government. In the previous year, welfare department allocated 24.15 Crore and 22.57 crore to the government owned enterprises Jhamcofed and Jhascolamp respectively. With this amount Jhamcofed procured 490 quintal of Imli and

2724.22 quintal of Chironji seeds. By doing so it benefited about 1500 local producers. On the other hand, Jhascolamp procured 62.69 metric tonne lac worth Rs. 200.61 lakh from Khunti and Saraikella districts.

##### Vocational Training program

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 programs are conducted by different government agencies which have specialised trainers and infrastructure to conduct the programs. 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.

**Table 15.11 : List of Courses offered by AJSVN**

S. No	Name of the Courses	No. of seats available
1	Hotel Management	160
2	Computer Accountancy	75
3	1 year Computer Diploma Course	60
4	Motor Driving	100
5	Plumbing	40
6	Gems Stone Cutting	40
7	Apparel Manufacturing	20
8	Fashion Designing	20
9	Maschinist	30
10	Fitter cum Welding	30
11	Retail Management	20
12	Paramedical	120
13	Mobile Repairing	40

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The duration of courses range from 3 months to 2 years. At present, 845 youth are being trained in different courses.

**Shilp Vikas Kendra** on other hand provides vocational training programs 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. In the previous year about 1,200 traditional craftsmen have been trained under this scheme.

**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. At present, 240 students from scheduled caste community, 520 students from scheduled tribe community, 200 students from backward classes and 200 students from minority community are being trained.

### Interventions to uplift minority communities

Muslims, Sikhs, Christians, Buddhists and Zoroastrians (Parsis) have been notified as minority communities under Section 2 (c) of the National Commission for Minorities Act, 1992. Under the Centrally Sponsored Scheme (CSS) launched in the year 2008-09, 90 Minority Concentration Districts (MCDs) in India were recognised in which, intensive program to uplift the overall living standards of the minorities were planned. Out of these 90 districts, in Jharkhand, four minority concentrated districts were marked namely Ranchi, Gumla, Pakur and Sahebgunj. The total minority concentration is the highest in Pakur, about 38 percent, closely followed by Sahebgunj having about 37 percent minorities. Gumla has 36 about percent minority population and Ranchi has around 22 percent minority population. The districts of Pakur, Sahebganj and Ranchi have higher Muslim minority concentration respectively, while, Gumla has higher concentration of Christian community.

**Table 15.12: Details of Minority Concentrate Districts (CENSUS 2011)**

Details of Minority Concentrated Districts					
Religion	Ranchi		Religion	Gumla	
	Population	Percent- age of total population		Population	Percentage of total popula- tion
All religions	2785064	--	All religions	1346767	--
Muslims	348774	12.52	Muslims	59752	4.44
Christians	253549	9.1	Christians	425107	31.56
Sikhs	7392	0.27	Sikhs	511	0.04
Buddhists	1420	0.05	Buddhists	245	0.02
Parsis	--	--	Parsis	--	--
Total Minority	611135	21.94	Total Minority	485615	36.06

	Pakur			Sahibganj	
Religion	Population	Percentage of total total population	Religion	Population	Percentage of total total population
All religions	701664	--	All religions	927770	--
Muslims	227069	32.36	Muslims	290060	31.26
Christians	41099	5.86	Christians	58723	6.33
Sikhs	456	0.06	Sikhs	290	0.03
Buddhists	52	0.01	Buddhists	40	0
Parsis	--	--	Parsis	--	--
Total Minority	268676	38.29	Total Minority	349113	37.63

Source: <http://www.minorityaffairs.gov.in/jharkhand>

### Providing Scholarship

Owing to the fact, that the educational achievement of the students from minority community in the state is low, department of welfare operates special schemes to encourage students from these communities. For financial support, the department provides pre-matric scholarships, in which students studying in class 1 to 10 get yearly scholarships. To ensure timely availability of scholarships to the students belonging to eligible social groups, a scheme for on-line application for scholarship and e-payment has been implemented. In the current year, for 28,465 students, money is has been disbursed by the department. The department also provides money to the minority students from very poor families, for reimbursement of admission expenses in schools and inter-colleges. A total of 13,473 students have already benefited under this scheme. In addition to this, the government also provides merit cum means scholarships to encourage the students who perform well in their academics.

### Multi Sector Development Program

The Multi-sectoral Development Program (MsDP) was conceived as a special initiative of the follow up action on the Sachar Committee recommendations. It is a Centrally Sponsored Scheme (CSS) launched in the year 2008-09 in 90 Minority Concentration Districts (MCDs). The programme aims at improving the socio-economic conditions of minorities and providing basic amenities to them for improving the quality of life of the people and reducing imbalances in the identified 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, besides 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, for the implementation of the programs under MsDP, the department with central assistance has disbursed 10.73 crore to the respective blocks in Jharkhand.



**Table 15.13 : List of Selected MsDP blocks in Jharkhand**

Selected MsDP Blocks in districts of Jharkhand		
Sl_No	Name Of District	Block
1	Giridih	Dhanbad, Gandey
2	Deoghar	Paljoro, Madhupur, Karo
3	Godda	Pathargama, Mahgama
4	Sahebganj	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	Gadwa	Gadwa
11	Hazaribagh	Katkamsari
12	Dhanbad	Govindpur
13	Palamo\Latehar	Mahuwatand
14	Jamtara	Narayanpur
15	Khunti	Torpa, Raniya, Marho
16	Simdega	Simdega, Kurdeg, Bolba, ThethayTangar, Kolebera, Bano

Department of Welfare, Government of Jharkhand

### Welfare programs for the Minority Community

**Haj Samiti and Haj Yatra-** To safeguard, religious interests of the people from the Muslim community, the department supports in organizing the Haj, the religious pilgrimage of the Muslims. In this context, under the department notification 1620, in June 2015, a Haj samiti was established who looks after the whole organisational procedure of the Haj yatra. The samiti in 2015-16, helped 2,841 people from the state to go for Haj yatra.

**Concrete boundary walls for graveyards –** The scheme for construction of concrete boundaries for graveyards was continued in this fiscal year. Under this scheme, boundary walls for 184 graveyards worth Rs. 20 crore have already been approved and the required sum of money has been disbursed to the local authorities at the district level for successful implementation.

**Constructions of Kiosk-** In the current fiscal year, 128 kiosks, worth Rs. 150 lakh, have been established throughout the state. These centres facilitate administrative and economic services to the people from minority community who live below poverty line.

**Table 15.14 Summary of Outlay: Department of Welfare**

Sl. No.	Name of Scheme	Annual Plan 2015-16 (Rs in Lakh)					
		Total Outlay	State	Central	Flow to TSP	Flow to SCSP	Flow to OSP
<b>A.</b>	<b>State Plan Schemes</b>						
(a)	Continuing Schemes	83313.00	83313.00	0.00	45580.00	11522.00	26211.00
(b)	New Schemes	0.00	0.00	0.00	0.00	0.00	0.00
(c)	Finance Commission	1.00	1.00	0.00	1.00	0.00	0.00
(d)	EAP	1910.00	1910.00	0.00	1910.00	0.00	0.00
(e)	<b>Components of Central Assistance to State Plan</b>						
i.	Flagship ACA Schemes	0.00	0.00	0.00	0.00	0.00	0.00
ii.	Other ACA Schemes	22000.00	22000.00	0.00	20000.00	2000.00	0.00
<b>B.</b>	<b>Centrally Sponsored Schemes (CSS)</b>						
i.	Continuing Schemes	3752.00	1876.00	1876.00	1692.00	770.00	1290.00
ii.	New Schemes	4000.00	1000.00	3000.00	4000.00	0.00	0.00
C.	CSPS	13386.50	0.00	13386.50	9233.70	1957.80	2195.00
<b>Grand Total</b>		<b>128362.50</b>	<b>110100.00</b>	<b>18262.50</b>	<b>82416.70</b>	<b>16249.80</b>	<b>29696.00</b>

Department of Welfare, Government of Jharkhand

16

**Forest and  
Environment**

*The save the 5 “J” drive has become a movement of sorts in the state of Jharkhand and includes Jan (man), jal (water), jungle (forest), Janwar (wild life), and Jameen (land). The forest in Jharkhand comprises of biological and geophysical diversities and thanks to the variations of altitude and rainfall, diverse forest types and species are available in the forests of Jharkhand.*

*Jharkhand provides 3.31 percent of the total forest cover of the country and ranks 10<sup>th</sup> in the country in terms of its forest cover. The latest IFSR 2015 suggests that though the total forest cover has been steadily increasing over the past 5 year most of it is outside the green wash area and in most states as in Jharkhand this is primarily due to plantation and protection activities. The composition of forest has also undergone a systematic change with moderately dense ones degrading into open forests while share of very dense forest cover has largely remained unchanged.*

Forest provides invaluable income to millions of tribal people and forest dwellers and, thereby, plays an important role in their life support system. They depend on it for food, fodder, medicines and it is a source of livelihood for nearly 2 million poor tribal people of Jharkhand. Many species are economically important for the people living in and around the forest areas.

These people, mainly tribal, are engaged in the collection of leaves, barks, gums, roots, flowers, fruits and sometimes the entire plant.

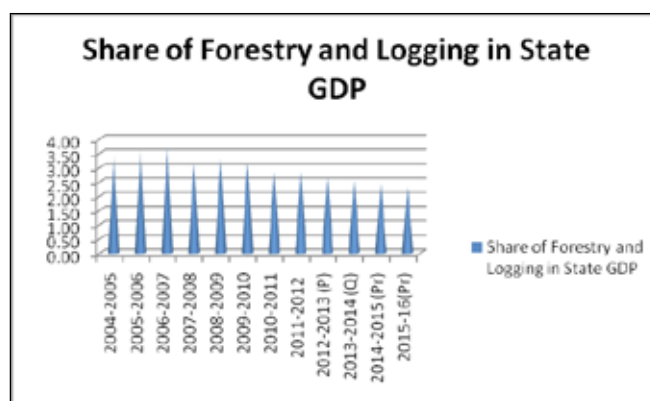
However given that ecological balance is largely dependent upon these forests, their protection and conservation becomes very important.

The chapter is divided into two broad sections- the first discusses the current status of forest coverage and its changing dimensions in the state; the second discusses environmental issues and elaborates the work of the Jharkhand Biodiversity board towards preservation and conservation of biodiversity in the state.

### Forests

According to India Forest Survey Report (IFSR) 2015, the total forest cover of Jharkhand is 23478 sq km with an additional tree cover of 2783 square kilometre. The per capita forest and tree cover is 0.08 hectares and covers about 32.94 percent of state’s geographical area. The figure below represents the contribution of forestry and logging to the state GDP in the past decade. The share in SGDP calculated at 2004-05 constant prices has declined sharply from 3.37 percent in 2004-05 to 2.3 percent in 2015-16 (provisional estimates). The total forestry and logging GDP at 2004-05 constant prices has fallen by 47.67 percent in the reference period 2004-2015.

**Figure 16.1: Contribution of forestry and logging to SGDP of Jharkhand -**



Source: Department of Finance, Government of Jharkhand

Any discussion of forest as a natural resource focuses primarily on canopy density which defines the forest type and the change in the composition of the forest type. Forest *Canopy density* is a major factor in evaluation of forest status and is an important indicator of possible management interventions. Also known as *canopy* coverage or crown cover, it is *defined* as the proportion of the forest floor covered by the vertical projection of

the tree crowns.

Forest cover refers to all land with tree canopy density of 10 percent and above and minimum mapping unit (MMU) of one hectare. The table below presents the change matrix of forest cover in IFSR 2015 as compared to that in IFSR 2013. The self explanatory table below classifies forests according to the tree canopy density type.

**Table 16.1: Classification of forests**

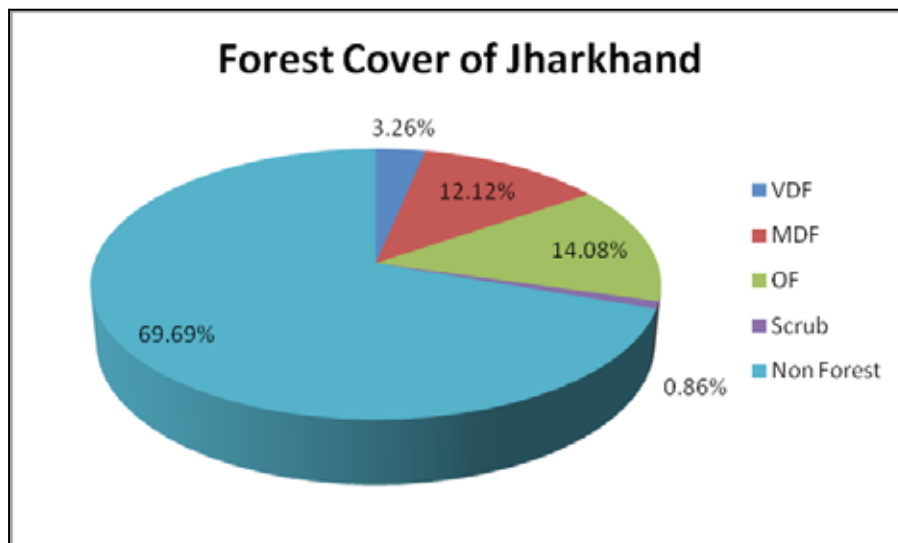
Type	Tree Canopy density
Very Dense Forest (VDF)	70 percent and above
Moderately dense Forest (MDF)	40 percent and above but less than 70 percent
Open Forest (OF)	10 percent and above but less than 40 percent
Scrub	Degraded land with tree canopy density of less than 10 percent
Non forest	Land not included in any of the above classes

Source: IFSR-2015

The picture below divides the total geographic area of the state in forest cover which is about 30 percent and non forest cover type which is about

70 percent. Most of the forest cover in the state of Jharkhand is provided by open forests, 14.08 percent.

**Figure 16.2: Composition of Forest Cover in Jharkhand**



Source: IFSR-2015

The matrix below compares the change in coverage by forest type as measured by IFSR 2015 with that of IFSR 2013. Though there are variations in cover by forest type but there is evidently no change in the net forest cover as measured in both the reports. To give some

perspective to the numbers in the change matrix- there is forest degradation leading to an increase in the open forest and scrub area. The decline in the non forest area is primarily due to intense plantation drive under the aegis of the department.

**Table 16.2: Forest Cover Change matrix (area in sq.km)**

Class	VDF	MDF	OF	Scrub	Non Forest	Total IFSR 2013
Very Dense Forest	2587	0	0	0	0	2587
Moderately Dense Forest	1	9658	4	2	2	9667
Open Forest	0	5	11205	8	1	11219
Scrub	0	0	12	657	1	670
Non Forest	0	0	6	18	55547	55571
<b>Total IFSR 2015</b>	2588	9663	11227	685	55551	79714
<b>Net change</b>	1	-4	8	15	-20	

Source: IFSR-2015

The table below shows the trends in forest coverage since the creation of the state. The total forest cover as a percentage of the total geographical area has been almost unchanged over the years but the category wise variation has been large excluding the VDF category which has not experienced any change. The years 2003-04 and 2011-12 experienced major changes as is reflected in the IFSR 2005 and IFSR 2013. While 2003-04 experienced a commendable

change with an increase of 816 square kilometres in moderately dense forest and a corresponding decrease of 714 square kilometres in open forest area. On the other hand, in the period 2011-12 the moderately dense cover shrunk by 250 square kilometres while the open forest cover increased by 749 square kilometres which was the reason for the dramatic increase in the total forest cover in this reference period.

**Table 16.3: Changing trends in Forest Coverage and Composition (area in square km)**

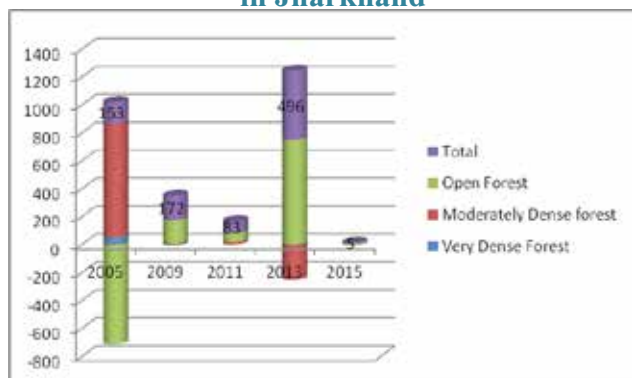
Year	Forest Cover				Percentage of geographical area	Increase in forest coverage			
	Very Dense Forest	Moderately Dense forest	Open Forest	Total		Very Dense Forest	Moderately Dense forest	Open Forest	Total
2001		11681	22531		28.26				
2003	2544	9076	10949	22569	28.31		-61	99	38
2005	2595	9892	10235	22722	28.5	51	816	-714	153
2009	2590	9899	10405	22896	28.72	-5	7	170	172
2011	2590	9917	10470	22977	28.82	0	18	65	83
2013	2587	9667	11219	23473	29.45	-3	-250	749	496
2015	2588	9663	11227	23478	29.48	1	-4	8	5

Source: IFSR 2005, 2009, 2011, 2013 and 2015

The figure below is a graphical representation of the happenings and changes in composition by forest type over the past decade. Not much has

changed in the total forest cover since 2013 and there has been a barely noticeable increase of 5 square kilometres.

**Figure 16.3: Changing composition of Forests in Jharkhand**



Source: IFSR 2005, 2009, 2011, 2013 and 2015

In the table below we present the district wise total forest cover since 2009 and as reported by IFSR. The districts of Gumla, Hazaribagh, Palamu, Ranchi and West Singhbhum provide approximately 61 percent of the state's total forest cover with Palamu and West Singhbhum together accounting for about 32 percent. Palamu as a matter of fact has the biggest national park of the state, the Betla national park which also has the famous Palamu Tiger Reserve.

**Table 16.4: District wise forest coverage since 2009 (sq km)**

District	Total Forest Coverage in 2009	Total Forest Coverage in 2011	Total Forest Coverage in 2013	Forest cover in 2015			
				Very Dense Forest	Mod. Dense Forest	Open Forest	Total
Bokaro	560	560	565	61	231	273	565
Chatra	1782	1777	1,780	250	869	662	1781
Deoghar	169	169	203	0	14	190	204
Dhanbad	205	205	202	0	44	158	202
Dumka	637	637	663	0	277	383	660
Garhwa	1365	1365	1,390	124	409	859	1392
Giridih	854	864	885	76	337	465	878
Godda	399	399	408	14	269	129	412
Gumla	2657	2657	2,658	323	921	1417	2661
Hazaribagh	2053	2062	2,088	271	632	1190	2093
Koderma	600	596	598	68	321	209	598
Lohardaga	503	503	499	173	217	109	499
Pakur	283	283	288	3	173	111	287
Palamu	3527	3527	3,586	533	1824	1237	3594
Paschimi Singhbhum	3835	3841	3,914	483	1558	1871	3912
Purbi Singhbhum	0	0	1,069	52	589	429	1070
Ranchi	1011	1078	2,084	138	712	1226	2076
Sahebganj	0	0	593	19	266	309	594
Grand Total	20440	20523	23,473	2588	9663	11227	23478

Source: IFSR 2005, 2009, 2011, 2013 and 2015

The table below presents the district wise percentage change in forest cover since 2009

using data from various IFSRs published since then. Something momentous seems to have

happened both at Ranchi and Deoghar since there is an unprecedented increase in percentage forest cover since 2009- 105.34 percent and 20.71 percent respectively. This could be because of

large scale plantation drives executed in these districts. The variations in other districts have been largely minor ranging between negative 1 percent to about 3 percent.

**Table 16.5: District wise Percentage Change in Forest Cover**

	% change between 2009 and 2011	% change between 2011 and 2013	% change between 2013 and 2015	% change between 2009 and 2015
Bokaro	0.00	0.89	0.00	0.89
Chatra	-0.28	0.17	0.06	-0.06
Deoghar	0.00	20.12	0.49	<b>20.71</b>
Dhanbad	0.00	-1.46	0.00	-1.46
Dumka	0.00	4.08	-0.45	3.61
Garhwa	0.00	1.83	0.14	1.98
Giridih	1.17	2.43	-0.79	2.81
Godda	0.00	2.26	0.98	3.26
Gumla	0.00	0.04	0.11	0.15
Hazaribagh	0.44	1.26	0.24	1.95
Koderma	-0.67	0.34	0.00	-0.33
Lohardaga	0.00	-0.80	0.00	-0.80
Pakur	0.00	1.77	-0.35	1.41
Palamu	0.00	1.67	0.22	1.90
Paschimi Singhbhum	0.16	1.90	-0.05	2.01
Purbi Singhbhum	0.00	0.00	0.09	0.00
Ranchi	6.63	16.70	-0.38	<b>105.34</b>
Sahebganj	0.00	0.00	0.17	0.00
<b>Grand Total</b>	<b>0.15</b>	<b>26.05</b>	<b>0.02</b>	<b>14.86</b>

Source: Own calculations based on data from IFSR 2005, 2009, 2011, 2013 and 2015

### The Forest Rights Act (FRA) 2006 and its implementation in the state of Jharkhand

Millions of people in Jharkhand and other states of India live in and around forestland and yet have no legal rights to their home, land or means of livelihood. The vision and purpose of the FRA 2006 was to give these forest dwellers, mostly scheduled tribes and scheduled castes, ownership rights on their land and home and enable them to live with dignity and without fear.

But the progress on implementation of this act has

been snail paced in Jharkhand. Till as late as 2008-09 the process had not even been initiated and the oft cited reason was the lack of Forest Rights Committees (FRCs) and Gram Sabah meeting in the state. However, recent data provided by the department reveals that the progress in more recent times has been praiseworthy.

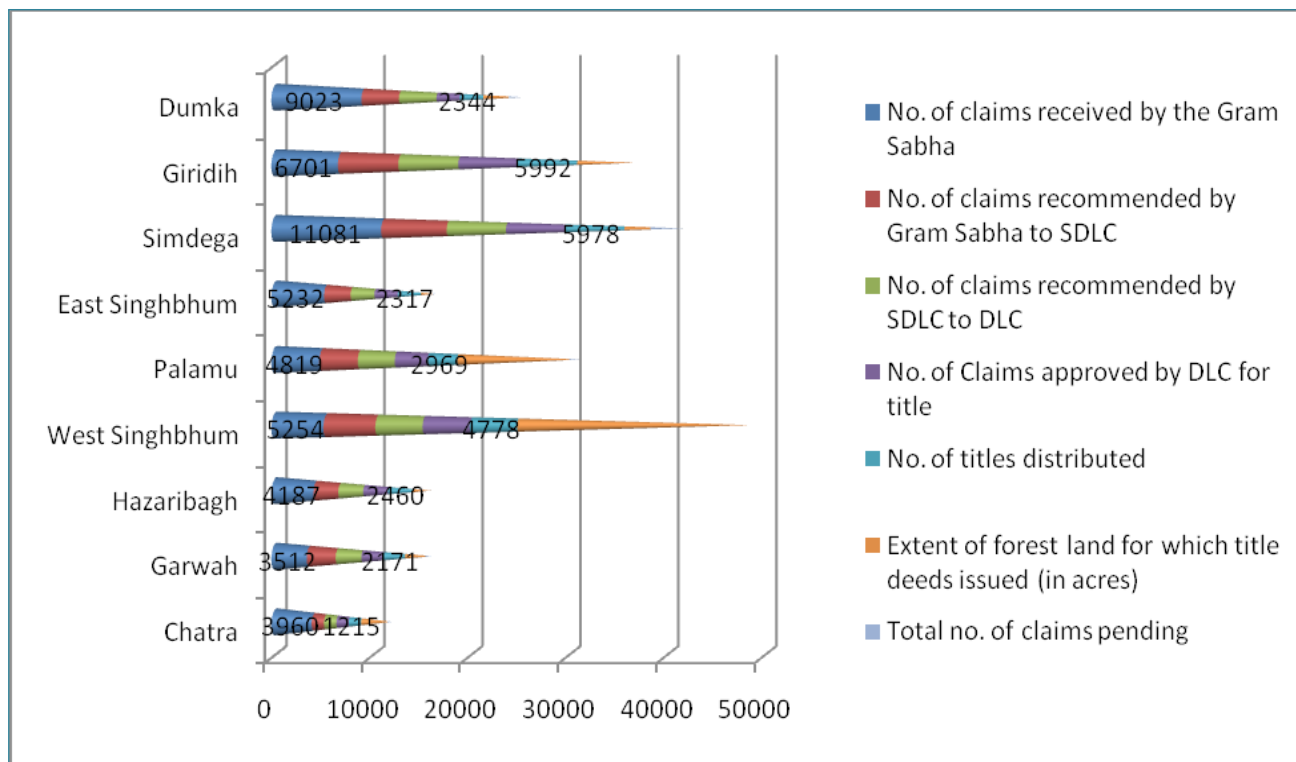
Maximum FRA claims were filed at Simdega (11081) followed by Dumka (9023). More than 1000 claims have been filed in all the 24 districts taking the total to 77841. In the figure below we



present an analysis for those districts with huge forest cover such as Garwah, Palamu, Chatra, Hazaribagh and West Singhbhum and also those

where more than 3500 FRA claims were filed with the Gram Sabha.

**Figure 16.4: No. of FRA claims filed and approved**



Source: Department of Forest, Government of Jharkhand

An analysis of the number of titles distributed as a percentage of the number of claims filed with the Gram Sabha (see table below) reveals that West Singhbhum and Giridih lead with 90.94 percent and 89.42 percent respectively. Chatra with 30.68 percent and Dumka with 25.98 percent distributed the least number of titles against the number of claims filed. Apparently Hazaribagh with

266000 hectares land under forest cover has, after verification, given titles to all those who had filed claim with the Gram Sabha. While Simdega had received maximum claim applications of 11081 it still has 3488 claims pending for verification. On an average, 51.61 percent of the FRA claims have been filed and approved by the Gram Sabha and also awarded titles.

**Table 16.6: No. of FRA titles distributed and pending claims**

Distrcit	Titles distributed as a % of the no. of claims filed	Total no. of claims pending
Chatra	30.68	451
Garwah	61.82	701
Hazaribagh	58.75	0
West Singhbhum	90.94	61
Palamu	61.61	1150

Distrcit	Titles distributed as a % of the no. of claims filed	Total no. of claims pending
East Singhbhum	44.29	390
Simdega	53.95	3488
Giridih	89.42	182
Dumka	25.98	1421

Source: Own calculation based on data from Department of Forest, Government of Jharkhand

## CAMPA: Compensatory Afforestation

State Compensatory Afforestation Fund Management and Planning Authority"(CAMPA) is intended as an instrument to accelerate activities for preservation of natural forests, management of wildlife, infrastructure development in the sector and other allied works. CAMPA was constituted by the Ministry of Environment and Forests, Government of India for the purpose of management of money meant for compensatory afforestation, Net Present Value and any other money recoverable in compliance to the conditions stipulated by the Central Government while according approval under the Forest (Conservation) Act, 1980. The money received

from user agencies is deposited in the account of CAMPA which is the custodian of such funds which then disburses it to the concerned agencies.

The table below details the physical progress of the Jharkhand CAMPA in the financial year 2014-15. A comparison with the achievements in 2013-14 reveals that this has been a more fruitful year in terms of the area covered by plantation activities in degraded forest land which is up by about 20 percent. Similar increasing trends are observed in afforestation activities for soil and water conservation as well as in making permanent nurseries. Indeed CAMPA and various Forest Development Agencies have been working in a galvanized mode over the past few years.

**Table 16.7: Physical and financial achievements of Jharkhand CAMPA during FY 2014-15**

Sl no.	Name of Scheme	Physical Achievement		Remarks
		Area (Ha)	No. Of Plants	
<b>A</b>	<b>Current Work</b>			
1	<b>Compensatory/Penal compensatory plantation</b>			Plantation work (planting) carried out during FY 2014-15 (against advance work was done in FY 2013-14)
1(i)	Degraded forest land (ha)	2770.54	4244231	
1(ii)	Non forest land (ha)	134.33	195596	
1(iii)	Linear plantation (No. of gabions)	36000	36000	
2	<b>NPV Schemes</b>			
2(i)	Establishment of natural forests (ha)			
2(ii)	Afforestation & Soil conservation (ha)	5810	9679460	
2(iii)	Water harvesting structure (Nos.)	342		
2(iv)	Permanent Nursery (ha)	101.55		

Sl no.	Name of Scheme	Physical Achievement		Remarks
		Area (Ha)	No. Of Plants	
<b>B</b>	<b>Maintenance Work</b>			
1	<b>Compensatory/Penal compensatory plantation</b>			Maintenance of plantations raised during FY's 2010-11, 2011-12, 2012-13 & 2013-14
1(i)	Degraded forest land (ha)	12007.96	19907240	
1(ii)	Non forest land (ha)	918.56	1530322	
1(iii)	Linear plantation (No. of gabions)	49	9800	
2	<b>NPV Schemes</b>			
2(i)	Establishment of natural forests (ha)	300	60000	
2(ii)	Afforestation & Soil conservation (ha)	7950.84	13246100	

Source: Forest department of Jharkhand

### Forest Development Agencies

The forest development agencies (FDAs) have been actively working under the two main schemes of the Ministry of Forest and Environment i.e. National Afforestation program and the Green India Mission.

#### National Afforestation program (NAP)

It continues to be the flagship scheme of NAEB (National Afforestation and Eco-Development Board), in so much as it provides support, both in physical and capacity building terms, to the Forest Development Agencies (FDAs) which in turn are the main organs to move forward institutionalization of Joint Forest Management. The FDA has been conceived and established as a federation of Joint Forest Management Committees (JFMCs) at the Forest Division level to undertake holistic development in the forestry sector with people's participation. This is a paradigm shift from the earlier afforestation programs wherein funds were routed through the State Governments. This decentralized two-tier institutional structure (FDA and JFMC) 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 program are conceptualized at the village level. The state FDA was established under the guidelines of the National forest program in the year 2011-12. The same year the 5 year plan for afforestation and reforestation of degraded land through tree planting and control of animal grazing was launched with the following implementation phases:

- Aided natural regeneration including copping (ANR)
- Artificial regeneration (NR)
- Mixed plantations (MP)
- Bamboo plantations (BP)

The table below is snapshot of the year wise spend under this program. Details for 2015-16 were not available at the time of writing this report. The details of the amount received and spent is definitely and indicator of the momentum of activities happening under this program.

**Table 16.8: Financial progress NAP**

Financial year	Funds in Rs.lakhs	
	Received	Spend
2011-12	1042.23	
2012-13	469.00	937.26
2013-14	901.57	1287.61
2014-15	1019.57	794.74
2015-16	Not available	Not available
<b>Total</b>	<b>3432.37</b>	<b>3019.61</b>

Source: Forest department of Jharkhand

The physical progress under each of phases is captured in the table below. We find that maximum work has been concentrated under the “regeneration” category in each of the four years since the launch of the program. Forest regeneration refers to renewal of tree cover by planting young trees artificially or naturally. It is heartening to note that a lot of work has happened under the bamboo plantation category since bamboo art is also a major source of livelihood

for the forest dwelling tribes. The FDA has been actively pursuing afforestation activities in the state.

An important by product of the different regeneration activities is that it influences carbon storage through changes in the growth of above-the-ground and below-the-ground tree biomass and changes in the end use of wood. The end use of wood is important for carbon sequestration. This helps create the much required carbon sinks.

**Table 16.9: Details of physical progress under NAP**

Year	Scheme	Activity	Area in hectares
2011-12	ANR	Advance work	1575.00
		Completed work	
		Regeneration	
	AR	Advance work	
		Completed work	
		Regeneration	
	BP	Advance work	
		Completed work	
		Regeneration	3000.00
	MP	Advance work	500.00
		Completed work	
		Regeneration	5415.00
2012-13	ANR	Advance work	
		Completed work	1575.00
		Regeneration	10429.00
	AR	Advance work	

Year	Scheme	Activity	Area in hectares
2012-13	AR	Completed work	3000.00
		Regeneration	5360.00
	BP	Advance work	
		Completed work	1850.00
		Regeneration	
	MP	Advance work	
		Completed work	500.00
		Regeneration	3095.00
	2013-14	ANR	Advance work
Completed work			
Regeneration			5625.00
AR		Advance work	1025.00
		Completed work	
		Regeneration	3200.00
BP		Advance work	125.00
		Completed work	
		Regeneration	750.00

Year	Scheme	Activity	Area in hectares
2013-14	MP	Advance work	875.00
		Completed work	
		Regeneration	1700.00
2014-15	ANR	Advance work	
		Completed work	1650.00
		Regeneration	1575.00
	AR	Advance work	
		Completed work	988.00
		Regeneration	1300.00

Year	Scheme	Activity	Area in hectares
2014-15	BP	Advance work	
		Completed work	115.00
		Regeneration	
	MP	Advance work	
		Completed work	875.00
		Regeneration	500.00

Source: Forest department of Jharkhand, Government of Jharkhand

### Green India Mission

Jharkhand is one of the four states, others include Kerela, Manipur and Mizoram, whose action plan on environment and climate change has been approved under the Green India Mission (GIM). GIM, which is one of the eight Missions outlined under National Action Plan on Climate Change (NAPCC), acknowledges the influence forests have on environmental amelioration through climate change mitigation, food security, water security, biodiversity conservation and livelihood security of forest-dependent communities.

The GIM has more specifically approved Perspective Plan for four of the six L-2 landscapes proposed by the state at total cost of Rs.103.12 crores phased out over a period of 10 years. An amount of Rs.14.60 crores was earmarked for the financial year 2015-16 but this amount was yet to be released at the time of writing this report.

Under this perspective plan the state has adopted a landscape approach and convergence with complementary schemes and programs for better coordination in developing forests and their fringe areas in a holistic and sustainable manner. The plan hinges on a decentralized participatory approach involving grass root level organizations, including the local ones, and community planning, decision making and implementation and finally monitoring.

### Minor Forest Produce

Minor Forest Produce (MFP) is a subset of forest produce and got a definition only in 2007 when the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006, was enacted. Section 2(i) of the said Act defines a Minor Forest Produce (MFP) as all non-timber forest produce of plant origin and includes all the products listed in the table below including bamboo which was till the enactment of this Act outside the purview of MFPs. The Government of India has launched a **central sector scheme for marketing of Minor Forest Produce through Minimum Support Price (MSP)** and development of value chain to ensure fair monetary returns to MFP gatherers for their efforts in collection, primary processing, storage, packaging, transportation etc. The scheme envisages fixation and declaration of Minimum Support Price for the selected MFP based on the suggestions /inputs received from **Tribal Cooperative Marketing Development Federation of India (TRIFED)** which came into existence in 1987, and the States concerned. Procurement and marketing operation at pre- fixed MSP is undertaken by the designated State agencies. The Scheme is also attempting to train 1,00,000 nationwide MFP gatherers of tribal origin on sustainable harvesting and value addition activities.

There are 29 recognized minor forest produce in Jharkhand as given in the table below.

**Box No. 16.a: List of recognized MFPs in the state**

Kusum/ceylin oak, sal seed, Reetha, mahua flower, beal fruit, Marking nut, Myrobalan, Karanj, Shahijan, Mahua seed, lac kusumi, Lac rangeeni, deseeded tamarind, Shikakai, Ber, sal leaves, Jamun, jangli haldi, sabai grass, chironji pod with seed, Gum karaya, Honey, Tamarind, cashew nut, Turmeric, puwad seed, Bamboo and tendu leaves

Source: Forest department of Jharkhand, Government of Jharkhand

The table below lists some of the prominent small scale and cottage industries based on forest resources. Saw Mills are used for the conversion of round Timber into Sawn Timber in Jharkhand. There are altogether 405 Saw Mills spread over 24 districts having 74212.48m<sup>3</sup> of annual intake producing sawn Timber outturn of 129269.43m<sup>3</sup>.; oil extraction units yielding oil from mahua, karanj, kusum and other oil seeds; herbal industries basically located as small scale industries in certain pockets of remote forests; bidi industries based on kendu leaves and tobacco leaves wherein the poorest of the poor are engaged as labourers, sal leaves plates and Dona making units are situated in the villages adjoining the forest areas; and Bamboo based cottage industries. In all the districts of Jharkhand small scale production of honey, jam & jelly can also be found. Sericulture is being practiced in the 17 Districts of Jharkhand and is the backbone of the forest based cottage industries. People are quite aware about the utilization of bamboo in their day to day affairs. There are several species of bamboo found in the Jharkhand state but people usually use Rayati bamboo and Lathi bamboo for their basic needs. Use of rayati bamboo is quite widespread and there is not a single village where one cannot find groves of bamboo clumps. People use these bamboos for making beds, carpets, baskets, tokri, sup, hand fans, prasad carriers for temples, packing cases for vegetables and fruits, as a fencing in the fields in order to protect the crops from grazing, hut making, roof making, thatching etc. Lathi

bamboo is generously found in the forest areas on the hilly slopes of the plateau region. These bamboos are used by Paneris (betel leaf growers) as a support system for the framework in the cultivation of betel leaves. Furthermore, this type of Lathi bamboo is broadly used as lathis (stick) by the villagers, common men and the police personnel. The future of sericulture, herbal industries and bamboo based industries is bright in Jharkhand. (source: <http://jbbjharkhand.org/wp-content/uploads/2011/06/Study-Report-on-Bio-Resource-Based-Industries-in-Jharkhand.pdf>)

**Box No.16.b: List of Bio-resource based industries**

Timber based Industry (Saw Mills)
Timber and Fuel (Firewood & Charcoal)
Bidi Industry
Tasar based Industry
Lac and Shellac based Industry
Oil Extraction Industry
Herbal Industry
Sal Plates manufacturing Industry
Handicraft, Handloom, Bamboo based Industries
Other Industry
Agarbatti Industry
Jam and Jelly Industry

Source: Jharkhand Biodiversity Board – [jbbjharkhand.org](http://jbbjharkhand.org)

There are two MFPs that deserve a brief mention i.e. lac and tendu leaves. Jharkhand is the leading lac producing state in the country followed by Chhatisgarh, Madhya Pradesh, Maharastra and Odisha. Lac has several uses apart from its use in making bangles. The state is also the 5<sup>th</sup>

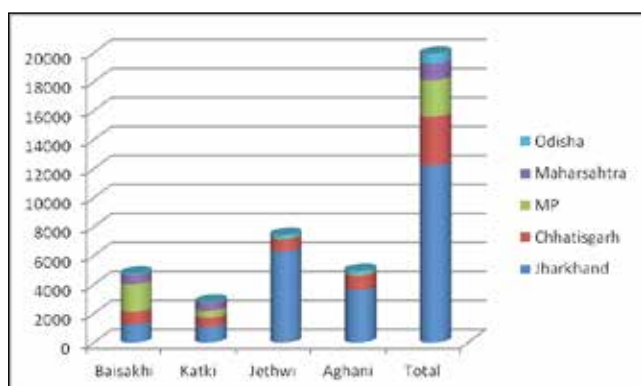
largest tendu leaf producing state of the country the others being Madhya Pradesh, Chhatisgarh, Odisha, Andhra Pradesh, Gujrat and Maharastra. The leaves are primarily used to make bidis. We discuss both these MFPs in some detail in the ensuing section.

### Lac production in Jharkhand

There are two strains of lac insect which are classified based on preference of the insect for specific host plants, rangeeni and kusumi, which are grown during different seasons. The state leads in the production of kusumi strain and the total lac produced in the country.

The figure below indicates the amount of lac produced season-wise by the five leading producer states of the country. The rangeeni strain is produced during the Baisakhi (summer) and katki (rainy) seasons while kusumi strain is produced during jethwi (summer) and aghani (winter). Raw lac is the source of three valuables i.e. resin-dye and wax. As can be seen the state of Jharkhand was the leading producer of lac in all seasons except Baisakhi where MP had a lead over it.

**Figure 16.5: State wise production of lac during 2013-14 (in tons)**

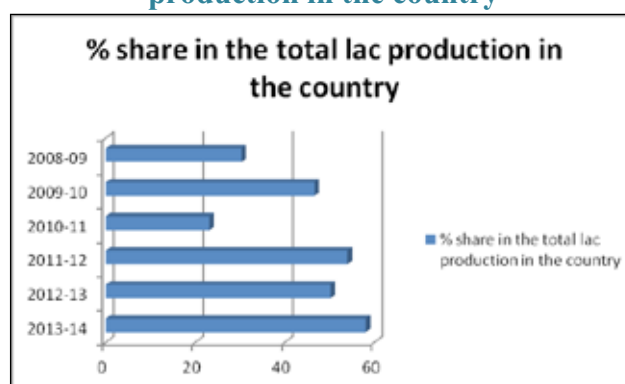


Source: Yogi RK, Bhattacharya A, Jaiswal AK and Kumar Alok 2015. Lac, Plant Resins and Gums Statistics 2014: At a Glance. ICAR-Indian Institute of Natural Resins and Gums, Ranchi (Jharkhand), India. Bulletin

The figure below captures the trend in the state

share in total lac production the country since the year 2009. There is a sharp dip in the year 2010-11 which was caused by stumped production of rangeeni lac which was as low as 7.31 percent impacting the share in total production. However the state has by far been the highest producer of lac in India.

**Figure 16.6: State share in the total lac production in the country**



Source: Yogi RK, Bhattacharya A, Jaiswal AK and Kumar Alok 2015. Lac, Plant Resins and Gums Statistics 2014: At a Glance. ICAR-Indian Institute of Natural Resins and Gums, Ranchi (Jharkhand), India. Bulletin

The statistics in the table below once again do the state proud. Four of the 7 districts producing more than 1000 tons of lac in the country are located in Jharkhand and lead by a wide margin. These districts are Ranchi, Simdega, Gumla and Khunti.

**Table 16.10: Districts producing more than 1000 tons of lac in the country**

	2012-13	Rank	2013-14	Rank
<b>Ranchi</b>	4250	1	3475	1
<b>Simdega</b>	2720	2	2445	2
<b>Gumla</b>	2270	3	2380	3
<b>Khunti</b>			1790	4
Seoni	1115	4	1185	5
Gondia	1000	5	1010	6
Korba			1000	7

Source: Yogi RK, Bhattacharya A, Jaiswal AK and Kumar Alok 2015. Lac, Plant Resins and Gums Statistics 2014: At a Glance. ICAR-Indian Institute of Natural Resins and Gums, Ranchi (Jharkhand), India. Bulletin

The table below details the total lac produced in the lac producing districts of the state. Khunti and West Singhbhum together produced about 67.13 percent of the total lac produced in the state in 2012-13.

**Table 16.11: District wise production of lac in tons during 2012-13**

District	Production in tons
Bokaro	39.5
Gumla	456.8
Palamu	191
Latehar	112
Ranchi	510
Khunti	2145
Simdega	318
West Singhbhum	1182
<b>Total</b>	<b>4955.5</b>

Source: Annual Lac Bulletin 2013

### Tendu Leaves production in Jharkhand

We collected data on tendu leaf collection since it provides employment to lakhs of tribal people in the state. Tendu is a species of flowering tree found in many parts of India, whose leaves are dried and is used for wrapping *Bidis* (a tobacco product). In Jharkhand, the Jharkhand State Forest Development Corporation (JSFDC) is responsible for collection and trading of tendu leaves. For this purpose, the whole forest area of the state is divided into 300 units called *Lots*. These *Lots* are auctioned to the contractors prior to the collection season. The corporation pays collection prices to the rural people (primary collectors) at a fixed rate every year. In 2015-16 rural people were paid Rs 1065 for collection of standard bag. In measurement terms, 1000 *Polas* make a standard bag with each *pola* containing 52 leaves.

For the Year 2015-16, the corporation collected 3.01 lakh standard bags for which it received an amount of Rs 45.15 crore. In this process, Rs 32.035 Crore was paid to the primary collectors by the corporation, thus generating an amount of Rs 13.38 Crore for the financial year.

**Table 16.12: Details of Tendu Leaves Collection and Net Amount Received**

Season of Tendu leaf collection	Payable collection price to primary collector per Standard Sack (in Rs)	Quantity of collected Tendu leaves (Standard Sack in lakh)	Amount paid to primary collector (In Rs. Crore)	Net Amount received by Jharkhand State Forest Development Corporation Limited (In Rs. Crore)	Total received amount (In Rs. Crore)
2015-16	1065	3.01 Lakh	32.035	13.38	45.415

Source: Department of Forest and Environment, Government of Jharkhand

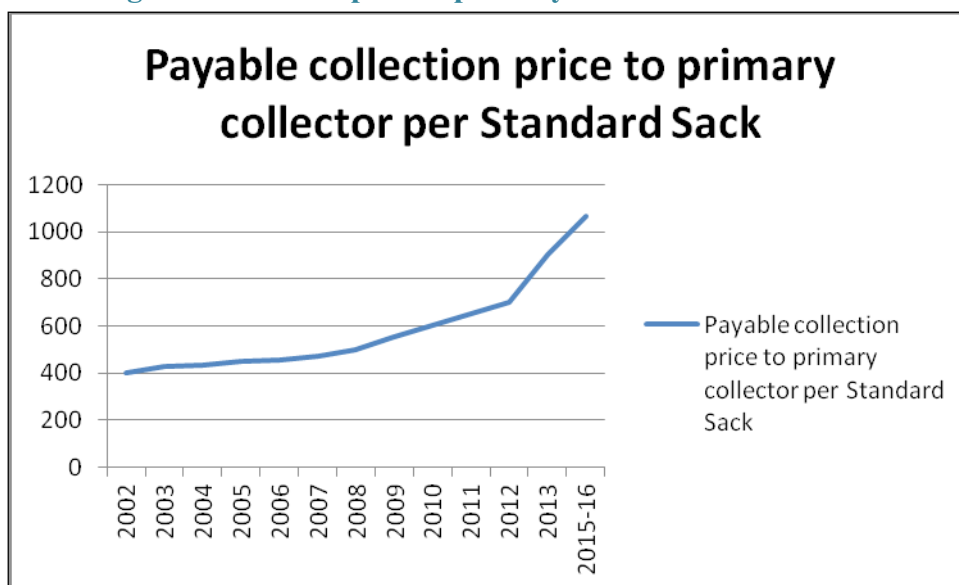
The two figures<sup>1</sup> below capture the comparative trends in tendu leaf collection and how

<sup>1</sup> The relevant data for the year 2014-15 was not available and is hence missing from the comparative analysis

remunerative it is for the primary collector as well as for JSFDC. The figure below is a clear indicator of the rising prices per sack collected. In fact there has been a sharp rise since 2012.



**Figure 16.7: Price paid to primary collector of tendu sack**

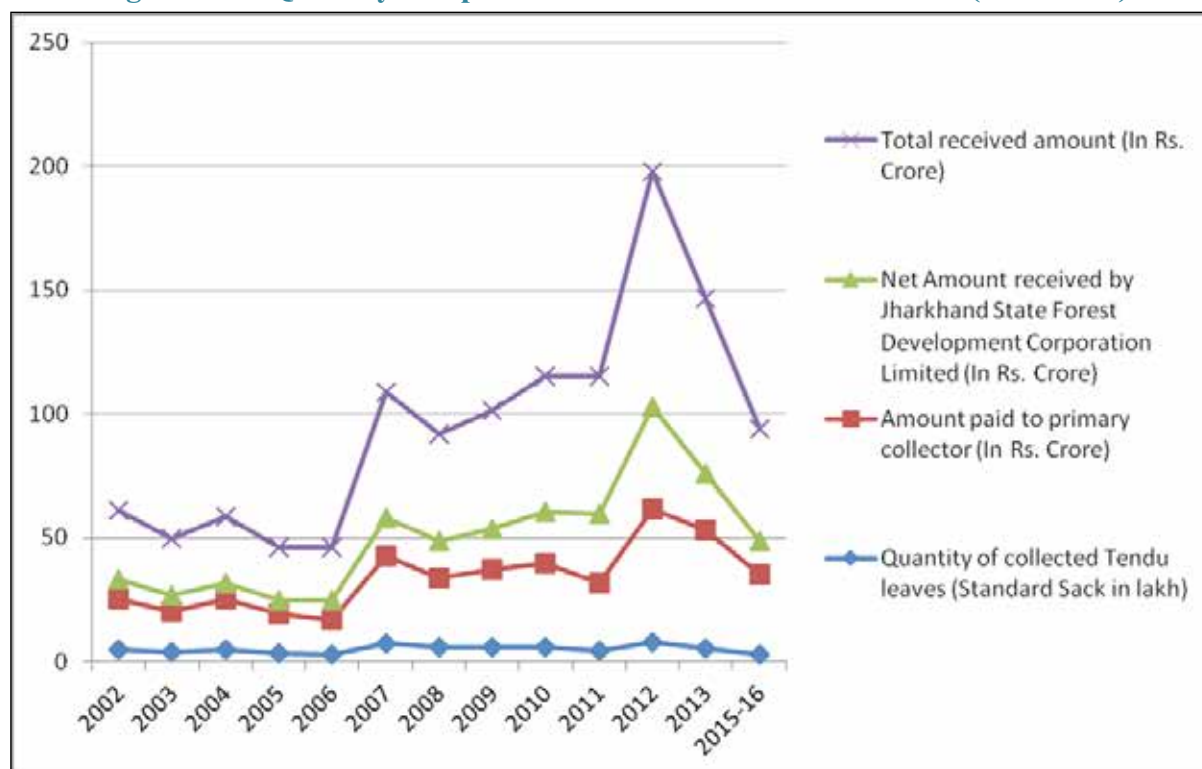


Source: Department of Forest and Environment, Government of Jharkhand

In contrast to the rising price per sack of tendu leaf collected, we do not find a corresponding rise in the net amount received by the primary collector or the JSFDC. This is because though

the price per sack has seen a sharp increase since 2012, the quantity collected has been decreasing in the same period.

**Figure 16.8: Quantity and price trends in tendu leave collection (2002-2016)**



Source: Department of Forest and Environment, Government of Jharkhand

### Value addition to MFPs

Having stated with statistics that the state leads in the production of lac and is second best in tendu we must also emphasize that it needs to consolidate its position and ensure that the primary growers and collectors get a large portion of the income. Since the MFPs are an important source of income for the forest dwelling tribes and also because they contribute to forest GDP therefore value addition becomes essential for augmentation of rural income. An important initiative taken by the department in the year 2014-15 is detailed below.

### Development of Minor Forest produce and Lac Cultivation

Jharkhand has this distinction of being the leading producer of lac in the country. However to consolidate this lead we need to develop strategies to increase the cultivation of trees per unit of land; its productive capacity and promote lac cultivation as an economic activity, processing and marketing through state marketing federations and others to ensure fair and stable prices to the lac producers.

Department proposes to intensify lac production by

- Increasing short gestation host plants which can be used later on maturity
- The potential of already available host plants will be harnessed through JFMCs/ SHGs of lac cultivators by training them in improved cultivation techniques and processing
- This training will be done in collaboration with Indian Institute of Natural Resin and Gum at Namkum in Ranchi
- It is envisaged that this will lead to creation of lac cooperatives producer companies and rise of entrepreneurs and cooperation of banks for exploitation of its full potential

Augmenting rural income by facilitating processing of NTFPs such as sal seeds, mahua

seeds, bamboo etc (except tendu leaves) for value addition by providing requisite training and equipments to primary collectors of JFMCs/ SHGs will be the focus of this new initiative.

### New Initiatives by the Department

#### Box 16.c: Disposal of Bio-waste: case study from Ranchi and Jamshedpur

The forest and environment department of Jamshedpur district in the state issued a directive for collection of bio waste during the festival of Deepawali for example flowers, fruit peels, leaves etc and their effective recycling. The banana leaves were used as food for the elephants of Dalma wild life park and the rest of the bio waste was converted to vermin compost.

Similarly the department in Ranchi district for the first time carried out a drive to collect all bio waste during Durga Puja and Deepawali festival which was later processed at the Forest department's nursery to be converted in to vermin-compost. Aware of the heavy road traffic during this festival, the collection drive was carried out from 4 a.m. to 11a.m. in the morning to avoid inconvenience to worshippers.

We salute such niche thinking and hope the rest of the state takes forward such initiatives in the future!

Source: Forest department and Environment, Government of Jharkhand

### JHARPARKS

The state department has set up a new state level society, JHARPARKS, Jharkhand Parks Management and Development Authority which is entrusted with the management and development of parks and gardens in the state. The various parks covered under this development initiative are listed in the table 16.13.

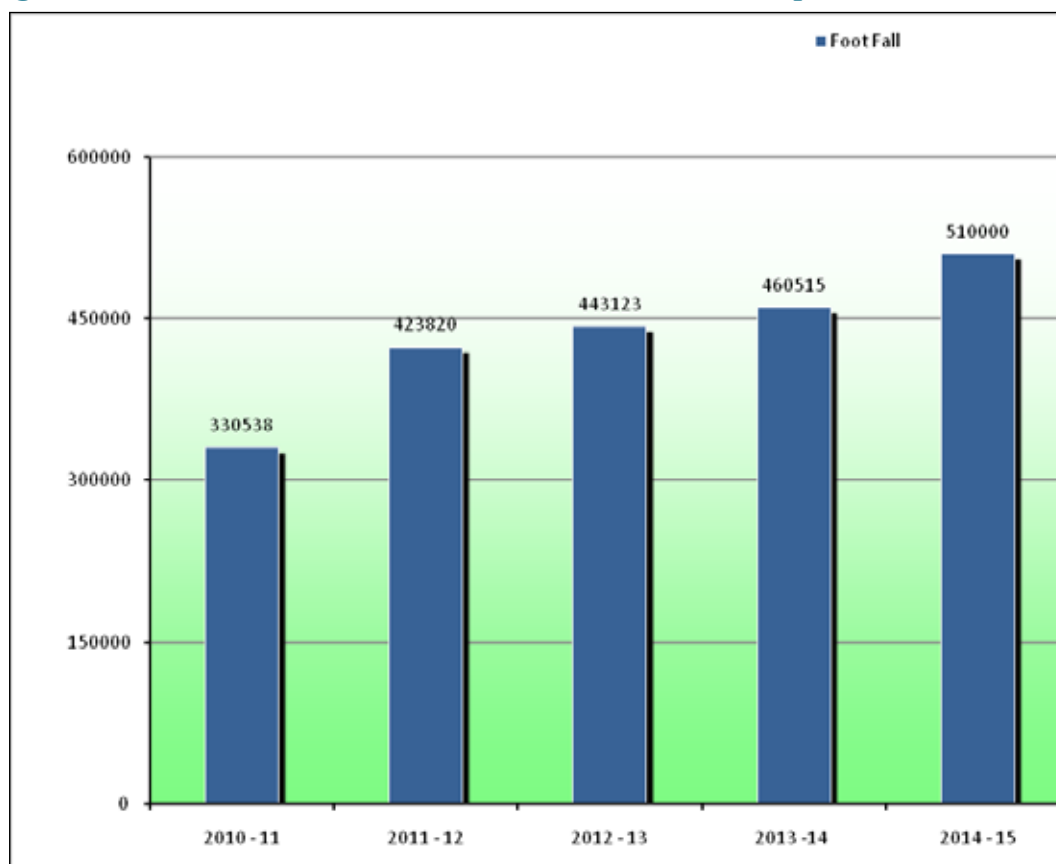
**Table 16.13: List of wild life parks in the state included under the Jharparks program**

Sl.no.	Park	District
1	Birsa Munda Zoological park	Ranchi
2	Deendayal Park	Ranchi
3	Shri Krishna park	Ranchi
4	Nakshatra Van	Ranchi
5	Sinho Kanhu park	Ranchi
6	Oxygen park	Ranchi
7	Shaheed Nirmal Mahto park	Hazaribagh
8	Ambedkar park	Silli
9	Ghodabandha theme park	Jamshedpur
10	Sindho Kanho park	Dumka

Source: Department of Forest and Environment, Government of Jharkhand

The picture below captures the rising incline in the footfall at the wild life parks and sanctuaries in the state of Jharkhand which bears testimony to the rising popularity of these parks as a tourist attraction. “Jharparks”, therefore, has happened at the right time.

**Figure 16.9: Trends in tourist foot fall at the State wild life parks and sanctuaries**



Source: Department of Forest and Environment, Government of Jharkhand

### **Mukhyamantri Jan Van Yojna**

In a bid to reverse the loss of green cover due to expansion of industrial activity, the Mukhyamantri Jan Van Yojna was inaugurated on the state's Foundation day. The shrinking forest cover was a cause of alarm because it is so intricately linked with the survival of forest dwelling communities. The scheme aims at reducing dependence over notified forest lands and opening up avenues of income for farmers by supporting plantation on private lands measuring minimum one-acre and not more than 50-acres. The scheme envisages monetary support to owners of the land for taking up forestry either on the complete plot or a portion of it. The monetary support would be offered up to 50 per cent of the cost that would be incurred by a farmer for planting and maintaining specifically two types of plants, fruit bearing and timber plants, which could be widened depending on the exigencies of the situation in future.

The Yojna has been spread over three years with well laid out activities for each year—digging pits, fencing, planting, using fertilisers and manure, irrigation of plants in the first year while the remaining two years would focus on harvesting and applying fertilisers and manures in the field. The monetary aid would be spread over three years as well. The scheme lays out the qualifying conditions for grants which includes planting 445 saplings of timber trees and 160 plantlets of fruit trees at a pre-specified distance. A beneficiary would be responsible for the conservation of the plants.

The incentive to produce timber and fruits has been further categorised as Rs. 69 a piece for timber producing plant variety and Rs. 192 for fruit producing plants. A total of Rs. 29,362 and Rs. 30,696 would be spent for block plantation and linear plantation of both the varieties of plants correspondingly. A farmer would have the option of procuring saplings from the department of forest or on their own which would alter the quantum of incentive that will be offered.

### **Consolidation and Digitization of Forest Boundaries and Records**

Forest land constitutes about 29.61 percent of the geographical area in Jharkhand and there are about 11 lakh forest boundaries (BPs) erected/ marked along the boundaries of these forests. Increasing population tends to exert pressure on these boundaries and there is increase in encroachment of forest land. Hence the need to consolidate these boundaries has become imperative.

The department has hence decided to carry out this consolidation activity in a phased manner over a period of five years given that it is such a mammoth task. An integrated approach using various records at its disposal like the maps, Survey of India topo sheets etc besides modern technology like GPS/DGPS, Survey of forest areas is proposed to delineate the actual line of forest boundaries as per the existing latest records.

The approach will be two pronged wherein in the first approach the boundaries will be marked using all the existing data and thereafter the BPs will be constructed.

Further the department also intends to develop recreational centres such as parks in patches of forests near towns so as to prevent encroachment.

### **ECO TOURISM**

The vast ecological forest bounties of the state make it a lucrative eco tourism destination. Recognizing this fact the department has recently taken several initiatives to create tourist infrastructure in these regions. Besides, the department has launched capacity building for the local tribal people through village development committees (VDC) and/or Eco development committees (EDCs) so as to create alternate employment for them. The infrastructure is being developed, eco resorts are being set up and the tribal people are being trained in the art of hospitality and catering.

### Box 16.d: The Magical DALMA : Pioneer in eco tourism in Jharkhand

The Dalma Wildlife Sanctuary situated in East Singhbhum and Saraikela-kharsawan district of Jharkhand, along NH-33, is spread over about 193 sq. km. This sanctuary is a favoured abode of Indian elephants due to availability of water even during summers. Leopard, Barking Deer, Sloth Bear, Monkey, Giant Squirrel are also found. The nearest airport is at Ranchi which is about 131 kms

The villages near the Dalma forest have become the pioneer in eco tourism in the state of Jharkhand. This is forest with immense tourism potential but was vastly underutilized due to lack of connectivity and infrastructure.

The department has taken several initiatives here and has set up eco-huts and bamboo cottages and has created an eco resorts of sorts equipped with all modern facilities. Further, the hotel Ashoka has trained the tribal people inhabiting the area in the art of catering and also as tourist guides.

Dalma has become a popular tourist attraction and inspired by its success the department is planning to replicate this eco tourism model at Palamu Tiger Reserve Kanhari Hills at Hazaribagh, Parasnath at Giridih and at Deoghar. All these places and for that matter most other forest areas in the state have immense potential to be developed as tourist hubs but have remained unutilized due to lack of such initiatives by the department.

### Modernization and IT enabled services (ITES) for forest offices

The department intends to use ICT for more effective functioning application of modern technology for efficient forest protection and management. The forest offices are to be provided with all modern ICT facilities and the officers trained in their application.

### Wild Life and Bio diversity in the forest ecosystem in Jharkhand

The Jharkhand Biodiversity Board (JBB) was set up in the year 2007 in compliance with the Biological Diversity Act of 2002. The JBB is entrusted with conservation of biodiversity, its sustainable use and Equitable Benefit Sharing. The major functions of the JBB include

- Promoting conservation-sustainable use and documentation of biological diversity in the state
- Levying charges by way of collecting fees from people gathering bio resource for commercial use from its territorial jurisdiction
- Preparing People's Biodiversity Register (BPR) in consultation with the local people
- Maintaining registers with details of all bio-resources/TK acceses-fees imposed-benefits accrued and model of benefit sharing
- Providing support to National Biodiversity Board and State Biodiversity Boards in their decisions

### Major achievements of the board since constitution

- Biodiversity management Committees (BMC) are being constituted in all Panchayats/Municipal Corporations (about 4500) of the state. 36 BMCs were constituted in the financial year 2013-14 and another 30 in 2014-15. These BMCs have been constituted for the purpose of promoting conservation, sustainable use and documentation of biological diversity including preservation of habitats, conservation of land races, folk varieties and cultivars, domesticated stocks and breeds of animals and microorganisms and chronicling of knowledge related to biological diversity.

- In all the Panchayats/Urban Local Bodies PBRs are to be prepared in a phased manner. 11 such draft PBRs have been documented
- A total of 5 trainings have been organized for preparation of PBRs
- 7 special workshops have been organized on formation of BMCs for heads of various selected Panchayat heads
- A total of 24 workshops have been organized at Panchayat/Block/district level to discuss various biodiversity related issues
- A documentary film of 28 minutes on Biodiversity in Jharkhand has now been converted in to a 11 minute hindi film
- The Jharkhand Biodiversity board website has been developed
- “Nakshatra Van (plants based on stars) has been set up at Shaheed Nirmal Mahto Park at Hazaribagh in collaboration with the district Afforestation Division
- 3 Bio-resource based livelihood trainings have been conducted
  - 8-day residential training on pig rearing organized by Birsa Agricultural university
  - 45-days training on mushroom cultivation at Hazaribagh in collaboration with the NGO- Neo Human Foundation
  - 3-day training workshop on candle making at Holicross Hazaribagh
- Capacity building trainings and exposure visits for the members of BMCs
- Distribution of printing and publication material related to biodiversity awareness campaign

## Wild life crime control

Jharkhand, home to 11 wild life sanctuaries, ranks 13<sup>th</sup> in terms of geographical coverage by wild life as a percentage of the total geographical area of the state. Since the constitution of the Wild Life Protection act in 1972, the department of Forest in all Indian states are striving hard to put an end to crime against wildlife. In Jharkhand, although, the department has made substantial progress over past few years, it is yet to achieve the zero incidence goal. Thus, the department has decided to revamp the current module of crime protection in the state. Towards this end, it organised a wild life crime control training program where personnel from Customs, Judiciary, Police and Forest gathered together for the first time to discuss a range of issues covering common incidence, methods of awareness generation about wild life crime and protection and viable steps to put an end to it.

This was followed up with awareness program conducted with ground level staff and village community. Apart from this, an IT enabled Communication dissemination mechanism is being installed which will enable to track the crime scenes with more precision. Block level vigilance team known as **Prahar Bal** has also been constituted who are regularly being trained with modern weapons, digital compasses, night vision binoculars and night vision cameras.

The table below captures the initiatives taken towards wild life protection. The department has made considerable progress in the districts of Ranchi, Bokaro, Jamshedpur, Hazaribagh, Palamu and Dumka in online control through computerized systems, night surveillance, equipment training and rescue and care of animals in distress. Installations of CCTVs have helped improve surveillance efforts at the wild life parks in these 5 districts.

**Table 16.14: Physical and Financial Progress in FY2015-16 under Wild life Crime Control Program**

	Details	Estimated	Labor cost	Material and supply	Total
	<b>Constitution of Central Force</b>				
Ranchi	computer room and its requisites including system analyst and guard	15.00	9.88	5.12	15.00
					0.00
	Machines for computer room including fax printers etc	10.00	0.00	10.00	10.00
	Intelligence gathering	2.14	2.14	0.00	2.14
	Capacity building				
	Training of various department peronnel like police rail and road transport	7.00	2.00	5.00	7.00
	Surveillance				
	CCTV at main gate of wild life centres	1.37	0.00	1.37	1.37
	<b>Total</b>	<b>35.51</b>	<b>14.02</b>	<b>21.49</b>	<b>35.51</b>
	<b>Constituting Sub Central Cell</b>				
Jamshedpur	Computer room renovation and salary of computer operator	6.00	4.00	2.00	6.00
	<b>Striking Force</b>				
	Salary for home guard etc	9.00	9.00	0.00	9.00
	Intelligence gathering	2.14	2.14	0.00	2.14
	Upkeep of rescued animals				0.00
	rescue work	9.09	0.00	9.09	9.09
	Surveillance				
	Night vision camera binoculars etc	1.84	0.00	1.84	1.84
	<b>Total</b>	<b>28.07</b>	<b>15.14</b>	<b>12.93</b>	<b>28.07</b>
	<b>Constituting Sub Central Cell</b>				
Dumka	Computer room renovation and salary of computer operator	6.00	4.00	2.00	6.00
	<b>Striking Force</b>				
	Salary for home guard etc	9.00	9.00	0.00	9.00
	Intelligence gathering	2.14	2.14	0.00	2.14
	Upkeep of rescued animals				0.00
	rescue work	9.09	0.00	9.09	9.09
	Surveillance				
	Night vision camera binoculars etc	1.86	0.00	1.86	1.86
	<b>Total</b>	<b>28.09</b>	<b>15.14</b>	<b>12.95</b>	<b>28.09</b>

	Details	Estimated	Labor cost	Material and supply	Total
Bokaro	<b>Constituting Sub Central Cell</b>				
	Computer room renovation and salary of computer operator	6.00	4.00	2.00	6.00
	<b>Striking Force</b>				
	Salary for home guard etc	9.00	9.00	0.00	9.00
	Intelligence gathering	2.14	2.14	0.00	2.14
	Upkeep of rescued animals				
	rescue work	9.09	0.00	9.09	9.09
	Surveillance				
	Night vision camera binoculars etc	2.86	0.00	2.86	2.86
	<b>Total</b>	<b>29.09</b>	<b>15.14</b>	<b>13.95</b>	<b>29.09</b>
Hazaribagh	<b>Constituting Sub Central Cell</b>				
	Computer room renovation and salary of computer operator	6.00	4.00	2.00	6.00
	<b>Striking Force</b>				
	Salary for home guard etc	9.00	9.00	0.00	9.00
	Intelligence gathering	2.14	2.14	0.00	2.14
	Upkeep of rescued animals				
	rescue work	9.09	0.00	9.09	9.09
	Surveillance				
	Night vision camera binoculars etc	1.86	0.00	1.86	1.86
	<b>Total</b>	<b>28.09</b>	<b>15.14</b>	<b>12.95</b>	<b>28.09</b>
Modinagar	<b>Constituting Sub Central Cell</b>				
	Computer room renovation and salary of computer operator	6.00	4.00	2.00	6.00
	<b>Striking Force</b>				
	Salary for home guard etc	9.00	9.00	0.00	9.00
	Intelligence gathering	2.14	2.14	0.00	2.14
	Upkeep of rescued animals				
	rescue work	9.09	0.00	9.09	9.09
	Surveillance				
	Night vision camera binoculars etc	1.86	0.00	1.86	1.86
	<b>Total</b>	<b>28.09</b>	<b>15.14</b>	<b>12.95</b>	<b>28.09</b>



	Details	Estimated	Labor cost	Material and supply	Total
Palamu	<b>Constituting Sub Central Cell</b>				
	Computer room renovation and salary of computer operator	6.00	4.00	2.00	6.00
	<b>Striking Force</b>				
	Salary for home guard etc	9.00	9.00	0.00	9.00
	Intelligence gathering	2.14	2.14	0.00	2.14
	Upkeep of rescued animals				
	rescue work	9.09	0.00	9.09	9.09
	Surveillance				
	Night vision camera binoculars etc	1.86	0.00	1.86	1.86
	CCTV at main gate of wild life centres	1.37	0.00	1.37	1.37
	Setting up electronic surveillance system at Betla National Park	17.00	0.00	17.00	17.00
	Three drone	21.00	0.00	21.00	21.00
	<b>Total</b>	<b>67.46</b>	<b>15.14</b>	<b>52.32</b>	<b>67.46</b>
Ranchi	<b>Constitution of Central Force</b>				
	computer room and its requisites including system analyst and guard	6.00	4.00	2.00	6.00
	Machines for computer room including fax printers etc	9.00	9.00	0.00	9.00
	Intelligence gathering	2.14	2.14	0.00	2.14
	Upkeep of rescued animals				
	Rescue work	9.09	0.00	9.09	9.09
	Surveillance				
	Night vision camera binoculars etc	1.86	0.00	1.86	1.86
	<b>Total</b>	<b>28.09</b>	<b>15.14</b>	<b>12.95</b>	<b>28.09</b>
Hazaribagh	Surveillance				0.00
	Setting up CCTVs at 3 wild life parks	4.11	0.00	4.11	4.11
	<b>Total</b>	<b>4.11</b>	<b>0.00</b>	<b>4.11</b>	<b>4.11</b>
Jamshedpur	Surveillance				
	Setting up CCTVs at 3 wild life parks	1.37	0.00	1.37	1.37
	<b>Total</b>	<b>1.37</b>	<b>0.00</b>	<b>1.37</b>	<b>1.37</b>
<b>TOTAL</b>		<b>278.00</b>	<b>120.00</b>	<b>158.00</b>	<b>278.00</b>

Source: Department of Forest and Environment, Government of Jharkhand; all figures in lakhs

## Conclusion

To recapitulate, the change in total forest cover in Jharkhand in 2015 as compared to that in 2013 is only 0.02 percent or an increase of only 5 square kilometers. At the country level the corresponding figure is 3775 sq.km. with Tamil Nadu leading with an increase of 250 sq.km. This increase in forest cover is mostly outside the traditional boundaries of forests and mostly due to protection and plantation activities. About 45.87 percent of the forest cover is in 3 patches greater than 1000 square kilometers and less than 5000 square kilometers measuring about 10,770 square kilometers.

To summarize the discussion threads in different sections of this chapter, green cover is essential for survival of flora, fauna and human life on earth. In the backdrop of the fact that about 3.31 percent of the forest cover of the country is housed in the state of Jharkhand, it is the responsibility of the citizens and the government of the state to protect and cherish it. To weave it together in a holistic perspective, the importance and linkages between forest and environment and wild life and their role in maintaining “a healthy wholesome” climate is gradually becoming common knowledge and also appreciated. Towards this end, schemes for protection of forest and wild life have been well executed as we detailed in the chapter.

We cannot end a survey of the chapter without a quick mention about the lackadaisical pace in implementation of the Forest Rights Act (FRA). The creation of Jharkhand was primarily on the premise that the tribal dominated region needed its own state and laws for the betterment and mainstreaming of the 27 percent of its tribal population. A majority of this section belong to the forest dwelling tribal community who should not be denied ownership of what is rightfully theirs. It is a herculean task but one that will give them dignity and security and therefore the process needs to be fast tracked. Another matter which needs a rethink is that the procedures followed across districts are not same and need to be aligned for smoother implementation. We are late but we can speed up to make up for some of the lost time in ensuring justice to the dominant forest dwelling community of the state.

The state department has taken several commendable initiatives to protect the flora and fauna and we are confident that it will do justice to its tribal people too given the more recent developments in the implementation of the FRA.

# 17

## **Climate Change and Disaster Management**

## Climate Change and impact

*Climate change has taken dangerous proportions and become a global challenge in recent times. People are experiencing significant impacts of climate change, which include changing weather patterns, rising sea level, and more extreme weather events. The greenhouse gas emissions from human activities are driving climate change which continues to get worse. They are now at their highest levels in history. Affordable,*

*scalable solutions are now available to enable countries to leapfrog to cleaner, more resilient economies. The pace of change is quickening as more people are turning to renewable energy and a range of other measures that will reduce emissions and increase adaptation efforts.*

Given the magnitude of threat to human life flora and fauna, the UN has adopted “climate action” as one of the 17 sustainable development goals.

### Box 17.a: Some facts about climate change and its impact

- From 1880 to 2012, average global temperature increased by 0.85°C. To put this into perspective, for each 1 degree of temperature increase, grain yields decline by about 5 per cent. Maize, wheat and other major crops have experienced significant yield reductions at the global level of 40 megatons per year between 1981 and 2002 due to a warmer climate.
- Oceans have warmed, the amounts of snow and ice have diminished and sea level has risen. From 1901 to 2010, the global average sea level rose by 19 cm as oceans expanded due to warming and ice melted. The Arctic’s sea ice extent has shrunk in every successive decade since 1979, with 1.07 million km<sup>2</sup> of ice loss every decade
- Given current concentrations and on-going emissions of greenhouse gases, it is likely that by the end of this century, the increase in global temperature will exceed 1.5°C compared to 1850 to 1900 for all but one scenario. The world’s oceans will warm and ice melt will continue. Average sea level rise is predicted as 24 – 30cm by 2065 and 40-63cm by 2100. Most aspects of climate change will persist for many centuries even if emissions are stopped
- Global emissions of carbon dioxide (CO<sub>2</sub>) have increased by almost 50 per cent since 1990
- Emissions grew more quickly between 2000 and 2010 than in each of the three previous decades
- It is still possible, using a wide array of technological measures and changes in behaviour, to limit the increase in global mean temperature to two degrees Celsius above pre-industrial levels

Source:un.org

Jharkhand is at the tip of this iceberg given that its tribal population concentration is as high as 26% who are primarily rural with rain and climate dependent agriculture as their main source of sustenance. The social dimensions of climate change can be far reaching impacting the income generation capacities health education access

gender balance distress migration social conflicts and the food and employment prospects of these tribal communities.

The first actionable strategy on climate change impact mitigation is creating awareness. As part of this strategy we present below a SWOT analysis.

**Table 17.1: SWOT analysis of climate change impact in Jharkhand**

	Parameters
Strengths	<p>78% rural based population dependent on natural environment..</p> <p>30% land under forest cover.</p> <p>Vast mineral wealth</p> <p>Ever improving rail line and air passage coverage.</p> <p>1400 mm average rain.</p> <p>Two major rivers with several tributaries and waterfalls.</p> <p>Remote chances of earthquakes and flooding.</p>
Weaknesses	<p>Closed unattended open cast, underground mines and pits inviting subsidence and flooding.</p> <p>Very old mines and quarries.</p> <p>Poorly maintained industries mainly thermal power stations and coal- washeries having inception aberrations.</p> <p>Poor infrastructural facility &amp; inadequate man power worsened by weak information network in the Board.</p> <p>Lack of empirical data on raw material, product, energy &amp; wastes generation ratio.</p>
Opportunities	<p>Harnessing of coal bed methane to supplement energy needs.</p> <p>Rain water harvesting for all industries</p> <p>Commercial exploitation of solid wastes namely, fly ash for TPS, char from sponge iron production, coal waste burden to the extent of export.</p> <p>Close circuit recycling of treated effluents.</p> <p>Setting up of network of Sewage Treatment Plant to cover entire state and 100% utilization of treated waste and effluent.</p> <p>Stream lining of less polluting road transports complemented with pollutant absorbing/ adsorbing tree plantation along both sides of roads and rail tracks.</p> <p>Self regulation practices for industries followed by self certification.</p> <p>Autonomous certification agencies affiliated with CPCB/SPCBs.</p>
Threats	<p>Pollution of rivers particularly, Damodar &amp; Subernrekha.</p> <p>Urbanized and effluence based increase of Municipal, biomedical, recycled plastic, used battery and e-wastes.</p> <p>Indiscriminate exploitation of minerals.</p> <p>Easy escape route through “polluter pays” syndrome.</p> <p>Probability of illegal import of hazardous wastes.</p> <p>Increase in fuel driven vehicles coupled with proportionate increase in high rise building and old roads leading to green house effect and noise pollution in many cities</p>

Source: JSPCB- Vision 2017

Vulnerability analysis of tribal dominated districts of Jharkhand: The department assigned work to

Institute for Human Development to prepare a detailed field investigation based report to assess

the livelihood vulnerability of the tribal in the state in the face of challenges of climate change and suggest appropriate adaptation strategies. The main findings of this research are presented in the table below. The strategic policies need to align with the findings with region-based targets. CVI is good only for easy comparison since there is a trade off between sub indices when they are viewed in an aggregated form. But for result orient strategies for better adaptive capacity development we need a breakdown which this analysis provided in the form of drill down specific sub indices to give an informed and holistic perspective.

The table is reproduced here since this serves

as a baseline of the urgency to take corrective strategies and action. The composite vulnerability index was constructed from a series of other parameter indices such as social dependence-agricultural, economic, health, forest, water resource, environment and climate dependence.

In a nutshell Deoghar and Jamatra consecutively recur in the highly vulnerable category under most of these indices. But the north-west region comprising Godda, Gumla, Sahibganj and Pakur are the most vulnerable to climate change.

The department and several social organizations have made progress in training the vulnerable tribes in alternate and mixed cropping patterns as well as supplementary sources of livelihood.

**Table 17.2: District wise Vulnerability indices for various indicators**

Rank	Indicator Index/ Districts	Remarks
	<b>Composite Vulnerability Index (CVI)</b>	
High	Jamatra Deoghar and Giridih	Less exposure extreme climatic events higher urbanization and economic capacity increase their adaptive capacity; better access to drinking water sanitation facilities electricity health and education
Least	Purbi Singhbhum and Ramgarh	The north east region of the state is more vulnerable due to low adaptive capacity and have greater exposure to climate change
	<b>Social Vulnerability Index</b>	
High	Garwah latehar Chatra Palamu Sahibgunj Pakur and Giridih	
Least	Bokaro Ranchi Dhanbad ramgarh and Purbi Singhbhum	
	<b>Economic Vulnerability Index</b>	
High	Garwah Latehar Chatra Palamu Gumla Godda	Low per capita income less number of banks and poor credit deposit ratio make a district economically more vulnerable
Least	Purbi Singhbhum	
	<b>Composite Socio-economic vulnerability index</b>	
High	Garwah Latehar Chatra Palamu Pakur and Sahibganj	
Least	Bokaro Ranchi Ramgarh Dhanbad and Purbi Singhbhum	
	<b>Agricultural vulnerability index</b>	

Rank	Indicator Index/ Districts	Remarks
High	Jamatra Gumla Sahibganj Simdega Deoghar Dumka pashchimi Singhbhum Pakur Saraikela Kharsawan and Ranchi	Low wheat production per capita larger NSA in proportion to district geographical area larger proportion of wasteland very less percentage of ground and surface water irrigation to NSA less fertilizer consumption greater share of agricultural workers to total workers increase their dependence on agricultural income increasing their agricultural vulnerability Agricultural vulnerability is projected to increase slightly in the coming years
Least	Laohardag koderma Chatra Hazaribagh Palamu ramgarh and Garwah	
<b>Forest Vulnerability Index</b>		
High	Deoghar Jmatra Pakur Giridih Khunti and Dumka	
Least	Hazaribagh Sahibgunj Pashchimi Singhbhum Chatra Lohardaga and Latehar	
<b>Water Resource Vulnerability Index</b>		
High	Purbi Singhbhum Dhanbad Bokaro Ramgarh and Palamu	Less surface and ground water availability per capita both in monsoon and non monsoon months  Overall water vulnerability is projected to increase in the coming time
Least	Paschim Singhbhum and Khunti	
<b>Climate Vulnerability Index</b>		
High	Dumka Sahibganj Pakur and Gumla	The overall climate vulnerability of the state is projected to increase
Least	Chatra Simdega Koderma Latehar Garwah Saraikela Kharswan and Palamu	
<b>Health Vulnerability Index</b>		
High	Deoghar and Jmatra	Deoghar and Jamatra are highly susceptible to anopheles mosquito causing malaria which makes them highly vulnerable on the health index
Least	Simdega Purbi Singhbhum latehar palamu and Garwah	
<b>Composite Environmental vulnerability index</b>		
High	Deoghar and Jmatra	
Least	Latehar Palamu and Garwah	

Source: State Action Plan on Climate Change-2014

### Key providers of weather forecasts

Based on the domain of expertise, India Meteorological Department (IMD) is the

premier institute that offers weather forecasts in Jharkhand. It's a government organization and has linkages with Birsa Agriculture University

(BAU) for issuing agro advisories at district level. Weather forecasts and Agro Advisories are currently being issued regularly for all the districts of Jharkhand. IMD provides weather forecasts and agro advisories free of cost. IMD is an important stakeholder at Jharkhand that is currently issuing weather forecast to BAU and Zonal Research Stations (ZRS). This existing channel of communication can be strengthened if IMD is the stakeholder of CCKN-IA. Major network players like IKSL – KCC also depend on IMD for weather data. Regarding the quality of weather forecast, weather forecasts are currently being issued at district level. Block level forecast

will help improve the outreach and impact IMD forecast.

Jharkhand Space Application Centre (JSAC) has established Automated Weather Stations (AWS) at 60 blocks at Jharkhand with the support of State Agriculture Department. However the weather information is currently available only online on their website and therefore is of little use to the farmers. However the state is yet to get a Doppler Radar which will make huge difference to its forecasts. The **Doppler radar** used in weather forecasting, measures the direction and speed, or velocity, of objects such as drops of precipitation.

### Box 17.b: IMD: Potential opportunities for effective impact

IMD weather information is generated at district level and hence misses out on micro-climatic variations. Absence of Doppler Radar reduces the accuracy of the weather forecasts. Since it is a GoI institution certain bureaucratic procedures may be expected regarding tie-ups. IMD has to be coordinated at national level for getting into MoUs. Feedback mechanism needs improvement for better functioning. IMD can demonstrate the potential to participate in innovative ventures and can be a valuable primary content on weather forecast provider to the network. Collaboration with CCKN-IA will offer opportunity for developing the weather services at block level. It must strengthen linkages with Birsa Agriculture University for weather forecast and advisories. Simulation models for specific crops productivity based on weather forecast can be developed

### Jharkhand State Pollution Control Board

Urbanization has become synonymous with vehicle pollution. Both the human and vehicle population in Jharkhand has increased by 10-12% in the last 5 years. Registered number of small vehicles in 2000 was 13337 which increased by about 8 times to 103964 in the year 2004 and surpassed the figure of 2 lakhs by 2008. Whereas human population generates municipal solid wastes, bio-medical wastes and other wastes such as plastic, used battery and e-waste, running vehicles are responsible for generating toxic air pollutants and heat.

Jharkhand State Pollution Control Board has a dual responsibility. First, it has to carve ways and means to preserve the virginity of the rural areas. Simultaneously, it has to see that existing industries switch over to newer and advanced technology that are environment friendly as well as insure that upcoming industries are meticulously sited and are harnessed with state of the art technologies. “Polluter pay” and Precautionary measures” are the main planks of the state’s pollution control regime. JSPCB is entrusted with the responsibility of pollution control solid waste management hazardous waste management and bio medical waste management.



### **Progress under Jharkhand Action Plan on Climate Change**

The Jharkhand state Action Plan on climate change for 2014-18 involving an estimated expenditure of Rs.3178.80 crores was submitted to the Union Ministry of Environment Forests and Climate Change. The plan was for adaptation and mitigation with respect to eight sectors i.e. agriculture, forest and environment, water, industry, mining, power, urban development and transport and health. The plan was endorsed in February 2015. Several consultative workshops and capacity building exercises have been done under this Action Plan. Further the department recognizes the looming climate change threats and risks to the environment and also the lives of the tribal who derive their livelihood from the forest ecosystem.

Since then the department has organized various workshops on Climate change and adaptation for various stakeholders. The first such workshop was conducted under the Green India Mission on July 2014.

A consultative workshop on “Market transformation and removal of barriers for effective implementation of the State-level Climate Change Action Plan” was organized by the department in collaboration with UNDP. Several actionable strategies emerged during the workshops which are under implementation now

Recognizing the need to fast track the potential of renewable energy and other energy efficient means for a clean and pollution free environment the department has assigned to the International Institute for Energy Conservation to prepare a detailed project report on this theme.

### **Sectoral Impact of Climate Change and Adaptation and Mitigation strategies**

We now present a brief on climate change impact

on a few sectors and follow it up with adaptation and mitigation strategies for each. It must be borne in mind that some sectors like industry and mining are a cause for climate change while also being affected by it. So there is an endogeneity in their relationship which must be incorporated in policies for adaptation and mitigation.

### **Forest and Climate change**

The forestry resources, being the cheapest available carbon sink, will also suffer due to temperature rise and of the 1148 FSI grids in the state, it is projected that due to climate change about 24.30 grids will get affected in ‘long term’ period. But there is no short term threat perceived for the forests in the state. This will not only affect the plant species but will also force the fauna to make adjustment to altered conditions by moving to newer locations. This will increase the human-wildlife conflict over time.

Forest in Jharkhand has long been under pressure from mining and for meeting the demands for fuel. To tackle the impacts of mining, the State Government also proposes to bring legislation in mining sector so that resources generated from mining sectors can be pumped back for local developmental activities. The results of state actions are visible in the form of improvement.

According to the forestry focused analysis, Ranchi, Gumla, Paschim Singhbhum and Gumla districts are most vulnerable to future climate related changes as all these districts have high tribal and economically backward population and fall under the scheduled areas. At the same time, all the districts falling under the most vulnerable category also possess comparatively lesser forest resources. At the other end of the spectrum, districts like Bokaro and Dhanbad are less vulnerable to climate change due to their high adaptive capacity and less social vulnerability.

**Box 17.c: Impact of climate change on Forest products –A Case Study**

Tribal women in Khunti are involved in the production and sale of Lac, a natural polymer produced by a tiny insect *Kerria lacca* that is cultivated on the shoots of several species of trees mainly palash (*Butea monosperma*), ber (*Zizyphus mauritiana*), peepal (*Ficus religiosa*) etc. For the past 3-4 years, lac host trees have been affected by unseasonal, short and heavy rains followed by extreme cold weather and week - long fog and frost around mid-March, when the insect is ready to produce lac. As a result of extreme cold, the insects tend to die. This has occurred since 2006, reducing the production of lac to 25% of what was harvested in 2004-05. Consequently, the local lac industry has started importing lac from Thailand. People are greatly affected due to this, but they have adapted to these challenges by shifting their livelihood to commercial logging and agriculture.

Source: UNIFEM Report, Adivasi women engaging with climate change, Govind Kelar

The table below discusses some potential areas for research to develop sustainable forest management, changes required in approach towards forest management and capacity building measures that we must undertake to mitigate the impact of climate change on forest resources of the state.

**Table 17.3: Adaptation and Mitigation strategies**

Research and development:	Development of Sustainable Forest Management Plans for different forest types in view of Climate Change Promote Research to Understand the Impacts of Climate Change on Forest Ecosystem- Development of baseline methodology of carbon sequestered in the state forests- Vulnerability Mapping of Forest of Jharkhand
Capacity enhancement	Capacity Building-Orientation of the forest managers, officers and workers to the implications of climate change on forest ecosystem as a whole with emphasis on impact of forest growth, carbon sequestration, water balance and overall effect on the productivity of different ecosystems Promote use of alternate source of energy in forest villages and adjoining revenue villages- forest dwellers need to be encouraged to use non conventional sources of energy such as solar instead of forest biomass for cooking and heating
Change in forest management approach	Enhancing the levels of forest conservation, afforestation, reforestation activities through viable models for forest demarcation, carbon revenue work on artificial regeneration and promotion of “care and share” model Prioritise Soil and Water Conservation in Forest Management for example proper treatment of catchment areas and integrated watershed management through silvi pasture development Protecting and Enhancing sustainable forest based Livelihoods: NTFP focused forest management, ecotourism, lac promotion etc Enhance green cover outside Forests People’s Participation to resolve the conflict between forest and forest dwellers for preservation and conservation of forest ecosystem

	<p>Forest productivity enhancement to augment rural livelihoods and support rural energy needs</p> <p>Water harvesting in forest areas for example check dams to prevent soil erosion</p> <p>Using Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) to develop forest plantations and water harvesting structures in jointly managed forests.</p>
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Source: State Action Plan on Climate Change- 2014

### Health and Climate Change

Jharkhand needs to systematically plan and prepare responses to the health effects (projected) resulting from climate change so that the state bodies are able to cope with the additional burden on health system of the state. The table below presents the trends in the number of cases of malaria and dengue at the state level in the period 2007-2011. While the numbers for malaria provide some relief, those for dengue necessitate urgent action.

**Table 17.4: No. of cases of Malaria and Dengue in the state**

	Malaria cases	Dengue cases
2007	184878	0
2008	214299	0
2009	230683	0
2010	199842	27
2011 (provisional)	134814	32

Source: State Action Plan on Climate Change- 2014

The table below encapsulates actionable strategies for various vector borne disease which are to some extent driven by climate changes.

**Table 17.5: Adaptation and Mitigation strategies**

Type	Strategies
<b>Water-stress (Drought and Heat Stress)</b>	<p><b>Short term Adaptation Actions</b> Pre-defined plans for response to diarrhoea outbreaks</p> <ul style="list-style-type: none"> <li>• Promotion of water reuse and prevention of water contamination</li> <li>• Updating current statistical and meteorological models, and connecting environmental and disease outcome data</li> </ul> <p><b>Long Term Adaptation Actions</b></p> <ul style="list-style-type: none"> <li>• Contingency funds for upgrading health infrastructure and man power</li> <li>• Establishing an early-warning system for drought monitoring</li> <li>• Developing responses for emergencies related protective especially towards vulnerable populations</li> <li>• Developing communication plans and materials for public education focusing on vector borne diseases</li> </ul>
<b>Vector borne diseases Diarrhoea, malaria, Dengue (climate sensitive diseases)</b>	<p><b>Short term Adaptation Actions</b></p> <ul style="list-style-type: none"> <li>• Increasing the number of localized automatic weather stations for setting up of a robust weather monitoring system and use of Geo-spatial technologies for identifying the hotspots of climate-sensitive diseases using the data obtained from the weather monitoring system</li> <li>• Conducting regular survey and surveillance for heat related illness and Filling up the existing shortfalls in the health infrastructure of the State and increasing the percentage of population covered under the health drugs</li> </ul>

Type	Strategies
	<ul style="list-style-type: none"> <li>• More robust data collection and increasing capacity for improvement in data analysis</li> </ul>
	<p><b>Long Term Adaptation Actions</b></p> <p>Filling up the existing shortfall in the health infrastructure of the State and increasing the percentage of population covered under the health drugs Increasing the full immunisation to 100% from the current 59.7 %</p> <ul style="list-style-type: none"> <li>• Strengthening of current Health Schemes of the State</li> <li>• Developing communication plans and materials for public education focusing on Vector borne diseases</li> <li>• Integrating climate change in State’s water policy and encouraging water conservation</li> <li>• Improving inter agency discussion, coordination, and communication</li> </ul>

Source: State Action Plan on Climate Change- 2014

### Industry and Climate Change

The state economy is based on industry and mining. The rich mineral deposits including coal make it one of the most preferred locations for a range of industries in the country. The abundance of coal supports the mineral based and the steel industry forming the back-bone of the state economy. This is the reason why some of the country’s highly industrialized cities such as Jamshedpur, Ranchi, Bokaro and Dhanbad are

located in Jharkhand. The industrial emissions are environmental footprints of the sector and to arrive at the emission footprint, emissions associated with three sources are considered; the energy that goes into operations, from the production process and the waste generated in the process. The table below enlists some of the adaptation and mitigation strategies and policies formulated by the government for reduced impact climate change due to industrial pollution.

**Table 17.6: Adaptation and mitigation strategies**

Category	Actionable Strategy
Green Performance standards	The new industries, whether small or big should be motivated to introduce best operational practices in the local production environment for economizing on resource input and reducing pollutant outputs
Supply chain management	For example, import of basic materials (including coal) should be considered. Some of the big industrial players have already started diversifying their raw material sourcing. For example Tata is considering improved coal procurement from blocks in Africa.
Diversification	There is lot of potential to develop clusters of ancillary units in vicinity of mega projects
Smart Energy options	to adopt carbon smart energy options and also improve the energy efficiency of the existing plants to reduce emission footprint of coal fired process To reduce dependency on grid electricity and also reduce carbon emissions the industries would have to invest in renewable energy options for example solar heating by smaller enterprises The poor energy efficiency is a technological issue and any efficiency transitions require overall overhauling of the manufacturing operations. The BEE-NPC joint study indicated that coke oven plants alone have the potential of saving 20% of the energy.

Category	Actionable Strategy
	Smart carbon management to reduce carbon emission and improve industrial competitiveness

Source: State Action Plan on Climate Change- 2014

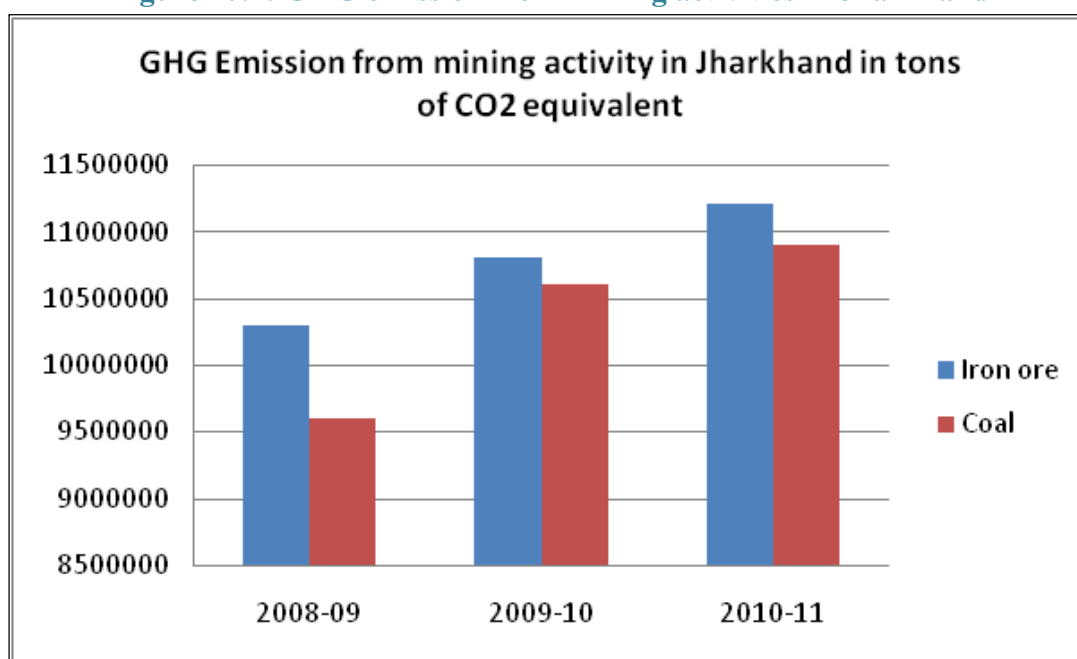
### Mining and climate change

**Pollution:** Mining activity pollutes the local surrounding, the extracted minerals and soil is piled on land; exposed to natural forces this flows into water bodies and surrounding land. It is estimated that in 2006 alone 1.6 billion tonne of waste and over burden from coal, iron ore, limestone and bauxite was generated. In addition air pollution from mines and mineral transport deteriorates the surrounding environment. The mineral belt in the state falls in watershed of the major rivers. Hence water related problems are common issues faced by the mine managers and

the community

**Environmental impact of mining:** Large bodies of stagnant water accumulated in the depression areas of mines due to accumulation of surface and ground water over a period of time indicating a changing geo-hydrological regime with possible threat of ground water contamination in potential aquifer passing through the area or located at lower level. The figure below mirrors the looming threat from GHG (green house gas) emissions due to mining activities in the state. The iron ore and coal industries GHG emissions are on the rise since 2008-09.

**Figure 17.1: GHG emission from Mining activities in Jharkhand**



Source: State Action Plan on Climate Change- 2014

### Adaptation measures:

- Private sector initiatives leading to changes in standard operation procedures which are aligned towards reducing risks to mining operations due to climate change impacts will be a very useful; way. This can include improved facilities management and climate change concerns in the annual plan of individual companies.
- Formulating a localized climate model and conducting a vulnerability mapping of current and future mining operations

towards natural hazards through data obtained from the model.

- Regular auditing of water consumption and energy requirement for all operations associated with mining
- Developing access to new water resources and initiating water conservation strategies, reducing water evaporation in the mining townships and facilities and improving water use efficiency.
- Public-private partnership to develop legislation and policies promoting adaptation will be an effective measure too.
- Social & Environmental Compliance: The industry has a huge social & environmental impact. Adequate measures have to be taken to ensure environmental compliance which will be a key factor on the sustainability of the sector in the state. Along with environmental measures, land rationing & rehabilitation measures also have to be put in place for ensuring minimum quality of health for the people in the mining affected regions of the state.

### Disaster Management

In this era of information and technology any loss of life due to a disaster, whether natural or manmade, is unacceptable and totally avoidable. The State Disaster Management authority (SDMA) is the nodal agency in the state of Jharkhand entrusted with disaster management. While we cannot check at bay a natural calamity like for example a cyclone we can always be prepared to meet the challenges and as in this case have an evacuation plan for the endangered residents.

The list of recognized disasters is given in the box below. Jharkhand is in some minimal way lucky since it is not prone to at least certain disasters such as cyclones and tsunamis.

### Box 17.d: List of recognized disasters in the state

Drought  
 Earthquake  
 Deforestation  
 Floods  
 Mining Hazards  
 Lightning  
 Forest fires  
 Bio Diversity  
 Epidemics

Source: Department of Home, Jail and Disaster Management, Government of Jharkhand

Disaster management aims to reduce or avoid the potential losses from hazards, assure prompt and appropriate assistance to victims of disaster, and achieve rapid and effective recovery. The Disaster management cycle given below illustrates the ongoing process by which governments, businesses, and civil society plan for and reduce the impact of disasters, react during and immediately following a disaster, and take steps to recover after a disaster has occurred. Appropriate actions at all points in the cycle lead to greater preparedness, better warnings, reduced vulnerability or the prevention of disasters during the next iteration of the cycle. The complete disaster management cycle includes the shaping of public policies and plans that either modify the causes of disasters or mitigate their effects on people, property, and infrastructure. The fundamental principle of disaster management should rest on preparedness.

**Figure 17.2: The disaster management cycle**



### Disasters and their impact in 2014-15 in Jharkhand

The table below summarizes the number of lives lost due to disasters that struck the state in the year 2014-15. Lightning is the worst culprit having claimed the maximum number of lives, 144 or about 87 percent of the total human casualty, in 2014-15. Lightning strikes have taken place at an alarming regularity in almost all parts of the state. The number of lightning deaths in the state has almost doubled in the recent past. Add to this the hundreds who sustain injuries and loss of cattle and property annually and we have a grave

problem on our hand. While lightning may not be an avoidable danger but IEC activities about precautions to be observed during inclement weather especially in more susceptible regions would perhaps control the casualties.

Drought on the other hand is a disaster whose impact at least can be arrested. 11 lives were lost due to drought in 2014-15. But this was perhaps preventable with proper relief measures and preparedness. Flood/heavy rains and storm/cyclone claimed 9 and 2 lives respectively while no fire related casualty was reported.

**Table 17.7: Loss of life due to disaster**

Calamity	No. of lives lost
Drought	11
Fire	0
Lightning	144
Hailstorm/Other	0
Flood/Heavy Rains	9
Storm/cyclone	2
Total	166

Source: Department of Home, Jail and Disaster Management, Government of Jharkhand

In the table below we present the number of villages affected district wise. The figure presents the same number as a percentage of total number of villages affected in the state. Hazaribagh was the worst affected with approximately 18 percent

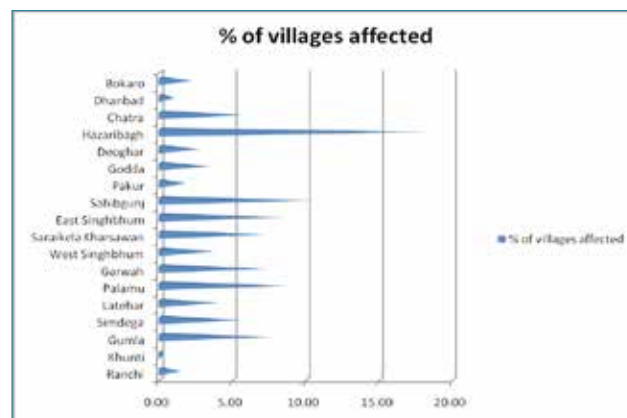
of the total affected villages followed by Sahibganj (10.47 percent) and Palamu (8.89 percent). The districts of Khunti, Dhanbad and Ranchi, in that order, were the least affected districts.

**Table 17.8: District wise number of villages affected**

District	No. of affected villages
Ranchi	7
Khunti	1
Gumla	38
Simdega	29
Latehar	20
Palamu	45
Garwah	37
West Singhbhum	19
Saraikela Kharsawan	36
East Singhbhum	43
Sahibgunj	53
Pakur	09
Godda	17
Deoghar	14
Hazaribagh	93
Chatra	29
Dhanbad	5
Bokaro	11
<b>Total</b>	<b>506</b>

Source: Department of Home, Jail and Disaster Management, Government of Jharkhand

**Figure 17.3: District wise % villages affected due to disasters**



While nothing can reclaim the lives lost during such disasters, the trials and tribulations of the survivors is heart wrenching as they try to pick up the threads. While 51 pucca (fully concrete homes) were damaged (25 percent fully, 8 percent severely and 67 percent partially), the number was much higher, 2293, for kaccha houses given their weak infrastructure. 29 percent of the kaccha houses were fully damaged and 63 percent partially.

**Table 17.9: Details of Residential homes damaged**

	Pucca	Kaccha
Fully	13	667
Severely	4	186
Partially	34	1440
<b>Total</b>	<b>51</b>	<b>2293</b>

Source: Department of Home, Jail and Disaster Management, Government of Jharkhand

As seen in the table below the district of Chatra experienced maximum loss to human life (22) followed by Gadwah (19) and Hazaribagh and Giridih (18 each). Dumka, Dhanbad, Bokaro and Jamatra were the safe district with no loss to life or livestock.

Giridih had maximum damage to public property, as high as 25.5 lacs. Other districts with damage to public property include Sahebganj, Garwah and Chatra.



**Table 17.10 : District wise break-up of the loss to life and property**

District	No. of blocks affected	No. of homes damaged				Total	Estimated value of Damaged residential property in Rs.lacs)	Damage to public property in Rs.lac	No. of lives lost	
		Pucca		Kacchha					Human lives	Live-stock
		Fully	Partially	Fully	Partially					
Ranchi	10			14	211	225	5.619		12	9
Khunti	6		2		74	76	1.739		2	7
Lohardaga	3			1	4	5	0.112		6	5
Gumla	9				40	40	0.76		4	17
Simdega	4			1	71	72	1.407		4	13
Latayhar	7	3	1	3	3	10	10.8		6	6
Palamu	10		10	21	8	39	0.697		2	19
Gadwa	19	1		25	23	49	35.547	3.84	19	7
West Singhbhum	11			2	190	192	12.976		3	25
S a r a y Kela(Kharsawa)	6			2	62	64	1.6065		3	
East Singhbhum	7			75	111	186	113.237		11	
Dumka										
Jamtara	5			31	0	31	3.185			
Sahebganj	9			235	72	307	44.21	14.9	5	4
Pakur	5			8	19	27	1.268		5	3
Godda				150	2	152			2	
Deoghar			1	22	18	41	7.15			
Hazaribagh	5		21	20	218	260	10.174		18	10
Ramgarh	2			1		1	0.15		3	4
Chatra	10	8	1			9	4.4	1.2	22	26
Kodarma	6	1	1	56	386	444			10	4
Giridih								25.5	18	
Dhanbad	5									
Bokaro	7				114	114	2.166			
TOTAL	146	13	38	667	1626	2344	252.2035	45.44	166	159

Source: Department of Home, Jail and Disaster Management, Government of Jharkhand

When we translate the damages in financial terms, we have a staggering total loss of nearly 3.32 crores. A break up of this reveals that the maximum loss, 2.52 crores, was incurred due to damage to private home, 0.45 crores due to loss

to public property and the rest due to losses in agriculture.

**Table 17.11: Snapshot of disaster related damage**

Population affected	0.51909 lacs
Livestock perished	159
Cropped area damaged	0.01406 lac hectares
Estimated crop loss	35.27 lacs
Damage to infrastructure (roads bridges government buildings and school buildings and industries such as telecommunication power and railways)	0.45 crores
Private properties and others	2.52 crores

Source: Department of Home, Jail and Disaster Management, Government of Jharkhand

The table below presents the district wise distribution of state budget funds in each category of disaster during 2014-15. Approximately 53 percent of funds in SDRF were allocated to floods and another 24 percent was set aside for flood relief for J &K. 8.38 percent of the funds were earmarked for lightning related disasters. The district of Ranchi with the capital city in its jurisdiction had the maximum fund allocation followed by the LWE district of Palamu. Dhanbad and Garwah also got a plum share of the pie, 125 and 123 lacs respectively. Hazaribagh which had the maximum number of affected villages had been allocated only 0.82 percent of the total fund allocation in 2-14-15.

**Table 17.12: Disaster wise distribution of state budget allocation (in lacs)**

District	Flood etc (from SDRF)	State Budget for flood in Jammu-Kashmir	Drought (State budget)	Lightning (State budget)	Miscellaneous (State budget)	Total
Ranchi	90.35	8.34		15.74	9.00	198.53
Gumla	4.50			10.60	1.00	16.10
Simdega				2.00	2.00	4.00
Lohardaga	0.24			12.13	2.00	14.37
East Singhbhum	50.19			10.65	0.50	65.84
West Singhbhum	0.70			3.00	4.00	7.70
Saray Kela (Kharsawa)	4.18			4.00	1.00	9.18
Palamu	0.96		166.50	1.81	5.00	174.27
Gadwa			121.50		0.20	123.50
Latayhar	0.48			10.50	0.10	11.98
Hazaribagh	3.24			15.13	1.50	19.86
Chatra	6.00			8.71	1.00	15.71
Kodarma	24.06			7.80	2.00	33.86
Giridih	0.50			25.00	2.00	27.50
Dhanbad	106.00			18.00	1.50	125.50
Bokaro	4.11			0.93	0.30	8.04

District	Flood etc (from SDRF)	State Budget for flood in Jammu-Kashmir	Drought (State budget)	Lightning (State budget)	Miscellaneous (State budget)	Total
Dumka	0.69				3.00	3.69
Jamtara	3.19			18.61	1.00	22.80
Devghar	2.97				5.00	7.97
Godda	46.17			6.00	2.50	54.67
Sahebganj	56.44			1.99	3.00	61.43
Pakur	0.47			18.00	1.50	19.97
Ramgarh	0.18			6.15	1.25	7.58
Khunti	0.17			6.16	2.00	8.33
D.M.D.	1.70	7.00				8.70
Fire Brigade Service	870.65					870.65
Jammu & Kashmir		500.00				500.00
<b>TOTAL</b>	<b>1278.14</b>	<b>590.44</b>	<b>288.00</b>	<b>202.92</b>	62.25	2421.75

Source: Department of Home, Jail and Disaster Management, Government of Jharkhand

The table below presents a snapshot of the districts which suffered agricultural loss during 2014-15 due to disasters such as drought. These districts include Ranchi, Khunti, Simdega,

Palamu, Bokaro and Lohardaga. Khunti and Palamu were worst in terms of the total affected area while Lohardaga and Ranchi suffered the highest monetary loss due to crop damage.

**Table 17.13: District wise break-up of Agricultural loss**

District	Affected area in lac hectare			Cropped area in lac hectare	Estimated crop damage in lacs
	Agriculture	Non Agriculture	Total area affected		
Ranchi	0.0029		0.0029	0.0029	19.9
Khunti	0.00669		0.00669	0.0069	0.90
Lohardaga				0.00068	20.66
Simdega	0.00031		0.00031	0.00031	1.83
Palamu	0.00348		0.00348	0.00348	8.08
Bokaro	0.00018		0.00018		2.49
<b>TOTAL</b>	<b>0.01356</b>		<b>0.01356</b>	<b>0.01406</b>	<b>3527336</b>

Source: Department of Home, Jail and Disaster Management, Government of Jharkhand

The table below gives details of the food relief supply distributed by the department in the affected areas. Raw and ready to eat food worth

Rs.53.74 lacs were distributed as relief during the year 2014-15. Rice and jaggery were the most commonly distributed relief food.

**Table 17.14: Details of relief supply distributed**

District	Raw food in quintals			Readymade food in quintals				Financial dole out in Rs.lacs	Chana/salt in Rs.lacs
	Wheat	Chana/ rice	Salt	Flat rice (chu-ra)	Pulses/ Sattu	Kh-ichdi	Jag-gery		
Saray Kela (Kharsawa)								5.3175	
East Singhbhum								48.426	
Sahebganj		63.35		1.065			27.005		
Pakur		1.5							
Hazaribagh		0.7							
Ramgarh		2.05							
<b>TOTAL</b>		<b>67.5</b>		<b>1.06</b>			<b>27.00</b>	<b>53.74</b>	

Source: Department of Home, Jail and Disaster Management, Government of Jharkhand

## Activities of the department during 2014-15

### Preparedness

#### A. Preventive actions taken

- Early season drought monitoring system is followed in the state with the support of National Agricultural Drought Monitoring System (NADMS), Hyderabad as per the advisory of Jharkhand Space Application Centre.
- Preparation of South West Monsoon response plan with the entire flood affected districts, line department and Inter-state agencies
- Documentation of “Dos and Don’ts” for all the major disasters of the state via print and electronic media
- Early warning dissemination with the support of IMD, Jharkhand
- Close coordination and monitoring with Central Water Commission and Water Resources department of neighboring states like U.P., M.P., Odisha and West Bengal

- Awareness campaign about the weather, pattern of crops, lightning etc.

#### B. Long term measures taken/proposed

- Preparation of State Disaster Management Plan for all the hazards risks and vulnerability is under process
- Preparation of District level Disaster Management Plan is underway
- Preparation of Departmental Disaster Management Plan for all line departments
- Conducting joint mock drills with NDRF and State Fire Services
- Development of training manuals for state specific needs and its dissemination through various training programs with multiple stakeholders
- Mass awareness program through print and electronic media on community based preparedness on the state specific disasters

#### Trainings Conducted:

- Conducted inception workshop on “Enhancing Institutional and Community Resilience to Disasters and Climate

Change” for various stake holders in Ranchi

- Conducted workshop in Ranchi Municipal Corporation on Integration of Urban Risk Reduction (URR) and Climate Change Adaptation (CCA) in Ranchi.
- Conducted a 3-day training program in Dhandbad on DRR-CCA in town hall for official and volunteers
- Conducted Training Needs and Analysis (TNA) workshop for the district of Ranchi at SKIPA

#### **Other disaster management measures:**

- Deployment of National Disaster Relief Fund (NDRF) personnel at temple premises during “Sawaan mela” at Deoghar
- Documentation /studies/research: to standardize operating and training procedures the following manual have been developed:
  - Manual for master trainers on disaster management
  - Manual on the preparation of Departmental Disaster Management Plan
  - Manual on the preparation of district level Disaster Management Plan
- Impact evaluation of relief measures undertaken: Reports regarding evaluation of relief measures are sent from Deputy Commissioner’s office based on the report of the Circle officers of the Anchal

#### **Relief measures**

- Steps taken by the state government: allotment for assistance to districts and departments: Rs. 127813951
- For death due to lightning and bonfire relief has been provided to the families of the deceased amounting to Rs. 26517000 from the state budget as per the norms of NDRF

#### **System of Calamity management mechanism and machinery adopted by the state**

- SDMA has been constituted and is functional
- DDMA has been constituted in all 24 districts of the state
- SEC has been constituted and is functional
- Process has been initiated to set up the State Disaster Response Force

#### **Conclusion**

The State has taken a serious note of the impact of climate change on the vulnerable tribal population as also on the community at large and has initiated steps towards damage control. The health risks have a ripple effect on economic productivity as was elaborated through the sub indices of the composite vulnerability index and therefore the state has set up SDMA. Every district now has a DDMA for more efficient and effective monitoring of the climate change situation.



18

**Tourism, Arts,  
Culture, Youth and  
Sports Affairs**

*Serenity is synonymous with Jharkhand - it's evident in its amazing shades of green, in the pristine forests, in the unhurried pace that characterises the life of its people, in the piety that pervades its holy towns and in the fervour and vibrancy of its festivals. A complete panoramic view of nature at its best is defined by the captivating wild life, enthralling waterfalls, exquisite handicrafts, sprawling water bodies, enchanting classical and folk dances and music of Jharkhand. This along with a relatively fast economic growth in the rest of the country, Jharkhand can hope to attract more tourists. Whether this occurs, however, depends on a combination of good facilities, well-trained service providers and a better law and order situation.*

Jharkhand is home to several tribes. They not only differ considerably from the non-tribal population but from one another as well. The tribal society of Jharkhand has a rich tradition of arts and crafts that is quite visible in the rock paintings of this region that dates back to more than 5000 years. The best place to experience the arts and craft traditions of this state is Tribal Research Institute and Museum at Ranchi. The tribes of Jharkhand are expert in making plates made up of Sal leaves joined together by tiny sticks. One can also have a taste of local brews like Mahua and Hanaria that flow like water in this region.

## **Tourism**

The tourism industry, unlike many other industries, is a composite of several service providers. Service providers are generally in the private sector. In addition, public sector institutions are also involved in planning, development and management of tourism. The participation of different private and public agencies, makes tourism industry a composite phenomenon requiring strong cooperation and coordination for it to be developed and extended along lines that will contribute to the overall national development objectives. This typical pattern and dynamic character

of this sector make it necessary for the policy to be in accordance with the changing environment. Policies are products of time and circumstances, available resources, technologies and most importantly the needs of the stake holders.

A fascinating state with luxuriant forests, captivating wild life, enthralling waterfalls, exquisite handicrafts, sprawling water bodies, enchanting classical and folk dances and music and above all hospitable and peace loving people, Jharkhand sure is a psychedelic of heritage and beauty. Jharkhand's climate, its cultural heritage and places of worship, make it a perfect destination for tourists from all-over the world.

## **Jharkhand Tourism Policy 2015**

Jharkhand tourism policy, 2015 is a step towards achieving these goals. This policy of Jharkhand has aims of developing infrastructure, increasing employment opportunities, augmenting the resources of the state as also showcasing the rich cultural heritage and traditions of the state.

Some of the policy objectives are; first, to promote tourism in the state in such a manner that it contributes to mass generation of employment, rapid economic growth and bringing the tourist closer to the cultural heritage and traditions of the state. Secondly, optimum harnessing of resources to attract the maximum number of domestic and foreign tourists with increased average duration of their stay in the state. Thirdly, to position every place of tourist interests as an exclusive tourist centre differ from others. Fourthly, to promote private sector participation, in the development of tourism, and government facilitation to develop necessary infrastructure of the State. Fifthly, to establish Jharkhand prominently upon the tourism map of the country vis-a viz demand created by the tribal and trade market in Jharkhand and tapping the untapped potential of various heritage monuments in the state.



Some of the other broad objectives of the tourism policy of Jharkhand, 2015, are elaborated below;

- To prepare and implement master plans for integrated development and marketing of various areas of tourism importance in the state.
- To provide quality services to all domestic and international visitors and holders by adopting appropriate systems of Human Resource Development including skill development and up-gradation, building capabilities, exposure visits etc.
- To diversify, expand and aggressively market the tourism products of the state along with preserving the cultural monuments from decay.
- To encourage cooperative tourism through people's participation in the promotion, and to extend economic benefits to the people through such participation and cooperation.
- To encourage involvement of non-Governmental organizations, voluntary agencies and such bodies involved in tourism promotion and development, by providing them with support, assistance and making use of their expertise in the development of tourism.
- To attract the high end tourists and to increase their stay in the state.
- To position Jharkhand as one stop destination for all adventure related tourism activities, comprising of air, land and water based adventure facilities.
- To promote sustainable and responsible tourism which is not only environment friendly, but also leads to economic betterment of the people.
- To promote rural tourism in a big way to showcase the customs, traditions festival cuisines, dance, art, music, etc. of the state so as to attract foreign tourists in the state and augment the foreign exchange reserves of the country.
- To provide all modern amenities and facilities to the tourists visiting the state destinations and on ways, so as to make their arrival, travel and stay more comfortable which would result in increased number of tourists with the passage of time.
- To promote eco-tourism in consonance with the vast ecological, bounties of nature; the state is endowed with dense forests, perennial waterfalls, wild life and rich biodiversity.
- To promote mining tourism in the state, which abounds in mineral resources amounting to 37 percent of the national mineral deposits, so as to mitigate poverty and raise the standard of living in and around the closed and abandoned mines scattered across the state.
- To take steps to protect and promote the rich and varied handicrafts of the state so as to conserve and preserve the cultural heritage, traditions and customs of the state.
- To promote research and development, technological up-gradation and qualitative improvement and utilization of the state of the art technology to improve the tourism product and its marketing.
- Simplification of procedures and ensuring transparency so as to provide expeditious, transparent and professional tourism administration.
- To take steps to promote religious tourism in the state by ensuring appropriate facilities,

connectivity and development of such places.

- To take steps to safeguard the interests of the tourists and providing a sensitive, proactive, comfortable and quick mechanism as also by providing an effective grievance redressal system.

Jharkhand, has the potential to develop different kinds of tourism in the state, which can range from, religious tourism, to rural tourism to heritage tourism and mining tourism. The government has been taking steps to make the tourism of Jharkhand livelier. Some of the initiatives of the state on different kinds of tourism are elaborated below:

## Religious/Spiritual Tourism

Jharkhand has a series of places having spiritual importance. Among these places Deoghar, Parasnath, Rikhiare are of national and international importance and places like Rajrappa, Ramrekha, Amreshwar Dham, Itkhori, Nagar Utari and many others are very well recognized by the people of this region, which need to develop. The government is making efforts to revive these sites to generate not only national but also international interests.

### Box.No. 18.a : Giridih and the Holy Parasnath.



Giridih is a beautiful hamlet in the lap of undulating hills and is a great place for tourists to visit. The holy Parasnath temple is also located on the highest hill of Jharkhand, which is 35 kms from Giridih. This temple is considered to be the most important and sanctified place of Jains. The temple is important because, twenty three Jain thirthankars, out of twenty-four attained salvation in the Parasnath Hills. It is thus one of the best tourist destinations for a religious as well as serene visit. There are also treks to Parasnath, which can become a potential adventure tourism destination.

### Heritage Tourism

Jama Masjid of Rajmahal, the fort of Chero Kings at Medninagar, Tanginath at Gumla, Padma Palace in Hazaribagh and few a other places, in the state need to be developed to showcase the history and cultural heritage of the state.

### Rural Tourism and Upgradation of Rural Sites

Rural areas in Jharkhand are also very rich naturally, ethnically and culturally. There is immense potential of rural tourism in Jharkhand. Accordingly, certain villages in the different regions of the state are being developed, to provide basic facilities to its visiting tourists. Awareness programme including upgradation of Rural Tourist

sites should also be done to promote rural tourism.

### Mining Tourism

Jharkhand, with the largest deposit of minerals in the country, has a great potential promoting Mining Tourism which would not only educate the tourists regarding its various mining processes but also provide various recreational facilities at the same places. It has been proposed to develop Mining Tourism in the closed mining areas yielding copper, coal, etc.

Some of the highlight schemes of the department to promote tourism are:

#### Box No. 18.b : Maluti: A village lost and forgotten is set to be revived again!!



Maluti village, situated under Shikaripara Block in Dumka District is known as the “Village of Temples”. There are 72 terracotta temples of medieval era here which have historical and cultural importance. The village was once known as “Gupt Kashi” meaning hidden Varanasi. Being a historical place it attracts thousands of tourists per year from different parts of the country as well from abroad. To provide facilities to the tourists, the department is planning to construct a restaurant, a park, public utilities, a tourist reception centre, additional tourist complex (one already exists) and provide water supply facility. The department is also planning to run a tourist bus from Dumka to Tarapit (Rampurhat, West Bengal) via Masanjor Dam and Maluti to provide easy access of tourists to these places. The Jharkhand tableau has won the third position during the 66<sup>th</sup> Republic Day celebrations, which depicted the temples of Maluti.

### **Anjandham, Gumla**

Anjan Dham situated in Gumla district is considered to be the birth place of Hanumanji. Hundreds of pilgrims visit the place every year. Considering the religious, historical and tourist importance of the place the department is planning to provide for the convenience of the tourists (Toilet, water supply and sanitation) facilities, construct sheds, Dharmshala, Tourist reception centre etc.

### **Sutiyaambe, Ranchi**

Considering the historical and tourist importance of the place the department is planning to construct Public Utilities, Tourist Sheds, Multipurpose platform, Dharmshalas etc. and providedrinkingwater facility.

### **Dombariburu and Ulihatu, Khunti:**

These places are related to Dharti Aaba (Birsa Munda). The department is planning to construct view towers, Public Utilities, Tourist Sheds, Multipurpose Platforms etc.

### **Box No. 18.c : Netarhat: A perfect tourist destination**



The Netarhat plateau on the upper hills of Chotanagpur, is surrounded by dense forests, serpentine roads, cool breeze, with nature at its best. Rightly, as the English named it, “natures Heart” or Netarhat. It has a variety of tourist spots like the sunrise point, Koel river view point and waterfalls. The Lodh waterfall is the highest waterfall of Jharkhand, and a pristine spot for the tourists. It also has the Palamu fort. Efforts are being done by the government to revive and flourish the area as a perfect getaway destination for tourists.

The government is taking steps in the up-gradation of tourist centres and some of the efforts are as follows:

### **Establishment of Tourist Guide Training Centre**

The department is planning to establish a Tourist Guide Training centre at Ranchi where tourist guides are to be trained. By providing proper training to tourist guides, tourism related service level can be improved.

### **Installation of Solar Light at Important Tourist Places**

There are some tourist places where electricity is still out of reach. The department is planning to install solar lights and solar energy enabled devices such as mobile/laptop charging points etc. The department is also planning to install solar panels at different tourist complexes, TICs, way side amenities etc. constructed by the department to fulfil the electricity need of the buildings.

### **Jharkhand Eco-Tourism Policy 2015**

Eco-tourism or Ecologically Sustainable Tourism can be described as responsible tourism to natural areas that conserves the environment and improves the well being of local communities. The general public is now more willing to visit the forests and appreciate their splendour and imbibe their values. The cause of conservation of forests and wildlife can further be strengthened if they are allowed to be visited in a responsible manner so as to make the general public and the local population the active stakeholders in conservation efforts. Such activities would be conducted in a planned and professional manner, which promotes awareness regarding the environment and helps maintain the ecological balance.

Eco-tourism is one of the tools whereby people are encouraged to visit the natural beauty of the forests to promote steps for conservation. It is

about striking harmonious synergy between the cause of conservation, aspirations of local communities and the need for sustainable travel. It accommodates and entertains visitors in a way that is minimally intrusive or destructive to the environment and sustains and supports the native culture. National Forest Policy, 1988, also calls for building a massive people's movement for protecting natural forest as national heritage. Against this background, the Government of Jharkhand, Department of Forest and Environment & Climate Change, has resolved to make the promotion of eco-tourism in the State a priority area.

The focus of eco-tourism shall be on conservation of natural resources through awareness building, diversification of tourism activities and destinations, local community participation and synergy with the general development of the tourism sector. This Policy is aimed at informing and sensitizing the general public and related Government Department towards eco-tourism and laying down the framework for its growth in the state in an environmentally, socially and economically sustainable manner.

The policy, aims to establish Jharkhand as a national leader in eco-tourism sector by providing meaningful and unique learning experiences of nature to the tourists through conservation of the environment and showcasing the culture with the empowerment and meaningful involvement of local communities.

The major themes of the Eco-Tourism policy 2015 will cover a broad spectrum of objectives of conserving forests, community participation, wildlife conservation, capacity building, environmental awareness etc.

### **Eco-tourism- A Conservation Centric Activity**

The Eco-tourism plan for forest areas and nearby tourism destinations shall be conservation centric

and in consonance with the Wildlife Management Plan in case of Protected Areas and with the Forest Working Plans in case of other areas.

### **Eco-tourism-Community Based Activity**

Emphasis shall be laid upon the active involvement of the local communities in order to enhance their economic conditions through eco-tourism activities. The type and scale of eco-tourism activities shall be compatible with environmental and socio-cultural characteristics of the local communities leading to sustainable development of the area.

### **Capacity Building**

The capacity of the local communities and government agencies involved in eco-tourism activities shall be strengthened and developed for responsible and sustainable tourism. Need based customised training courses shall be conducted for those engaged in community based eco-tourism enterprises: in natural and cultural heritage interpretation, hospitality, business management, communication skills etc.

### **Environmental Awareness**

The creation of environmental awareness among all sections and age groups of the society, especially the youth, shall be incorporated as a major activity for each eco-tourism destination. Preference shall be accorded to the quality of experience rather than to the number of visitors as such.

### **Wild Life Tourism**

The wild life sanctuaries and national parks would be integrated as an integral plan of Jharkhand tourism and priority would be given for professional visitors' management. The quality of tourist facilities available at the park would be enhanced and steps would be taken to improve visitors' information. Safaris and Zoological parks shall be set up at various places in the state as per the guidelines issued by Central Zoo Au-

thority (CZA).

### **Eco-sensitive Zones**

The development of facilities and activities related to Eco-tourism in Eco-sensitive zones shall be subject to provisions of the Environment (Protection) Act, 1986 and the Environment (Protection) Rules, 1986 and in compliance with the notifications issued in connection with eco-sensitive zones under the said rules from time to time.

### **Wetlands**

The important wetlands of Jharkhand are Udhwa lake Bird Sanctuary, Getalsud dam, Chandil dam, Kansjor dam, Konar dam, Tilaiya dam, Massanjore dam, Maithon dam and Tenughat dam etc. These wetlands harbour avifauna and attract migratory avifauna in winters. There is an immense eco-tourism potential in these wetlands. Conservation of these wetlands with engagement and empowerment of local communities including displaced persons from reservoirs where eco-tourism activity is proposed to be taken up can play a major role in maintenance, of the water cycle and water regime of that area. While preparing the site specific plan of eco-tourism the unique character of wetlands shall be conserved.

There are various activities that can be taken up with the eco-tourism policy which are elaborated below:

### **Nature Campus**

Camping sites may be identified and provided with basic infrastructure facilities and public convenience services to enable the tourists to stay in natural surroundings either solely to experience the wilderness or for participating in other activities requiring overnight stay in the forests. Private sector shall be encouraged for setting up of camping sites at various suitable locations on environment friendly basis.

### **Trekking and Nature Walks**

There is great potential for trekking in Jharkhand. A master plan for the development of Trek routes would be prepared and implemented. Trekking routes of varying distances and guided nature trails through designated paths may be identified and developed for tourists in scenic landscapes rich in biodiversity, causing minimum disturbance to the natural vegetation and soil.

### **Wildlife Viewing and River/Reservoir Cruise**

Wildlife viewing in eco-friendly vehicles would be promoted at appropriate sites. Sites having water bodies would be developed for providing river/reservoir cruise facilities in non-polluting boats.

### **Adventure Sports**

Jharkhand has a number of big water bodies, enthralling terrain, hills, dense forests, which are the pre-conditions for promoting adventure tourism activities. Comprehensive adventure tourism promotion plan would be prepared to lay down the regulatory framework for enforcement of safety standards.

Facilities for adventure sports such as rock climbing, rappelling and parasailing along with water sports such as rafting, boating and canoeing would be developed in consultation and cooperation with experts in and around the forest areas. Proposals of Tourism Department in respect of adventure tourism like trekking, camps & cultural programmes will also be taken up.

### **Herbal Eco-tourism**

Herbal eco-tourism would be made the thrust area at suitable locations having a rich herbal heritage. Traditional medicinal practices of such locations would be explored and identified, and based on these; authentic herbal products having appropriate certifications and recognition would be made available to the tourists.

### **Nature Interpretation Centres**

Existing Nature interpretation facilities would be strengthened to make them more comprehensive to accommodate the requirements of different groups of visitors. Measures will be taken at each eco-tourism destination to enrich visitor experience.

### **Tree Plantation**

Tree plantation as an eco-tourism linked activity will be given special attention and efforts would be made in a planned manner to deal with the problem of non-biodegradable wastes, intensive campaign to regulate plastic and other hazardous waste will be launched with the assistance of the private sector and non-government organizations (NGOs).

### **Conservation Education**

Conservation education would be promoted in and around each destination for creating awareness amongst school and college students, local communities, government staff and visitors in order to maintain and enhance support for eco-tourism and environmental conservation.

#### **Box No. 18.d : Palace on Wheels for Jharkhand!**

According to the Jharkhand Industrial and Investment Promotion Policy 2016, a super luxury train on the pattern of "Palace On Wheels" would be introduced so as to enable the tourists visit to various tourist destinations located in the State and relish the cuisine and hospitality being offered in such super luxury trains.

### **Jharkhand Eco-Tourism Authority (JETA)**

To implement the eco-tourism policy of the state government and to take all necessary initiatives and activities to promote, nurture, develop and sustain eco-tourism in the state, an institution, namely Jharkhand Eco-tourism Authority

(JETA) shall be set up. This institution will strive to establish Jharkhand as a national leader in the eco-tourism sector by providing meaningful and unique learning experiences of nature through conservation of the environment and culture with the empowerment and meaningful involvement of local communities.

## ART & CULTURE

The government is trying to preserve the cultural heritage of the state and its traditions. The government has set up various Kendras and centres for its preservation and awareness generation. These are:

- Jharkhand Kala Mandir (Ranchi & Dumka)
- Govt. Chhau Nritya Kala Kendra, Saraikela
- Govt. Manbhum Chhau Nritya Kala Kendra, Silli.

Jharkhand Kala Mandir was originally a branch of Bhartiya Nritya Kala Mandir which was established in 1970, by the Govt, of Bihar. After the creation of the new state, Jharkhand Kala Mandir came into existence. Jharkhand Kala Mandir has two branches. One is situated at Dr. Ramdayal Munda Kala Bhawan, Hotwar, Ranchi and the other is situated at Jubille Hall, Dumka.

Govt. Chhau dance centre, Saraikela was established in 1960 for the training of Chhau Dance, Saraikela style. Today the centre also imparts training in the Kharsawan style of Chhau. This style has a significant identity in India as well as abroad.

The Manbhum Chhau Kala Kendra was established in 2011 for the protection and development of the Manbhum style of Chhau Dance. Presently it is situated in Silli Stadium. Training facility of Manbhum Style is available in this institution.

## Cultural Welfare Scheme and cultural publication

The following works are proposed for the welfare and promotion of artists under the scheme;

- Cultural honour to eminent artists
- Monthly pension to ill/old age artists
- Workshops and training sessions on Design, Manufacture and exhibition of Traditional Instruments/Costumes & Ornaments, Visual Arts and other Art forms
- Medical Grants to Artists
- To make & install statues of eminent artist and personalities
- To prepare documentary films and coffee table books on subjects related to Jharkhand's art & culture

## Organization of Cultural Programmes

The following programmes are being proposed under this scheme for the cult activities in the state:

- Organize Saniparab at State Level & Commissionerary Level
- To organize Subah-Sabere at State Level and Commissionerary Level
- Cultural Programmes in different traditional melas' (fairs) of the state. These include Shrawani Mela, Deoghar; Maghi Mela, Sahebganj; Chhau Mahotsav, Saraikela; Itkhor Festival
- Inter-state Cultural Exchange Programme

## Cultural Grants in Aid

Several N.G.O.s are working in the field of art & culture in the different areas of the state. These institutions create cultural environment & cultural consciousness. Hence, these N.G.O's, need to be given financial aids in grant.

Several dance groups and artists who have formed SHGs and are contributing to the growth and develop-



ment of art and culture need to be given financial aids as grants to support their ongoing activities.

### **Development of the Museums and Cultural Awareness**

Museums of the state government and the museums run by Trusts of repute require development in terms of display, purchase of equipment and antiquities etc. Research libraries form an integral part of the museum. Heritage awareness programmes are for conserving our precious heritage and imparting knowledge to students and the general population. To purchase equipment and antiquities, museums require financial support. Hence, the government has decided to give financial assistance to the museums run by government trusts/societies.

### **Archaeological Activities and Schemes**

The department has taken up archaeological survey of all the districts of the state one by one and then steps will be taken to declare protected monuments of the state. 154 archaeological sites and monuments have been listed till date. Documentation work of prominent monuments will also be carried out. Conservation work of ancient monument will also be taken up. Archaeological Training/Workshop/Awareness programmes are also continued with the help of universities and schools.

### **Construction of Cultural Building**

Akhra and Dhumkuria traditions of Jharkhand need to be revived and promoted for these enshrine the traditional tribal values of life. Villagers perform their dance and songs in the evenings at the Akhra and in the Dhumkuria the adolescent youth are educated. These Akhra and Dhumkuria Bhawan are like cultural and educational centres of village which need promotion and protection. Both are traditional art centres of the village artists. Under this scheme, these centres may be established, renovated and promoted. Some other

noted cultural centres will be established under this scheme.

### **Construction of Museum Building**

The main objective of setting up of museums is to restore, conserve and display the objects & artefacts of archaeological and historical importance. On the basis of antiquarian remains a museum has to be constructed with several sections, so that it can be easily accessible conveniently to the visitors. This fund will be used for setting up of new museums and necessary renovation and repair of the existing museums.

### **Establishment of Pottery Board**

The government has decided to constitute and establish a pottery board for upliftment of the art of pottery. Under this scheme financial help will be provided to traditional craftsmen (Kumhar). After the study of established pottery board of other states the Board of Jharkhand will be established.

### **Regional Language and Cultural Growth Centre**

The department proposes to start regional language and growth centres under this scheme. A Ho regional language and cultural growth centre is working at Chaibasa Centres for other regional languages such as Kurukh, Mundari Santhali also need to be started.

### **Land Acquisition for the development of Heritage Sites**

From the grants-in-aid to be provided by the 13th Finance Commission, as many as 26 archaeological/heritage sites are to be conserved and developed in addition to building heritages galleries at Ranchi. For the proper and unrestrained execution of the said scheme, acquisition may be required in at least at a few of these selected sites.

## Constitution of State Level Lalit Kala, Music Drama & Sahitya Kala Academy

### Fine Arts College

For the promotion, protection and preservation of music, dance & drama it has been proposed to constitute the Jharkhand Sangeet and Natak Academy. For the protection, promotion and preservation of different traditional languages and literature, there is need to constitute Sahitya Kala Akademy. For the promotion, protection and preservation of visual arts such as painting, sculpture & crafts, it has been proposed to constitute Jharkhand Lalit Kala Academy.

The new schemes that have been implemented are:

### Creation of I.T. Applications

The department has the formidable task of identification of sports talent, talent and achievement related to art and culture, creation of this vast database and also documentation of tangible and intangible art forms, a lot of which are becoming extinct. It is possible to do this in a time bound and targeted manner by the use of I.T tools, creation of website on wiki mode and having all beneficiary schemes online. The Department proposes to do this with the technical support of the Department of Information & Technology..

### Creation of Culture Corpus Fund

All centres are running on corpus fund. It is proposed to create a corpus fund like these centres so that cultural events may be organized regularly and smoothly without being dependent on allotment from the state. With the help of Rs. 1000.00 Lakhs, a corpus fund can be created, where its accounts of the corpus fund can be maintained separately in Jharkhand Kala Mandir.

## SPORTS & YOUTH AFFAIRS

In order to promote sports and youth activities in the state, different sports competitions are being organised at different levels from the panchayat level to the state. The structural facilities like playfields at the panchayat level and stadiums at the block/District level are being constructed, so that talent is nurtured at a young age and sports activities are actively promoted. The state government has also notified Youth Policy & Sports Policy in order to enhance the sports & youth activities in the state.

**Table 18.1: Status of Stadium Construction**

	Constructed	Under Construction
Regular	69	56
Indoor	4	3
Mini Stadium	2	0
Total	75	59

Source: Department of Tourism arts, culture, sports and Youth affairs (Art, Culture, Sports and youth Affairs division)

There are 34 Residential and 123 Day Boarding Sports Training Centres in the state to impart training to the selected players in various sporting events. New Scheme of “Centre of Excellence” has been initiated to prepare sports persons of international standard.

**Table 18.2: Status of Sports Hostel and Training Centre**

Total sanctioned	15
Constructed	7
Under Construction	8

Source: Department of Tourism arts, culture, sports and Youth affairs (Art, Culture, Sports and youth Affairs division)

**Table 18.3: Status of Cultural Centre/Akhra Status**

Total sanctioned	12
Constructed	02
Under Construction	10

Source: Department of Tourism arts, culture, sports and Youth affairs (Art, Culture, Sports and youth Affairs division)

In order to promote interest in various social activities amongst youth, a number of programmes are being run under NSS at the college and university level, which facilitate increased understanding among the students about social life, contribute to their skill development and provide guidance for future life.

Two Group, HQ of NCC, having 7 units each under them are functioning in the state, which not only impart military training to the college/university students thereby making them self dependent but also prepare them for social welfare activities.

### Box No. 18.e : Talent Meets Opportunity

The Jharkhand government signed a MoU with Central Coalfield Limited to establish a Jharkhand Sports University and a Jharkhand Sports Academy on 17<sup>th</sup> June, 2015. Speaking on the occasion, Chief Minister Raghuvar Das had opined that at least 1.32 crore youths would be able of to get help from as the proposed university and academy.

Jharkhand's sportspersons have been making the state and country proud at the international level and bringing the two proposed sports project on the ground will be like their dreams come true and the projects will also help them to sharpen their skill under coaches of international standard, Das said.

The CCL General Manager J Tiwary signed on behalf of the PSU, Secretary of Art, Culture, sports and Youth affairs, Avinash Kumar, signed on behalf of the government.

The chief minister acknowledged the fact that the mega sports complex developed at Ranchi for the 34th National Games in 2011 was neither utilized nor maintained properly and sportspersons faced difficulties to practice. Keeping these facts in view, the government had requested the Union Energy Minister Piyush Goel to set up the sports academy and university to ensure that the sports infrastructure should be utilized as per the international standard.

In the first phase before the Sports University is established, 1400 sportspersons from 15 different sports events will be provided training in the academy. Initially, the CCL and the state government would provide training free of cost to 350 sportspersons and also make arrangement for their studies with all facilities. The remaining 700 athletes will be selected from across the country based on their performances in respective events and will be trained. Of the 700 athletes to be selected from across the country, the players to be selected from Jharkhand will have 25 per cent concession in the training fee.

The Chairman and Managing Director of CCL, Gopal Singh, on the occasion had also opined, that, Jharkhand has immense potential while expressing confidence that the academy can produce sportspersons like Team India captain Mahendera Singh Dhoni and Ace women archer Deepika Kumari, where they would be provided with world-class training.

### Organization of International / National / State / District / Block & Other Sports Competition/ Participation and Adventure sports

For promoting Sporting activities, the state government supports in organising State, National and International Competitions in the state which includes PYKKA (RGKA) competitions. The Department also organises state school level competitions, Subrato Mukherjee Cup Football Tournaments, Nehru Hockey Tournament, differ-

ent school sports competition, CM. cup & S.M. Cup Football Tournament as well as Women sports festival or games every year, so that new talent may come out. Special training camps are organised for these talented players, in order to enhance their talents.

Various State Level competitions have been planned to be organised in almost all disciplines, details of some are as follows:

**Table 18.4: Various competitions to be held in Jharkhand**

SI	Games (Discipline)	Competition
1.	Football U-14/17 Boys	Block/District/ Divisional/State SubratoMukherjee Cup Football Tournament
2.	Hockey U-15/17 Boys& U-17 Girls	Block/District/State Nehru Hockey Tournament
3.	20 disciplines U-14/17/19 Boys & Girls	Block/District /State School Games Tournament
4.	10 Disciplines (Women)	Block/District/State Level Women Sports Festival
5.	Hockey Girls & Boys Football Boys & Girls Cross Country Race	Sports Competitions on 29 <sup>th</sup> August \ Sports Day)
6.	Archery, Kho-Kho, Kabaddi, Volleyball, Table Tennis, Lawn Tennis, Badminton, Boxing, Wrestling	09 -Sports Competition for ex-freedom fighters
Note: Other sports competitions will be organized in the coming years.		

Source : Annual Plan 2015-16

# Appendices

**Appendix 1.1: GROSS STATE DOMESTIC PRODUCT OF JHARKHAND AT FACTOR COST  
BY INDUSTRY OF ORIGIN AT CURRENT PRICES (NEW SERIES)**

**STATE-JHARKHAND**

Sector	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-12(P)	2012-13(Q)	2013-14(A)	2014-15(Pr)	2015-16(Pr)
(Rs In Lakh)												
<b>Primary</b>												
1 Agriculture	679460	736560	865457	993415	1242345	1169165	1467068	1928793	2205030	2554588	2959560	3428732
2 Forestry & logging	201104	225732	387324	282881	267807	300348	385521	464569	497990	557758	624699	699674
3 Fishing	11108	14320	22146	27801	31061	36087	44156	56312	79115	99798	127369	162558
<i>Agr and Allied</i>	<b>891672</b>	<b>976612</b>	<b>1274927</b>	<b>1304097</b>	<b>1541213</b>	<b>1505600</b>	<b>1896745</b>	<b>2449674</b>	<b>2782135</b>	<b>3212144</b>	<b>3711629</b>	<b>4290964</b>
4 Mining & quarrying	652343	738834	721727	814535	968461	1399230	1644851	1491041	1508566	1675223	1860302	2065828
<b>a Sub Total of Primary</b>	<b>1544015</b>	<b>1715446</b>	<b>1996654</b>	<b>2118632</b>	<b>2509674</b>	<b>2904830</b>	<b>3541596</b>	<b>3940715</b>	<b>4290701</b>	<b>4887367</b>	<b>5571930</b>	<b>6356792</b>
<b>Secondary</b>												
<b>5 Manufacturing</b>	<b>2012916</b>	<b>1647398</b>	<b>1522474</b>	<b>2572822</b>	<b>1981328</b>	<b>1985066</b>	<b>2649975</b>	<b>2427211</b>	<b>2592790</b>	<b>2695820</b>	<b>2808321</b>	<b>2931363</b>
5 Manu-Registered	1732960	1339721	1167151	2159080	1531740	1494019	2084434	1789889	1917058	1941405	1966061	1991030
5 Manu Unregistered	279956	307677	365323	413742	449588	491047	565541	637322	675732	754415	842260	940333
6 Construction	361928	440370	533630	599645	737325	809118	1071165	1188249	1346478	1586797	1870008	2203767
7 Electricity,gas and Water supply	88992	85802	106347	122085	85524	94273	73120	127048	145045	154178	163886	174205
<b>b Sub Total of Secondary</b>	<b>2463836</b>	<b>2173570</b>	<b>2164451</b>	<b>3294552</b>	<b>2804177</b>	<b>2888457</b>	<b>3794260</b>	<b>3742508</b>	<b>4084313</b>	<b>4436795</b>	<b>4842215</b>	<b>5309335</b>
<i>Industry</i>	<b>3116179</b>	<b>2912404</b>	<b>2886178</b>	<b>4109087</b>	<b>3772638</b>	<b>4287687</b>	<b>5439111</b>	<b>5233549</b>	<b>5592879</b>	<b>6112018</b>	<b>6702516</b>	<b>7375162</b>
<b>Tertiary</b>												
<b>8 Transport,storage &amp; communication</b>	<b>360010</b>	<b>395091</b>	<b>482273</b>	<b>565144</b>	<b>638495</b>	<b>781464</b>	<b>833982</b>	<b>895432</b>	<b>1038365</b>	<b>1192304</b>	<b>1370810</b>	<b>1578017</b>
8 Railways	159803	165975	220080	252262	289944	353835	329491	305575	343744	378282	416291	458119
8 Transport by other means	151473	170239	203058	248491	277847	340516	417376	493704	584482	691951	819181	969805
8 Storage	1117	1176	1410	1696	2045	2641	3202	3943	4676	5592	6688	7999
8 Communication	47617	57701	57725	62695	68659	84472	83913	92210	105463	116479	128651	142095
9 Trade,hotels and restaurants	604909	697917	800871	975642	1040890	1212515	1487255	1535267	1700552	1935095	2201987	2505689
10 Banking & Insurance	137474	146364	176133	205163	230002	276305	364727	406629	471674	550262	641944	748902
11 Real estate,Ownership of dwellings and B.S.	211484	241578	285128	321991	345785	443218	567361	668928	772210	907909	1067455	1255038
12 Public Administration	233998	232265	245754	274676	382596	507622	910297	1153191	1297769	1607665	1991561	2467129
13 Other services	420046	487823	542211	639159	827774	1047657	1228627	1219123	1509886	1759864	2063528	2419590
<b>c. Sub Total of Tertiary</b>	<b>1967921</b>	<b>2201038</b>	<b>2532370</b>	<b>2981775</b>	<b>3465542</b>	<b>4268781</b>	<b>5392249</b>	<b>5878570</b>	<b>6790456</b>	<b>7953099</b>	<b>9337286</b>	<b>10974365</b>
<b>15 Calculated State domestic product (Rs. lacs)</b>	<b>5975772</b>	<b>6090054</b>	<b>6693475</b>	<b>8394959</b>	<b>8779393</b>	<b>10062068</b>	<b>12728105</b>	<b>13561793</b>	<b>15165470</b>	<b>17277261</b>	<b>19751431</b>	<b>22640491</b>
16 Population (00)	286640	291160	295670	300080	304380	308650	312930	317270	321590	325880	330200	334621
<b>18 Calculated State Per Capita GSDP (Rs.)</b>	<b>20848</b>	<b>20917</b>	<b>22638</b>	<b>27976</b>	<b>28844</b>	<b>32600</b>	<b>40674</b>	<b>42745</b>	<b>47158</b>	<b>53017</b>	<b>59817</b>	<b>67660</b>

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 2004-05)**

**STATE-JHARKHAND**

Sector		(Rs In Lakh)												
		2004-2005	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-12(P)	2012-13(Q)	2013-14(A)	2014-15(Pt)	2015-16(Pt)	
<b>Primary</b>														
1	Agriculture	8.40	17.50	14.79	25.06	25.06	-5.89	25.48	31.47	14.32	15.85	15.85	15.85	15.85
2	Forestry & logging	12.25	71.59	-26.97	-5.33	12.15	28.36	20.50	7.19	12.00	12.00	12.00	12.00	12.00
3	Fishing	28.92	54.65	25.54	11.73	16.18	22.36	27.53	40.49	26.14	27.63	27.63	27.63	27.63
	<i>Agr and Allied</i>	9.53	30.55	2.29	18.18	-2.31	25.98	29.15	13.57	15.46	15.55	15.55	15.55	15.61
4	Mining & quarrying	13.26	-2.32	12.86	18.90	44.48	17.55	-9.35	1.18	11.05	11.05	11.05	11.05	11.05
<b>a</b>	<b>Sub Total of Primary</b>	11.10	16.39	6.11	18.46	15.75	21.92	11.27	8.88	13.91	14.01	14.01	14.01	14.09
<b>Secondary</b>														
<b>5</b>	<b>Manufacturing</b>	-18.16	-7.58	68.99	-22.99	0.19	33.50	-8.41	6.82	3.97	4.17	4.17	4.17	4.38
5	Manu-Registered	-22.69	-12.88	84.99	-29.06	-2.46	39.52	-14.13	7.10	1.27	1.27	1.27	1.27	1.27
5	Manu Unregistered	9.90	18.74	13.25	8.66	9.22	15.17	12.69	6.03	11.64	11.64	11.64	11.64	11.64
6	Construction	21.67	21.18	12.37	22.96	9.74	32.39	10.93	13.32	17.85	17.85	17.85	17.85	17.85
7	Electricity, gas and Water supply	-3.58	23.94	14.80	-29.95	10.23	-22.44	73.75	14.17	6.30	6.30	6.30	6.30	6.30
<b>b</b>	<b>Sub Total of Secondary</b>	-11.78	-0.42	52.21	-14.88	3.01	31.36	-1.36	9.13	8.63	9.14	9.14	9.14	9.65
	<i>Industry</i>	-6.54	-0.90	42.37	-8.19	13.65	26.85	-3.78	6.87	9.28	9.66	9.66	9.66	10.04
<b>Tertiary</b>														
<b>8</b>	<b>Transport, storage &amp; communication</b>	9.74	22.07	17.18	12.98	22.39	6.72	7.37	15.96	14.83	14.97	14.97	14.97	15.12
8	Railways	3.86	32.60	14.62	14.94	22.04	-6.88	-7.26	12.49	10.05	10.05	10.05	10.05	10.05
8	Transport by other means	12.39	19.28	22.37	11.81	22.56	22.57	18.29	18.39	18.39	18.39	18.39	18.39	18.39
8	Storage	5.28	19.90	20.28	20.58	29.14	21.24	23.14	18.59	19.59	19.60	19.60	19.60	19.60
8	Communication	21.18	0.04	8.61	9.51	23.03	-0.66	9.89	14.37	10.45	10.45	10.45	10.45	10.45
9	Trade, hotels and restaurants	15.38	14.75	21.82	6.69	16.49	22.66	3.23	10.77	13.79	13.79	13.79	13.79	13.79
10	Banking & Insurance	6.47	20.34	16.48	12.11	20.13	32.00	11.49	16.00	16.66	16.66	16.66	16.66	16.66
11	Real estate, Ownership of dwellings and B.S.	14.23	18.03	12.93	7.39	28.18	28.01	17.90	15.44	17.57	17.57	17.57	17.57	17.57
12	Public Administration	-0.74	5.81	11.77	39.29	32.68	79.33	26.68	12.54	23.88	23.88	23.88	23.88	23.88
13	Other services	16.14	11.15	17.88	29.51	26.56	17.27	-0.77	23.85	16.56	17.25	17.25	17.25	17.26
<b>c.</b>	<b>Sub Total of Tertiary</b>	11.85	15.05	17.75	16.22	23.18	26.32	9.02	15.51	17.12	17.40	17.40	17.40	17.53
<b>15</b>	<b>Calculated State domestic product (Rs. lacs)</b>	1.91	9.91	25.42	4.58	14.61	26.50	6.55	11.82	13.92	14.32	14.32	14.32	14.63
16	Population (00)	1.58	1.55	1.49	1.43	1.40	1.39	1.39	1.36	1.33	1.33	1.33	1.33	1.34
<b>18</b>	<b>Calculated State Per Capita GSDP (Rs.)</b>	0.33	8.23	23.58	3.10	13.02	24.77	5.09	10.32	12.42	12.83	12.83	12.83	13.11

Source : Directorate of Economics & Statistics, Planning cum Finance Dept., Govt. of Jharkhand

**Appendix 1.3: Percentage Distribution of GSDP by Industry  
current Prices (Based on Base Year 2004-05)**

**STATE-JHARKHAND**

Sector		2004-2005	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-12(P)	2012-13(Q)	2013-14(A)	2014-15(Pt)	2015-16(Pt)
(Rs In Lakh)													
<b>Primary</b>													
1	Agriculture	11.37	12.09	12.93	11.83	14.15	11.62	11.53	14.22	14.54	14.79	14.98	15.14
2	Forestry & logging	3.37	3.71	5.79	3.37	3.05	2.98	3.03	3.43	3.28	3.23	3.16	3.09
3	Fishing	0.19	0.24	0.33	0.33	0.35	0.36	0.35	0.42	0.52	0.58	0.64	0.72
	<b>Agr and Allied</b>	<b>14.92</b>	<b>16.04</b>	<b>19.05</b>	<b>15.53</b>	<b>17.55</b>	<b>14.96</b>	<b>14.90</b>	<b>18.06</b>	<b>18.35</b>	<b>18.59</b>	<b>18.79</b>	<b>18.95</b>
4	Mining & quarrying	10.92	12.13	10.78	9.70	11.03	13.91	12.92	10.99	9.95	9.70	9.42	9.12
<b>a</b>	<b>Sub Total of Primary</b>	<b>25.84</b>	<b>28.17</b>	<b>29.83</b>	<b>25.24</b>	<b>28.59</b>	<b>28.87</b>	<b>27.83</b>	<b>29.06</b>	<b>28.29</b>	<b>28.29</b>	<b>28.21</b>	<b>28.08</b>
<b>5</b>	<b>Manufacturing</b>	<b>33.68</b>	<b>27.05</b>	<b>22.75</b>	<b>30.65</b>	<b>22.57</b>	<b>19.73</b>	<b>20.82</b>	<b>17.90</b>	<b>17.10</b>	<b>15.60</b>	<b>14.22</b>	<b>12.95</b>
5	Manu-Registered	29.00	22.00	17.44	25.72	17.45	14.85	16.38	13.20	12.64	11.24	9.95	8.79
5	Manu Unregistered	4.68	5.05	5.46	4.93	5.12	4.88	4.44	4.70	4.46	4.37	4.26	4.15
6	Construction	6.06	7.23	7.97	7.14	8.40	8.04	8.42	8.76	8.88	9.18	9.47	9.73
7	Electricity,gas and Water supply	1.49	1.41	1.59	1.45	0.97	0.94	0.57	0.94	0.96	0.89	0.83	0.77
<b>b</b>	<b>Sub Total of Secondary</b>	<b>41.23</b>	<b>35.69</b>	<b>32.34</b>	<b>39.24</b>	<b>31.94</b>	<b>28.71</b>	<b>29.81</b>	<b>27.60</b>	<b>26.93</b>	<b>25.68</b>	<b>24.52</b>	<b>23.45</b>
	<b>Industry</b>	<b>52.15</b>	<b>47.82</b>	<b>43.12</b>	<b>48.95</b>	<b>42.97</b>	<b>42.61</b>	<b>42.73</b>	<b>38.59</b>	<b>36.88</b>	<b>35.38</b>	<b>33.93</b>	<b>32.58</b>
<b>8</b>	<b>Transport,storage &amp; communication</b>	<b>6.02</b>	<b>6.49</b>	<b>7.21</b>	<b>6.73</b>	<b>7.27</b>	<b>7.77</b>	<b>6.55</b>	<b>6.60</b>	<b>6.85</b>	<b>6.90</b>	<b>6.94</b>	<b>6.97</b>
8	Railways	2.67	2.73	3.29	3.00	3.30	3.52	2.59	2.25	2.27	2.19	2.11	2.02
8	Transport by other means	2.53	2.80	3.03	2.96	3.16	3.38	3.28	3.64	3.85	4.00	4.15	4.28
8	Storage	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.03	0.04
8	Communication	0.80	0.95	0.86	0.75	0.78	0.84	0.66	0.68	0.70	0.67	0.65	0.63
9	Trade,hotels and restaurants	10.12	11.46	11.96	11.62	11.86	12.05	11.68	11.32	11.21	11.20	11.15	11.07
10	Banking & Insurance	2.30	2.40	2.63	2.44	2.62	2.75	2.87	3.00	3.11	3.18	3.25	3.31
11	Real estate,Ownership of dwellings and B.S.	3.54	3.97	4.26	3.84	3.94	4.40	4.46	4.93	5.09	5.25	5.40	5.54
12	Public Administration	3.92	3.81	3.67	3.27	4.36	5.04	7.15	8.50	8.56	9.31	10.08	10.90
13	Other services	7.03	8.01	8.10	7.61	9.43	10.41	9.65	8.99	9.96	10.19	10.45	10.69
<b>c.</b>	<b>Sub Total of Tertiary</b>	<b>32.93</b>	<b>36.14</b>	<b>37.83</b>	<b>35.52</b>	<b>39.47</b>	<b>42.42</b>	<b>42.36</b>	<b>43.35</b>	<b>44.78</b>	<b>46.03</b>	<b>47.27</b>	<b>48.47</b>
<b>15</b>	<b>Calculated State domestic product (Rs. lacs)</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>

Source : Directorate of Economics & Statistics, Planning cum Finance Dept., Govt. of Jharkhand



**Appendix 1.4: GROSS STATE DOMESTIC PRODUCT OF JHARKHAND AT FACTOR COST  
BY INDUSTRY OF ORIGIN AT CONSTANT PRICES (2004-2005)**

**STATE-JHARKHAND**

Sector	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013 (P)	2013-2014 (Q)	2014-2015 (Pr)	2015-16(Pr)
<i>Primary</i>												
1 Agriculture	679460	702304	799463	846191	1019766	925089	972177	1282061	1375029	1501690	1640019	1791089
2 Forestry & logging	201104	207567	218890	224852	230094	247367	253351	264583	266958	276580	286549	296877
3 Fishing	11108	14320	22146	27801	31061	28870	29437	37541	39558	42924	49880	57964
<i>Ag and Allied</i>	<b>891672</b>	<b>924191</b>	<b>1040499</b>	<b>1098844</b>	<b>1280921</b>	<b>1201326</b>	<b>1254965</b>	<b>1584185</b>	<b>1681545</b>	<b>1821194</b>	<b>1976448</b>	<b>2145930</b>
4 Mining & quarrying	652343	673291	624450	629711	776937	833326	1079478	1265894	1243004	1347324	1460399	1582964
<b>a Sub Total of Primary</b>	<b>1544015</b>	<b>1597482</b>	<b>1664949</b>	<b>1728555</b>	<b>2057858</b>	<b>2034652</b>	<b>2334443</b>	<b>2850079</b>	<b>2924549</b>	<b>3168518</b>	<b>3436847</b>	<b>3728894</b>
<i>Secondary</i>												
<b>5 Manufacturing</b>	<b>2012916</b>	<b>1559683</b>	<b>1365290</b>	<b>2198502</b>	<b>1499809</b>	<b>1577308</b>	<b>1928972</b>	<b>1669151</b>	<b>1780834</b>	<b>1837835</b>	<b>1832612</b>	<b>1830538</b>
5 Manu-Registered	1732960	1261450	1037686	1831352	1138579	1169452	1522737	1230876	1316713	1343440	1305968	1269542
5 Manu Unregistered	279956	298233	327604	367150	361230	407856	406235	438275	464121	494395	526644	560996
6 Construction	361928	416111	474893	493989	545238	598327	698435	711857	739365	808422	883930	966490
Electricity gas and Water supply	88992	83640	100933	115788	80931	89210	51647	89771	106510	108929	111403	113934
<b>b Sub Total of Secondary</b>	<b>2463836</b>	<b>2059434</b>	<b>1941116</b>	<b>2808279</b>	<b>2125978</b>	<b>2264845</b>	<b>2679054</b>	<b>2470779</b>	<b>2626709</b>	<b>2755186</b>	<b>2827945</b>	<b>2910962</b>
<b>Industry</b>	<b>3116179</b>	<b>2732725</b>	<b>2565566</b>	<b>3437990</b>	<b>2902915</b>	<b>3098171</b>	<b>3758532</b>	<b>3736673</b>	<b>3869713</b>	<b>4102510</b>	<b>4288344</b>	<b>4493926</b>
<i>Tertiary</i>												
<b>8 Transport, storage &amp; communication</b>	<b>360010</b>	<b>390514</b>	<b>453621</b>	<b>514289</b>	<b>586108</b>	<b>702381</b>	<b>652716</b>	<b>820422</b>	<b>910990</b>	<b>1039129</b>	<b>1189729</b>	<b>1367309</b>
8 Railways	159803	168785	204498	220851	251361	273727	274616	248353	248819	262979	277945	293762
8 Transport by other means	151473	164090	184498	216621	223991	274512	249527	332515	393174	442961	499053	562248
8 Storage	1117	1134	1267	1459	1631	2106	2538	2655	3146	3581	4076	4639
8 Communication	47617	56505	63358	75358	109125	152036	126035	236899	265851	329608	408655	506660
9 Trade, hotels and restaurants	604909	661405	713389	830547	821277	956692	1120668	1034019	1143954	1238792	1341492	1452707
10 Banking & Insurance	137474	157655	194710	229125	244707	294816	361351	387750	440489	509506	589337	681676
Real estate, Ownership of dwellings and B. S.	211484	228235	249433	258285	244724	313681	493111	450400	519185	580868	649880	727091
12 Public Administration	233998	222316	221012	233066	297889	354014	576931	675998	737482	851273	982622	1134237
13 Other services	420046	467800	484342	535565	634405	802923	730840	661504	742723	797569	856465	919710
<b>c. Sub Total of Tertiary</b>	<b>1967921</b>	<b>2127925</b>	<b>2316507</b>	<b>2600877</b>	<b>2829110</b>	<b>3424507</b>	<b>3935617</b>	<b>4030093</b>	<b>4494823</b>	<b>5017137</b>	<b>5609524</b>	<b>6282730</b>
<b>15 Calculated State domestic product (Rs. lacs)</b>	<b>5975772</b>	<b>5784841</b>	<b>5922572</b>	<b>7137711</b>	<b>7012946</b>	<b>7724004</b>	<b>8949114</b>	<b>9350951</b>	<b>10046081</b>	<b>10940841</b>	<b>11874316</b>	<b>12922586</b>
16 Population ('00)	286640	291160	295670	300080	304380	308650	312930	317270	321590	325880	330200	334620
<b>18 Calculated State Per Capita GSDP (Rs.)</b>	<b>20848</b>	<b>19868</b>	<b>20031</b>	<b>23786</b>	<b>23040</b>	<b>25025</b>	<b>28598</b>	<b>29473</b>	<b>31239</b>	<b>33573</b>	<b>35961</b>	<b>38619</b>

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 (2004-2005)**

**STATE-JHARKHAND**

Sector	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013 (P)	2013-2014 (Q)	2014-2015 (Pr)	2015-16(Pr)
<i>Primary</i>												
1 Agriculture		3.36	13.83	5.84	20.51	-9.28	5.09	31.88	7.25	9.21	9.21	9.21
2 Forestry & logging		3.21	5.46	2.72	2.33	7.51	2.42	4.43	0.90	3.60	3.60	3.60
3 Fishing		28.92	54.65	25.54	11.73	-7.05	1.96	27.53	5.37	8.51	16.21	16.21
<i>Agr and Allied</i>		3.65	12.58	5.61	16.57	-6.21	4.46	26.23	6.15	8.30	8.52	8.58
4 Mining & quarrying		3.21	-7.25	0.84	23.38	7.26	29.54	17.27	-1.81	8.39	8.39	8.39
<b>a Sub Total of Primary</b>		<b>3.46</b>	<b>4.22</b>	<b>3.82</b>	<b>19.05</b>	<b>-1.13</b>	<b>14.73</b>	<b>22.09</b>	<b>2.61</b>	<b>8.34</b>	<b>8.47</b>	<b>8.50</b>
<b>5 Manufacturing</b>		<b>-22.52</b>	<b>-12.46</b>	<b>61.03</b>	<b>-31.78</b>	<b>5.17</b>	<b>22.30</b>	<b>-13.47</b>	<b>6.69</b>	<b>3.20</b>	<b>-0.28</b>	<b>-0.11</b>
5 Manu-Registered		-27.21	-17.74	76.48	-37.83	2.71	30.21	-19.17	6.97	2.03	-2.79	-2.79
5 Manu Unregistered		6.53	9.85	12.07	-1.61	12.91	-0.40	7.89	5.90	6.52	6.52	6.52
6 Construction		14.97	14.13	4.02	10.37	9.74	16.73	1.92	3.86	9.34	9.34	9.34
7 Electricity,gas and Water supply		-6.01	20.68	14.72	-30.10	10.23	-42.11	73.82	18.65	2.27	2.27	2.27
<b>b Sub Total of Secondary</b>		<b>-16.41</b>	<b>-5.75</b>	<b>44.67</b>	<b>-24.30</b>	<b>6.53</b>	<b>18.29</b>	<b>-7.77</b>	<b>6.31</b>	<b>4.89</b>	<b>2.64</b>	<b>2.94</b>
<i>Industry</i>		-12.31	-6.12	34.01	-15.56	6.73	21.31	-0.58	3.56	6.02	4.53	4.79
<b>8 Transport,storage &amp; communication</b>		<b>8.47</b>	<b>16.16</b>	<b>13.37</b>	<b>13.96</b>	<b>19.84</b>	<b>-7.07</b>	<b>25.69</b>	<b>11.04</b>	<b>14.07</b>	<b>14.49</b>	<b>14.93</b>
8 Railways		5.62	21.16	8.00	13.81	8.90	0.32	-9.56	0.19	5.69	5.69	5.69
8 Transport by other means		8.33	12.44	17.41	3.40	22.55	-9.10	33.26	18.24	12.66	12.66	12.66
8 Storage		1.52	11.73	15.15	11.79	29.12	20.51	4.61	18.49	13.83	13.82	13.81
8 Communication		18.67	12.13	18.94	44.81	39.32	-17.10	87.96	12.22	23.98	23.98	23.98
9 Trade,hotels and restaurants		9.34	7.86	16.42	-1.12	16.49	17.14	-7.73	10.63	8.29	8.29	8.29
10 Banking & Insurance		14.68	23.50	17.68	6.80	20.48	22.57	7.31	13.60	15.67	15.67	15.67
11 Real estate,Ownership of dwellings and B. S.		7.92	9.29	3.55	-5.25	28.18	57.20	-8.66	15.27	11.88	11.88	11.88
12 Public Administration		-4.99	-0.59	5.45	27.81	18.84	62.97	17.17	9.10	15.43	15.43	15.43
13 Other services		11.37	3.54	10.58	18.46	26.56	-8.98	-9.49	12.28	7.38	7.38	7.38
<b>c. Sub Total of Tertiary</b>		<b>8.13</b>	<b>8.86</b>	<b>12.28</b>	<b>8.78</b>	<b>21.05</b>	<b>14.93</b>	<b>2.40</b>	<b>11.53</b>	<b>11.62</b>	<b>11.81</b>	<b>12.00</b>
<b>15 Calculated State domestic product (Rs. lacs)</b>		<b>-3.20</b>	<b>2.38</b>	<b>20.52</b>	<b>-1.75</b>	<b>10.14</b>	<b>15.86</b>	<b>4.49</b>	<b>7.43</b>	<b>8.91</b>	<b>8.53</b>	<b>8.83</b>
16 Population ('00)		1.58	1.55	1.49	1.43	1.40	1.39	1.39	1.36	1.33	1.33	1.34
<b>18 Calculated State Per Capita GSDP (Rs.)</b>		<b>-4.70</b>	<b>0.82</b>	<b>18.75</b>	<b>-3.14</b>	<b>8.62</b>	<b>14.28</b>	<b>3.06</b>	<b>5.99</b>	<b>7.47</b>	<b>7.11</b>	<b>7.39</b>

Source : Directorate of Economics & Statistics, Planning cum Finance Dept., Govt. of Jharkhand  
Note-P-Provisional,Q-Quick, Pr-Projected,A-Advance

**Appendix 1.6: GROSS STATE DOMESTIC PRODUCT OF JHARKHAND AT FACTOR COST  
BY INDUSTRY OF ORIGIN AT CONSTANT PRICES (2004-2005)**

**STATE-JHARKHAND**

		(Rs In Lakh)													
Sector		2004-2005	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013 (P)	2013-2014 (Q)	2014-2015 (Pr)	2015-16(Pr)		
<i>Primary</i>															
1	Agriculture	11.37	12.14	13.50	11.86	14.54	11.98	10.86	13.71	13.69	13.73	13.81	13.86		
2	Forestry & logging	3.37	3.59	3.70	3.15	3.28	3.20	2.83	2.83	2.66	2.53	2.41	2.30		
3	Fishing	0.19	0.25	0.37	0.39	0.44	0.37	0.33	0.40	0.39	0.39	0.42	0.45		
	<i>Agr and Allied</i>	14.92	15.98	17.57	15.39	18.27	15.55	14.02	16.94	16.74	16.65	16.64	16.61		
4	Mining & quarrying	10.92	11.64	10.54	8.82	11.08	10.79	12.06	13.54	12.37	12.31	12.30	12.25		
<b>a</b>	<b>Sub Total of Primary</b>	<b>25.84</b>	<b>27.61</b>	<b>28.11</b>	<b>24.22</b>	<b>29.34</b>	<b>26.34</b>	<b>26.09</b>	<b>30.48</b>	<b>29.11</b>	<b>28.96</b>	<b>28.94</b>	<b>28.86</b>		
<b>5</b>	<b>Manufacturing</b>	<b>33.68</b>	<b>26.96</b>	<b>23.05</b>	<b>30.80</b>	<b>21.39</b>	<b>20.42</b>	<b>21.55</b>	<b>17.85</b>	<b>17.73</b>	<b>16.80</b>	<b>15.43</b>	<b>14.17</b>		
5	Manu-Registered	29.00	21.81	17.52	25.66	16.24	15.14	17.02	13.16	13.11	12.28	11.00	9.82		
5	Manu Unregistered	4.68	5.16	5.53	5.14	5.15	5.28	4.54	4.69	4.62	4.52	4.44	4.34		
6	Construction	6.06	7.19	8.02	6.92	7.77	7.75	7.80	7.61	7.36	7.39	7.44	7.48		
7	Electricity,gas and Water supply	1.49	1.45	1.70	1.62	1.15	1.15	0.58	0.96	1.06	1.00	0.94	0.88		
<b>b</b>	<b>Sub Total of Secondary</b>	<b>41.23</b>	<b>35.60</b>	<b>32.77</b>	<b>39.34</b>	<b>30.32</b>	<b>29.32</b>	<b>29.94</b>	<b>26.42</b>	<b>26.15</b>	<b>25.18</b>	<b>23.82</b>	<b>22.53</b>		
	<i>Industry</i>	<b>52.15</b>	<b>47.24</b>	<b>43.32</b>	<b>48.17</b>	<b>41.39</b>	<b>40.11</b>	<b>42.00</b>	<b>39.96</b>	<b>38.52</b>	<b>37.50</b>	<b>36.11</b>	<b>34.78</b>		
<b>8</b>	<b>Transport,storage &amp; communication</b>	<b>6.02</b>	<b>6.75</b>	<b>7.66</b>	<b>7.21</b>	<b>8.36</b>	<b>9.09</b>	<b>7.29</b>	<b>8.77</b>	<b>9.07</b>	<b>9.50</b>	<b>10.02</b>	<b>10.58</b>		
8	Railways	2.67	2.92	3.45	3.09	3.58	3.54	3.07	2.66	2.48	2.40	2.34	2.27		
8	Transport by other means	2.53	2.84	3.12	3.03	3.19	3.55	2.79	3.56	3.91	4.05	4.20	4.35		
8	Storage	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.03	0.04		
8	Communication	0.80	0.98	1.07	1.06	1.56	1.97	1.41	2.53	2.65	3.01	3.44	3.92		
9	Trade,hotels and restaurants	10.12	11.43	12.05	11.64	11.71	12.39	12.52	11.06	11.39	11.32	11.30	11.24		
10	Banking & Insurance	2.30	2.73	3.29	3.21	3.49	3.82	4.04	4.15	4.38	4.66	4.96	5.28		
11	Real estate,Ownership of dwellings and B. S.	3.54	3.95	4.21	3.62	3.49	4.06	5.51	4.82	5.17	5.31	5.47	5.63		
12	Public Administration	3.92	3.84	3.73	3.27	4.25	4.58	6.45	7.23	7.34	7.78	8.28	8.78		
13	Other services	7.03	8.09	8.18	7.50	9.05	10.40	8.17	7.07	7.39	7.29	7.21	7.12		
<b>c.</b>	<b>Sub Total of Tertiary</b>	<b>32.93</b>	<b>36.78</b>	<b>39.11</b>	<b>36.44</b>	<b>40.34</b>	<b>44.34</b>	<b>43.98</b>	<b>43.10</b>	<b>44.74</b>	<b>45.86</b>	<b>47.24</b>	<b>48.62</b>		
<b>15</b>	<b>Calculated State domestic product (Rs. lacs)</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>		

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)**

**STATE-JHARKHAND**

		(Rs In Lakh)											
Sector		2004-2005	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-11	2011-12	2012-13(P)	2013-14(Q)	2014-15(Pt)	2015-16(Pt)
<b>Primary</b>													
1	Agriculture	623367	673201	796210	910727	1148926	1058912	1340277	1786948	2021774	2333809	2702512	3129465
2	Forestry & logging	198448	222942	382538	279249	264332	296501	380934	459006	491916	551121	617356	691552
3	Fishing	9677	12540	19389	24335	26699	30664	37658	47385	67047	85112	108370	137983
	<i>Agr and Allied</i>	831492	908683	1198137	1214311	1439957	1386077	1758869	2293339	2580737	2970042	3428238	3959000
4	Mining & quarrying	543978	606838	590215	664699	772482	1075127	1318613	1200753	1165565	1342969	1484825	1641666
a	Sub Total of Primary	1375470	1515521	1788352	1879010	2212439	2461204	3077482	3494092	3746302	4313011	4913064	5600666
<b>Secondary</b>													
5	Manufacturing	1753023	1357469	1196961	2214416	1506490	1516619	1810345	1584627	1697609	1898607	1951646	2015003
5	Manu-Registered	1492504	1071922	866747	1827915	1087349	1060282	1282550	988413	1065598	1194544	1165350	1136869
5	Manu-Unregistered	260519	285547	330214	386501	419141	456337	527795	596214	632011	704063	786296	878134
6	Construction	347832	422877	513242	573128	700310	766775	1015162	1125830	1269536	1503836	1769491	2082074
7	Electricity, gas and Water supply	40074	37081	41541	44256	45292	52436	40621	63736	74395	85651	93193	101400
b	Sub Total of Secondary	2140929	1817427	1751744	2831800	2252092	2335830	2866128	2774193	3041540	3488094	3814330	4198477
	<i>Industry</i>	2684907	2424265	2341959	3496499	3024574	3410957	4184741	3974946	4207105	4831063	5299156	5840143
<b>Tertiary</b>													
8	Transport, storage & communication	299118	329187	410178	485647	541910	677881	711954	764210	888812	1032852	1192658	1378797
8	Railways	118297	122549	173153	200375	227273	292257	255069	238710	269530	292840	323869	358187
8	Transport by other means	139767	157453	187861	230983	256872	315950	388225	453942	537000	643623	762647	903681
8	Storage	1074	1124	1344	1611	1937	2505	3020	3688	4361	5274	6294	7511
8	Communication	39980	48061	47820	52678	55828	67169	65640	67870	77921	91115	99848	109418
9	Trade, hotels and restaurants	592407	682874	783466	954531	1014441	1182550	1448938	1485144	1638424	1885240	2144013	2438305
10	Banking & Insurance	134787	143455	172889	201571	226356	271965	359454	401100	465231	542307	633028	738925
11	Real estate, Ownership of dwellings and B. S.	170484	194116	230716	257758	267982	352507	459703	548142	632037	735631	865392	1018042
12	Public Administration	188543	185514	195522	217621	320596	427689	764636	969285	1088867	1350415	1680636	2091606
13	Other services	403832	467723	518290	610863	787559	1001535	1176867	1161292	1438963	1685724	1975788	2315765
c.	Sub Total of Tertiary	1789171	2002869	2311061	2727991	3158844	3914127	4921552	5329173	6152334	7232169	8491515	9981440
15	Calculated State domestic product (Rs. lacs)	5305570	5335817	5851157	7438801	7623375	8711161	10865162	11597458	12940176	15033274	17218909	19780583
16	Population ('00)	286640	291160	295670	300080	304380	308650	312930	317270	321590	325880	330200	334620
18	Calculated State Per Capita Income (Rs.)	18510	18326	19789	24789	25046	28223	34721	36554	40238	46131	52147	59114

Source : Directorate of Economics & Statistics, Planning cum Finance Dept., Govt. of Jharkhand

Note - P - Provisional, Q - Quick, A - Advance, Pr - Projected

**Appendix 1.8: Percentage change Over Previous Year in NSDP  
Current Prices (Based on Base Year 2004-05)**

**STATE-JHARKHAND**

		(Rs In Lakh)													
<i>Sector</i>		2004-2005	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-11	2011-12	2012-13(P)	2013-14(Q)	2014-15(Pt)	2015-16(Pt)		
<i>Primary</i>															
1	Agriculture		7.99	18.27	14.38	26.15	-7.83	26.57	33.33	13.14	15.43	15.80	15.80		
2	Forestry & logging		12.34	71.59	-27.00	-5.34	12.17	28.48	20.49	7.17	12.04	12.02	12.02		
3	Fishing		29.59	54.62	25.51	9.71	14.85	22.81	25.83	41.49	26.94	27.33	27.33		
	<i>Agr and Allied</i>		9.28	31.85	1.35	18.58	-3.74	26.90	30.39	12.53	15.09	15.43	15.48		
4	Mining & quarrying		11.56	-2.74	12.62	16.22	39.18	22.65	-8.94	-2.93	15.22	10.56	10.56		
<b>a</b>	<b>Sub Total of Primary</b>		10.18	18.00	5.07	17.74	11.24	25.04	13.54	7.22	15.13	13.91	14.00		
<b>5</b>	<b>Manufacturing</b>		-22.56	-11.82	85.00	-31.97	0.67	19.37	-12.47	7.13	11.84	2.79	3.25		
5	Manu-Registered		-28.18	-19.14	110.89	-40.51	-2.49	20.96	-22.93	7.81	12.10	-2.44	-2.44		
5	Manu-Unregistered		9.61	15.64	17.05	8.44	8.87	15.66	12.96	6.00	11.40	11.68	11.68		
6	Construction		21.58	21.37	11.67	22.19	9.49	32.39	10.90	12.76	18.46	17.67	17.67		
7	Electricity,gas and Water supply		-7.47	12.03	6.54	2.34	15.77	-22.53	56.90	16.72	15.13	8.81	8.81		
<b>b</b>	<b>Sub Total of Secondary</b>		-15.11	-3.61	61.66	-20.47	3.72	22.70	-3.21	9.64	14.68	9.35	10.07		
	<i>Industry</i>		-9.71	-3.40	49.30	-13.50	12.77	22.69	-5.01	5.84	14.83	9.69	10.21		
8	Transport,storage & communication		10.05	24.60	18.40	11.59	25.09	5.03	7.34	16.30	16.21	15.47	15.61		
8	Railways		3.59	41.29	15.72	13.42	28.59	-12.72	-6.41	12.91	8.65	10.60	10.60		
8	Transport by other means		12.65	19.31	22.95	11.21	23.00	22.88	16.93	18.30	19.86	18.49	18.49		
8	Storage		4.66	19.57	19.87	20.24	29.32	20.56	22.12	18.25	20.94	19.34	19.34		
8	Communication		20.21	-0.50	10.16	5.98	20.31	-2.28	3.40	14.81	16.93	9.58	9.58		
9	Trade,hotels and restaurants		15.27	14.73	21.83	6.28	16.57	22.53	2.50	10.32	15.06	13.73	13.73		
10	Banking & Insurance		6.43	20.52	16.59	12.30	20.15	32.17	11.59	15.99	16.57	16.73	16.73		
11	Real estate,Ownership of dwellings and B. S.		13.86	18.85	11.72	3.97	31.54	30.41	19.24	15.31	16.39	17.64	17.64		
12	Public Administration		-1.61	5.39	11.30	47.32	33.40	78.78	26.76	12.34	24.02	24.45	24.45		
13	Other services		15.82	10.81	17.86	28.93	27.17	17.51	-1.32	23.91	17.15	17.21	17.21		
<b>c.</b>	<b>Sub Total of Tertiary</b>		11.94	15.39	18.04	15.79	23.91	25.74	8.28	15.45	17.55	17.41	17.55		
<b>15</b>	<b>Calculated State domestic product (Rs. lacs)</b>		0.57	9.66	27.13	2.48	14.27	24.73	6.74	11.58	16.18	14.54	14.88		
16	Population ('00)		1.58	1.55	1.49	1.43	1.40	1.39	1.39	1.36	1.33	1.33	1.34		
<b>18</b>	<b>Calculated State Per Capita Income (Rs.)</b>		-0.99	7.98	25.27	1.04	12.68	23.02	5.28	10.08	14.65	13.04	13.36		

Source : Directorate of Economics & Statistics, Planning cum Finance Dept., Govt. of Jharkhand

Note - P-Provisional, Q-Quick, A-Advance, Pr-Projected

<b>Appendix 1.9: Percentage Distribution of NSDP by Industry</b>												
<b>Current Prices (Based on Base Year 2004-05)</b>												
<b>STATE-JHARKHAND</b>												
Sector	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-11	2011-12	2012-13(P)	2013-14(Q)	2014-15(Pr)	2015-16(Pr)
(Rs In Lakh)												
<b>Primary</b>												
1 Agriculture	11.75	12.62	13.61	12.24	15.07	12.16	12.34	15.41	15.62	15.52	15.70	15.82
2 Forestry & logging	3.74	4.18	6.54	3.75	3.47	3.40	3.51	3.96	3.80	3.67	3.59	3.50
3 Fishing	0.18	0.24	0.33	0.33	0.35	0.35	0.35	0.41	0.52	0.57	0.63	0.70
<i>Agr and Allied</i>	<b>15.67</b>	<b>17.03</b>	<b>20.48</b>	<b>16.32</b>	<b>18.89</b>	<b>15.91</b>	<b>16.19</b>	<b>19.77</b>	<b>19.94</b>	<b>19.76</b>	<b>19.91</b>	<b>20.01</b>
4 Mining & quarrying	10.25	11.37	10.09	8.94	10.13	12.34	12.14	10.35	9.01	8.93	8.62	8.30
<b>a Sub Total of Primary</b>	<b>25.93</b>	<b>28.40</b>	<b>30.56</b>	<b>25.26</b>	<b>29.02</b>	<b>28.25</b>	<b>28.32</b>	<b>30.13</b>	<b>28.95</b>	<b>28.69</b>	<b>28.53</b>	<b>28.31</b>
<b>5 Manufacturing</b>	<b>33.04</b>	<b>25.44</b>	<b>20.46</b>	<b>29.77</b>	<b>19.76</b>	<b>17.41</b>	<b>16.66</b>	<b>13.66</b>	<b>13.12</b>	<b>12.63</b>	<b>11.33</b>	<b>10.19</b>
5 Manu-Registered	28.13	20.09	14.81	24.57	14.26	12.17	11.80	8.52	8.23	7.95	6.77	5.75
5 Manu-Unregistered	4.91	5.35	5.64	5.20	5.50	5.24	4.86	5.14	4.88	4.68	4.57	4.44
6 Construction	6.56	7.93	8.77	7.70	9.19	8.80	9.34	9.71	9.81	10.00	10.28	10.53
7 Electricity, Gas and Water Supply	0.76	0.69	0.71	0.59	0.59	0.60	0.37	0.55	0.57	0.57	0.54	0.51
<b>b Sub Total of Secondary</b>	<b>40.35</b>	<b>34.06</b>	<b>29.94</b>	<b>38.07</b>	<b>29.54</b>	<b>26.81</b>	<b>26.38</b>	<b>23.92</b>	<b>23.50</b>	<b>23.20</b>	<b>22.15</b>	<b>21.23</b>
<b>Industry</b>	<b>50.61</b>	<b>45.43</b>	<b>40.03</b>	<b>47.00</b>	<b>39.67</b>	<b>39.16</b>	<b>38.52</b>	<b>34.27</b>	<b>32.51</b>	<b>32.14</b>	<b>30.78</b>	<b>29.52</b>
8 Transport, storage & communication	5.64	6.17	7.01	6.53	7.11	7.78	6.55	6.59	6.87	6.87	6.93	6.97
8 Railways	2.23	2.30	2.96	2.69	2.98	3.35	2.35	2.06	2.08	1.95	1.88	1.81
8 Transport by other means	2.63	2.95	3.21	3.11	3.37	3.63	3.57	3.91	4.15	4.28	4.43	4.57
8 Storage	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.04	0.04	0.04
8 Communication	0.75	0.90	0.82	0.71	0.73	0.77	0.60	0.59	0.60	0.61	0.58	0.55
9 Trade, hotels and restaurants	11.17	12.80	13.39	12.83	13.31	13.58	13.34	12.81	12.66	12.54	12.45	12.33
10 Banking & Insurance	2.54	2.69	2.95	2.71	2.97	3.12	3.31	3.46	3.60	3.61	3.68	3.74
11 Real estate, Ownership of dwellings and B. S.	3.21	3.64	3.94	3.47	3.52	4.05	4.23	4.73	4.88	4.89	5.03	5.15
12 Public Administration	3.55	3.48	3.34	2.93	4.21	4.91	7.04	8.36	8.41	8.98	9.76	10.57
13 Other services	7.61	8.77	8.86	8.21	10.33	11.50	10.83	10.01	11.12	11.21	11.47	11.71
<b>c. Sub Total of Tertiary</b>	<b>33.72</b>	<b>37.54</b>	<b>39.50</b>	<b>36.67</b>	<b>41.44</b>	<b>44.93</b>	<b>45.30</b>	<b>45.95</b>	<b>47.54</b>	<b>48.11</b>	<b>49.32</b>	<b>50.46</b>
<b>15 Calculated State domestic product (Rs. lacs)</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>

Source : Directorate of Economics & Statistics, Planning cum Finance Dept., Govt. of Jharkhand

**Appendix 1.10: NET STATE DOMESTIC PRODUCT OF JHARKHAND AT FACTOR COST  
BY INDUSTRY OF ORIGIN AT CONSTANT (2004-2005) PRICES**

**STATE-JHARKHAND**

Sector	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-12	2012-13(P)	2013-14(Q)	2014-15(Pr)	2015-16(Pr)
(Rs In Lakh)												
<b>Primary</b>												
1 Agriculture	623367	641738	737297	776186	945866	846417	888157	1171260	1300029	1371907	1497577	1634759
2 Forestry & logging	198448	204943	214759	220886	227396	244704	250336	261435	263718	273289	283181	293431
3 Fishing	9677	12540	19389	24335	27432	24526	25105	32016	31547	36607	42439	49200
<i>Agr and Allied</i>	<b>831492</b>	<b>859221</b>	<b>971445</b>	<b>1021407</b>	<b>1200694</b>	<b>1115647</b>	<b>1163598</b>	<b>1464711</b>	<b>1595294</b>	<b>1681803</b>	<b>1823197</b>	<b>1977390</b>
4 Mining & quarrying	543978	548301	505257	499411	613633	576277	865375	1014818	1040422	1080097	1165630	1257936
a Sub Total of Primary	<b>1375470</b>	<b>1407522</b>	<b>1476702</b>	<b>1520818</b>	<b>1814327</b>	<b>1691924</b>	<b>2028973</b>	<b>2479529</b>	<b>2635716</b>	<b>2761900</b>	<b>2988827</b>	<b>3235326</b>
<b>Secondary</b>												
5 Manufacturing	<b>1753023</b>	<b>1282914</b>	<b>1063280</b>	<b>1876328</b>	<b>1089666</b>	<b>1185519</b>	<b>1316060</b>	<b>1166379</b>	<b>1148796</b>	<b>1288015</b>	<b>1265743</b>	<b>1248792</b>
5 Manu-Registered	1492504	1005407	758240	1532717	754222	806128	936938	757356	706729	826617	774091	724903
5 Manu-Unregistered	260519	277507	305040	343611	335444	379391	379122	409023	442067	461398	491652	523889
6 Construction	347832	399335	454016	470036	513216	563168	661919	674640	698162	766156	836416	913120
7 Electricity, gas and Water supply	40074	37386	42635	49695	47293	56414	28692	49871	60836	60514	63350	66318
b Sub Total of Secondary	<b>2140929</b>	<b>1719635</b>	<b>1559931</b>	<b>2396059</b>	<b>1650175</b>	<b>1805101</b>	<b>2006671</b>	<b>1890890</b>	<b>1907794</b>	<b>2114685</b>	<b>2165509</b>	<b>2228230</b>
<i>Industry</i>	<b>2684907</b>	<b>2267936</b>	<b>2065188</b>	<b>2895470</b>	<b>2263808</b>	<b>2381378</b>	<b>2872046</b>	<b>2905708</b>	<b>2948216</b>	<b>3194782</b>	<b>3331138</b>	<b>3486166</b>
<b>Tertiary</b>												
8 Transport, Storage & Communication	<b>299118</b>	<b>328270</b>	<b>387159</b>	<b>444937</b>	<b>507194</b>	<b>617465</b>	<b>545672</b>	<b>689366</b>	<b>812509</b>	<b>876814</b>	<b>1001849</b>	<b>1148097</b>
8 Railways	118297	127993	161323	176233	201638	223339	212589	192258	197442	203580	216237	229682
8 Transport by other means	139767	151786	170179	200627	205708	253821	232099	309291	365498	412023	464612	523912
8 Storage	1074	1084	1207	1386	1546	2006	2394	2504	3023	3377	3835	4356
8 Communication	39980	47407	54450	66691	98302	138299	98590	185313	246546	257834	317164	390147
9 Trade, hotels and restaurants	592407	647059	697487	812267	800145	933507	1051795	1007379	1127807	1206876	1306173	1413640
10 Banking & Insurance	134787	154884	191716	225918	241575	291223	356127	382144	435753	502140	581151	672594
11 Real estate, Ownership of dwellings and B. S.	170484	183380	200917	205110	185637	247693	399542	364936	447577	470647	526862	589791
12 Public Administration	188543	178434	176426	184701	247196	293627	484613	567828	609654	715057	829213	961594
13 Other services	403832	448635	462406	510686	600903	765979	700051	633636	709303	763969	820049	880245
c. Sub Total of Tertiary	<b>1789171</b>	<b>1940662</b>	<b>2116111</b>	<b>2383619</b>	<b>2582650</b>	<b>3149494</b>	<b>3577800</b>	<b>3645289</b>	<b>4142603</b>	<b>4535503</b>	<b>5065296</b>	<b>5665961</b>
15 Calculated State domestic product (Rs. lacs)	<b>5305570</b>	<b>5067819</b>	<b>5152744</b>	<b>6300496</b>	<b>6047152</b>	<b>6646519</b>	<b>7613444</b>	<b>8015708</b>	<b>8686113</b>	<b>9412088</b>	<b>10219632</b>	<b>11129517</b>
16 Population ('00)	286640	291160	295670	300080	304380	308650	312930	317270	321590	325880	330200	334620
18 Calculated State Per Capita Income (Rs.)	<b>18510</b>	<b>17406</b>	<b>17427</b>	<b>20996</b>	<b>19867</b>	<b>21534</b>	<b>24330</b>	<b>25265</b>	<b>27010</b>	<b>28882</b>	<b>30950</b>	<b>33260</b>

Source : Directorate of Economics & Statistics, Planning cum Finance Dept., Govt. of Jharkhand

Note - P-Provisional, Q-Quick, A-Advance, Pr-Projected

**Appendix 1.11: Percentage Change Over Previous Year In NSDP  
Constant Prices (2004-05)**

**STATE-JHARKHAND**

Sector	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-12	2012-13(P)	2013-14(Q)	2014-15(Pr)	2015-16(Pr)
<i>Primary</i>												
1 Agriculture		2.95	14.89	5.27	21.86	-10.51	4.93	31.88	10.99	5.53	9.16	9.16
2 Forestry & logging		3.27	4.79	2.85	2.95	7.61	2.30	4.43	0.87	3.63	3.62	3.62
3 Fishing		29.59	54.62	25.51	12.73	-10.59	2.36	27.53	-1.46	16.04	15.93	15.93
<i>Agr and Allied</i>		<b>3.33</b>	<b>13.06</b>	<b>5.14</b>	<b>17.55</b>	<b>-7.08</b>	<b>4.30</b>	<b>25.88</b>	<b>8.92</b>	<b>5.42</b>	<b>8.41</b>	<b>8.46</b>
4 Mining & quarrying		0.79	-7.85	-1.16	22.87	-6.09	50.17	17.27	2.52	3.81	7.92	7.92
<b>a Sub Total of Primary</b>		<b>2.33</b>	<b>4.92</b>	<b>2.99</b>	<b>19.30</b>	<b>-6.75</b>	<b>19.92</b>	<b>22.21</b>	<b>6.30</b>	<b>4.79</b>	<b>8.22</b>	<b>8.25</b>
<b>5 Manufacturing</b>		<b>-26.82</b>	<b>-17.12</b>	<b>76.47</b>	<b>-41.93</b>	<b>8.80</b>	<b>11.01</b>	<b>-11.37</b>	<b>-1.51</b>	<b>12.12</b>	<b>-1.73</b>	<b>-1.34</b>
5 Manu-Registered		-32.64	-24.58	102.14	-50.79	6.88	16.23	-19.17	-6.68	16.96	-6.35	-6.35
5 Manu-Unregistered		6.52	9.92	12.64	-2.38	13.10	-0.07	7.89	8.08	4.37	6.56	6.56
6 Construction		14.81	13.69	3.53	9.19	9.73	17.53	1.92	3.49	9.74	9.17	9.17
7 Electricity gas and Water supply		-6.71	14.04	16.56	-4.83	19.29	-49.14	73.82	21.99	-0.53	4.69	4.69
<b>b Sub Total of Secondary</b>		<b>-19.68</b>	<b>-9.29</b>	<b>53.60</b>	<b>-31.13</b>	<b>9.39</b>	<b>11.17</b>	<b>-5.77</b>	<b>0.89</b>	<b>10.84</b>	<b>2.40</b>	<b>2.90</b>
<i>Industry</i>		<b>-15.53</b>	<b>-8.94</b>	<b>40.20</b>	<b>-21.82</b>	<b>5.19</b>	<b>20.60</b>	<b>1.17</b>	<b>1.46</b>	<b>8.36</b>	<b>4.27</b>	<b>4.65</b>
8 Transport, storage & communication		9.75	17.94	14.92	13.99	21.74	-11.63	26.33	17.86	7.91	14.26	14.60
8 Railways		8.20	26.04	9.24	14.42	10.76	-4.81	-9.56	2.70	3.11	6.22	6.22
8 Transport by other means		8.60	12.12	17.89	2.53	23.39	-8.56	33.26	18.17	12.73	12.76	12.76
8 Storage		0.93	11.35	14.83	11.54	29.75	19.34	4.59	20.73	11.71	13.56	13.59
8 Communication		18.58	14.86	22.48	47.40	40.69	-28.71	87.96	33.04	4.58	23.01	23.01
9 Trade, hotels and restaurants		9.23	7.79	16.46	-1.49	16.67	12.67	-4.22	11.95	7.01	8.23	8.23
10 Banking & Insurance		14.91	23.78	17.84	6.93	20.55	22.29	7.31	14.03	15.24	15.73	15.73
11 Real estate, Ownership of dwellings and B. S.		7.56	9.56	2.09	-9.49	33.43	61.31	-8.66	22.65	5.15	11.94	11.94
12 Public Administration		-5.36	-1.13	4.69	33.84	18.78	65.04	17.17	7.37	17.29	15.96	15.96
13 Other services		11.09	3.07	10.44	17.67	27.47	-8.61	-9.49	11.94	7.71	7.34	7.34
<b>c. Sub Total of Tertiary</b>		<b>8.47</b>	<b>9.04</b>	<b>12.64</b>	<b>8.35</b>	<b>21.95</b>	<b>13.60</b>	<b>1.89</b>	<b>13.64</b>	<b>9.48</b>	<b>11.68</b>	<b>11.86</b>
<b>15 Calculated State domestic product (Rs. lacs)</b>		<b>-4.48</b>	<b>1.68</b>	<b>22.27</b>	<b>-4.02</b>	<b>9.91</b>	<b>14.55</b>	<b>5.28</b>	<b>8.36</b>	<b>8.36</b>	<b>8.58</b>	<b>8.90</b>
16 Population ('00)		1.58	1.55	1.49	1.43	1.40	1.39	1.39	1.36	1.33	1.33	1.34
<b>18 Calculated State Per Capita Income (Rs.)</b>		<b>-5.96</b>	<b>0.12</b>	<b>20.48</b>	<b>-5.38</b>	<b>8.39</b>	<b>12.98</b>	<b>3.84</b>	<b>6.91</b>	<b>6.93</b>	<b>7.16</b>	<b>7.46</b>

Source : Directorate of Economics & Statistics, Planning cum Finance Dept., Govt. of Jharkhand

Note-P-Provisional, Q-Quick, A-Advance, Pr-Projected

(Rs In Lakh)



**Appendix 1.12: NET STATE DOMESTIC PRODUCT OF JHARKHAND AT FACTOR COST  
BY INDUSTRY OF ORIGIN AT CONSTANT PRICES (2004-2005)**

**STATE-JHARKHAND**

Sector	(Rs In Lakh)												
	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-12	2012-13(P)	2013-14(Q)	2014-15(Pr)	2015-16(Pr)	
<b>Primary</b>													
1 Agriculture	11.75	12.66	14.31	12.32	15.64	12.73	11.67	14.61	14.97	14.58	14.65	14.69	
2 Forestry & logging	3.74	4.04	4.17	3.51	3.76	3.68	3.29	3.26	3.04	2.90	2.77	2.64	
3 Fishing	0.18	0.25	0.38	0.39	0.45	0.37	0.33	0.40	0.36	0.39	0.42	0.44	
<b>Agr and Allied</b>	<b>15.67</b>	<b>16.95</b>	<b>18.85</b>	<b>16.21</b>	<b>19.86</b>	<b>16.79</b>	<b>15.28</b>	<b>18.27</b>	<b>18.37</b>	<b>17.87</b>	<b>17.84</b>	<b>17.77</b>	
4 Mining & quarrying	10.25	10.82	9.81	7.93	10.15	8.67	11.37	12.66	11.98	11.48	11.41	11.30	
<b>a Sub Total of Primary</b>	<b>25.93</b>	<b>27.77</b>	<b>28.66</b>	<b>24.14</b>	<b>30.00</b>	<b>25.46</b>	<b>26.65</b>	<b>30.93</b>	<b>30.34</b>	<b>29.34</b>	<b>29.25</b>	<b>29.07</b>	
<b>5 Manufacturing</b>	<b>33.04</b>	<b>25.31</b>	<b>20.64</b>	<b>29.78</b>	<b>18.02</b>	<b>17.84</b>	<b>17.29</b>	<b>14.55</b>	<b>13.23</b>	<b>13.68</b>	<b>12.39</b>	<b>11.22</b>	
5 Manu-Registered	28.13	19.84	14.72	24.33	12.47	12.13	12.31	9.45	8.14	8.78	7.57	6.51	
5 Manu-Unregistered	4.91	5.48	5.92	5.45	5.55	5.71	4.98	5.10	5.09	4.90	4.81	4.71	
6 Construction	6.56	7.88	8.81	7.46	8.49	8.47	8.69	8.42	8.04	8.14	8.18	8.20	
7 Electricity,gas and Water supply	0.76	0.74	0.83	0.79	0.78	0.85	0.38	0.62	0.70	0.64	0.62	0.60	
<b>b Sub Total of Secondary</b>	<b>40.35</b>	<b>33.93</b>	<b>30.27</b>	<b>38.03</b>	<b>27.29</b>	<b>27.16</b>	<b>26.36</b>	<b>23.59</b>	<b>21.96</b>	<b>22.47</b>	<b>21.19</b>	<b>20.02</b>	
<b>Industry</b>	<b>50.61</b>	<b>44.75</b>	<b>40.08</b>	<b>45.96</b>	<b>37.44</b>	<b>35.83</b>	<b>37.72</b>	<b>36.25</b>	<b>33.94</b>	<b>33.94</b>	<b>32.60</b>	<b>31.32</b>	
8 Transport, Storage & communication	5.64	6.48	7.51	7.06	8.39	9.29	7.17	8.60	9.35	9.32	9.80	10.32	
8 Railways	2.23	2.53	3.13	2.80	3.33	3.36	2.79	2.40	2.27	2.16	2.12	2.06	
8 Transport by other means	2.63	3.00	3.30	3.18	3.40	3.82	3.05	3.86	4.21	4.38	4.55	4.71	
8 Storage	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.04	0.04	0.04	
8 Communication	0.75	0.94	1.06	1.06	1.63	2.08	1.29	2.31	2.84	2.74	3.10	3.51	
9 Trade,hotels and restaurants	11.17	12.77	13.54	12.89	13.23	14.05	13.81	12.57	12.98	12.82	12.78	12.70	
10 Banking & Insurance	2.54	3.06	3.72	3.59	3.99	4.38	4.68	4.77	5.02	5.34	5.69	6.04	
11 Real estate, Ownership of dwellings and B. S.	3.21	3.62	3.90	3.26	3.07	3.73	5.25	4.55	5.15	5.00	5.16	5.30	
12 Public Administration	3.55	3.52	3.42	2.93	4.09	4.42	6.37	7.08	7.02	7.60	8.11	8.64	
13 Other services	7.61	8.85	8.97	8.11	9.94	11.52	9.19	7.90	8.17	8.12	8.02	7.91	
<b>c. Sub Total of Tertiary</b>	<b>33.72</b>	<b>38.29</b>	<b>41.07</b>	<b>37.83</b>	<b>42.71</b>	<b>47.39</b>	<b>46.99</b>	<b>45.48</b>	<b>47.69</b>	<b>48.19</b>	<b>49.56</b>	<b>50.91</b>	
<b>15 Calculated State domestic product (Rs. lacs)</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	

Source : Directorate of Economics & Statistics, Planning cum Finance Dept., Govt. of Jharkhand

Note - P-Provisional, Q-Quick, A-Advance, Pr-Projected

**Appendix 1.13: GDP & NDP of India, GSDP, NSDP etc of Jharkhand & Bihar at Current Prices Base Year (2004-05)**

Rs (Lakh)

	ITEMS	2011-2012	2012-2013	2013-2014	Compounded Annual Growth Rate(CAGR) 2011-12 to 2013-14 (%)
India	Gross Domestic Product	839169100	938887600	1047280700	11.71
	%age Growth over previous year		11.88	11.54	
	Net Domestic Product	751179500	837274400	929934500	11.26
	%age Growth over previous year		11.46	11.07	
Jharkhand	Gross Domestic Product	13561800	15165500	17277300	12.87
	%age Growth over Dprevious year		11.83	13.93	
	Percentage of GSDP to National GDP	1.62	1.62	1.65	
	Net Domestic Product	11597500	12940200	15033300	13.85
	%age Growth over previous year		11.58	16.18	
	Percentage of NSDP to National NDP	1.54	1.55	1.62	
Bihar	Gross Domestic Product	24326900	29615300	34305400	18.75
	%age Growth over previous year		21.74	15.84	
	Percentage of GSDP to National GDP	2.90	3.15	3.28	
	Net Domestic Product	22244200	27143900	31552900	19.10
	%age Growth over previous year		22.03	16.24	
	Percentage of NSDP to National NDP	2.96	3.24	3.39	

Source : Directorate of Economics & Statistics, Planning cum Finance Dept., Govt. of Jharkhand

**Appendix 1.14: GDP & NDP of India, GSDP, NSDP etc of Jharkhand & Bihar at Constant Prices Base Year (2004-05)**

Rs (Lakh)

	ITEMS	2011-2012	2012-2013	2013-2014	Compounded Annual Growth Rate(CAGR) 2011-12 to 2013-14 (%)
India	Gross Domestic Product	524753000	548211100	574179100	4.60
	%age Growth over previous year		4.47	4.74	
	Net Domestic Product	461969500	479422800	498811600	3.91
	%age Growth over previous year		3.78	4.04	
Jharkhand	Gross Domestic Product	9351000	10046100	10940800	8.17
	%age Growth over previous year		7.43	8.91	
	Percentage of GSDP to National GDP	1.78	1.83	1.91	
	Net Domestic Product	8015700	8686100	9412100	8.36
	%age Growth over previous year		8.36	8.36	
	Percentage of NSDPto National NDP	1.74	1.81	1.89	
Bihar	Gross Domestic Product	14356000	15897100	17473400	10.32
	%age Growth over previous year		10.73	9.92	
	Percentage of GSDP to National GDP	2.74	2.90	3.04	
	Net Domestic Product	12952100	14331200	15811700	10.49
	%age Growth over previous year		10.65	10.33	
	Percentage of NSDP to National NDP	2.80	2.99	3.17	

Source : Directorate of Economics & Statistics, Planning cum Finance Dept., Govt. of Jharkhand

**Appendix : 2.1: Fiscal Indicators  
12<sup>th</sup> Plan**

**Half Yearly View**

( in ₹ crores)

1	2	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15 (Actuals)		1st April-30th September		2015-16 (B.E)	2016-17 (B.E/Est.)
		3	4	5	6	7	8	9	10	11	12	13	
1	Tax Revenue	9138.3	10047.69	11870.98	14123.82	16411.72	18320.01	19836.82	8721.56	11470.72	267015.05	0.00	
1a	State's Own Tax Revenue	3746.19	4500.12	5716.63	6953.89	8180.19	9380.69	10349.81	4083.7	4399.89	14700.78		
1b	Share in Central Taxes	5392.11	5547.57	6154.35	7169.93	8231.53	8939.32	9487.01	4637.86	7070.83	12000.27		
2	Non Tax Revenue	4067.58	5070.77	6910.14	8295.63	8357.84	7817.68	11727.74	3998.81	5709.39	21326.25	0.00	
2a	State's Own Non-Tax Revenue	1951.8	2254.14	2802.89	3038.22	3535.63	3752.71	4335.06	1602.97	2151.19	6304.13		
2b	Grants	2115.78	2816.63	4107.25	5257.41	4822.2	4064.97	7392.68	2395.84	3558.2	15022.12		
3	Total Revenue Receipts	13205.88	15118.46	18781.12	22419.45	24769.56	26137.69	31564.56	12720.37	17180.11	48027.30	0.00	
4	Non-Debt Capital Receipts (Including recovery of loans)	18.9	21.79	24.14	23.42	43.11	23.32	23.41	21.28	13.68	49.65		
5	Total non-debt Receipts (3+4)	13224.78	15140.25	18805.24	22442.87	24812.66	26161.01	31587.97	12741.65	17139.79	48076.95	0.00	
6	Revenue Expenditure	12876.9	15128.24	17944.73	20991.58	23399.87	23471.89	31794.9	10671.22	14039.79	43343.24	0.00	
of which													
6a	i) Subsidies							245.69					
	Plan Revenue Expenditure	3813.2	3758.48	6003.81	7646.29	7743.26	6287.48	12435.92	2395.86	5163.58	22356.04		
	of which												
	j) Salaries							224.5	140.5	170			
6b	Non-Plan Revenue Expenditure	9063.7	11369.76	11940.92	13345.3	15656.61	17184.41	19358.98	8275.36	8876.21	20987.20		
	of which												
	ii) Interest Payments	1886.88	2307.45	2227.54	2267.08	2391.25	2614.44	2323.15	1155.18	1485.59	3426.94		
	iii) Pensions	988.4	1680.83	2081.1	2296.69	2931.19	3484.31	3462.53	1643.82	1774397	4492.61		
	iii) Salaries	3800.67	5125.38	5434.06	6150.05	6446.02	6934.16	7192.6	3523.73	3980.8	9165.09		
7	Capital Expenditure (8+9)	3469.46	3023.02	2971.87	3451.87	4919.23	4994.41	8246.61	2632.69	4434.16	12149.71		
7a	Plan Capital Expenditure (8a+9a)	3269.81	2974.09	2791.7	3297.38	4694.74	4898.68	6309.46	1847.36	3405.33	9780.80		
7b	Non-Plan Capital Expenditure (8b+9b)	199.65	48.93	180.17	154.49	224.49	95.73	1937.15	785.33	1028.83	2368.91		
8	Capital Outlay	3051.27	2703.04	2664.3	3159.37	4218.43	4722.5	5542.94	1627.52	2584.27	8675.58	0.00	
8a	Plan Capital Outlay	3015.45	2682.04	2620.97	3111.49	4151.04	4706.69	5520.12	1625.79	2580.26	8650.53		
8b	Non-Plan Capital Outlay	35.82	21	43.33	47.88	67.38	1581	22.82	1.73	4.01	25.05		
9	Loans & Advances	418.19	319.98	307.57	292.5	700.81	271.91	2703.67	1005.17	1849.89	3474.13	0.00	
9a	Plan Loans & Advances	254.36	292.05	170.73	185.89	543.7	191.99	789.34	221.57	825.07	1130.27	0.00	
9b	Non Plan Loans & Advances	163.83	27.93	136.84	106.61	157.11	79.92	1914.33	729.6	1024.82	2343.86	0.00	
10	Total Expenditure (6+7)	16346.36	18151.26	20916.6	2443.45	22319.1	28466.3	40041.51	13303.91	18473.95	55492.95	0.00	
10a	Plan Total Expenditure (6a+7a)	7083.01	6732.57	8795.51	10943.64	12438.01	11186.16	18745.38	4243.22	8568.91	32136.84	0.00	
10b	Non-Plan Total Expenditure (6b+7b)	9263.35	11418.69	12121.09	13499.79	15881.1	17280.14	21296.13	9060.69	9905.04	23356.11	0.00	
11	Revenue Deficit (6-3)	328.98	9.78	836.39	1427.87	1369.68	2665.81	230.34	2049.15	3140.32	-4684.06	0.00	
12	Fiscal Deficit (10-5)	3121.58	3011.01	2111.36	2000.58	3506.44	2305.28	8453.54	562.26	1280.16	7416.00	0.00	
13	Primary Deficit (12+6b(i))	1234.7	703.56	116.18	266.5	1115.19	309.15	5527.39	592.92	205.53	3989.06	0.00	
14	Total Outstanding Liabilities (as at the end of the year)	24083.98	27165.02	28655.06	30663.77	34868.99	37593.84	43569.09					

Negative - Deficit means surplus  
Source: Department of Finance, Govt. of Jharkhand

**Appendix : 2.2: Year Wise Debt Position**

( in ₹ crores)

	1	2	3	4	5	6	7	8	9	10 = (2to9)	11	12 = (10-11)	13	14	15	16	17
	GOI	Borrowing from RBI	Negotiated Loan	Ways & Means Advances	NSSF Fund	GPF Provident Fund	Reserve Funds	Deposits	Gross Borrowing	Repayment (-)	Net Borrowing	Borrowing Ceiling	Total Debt	GSDP	% of Net Borrowing of GSDP	Total Debt/ GSDP Ratio	
15.11.2000 (Balance)											5962	5962					
2000-01	143	123	0	52	0	126		233	677	401	276	828	6238	27616.38	1.00	22.59	
2001-02	389	370	0	12	826	170		948	2715	1149	1566	986	7804	32876.64	4.76	23.74	
2002-03	408	455	1	0	1025	411		1125	3426	2307	1119	1315	8923	43835.51	2.55	20.36	
2003-04	472	575	0	321	1376	368		1231	4342	2696	1646	1584	10569	52813.87	3.12	20.01	
2004-05	513	565	899	0	1593	255		1174	4999	2056	2942	1793	13512	59757.72	4.92	22.61	
2005-06	6	364	1497	0	1634	409		1373	5283	1434	3848	1827	17360	60900.54	6.32	28.51	
2006-07	17	401	193	230	1256	453		1608	4157	2100	2057	2008	19417	66934.75	3.07	29.01	
2007-08	14	1193	618	0	198	479		3379	5881	3684	2197	2518	21615	83949.59	2.62	25.75	
2008-09	3	1486	770	0	178	584	13	4175	7210	4740	2469	2634	24084	87793.93	2.81	27.43	
2009-10	-10	1844	672	0	863	687	489	4075	8621	5540	3081	3019	27165	100620.7	3.06	27.00	
2010-11	132	500	587	0	1228	572	0	3558	6577	5087	1490	3466	28655	127281.1	1.17	22.51	
2011-12	33	1254	874	229	281	613	139	5138	8561	6553	2009	3915	30664	135617.9	1.48	22.61	
2012-13	239	3600	770	369	221	668	280	8571	14718	10513	4205	4877	34869	151654.7	2.77	22.99	
2013-14	106	2950	1032	316	300	760	293	7084	12841	10116	2725	5587	37594	172772.6	1.46	21.75	
2014-15	153.21	4950	813.23	0	772.68	842.56	307.85	11968.04	19808.57	13833.32	5975.25	6393	43569.09	197514.3	3.03	22.06	
2015-16 (BE)	500.00	5350.00	1270.00	0.00	296.00	822.16	337.08	7661.75	16236.99	11017.29	5219.70	6360.00	48788.79	226404.9	2.31	21.55	

Source: Department of Finance, Govt. of Jharkhand

**Appendix : 2.3: Statement of Revenue and Receipts for the year 2015-16**

Sl. No	Major Head	ACTUAL 2014-15	BUDGET ESTIMATE 2015-16	REVISED ESTIMATE 2015-16
20	Corporation Tax	33129400000	46314056000	57616100000
21	Tax On Income Other Than Corporation Tax	23657600000	22778479000	41142800000
22	Taxes On Agriculture Income	0	1000	1000
28	Other Taxes On Income And Expenditure	571859000	800000000	800000000
29	Land Revenue	835412000	3000000000	1500000000
30	Stamp And Registration Fees	530665100	8000000000	8000000000
31	Estate Duty	0	5000	5000
32	Taxes On Wealth	89400000	87146000	155600000
37	Customs	15343400000	19308286000	26683700000
38	Union Excise Duties	8663900000	14802088000	15067400000
39	State Excise	7401570000	12000000000	12000000000
40	Sales Tax	80697205000	111800208000	106800000000
41	Taxes On Vehicles	6603714000	9007622000	9000000000
42	Taxes On Goods And Passengers	2774000	50003000	50000000
43	Taxes & Duties On Electricity	1753988000	1999997000	2000000000
44	Service Tax	13985600000	16712386000	24322400000
45	Other Taxes And Duties On Commodities And Services	325681000	350012000	350000000
TAX REVENUE		198368154000	267010559000	305488006000
47	Other Fiscal Services	0	2000	2000
49	Interest Receipts	1430407000	9000033000	1900000000
50	Dividends & Profits	0	275014000	275000000
51	Public Service Commission	4875000	210005000	8505000
55	Police	141968000	200011000	180011000
56	Jails	70268000	100004000	100004000
57	Supplies & Disposal	0	2000	2000
58	Stationery And Printing	806000	5010000	5010000
59	Public Works	20864000	40007000	40007000
70	Other Administrative Service	505841000	900045000	700045000
71	Cntbun, & Recv Towards Pension & Other Retirements Benefits	30708000	40017000	40017000
75	Miscellaneous General Services	231107000	1013000	240000000
202	Education, Sports, Art And Culture	422543000	305021000	305000000
210	Medical And Public Health	233270000	250032000	306200000
211	Family Welfare	2541000	5002000	4002000
215	Water Supply And Sanitation	131921000	250005000	278500000
216	Housing	19459000	22410000	22400000
217	Urban Development	368734000	154111000	154100000
220	Information And Publicity	1780000	109000	109000

Sl. No	Major Head	ACTUAL 2014-15	BUDGET ESTIMATE 2015-16	REVISED ESTIMATE 2015-16
230	Labour And Employment	531277000	500010000	500010000
235	Social Security And Welfare	41600000	100018000	50018000
250	Other Social Seviles	67046000	100003000	90000000
401	Crop Husbandary	1563448000	168020000	168000000
403	Animal Husbandary	28848000	51008000	32008000
404	Diary Development	50630000	299995000	60000000
405	Fisheries	45259000	100002000	50002000
406	Forestry And Wild Life	36558000	103920000	103900000
407	Plantation	0	12000	12000
425	Co-Operation	101864000	100003000	142000000
435	Other Agriculture Program	2045000	3502000	2202000
506	Land Reforms	0	3000	30000
515	Other Rural Development Programs	970862000	150007000	150007000
475	Other Special Areas Programs	0	1000	1000
700	Major Irrigation	1949727000	800001000	800001000
401	Major And Medium Irrigation	202295000	700007000	250007000
402	Minor Irrigation	16825000	88017000	88000000
801	Power	133924000	100011000	187000000
802	Petroleum	40000	1000	1000
851	Village And Small Industries	22370000	9981000	9981000
852	Industries	20587000	5014000	20000000
853	Non-Ferrous Minning And Metallurgical Industries	34729949000	55000991000	59995000000
875	Other Industries	0	4000	4000
1053	Civil Aviation	0	1502000	500000
1054	Roads And Bridges	503824000	792000000	792000000
1055	Road Transport	94000	5502000	100000
1056	Inland Water Transport	0	2000	2000
1075	Other Transport Services	0	2000	2000
1452	Tourism	25103000	40003000	26000000
1456	Civil Supplies	10152000	13901000	14000000
1475	Other General Economic Services	79212000	150009000	95000000
NON TAX REVENUE		43350631000	63041305000	68184675000
1601	Grants In Aid From Central Government	73926774000	150221190000	82399254000
1603	State Share Of Union Excise Duties	0	0	0
GRANT IN AID		73926774000	150221190000	82399254000
REVENUE TOTAL		315645559000	480273054000	456071935000
6003	Internal Debt Of The State Government	65369089000	69160000000	69160000000
6003 TOTAL		65369089000	69160000000	69160000000

Sl. No	Major Head	ACTUAL 2014-15	BUDGET ESTIMATE 2015-16	REVISED ESTIMATE 2015-16
6004	Loans & Advance From The Central Government	1532079000	5000000000	5000000000
6004 TOTAL		1532079000	5000000000	5000000000
6202	Loans For Education, Sports, Art & Culture	0	17000	17000
6215	Loans For Water Supply & Sanitation	0	1000	0
6216	Loans For Housing	0	2000	0
6217	Loans For Urban Development	0	27610000	27610000
6245	Loans For Relief On Account Of Natural Calamities	0	2000	0
6401	Loans For Crop Husbandary	0	13000	13000
6402	Loans For Soil & Water Conservation	0	4000	0
6425	Loans For Co-Operation	90582000	13000	13000
6506	Loans For Land Reforms	0	6000	0
6515	Loans For Other Rural Development Programs	5745000	5000	0
6801	Loans For Power Project	0	11000	11000
6851	Loans For Village & Small Industries	126000	13814000	13814000
6852	Loans For Iron & Steel Industries	0	1000	0
6860	Loans For Consumers Industries	0	18000	18000
6885	Other Loans To Industries And Minerals	0	22548000	22548000
7055	Loans For Road Transport	0	3000	0
7075	Loans For Other Other Transport Services	0	2000	0
7465	Loans For General Financial And Trading Industries	0	1000	0
7475	Loans For Other General Economic Services	0	202401000	202401000
7610	Loans To Government Servants Etc.	234123000	230008000	230008000
7810	Inter State Settlement	0	1000	0
7999	Appropriation To The Contingency Fund	0	1000	0
8000	Contingency Fund	0	0	0
6202 TO 8000 TOTAL		330576000	496482000	496453000
GRAND TOTAL		382877303000	554929536000	530728388000

Source: Department of Finance, Government of Jharkhand

### Appendix:2.4: Budget at a glance 2015-16

S. No.	Sources	2013-14 (A)	2014-15 (B.E)	2014-15 (R.E)	2015-16 (B.E)
1	Revenue Receipts	26136.79	43443.75	43903.68	48027.31
2	Tax Revenue	18317.11	22691.29	23198.63	26701.06
	(a) State's share of Central Taxes	8939.32	10878.61	9884.63	12000.27
	(b) State's Own Taxes	9379.79	11812.68	13314	14700.78
3	Non-Tax Revenue	7817.68	20752.46	20705.05	21326.26
	(a) State's Own Non-Taxes	3752.71	4966.99	5693.01	6304.13
	(b) Grants-in-Aid from GOI	4064.97	15785.47	15012.04	15022.12
4	Capital Receipts	4292.52	6943.95	6935.87	7465.65
	(a) Recoveries of Loans	23.16	53.95	45.87	49.65
	(b) Other Receipts	0	0	0	0
	(c) Borrowing and Other Liabilities	4269.36	6890	6890	7416
5	Total Receipts (1+4)	30429.31	50387.7	50839.55	55492.95
6	Non-Plan Expenditure	19277.05	23632.73	24247.89	23356.11
7	On revenue account of which	17184.41	21547.1	22160.26	20987.2
	(a) Interest Payments	2614.44	2729.12	2727.47	3426.94
	(b) Salary	6766.16	9197.73	7946.18	9165.09
	(e) Pension	3484.31	4287.64	4287.64	4492.61
8	On Capital Account of Which	2092.64	2085.63	2087.63	2368.91
	(a) Internal Debt of the State	1858.17	1825.36	1828.36	2086.92
	(b) Loans and Adv. from GOI	138.75	150.94	150.94	171.61
	(c) Capital Expenditure	15.81	23	23	25.05
	(d) Loans and Advances	79.91	86.33	85.33	85.33
9	Plan Expenditure	11152.26	26754.97	26591.66	32136.84
	(a) On Revenue Account	6246.98	17940.83	17913.07	22356.04
	(b) of which, Grants for creation of Capital Assets	691.94	4288.02	5035.37	5194.88
	(c) On Capital Account	4905.28	8814.14	8678.59	9780.8
10	Total Expenditure (6+9)	30429.31	50387.7	50839.55	55492.95
	(a) Revenue expenditure (7+9a)	23431.39	39487.33	40073.33	43343.24
	(b) Capital Expenditure (8+9c)	6997.92	10899.77	10766.22	12149.71
11	Revenue Deficit (10a-1)	-2705.4	-3955.82	-3830.35	-4684.06
	Revenue Deficit as % of GSDP	-1.57	-2	-1.94	-2.07
12	Effective Revenue Deficit (11-9b)@	-3397.34	-8243.84	-8865.72	-9878.94
	Effective Revenue Deficit as % of GSDP	-1.97	-4.17	-4.49	-4.36
13	Fiscal Deficit {10-(1+4a+4b+8a+8b)}	2272.44	4913.7	4910.7	5157.47
	Fiscal Deficit as % of GSDP	1.32	2.49	2.49	2.28
14	Primary Deficit (13-7a)	-342	2184.58	2183.23	1730.53
	Primary Deficit as % of GSDP	-0.2	1.11	1.11	0.76

Source: Department Of Finance, Government Of Jharkhand



**Appendix 3.1: Recovery Position of Bank Advances (End-September 2015)**

	Priority Sector: Recovery Position										Government Sponsored Schemes		
	Agriculture			MSE			OPS			Demand	Recovery	Percent- age	
	Demand	Recovery	Percentage	Demand	Recovery	Percentage	Demand	Recovery	Percentage				
Sep-14	266889.77	161080.59	<b>60.35</b>	479432.37	273176.97	<b>56.98</b>	106209.63	61782.11	<b>58.17</b>	42167.05	15111.32	<b>35.84</b>	
Dec-14	265392.72	172625.82	<b>65.05</b>	494646.68	280591.39	<b>56.73</b>	108636.30	61011.36	<b>56.16</b>	43208.46	15936.99	<b>36.88</b>	
Mar-15	269482.12	173832.02	<b>64.51</b>	497658.86	279203.96	<b>56.10</b>	110512.85	62257.24	<b>56.33</b>	43559.20	16106.99	<b>36.98</b>	
Jun-15	285830.90	117161.43	<b>40.99</b>	467263.87	251399.76	<b>53.80</b>	118761.47	62225.39	<b>52.40</b>	44040.58	14755.03	<b>33.50</b>	
Sep-15	285864.18	137689.02	<b>48.17</b>	418238.97	253986.87	<b>60.73</b>	121300.20	73125.51	<b>60.28</b>	44354.15	15310.47	<b>34.52</b>	

Source: SLBC Jharkhand.

**Appendix 3.2: Financial Inclusion (End-September 2015)**

	(B) Covered Through Bea/Csc Out of (A)						(C) Covered Through Branch Out of (A)			(D) Total Usb			(F) Total Aadhar No Seeded Sb A/C
	A) Total No of Villages Alloted For Fi	As on 31st March of Last Financial Year		During The Current Financial Year		Total Since Inception	As on 31st March of Last Financial Year		During The Current Financial Year		Total Since Inception	(E) Total No of Debit Card Issued	
		Year	Year	Year	Year		Year	Year					
Banks With Lead Bank	10108	3541	3754	7295	591	202	787	332	534	866	3887319	2919652	
Other Public Sector Banks	2584	1935	141	2071	43	20	63	136	158	294	1176327	994903	
Other Public Sector Banks New	513	120	329	429	122	95	167	64	60	103	366106	216106	
Idbi	24	0	24	24	0	0	0	0	0	0	220404	58995	
Private Sector Banks	1	1	1	1	1365	4450	5815	0	756	0	14869	9116	
Comc.Banks Total	13230	5597	4249	9820	2121	4767	6832	532	1508	1263	5665025	4198772	
Regional Rural Banks [Rrbs]	8076	3217	697	3914	2909	0	2909	111	828	939	412022	489787	
Total	21306	8814	4946	13734	5030	4767	9741	643	2336	2202	6077047	4688559	

Source: SLBC Jharkhand.

### 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 5.3: Sector wise contribution in net state domestic product (NSDP) at factor cost at constant price (Base: 2004-05)

Year	Rural	Urban
2008-09	30	70
2009-10	25.5	74.5
2010-11	26.7	73.3
2011-12	30.2	69.8
2012-13	29.8	70.2
2013-14	28.6	71.4
2014-15	28.9	71.1

Source: Central Statistics Office

**Appendix 6.1: Fish Production (In M. T.), November, 2015**

SI. No.	Name of District	Target	Achievement
1	2	3	4
1	Ranchi	6700	4400
2	Khunti	2550	1900
3	Gumla	5700	3000
4	Simdega	2600	1800
5	Lohardaga	1750	1400
6	Palamu	2250	1400
7	Latehar	4000	2100
8	Garhwa	1550	1550
9	Jamshedpur	6400	3400
10	Chaibasa	6300	3500
11	Saraikela	9200	5950
12	Hazaribagh	6300	3700
13	Ramgarh	3200	1750
14	Koderma	4700	3750
15	Bokaro	7700	4300
16	Dhanbad	7400	5700
17	Chatra	4300	3000
18	Giridih	3600	2025
19	Deoghar	5300	2480
20	Dumka	6100	4500
21	Jamtara	4500	3100
22	Sahebganj	7100	4725
23	<i>Pakur</i>	4800	3300
24	Godda	6000	3500
	TOTAL	120000	76230

Source: Agriculture, Animal Husbandry & Co-operative Dept.(Agriculture)

**Appendix 6.2: Matsya Kisan Prashikshan Kendra 2015-16 (November, 15)**

SI. No.	Name of the District	Training					
		5 Days Physical Target (in No.)	Integrated Physical Target (in No.)	Total Physical Target (in No.)	5 Days Physical Achievement (in No.)	Integrated Physical Achievement (in No.)	Total Physical Achievement (in No.)
1	2	3	4	5	6	7	8
1	Ranchi	485	140	625	497	97	594
2	Khunti	220	75	295	142	33	175
3	Gumla	420	140	560	198	145	343
4	Simdega	235	46	281	125	48	173
5	Lohardaga	220	75	295	122	28	150
6	Palamu	305	87	392	188	77	265
7	Latehar	245	75	320	124	75	199
8	Gadhwa	220	87	307	153	61	214
9	Jamshedpur	345	87	432	157	86	243
10	Chaibasa	390	87	477	236	47	283
11	Saraikela	315	87	402	134	98	232
12	Sahebganj	215	75	290	138	71	209
13	Pakur	215	75	290	187	60	247
14	Dumka	430	87	517	127	40	167
15	Jamtara	195	46	241	102	55	157
16	Godda	240	75	315	144	67	211
17	Deoghar	220	87	307	271	63	334
18	Hazaribagh	360	130	490	165	37	202
19	Ramgarh	210	75	285	147	36	183
20	Koderma	190	75	265	47	37	84
21	Bokaro	280	130	410	126	61	187
22	Dhanbad	260	135	395	181	93	274
23	Giridih	250	87	337	114	54	168
24	Chatra	270	87	357	158	92	250
Total		6735	2150	8885	3983	1561	5544

Source: Agriculture, Animal Husbandry & Co-operative Dept.(Agriculture)

### Appendix 6.3: Fertilizer Status in Jharkhand for Last 7 Years

Unit- tonne

Year	Kharif				Rabi		
	Product	Requirement	Supply	Consumption	Requirement	Supply	Consumpt
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 (35000re)	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 up to 7-12-15	UREA	125000 + 35000(res)	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

Source: Agriculture, Animal Husbandry & Co-operative Dept. (Agriculture)

Appendix 6.4: Fertilizer Status in Jharkhand for Last 7 Years							
Year	Kharif				Rabi		
	Product	Requirement	Supply	Consumption	Requirement	Supply	Consumption
2006-07	UREA	124000	107208	106012	60000	54674	56425
	DAP	70000	53162	48224	45000	16471	19508
	MOP	6000	307	328	1000	371	376
	COMPLEX	15000	16413	18491	22500	20195	17666
2007-08	UREA	142000	108654	106268	65000	52765	47323
	DAP	50000	50360	51000	28500	20903	23245
	MOP	2500	6183	4494	5000	2469	4157
	COMPLEX	20000	21933	21156	18000	10990	16954
2008-09	UREA	145000	104969	105065	70000	36052	43707
	DAP	60000	59889	57964	35000	19747	22377
	MOP	8000	11787	11789	5000	4545	1961
	COMPLEX	20000	20847	23605	20000	16684	16685
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	50284.15
	DAP	70000	52002	44618	40000	13538.65	20242.7
	MOP	11000	52002	4117	5000	3427.25	1597.55
	COMPLEX	40000	22335	21871	45000	13505	13674.4
2011 -12	UREA	160000	124464	128088	100000	65206.4	64176.6
	DAP	80000	44559	40974	45000	16600	12295.76
	MOP	20000	-	1830	14000	0	0
	COMPLEX	38000	28144.5	25852.45	70000	16230	12084.64
2012-13 (Upto 30/01/2013)	UREA	170000	125894	119145	100000	59606	57748
	DAP	80000	36280	24457	45000	20572	18270
	MOP	20000	2267	2267	15000	255	255
	COMPLEX	40000	20782	18432	65000	9586	9240
	SSP	40000	833	830	24000	2126	358

Source: Agriculture, Animal Husbandry & Co-operative Dept.(Agriculture)

### Appendix 6.5: Fertilizer Status in Jharkhand For Last 2 Year

Unit - tonne

Product	Consumption	
	Kharif 2014-15	Rabi 2014-15
UREA	108030.1	72148.25
DAP	20374.16	6213.95
MOP	624.55	4.6
COMPLEX	14924.9	10192.9
SSP	2443.75	1140.95
<b>TOTAL</b>	<b>146397.46</b>	<b>89700.65</b>
Product	Consumption	
	Kharif 2015-16	Rabi 2015-16
UREA	145201.5	13285.2
DAP	46702.18	2857.44
MOP	2670.8	186.5
COMPLEX	26700.95	1249.2
SSP	1972.5	110
<b>TOTAL</b>	<b>223247.93</b>	<b>17688.34</b>

Source: Agriculture, Animal Husbandry & Co-operative Dept. (Agriculture)

### Appendix 6.6: Milk Production (Thousand MT)

		Year 2009-10	Year 2010-11	Year 2011-12	Year 2012-13	Year 2013-14	Year 2014-15
1	2	3	4	5	6	7	8
1	Bokaro	65.8077	70.7502	70.9906	75.6181	76.5023	84.54
2	Chatra	79.6888	84.3379	85.6673	89.9076	90.9014	87.91
3	Deoghar	83.6902	89.1832	91.2283	97.5582	98.8169	99.59
4	Dhanbad	84.363	91.0955	90.3687	95.5199	96.5273	109.95
5	Dumka	78.5562	83.2638	86.3921	93.1135	94.431	90.82
6	Garhwa	77.4148	81.9034	83.124	87.0705	88.016	84.8
7	Giridih	112.5312	119.7947	122.4975	131.0252	132.714	134.34
8	Godda	76.3873	80.6909	82.2006	86.3262	87.2963	83.22
9	Gumla	64.7833	67.9848	70.0754	74.4362	75.3768	70.93
10	Hazaribagh	79.8046	84.9038	86.3121	92.0282	93.1639	96.45
11	Jamtara	39.0097	41.4874	43.0513	46.622	47.2996	46.42
12	Khunti	26.6581	28.2068	28.9632	30.9501	31.3515	30.95
13	Kodarma	30.6142	32.7087	33.1037	35.1511	35.5675	36.97
14	Latehar	42.3433	44.5837	45.2944	47.4021	47.9137	45.87
15	Lohardaga	19.475	20.7823	21.012	22.4246	22.6973	24.34
16	Pakur	48.3473	50.8693	52.3906	55.4948	56.1837	52.2
17	Palamu	104.9233	110.7022	112.6291	117.6121	118.8735	111.07
18	Pashchimi Singhbhum	33.025	34.6476	36.0375	39.1831	39.763	39.72
19	Purbi Singhbhum	60.8504	66.0418	65.7393	70.8027	71.6655	86.21
20	Ramgarh	30.4505	32.6574	32.4169	34.2728	34.6335	39.62
21	Ranchi	102.0192	109.5733	108.4639	114.5902	115.7599	136.6
22	Sahebganj	59.5909	63.4162	64.1403	67.5327	68.3019	66.36
23	Saraikela-Kharsawan	30.8108	32.5376	33.7685	36.7276	37.2705	37.62
24	Simdega	31.8552	33.5205	35.1128	38.2196	38.803	37.23
<b>TOTAL</b>		<b>1463</b>	<b>1555.6428</b>	<b>1580.98</b>	<b>1679.5892</b>	<b>1699.83</b>	<b>1733.73</b>

Source: Agriculture, Animal Husbandry & Co-operative Dept. (Agriculture)

### Appendix 6.7: Eggs Production (Lakh No)

		Year 2009-10	Year 2010-11	Year 2011-12	Year 2012-13	Year 2013-14	Year 2014-15
1	2	9	10	11	12	13	14
1	2	3	4	5	6	7	8
1	Bokaro	152.5408	159.0438	164.3935	181.4667	183.4258	168.61
2	Chatra	82.1289	89.2996	89.8859	82.6456	94.7754	104.28
3	Deoghar	111.5093	117.6321	122.4334	117.7933	122.5791	133.8
4	Dhanbad	181.9479	193.7195	199.0177	188.152	205.6241	219.32
5	Dumka	192.872	203.8789	210.2396	211.5412	221.3134	227.99
6	Garhwa	66.9091	72.6975	73.0006	69.4596	78.5797	84.59
7	Giridih	165.539	175.8591	181.3808	177.1371	185.8552	200.4
8	Godda	115.4938	122.2366	126.0693	124.1685	131.4983	137.64
9	Gumla	186.8099	195.2027	205.8266	201.0026	199.7667	219.07
10	Hazaribagh	150.6673	163.1651	165.5152	149.1176	169.5341	190.09
11	Jamtara	120.4961	125.9532	130.6476	132.3569	139.8233	133.59
12	Khunti	119.6899	126.3001	131.32	130.1569	132.6364	142.69
13	Kodarma	34.0027	35.8659	36.9406	40.3171	39.9636	40.2
14	Latehar	73.6741	78.5636	80.7509	77.2523	82.7629	90.08
15	Lohardaga	79.0645	85.0248	86.4371	81.4923	90.6968	98.53
16	Pakur	213.6155	223.3782	229.8841	249.0191	258.6697	233
17	Palamu	98.5522	110.5495	107.4039	91.4277	119.5329	133.35
18	Pashchimi Singhbhum	491.3658	513.9585	538.3129	534.5517	542.2851	565.68
19	Purbi Singhbhum	293.0077	305.964	319.6567	324.5734	330.199	345.42
20	Ramgarh	59.9782	96.0858	98.89	92.7215	99.6929	112.01
21	Ranchi	377.6032	400.4848	412.5273	407.761	429.604	451.66
22	Sahebganj	151.78	160.118	166.1722	162.9232	169.4004	182.07
23	Saraikele-Kharsawan	227.3558	236.8936	248.957	246.7449	250.1784	267.44
24	Simdega	153.396	161.2892	168.8171	165.172	166.3926	181.66
<b>TOTAL</b>		3899.9997	4153.164	4294.48	4238.9542	4444.7898	4663.17

Source: Agriculture, Animal Husbandry & Co-operative Dept.(Agriculture)



### Appendix 6.8: Meat Production (Thousand MT)

		Year 2009-10	Year 2010-11	Year 2011-12	Year 2012-13	Year 2013-14	Year 2014-15
1	2	15	16	17	18	19	20
1	2	3	4	5	6	7	8
1	Bokaro	1.4564	1.387	1.4673	1.3936	1.3693	1.38
2	Chatra	2.01	1.8371	1.9046	1.9202	1.724	1.88
3	Deoghar	1.8473	1.732	1.8173	1.6429	1.4104	1.51
4	Dhanbad	1.7272	1.6194	1.7023	1.6614	1.4758	1.57
5	Dumka	3.1028	2.8164	2.9177	2.9483	2.575	2.59
6	Garhwa	1.5882	1.4736	1.5421	1.4657	1.4578	1.87
7	Giridih	2.6261	2.4841	2.6132	2.3817	2.1333	2.25
8	Godda	1.6823	1.5748	1.6503	1.6004	1.3796	1.51
9	Gumla	2.438	2.3049	2.4265	2.3715	2.1917	2.21
10	Hazaribagh	2.4907	2.4144	2.5731	2.6453	5.5844	5.635
11	Jamtara	1.3202	1.2274	1.2871	1.2431	1.1491	1.16
12	Khunti	1.3204	1.2287	1.2893	1.2062	1.0936	1.21
13	Kodarma	0.4991	0.4791	0.5065	0.4453	0.4061	0.43
14	Latehar	1.5449	1.4171	1.4719	1.4951	1.3157	1.36
15	Lohardaga	0.7112	0.6814	0.7218	0.7029	0.6498	0.692
16	Pakur	2.8865	2.6142	2.7058	2.7549	2.4045	2.42
17	Palamu	1.9031	1.7519	1.8247	1.7355	1.5732	1.68
18	Pashchimi Singhbhum	2.9561	2.8259	3.0037	2.8114	2.3476	2.43
19	Purbi Singhbhum	2.2314	2.1222	2.2488	2.0708	2.1763	2.28
20	Ramgarh	1.1144	1.0495	1.1033	1.0908	1.0482	1.29
21	Ranchi	3.4711	3.2862	3.4642	3.3366	5.1697	5.34
22	Sahebganj	1.9739	1.8169	1.891	1.9147	1.6744	1.69
23	Saraikela-Kharsawan	1.7446	1.6583	1.7583	1.6422	1.3993	1.42
24	Simdega	2.1151	1.9625	2.0495	2.037	1.7612	2.26
<b>TOTAL</b>		46.761	43.7647	45.9403	44.5175	45.47	47.067

Source: Agriculture, Animal Husbandry & Co-operative Dept. (Agriculture)

**Appendix 6.9: Wool Production (Thousand kg)**

		Year 2009-10	Year 2010-11	Year 2011-12	Year 2012-13	Year 2013-14	Year 2014-15
1	2	21	22	23	24	25	26
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>
1	Bokaro	4.9498	5.435	7.3403	5.783	5.6825	5.94
2	Chatra	0.0733	0.0804	0.1086	0.0856	0.0841	0.0852
3	Deoghar	6.2309	6.8416	9.2401	7.2797	7.1532	7.172
4	Dhanbad	5.918	6.4981	8.7761	6.9142	6.7942	6.91
5	Dumka	9.5079	10.4398	14.0997	11.1083	10.9152	11.42
6	Garhwa	7.3825	8.1061	10.9478	8.6252	8.4752	8.77
7	Giridih	3.4791	3.8201	5.1592	4.0647	3.994	4.31
8	Godda	1.1313	1.2422	1.6777	1.3217	1.2988	1.321
9	Gumla	1.1537	1.2668	1.7109	1.3479	1.3245	1.334
10	Hazaribagh	0.5193	0.5702	0.7701	0.6068	0.5962	0.621
11	Jamtara	7.3218	8.0395	10.8579	8.5543	8.4059	8.631
12	Khunti	9.1346	10.03	13.5461	10.6722	10.4867	10.722
13	Kodarma	0.1841	0.2021	0.273	0.2151	0.2113	0.221
14	Latehar	0.0362	0.0397	0.0536	0.0422	0.0415	0.0421
15	Lohardaga	0.5028	0.5521	0.7456	0.5874	0.5772	0.5841
16	Pakur	8.7499	9.6075	12.9759	10.2227	10.045	10.2554
17	Palamu	6.3417	6.9633	9.4044	7.4092	7.2804	7.642
18	Pashchimi Singhbhum	23.3628	25.6527	34.6457	27.2953	26.8209	27.8262
19	Purbi Singhbhum	16.446	18.0579	24.3884	19.2142	18.8802	19.321
20	Ramgarh	0.6502	0.714	0.9642	0.7597	0.7465	0.843
21	Ranchi	6.4052	70.033	9.4985	7.4833	7.3532	7.452
22	Sahebganj	1.0578	1.1615	1.5687	1.2359	1.2144	1.242
23	Saraikela- Kharsawan	13.9673	15.3363	20.8127	16.3184	16.0347	16.211
24	Simdega	1.4936	1.64	2.215	1.745	1.7147	1.889
<b>TOTAL</b>		136	212.3299	201.7802	158.8921	153.1305	160.765

Source: Agriculture, Animal Husbandry & Co-operative Dept.(Agriculture)

**Appendix 6.10: Plan for the year 2015-16 (Animal Husbandry Directorate)**

Sl no	District	Name of State Plan							
		Bakra Vikash (Widhwa Samman)		Bakra Vikash(Model Goat Breeding Unit)		Poultry Development(1000 Broiler Rearing Umit)		Pig Breeding Unit(Model Pig Unit)	
		Physical Target	Financial Target	Physical Target	Financial Target	Physical Target	Financial Target	Physical Target	Financial Target
1	Ranchi	101	2151300	0	0		0	29	4350000
2	Khunti	83	1767900	0	0		0	0	0
3	Gumla	66	1405800	0	0		0	12	1800000
4	Simdega	76	1618800	0	0		0	0	0
5	Lohardaga	52	1107600	0	0		6920000	0	0
6	Chaibasa	90	1917000	28	1400000	32	3892500	35	5250000
7	Saraikela	90	1917000	17	850000	18	4757500	33	4950000
8	Jamshedpur	90	1917000	13	650000	22	2162500	27	4050000
9	Latehar	80	1704000	0	0	10	0	16	2400000
10	Palamu	45	958500	12	600000		0	18	2700000
11	Garhwa	45	958500	9	450000		0	10	1500000
12	Hazaribagh	59	1256700	0	0		0	0	0
13	Ramgarh	49	1043700	0	0		0	0	0
14	Chatra	49	1043700	0	0		0	0	0
15	Koderma	61	1299300	0	0		0	0	0
16	Giridih	30	639000	0	0		0	0	0
17	Bokaro	50	1065000	0	0		0	0	0
18	Dhanbad	60	1278000	0	0		0	0	0
19	Godda	30	639000	17	850000	20	4325000	22	3300000
20	Deoghar	56	1192800	28	1400000	40	8650000	40	6000000
21	Dumka	54	1150200	34	1700000	50	10812500	38	5700000
22	Jamtara	67	1427100	21	1050000	28	6055000	26	3900000
23	Sahibganj	67	1427100	19	950000	28	6055000	22	3300000
24	Pakur	50	1065000	17	850000	18	3892500	22	3300000
<b>TOTAL</b>		1500	31950000	215	10750000	266	57522500	350	52500000

Source: Agriculture, Animal Husbandry & Co-operative Dept.(Agriculture)

### Appendix: 8.1 : Status of MoUs

Sl. No.	Stage of MoUs	No. of MOU
1	Implemented partly/ fully	19
2	Second Stage MoUs Recommended	08
3	Likely to be setup	03
4	First Stage MoUs	11
	Total -	41

Source: Department of Industries, Government of Jharkhand

#### Appendix: 8.1.1: Implemented partly/fully

Sl. No.	Name of Company & Location	Capacity	Project cost (Rs. in Crores)	Investment (Rs. in Crores)	Remarks
1	2	3	4	5	6
1	M/s Tata Steel Ltd, (Expansion) Jamshedpur.	Integrated Steel Plant – 5 to 10 Mt./yr (in two phases)	20000.00	20000.00	Production
2	M/s Adhunik Alloy & Power Ltd. Kandara Jamshedpur	Integrated Steel Plant- 2.6 Mt/yr (Two phase)	5517.00	1000.00	Production
3	M/s AML Steel & Power Ltd. Sinni, Saraikela	Integrated Steel Plant- 2 Mt/yr (Two phases)	1944.00	325.00	Production
4	M/s Narsing Ispat Limited Khunti, Chowka.	Steel- 0.25 Mt/yr	610.00	48.57	Production
5	M/s BMW Industries Ltd. Bokaro/Jamshedpur.	Steel. 0.5Mt/yr.	591.00	100.00	Production
6	M/s Rungta Mines Ltd Chaliyama. Chaibasa.	Sponge Iron Plant-0.5 Mt/yr	517.00	113.78	Production
7	M/s Nilanchal Iron & Power Ltd. Chandil.	Steel- 0.2 Mt/yr	514.00	102.00	Production
8	M/s Kohinoor Steel Pvt. Ltd. Buladih near Chandil.	Steel Plant- 1.2 Lt/yr (two phase)	410.00	414.00	Production
9	M/s Jharkhand Ispat Pvt. Ltd. Ramgarh.	Steel- 0.2 Mt/yr (two phases)	400.00	80.00	Production
10	M/s Anandita Trades & Investment Ltd. Senegnartha, hazaribagh.	Spong Iron- 3.34 Lt/yr	300.00	40.00	Production
11	M/s Vallabh Steel Ltd. Gamharia.	Steel- 2 Lt/yr (three phases)	288.00	200.00	Production
12	M/s Balajee Industrial Products Ltd. Barajamda, Chaibasa.	Sponge Iron- 1.20 Lt/yr	211.70	65.00	Production
13	M/s Maa Chhinnmastika Cement and Ispat (P) Ltd, Ramgarh.	Sponge Iron- 0.09 Mt/yr Steel -0.128Mt/yr	353.53	55.09	Production
14	M/s Maa Chhinnmastika Sponge Iron Ltd. Binjhar Marar, Ramgarh	Steel -1.0Mt/yr Power-60MW	1840.00	89.00	Production
15	M/s Ramgarh Sponge Iron Pvt Ltd Location Hosir, Hazaribagh.	Steel -0.25Mt/yr Power-110MW	785.00	72.00	Production
16	M/s Jindal Steel & Power Ltd. Patratu, Ramgarh.	Steel Plant 6Mt/year	18560.00	2100.00	Production
17	M/s Swati Udyog Pvt.Ltd. Jurri East Singhbhum.	Cement Plant 1000 TPD	94.50	127.04	Production

Sl. No.	Name of Company & Location	Capacity	Project cost (Rs. in Crores)	Investment (Rs. in Crores)	Remarks
18	M/s Electrosteel Steels Ltd. Bokaro	Steel Plant- 2.5MTPA CPP 2x60MW	9500.00	9000.00	<b>Production</b>
19	M/s Burnpur Cement Ltd. Date of MOU-23.03.2006 Project Site/Location- Patratu Ind. Area Patratu.	800-1600 TPD Clinkering Plant, 800-3800 TPD Cement Grinding Unit.	197.42	161.25	<b>Production</b>

Source: Department of Industries, Government of Jharkhand

### Appendix: 8.1.2: Recommended Second Stage MoU

Sl. no.	Name of Company & Location	Capacity	Project cost (Rs. in Crores)	Investment (Rs. in Crores)	Remarks
1	2	3	4	5	6
1	M/s Tata Steel Ltd (Green field) Date of MOU-08.09.2005 Project Site/ Location-Manoharpur, Saraikela	12.0 MTPA Integrated Steel Plant. In II Phases	41000.00	47.00	(Recommended Second Stage MoU)
2	M/s SKJ Iron Industries Pvt. Ltd. Date of MOU-07.08.2009 Project Site/Location-Ramgarh	1800000 TON per year of Iron Pellet & 0.25 MT Integrated Steel Plant with 45 MW CPP.	500 for pellet plant & 750 for steel palnt.	9.00	Second Stage MoU has been signed.
3	M/s Essel Mining Industries Ltd. Date of MOU-05.05.2006 Project Site/Location-Chakulia, East Singhbhum.	1.03 MTPA Integrated Steel Plant 60MW CPP	1886.00	30.00	(Recommended Second Stage MoU)
4	M/s JSW Steel Ltd Date of MOU-09.11.2005 Project Site/Location- Sonahatu, Ranchi.	10 MTPA Integrated Steel Plant. 800MW CPP	35000.00	398.92	(Recommended Second Stage MoU)
5	M/s Mukand Ltd. Date of MOU-07.09.2006 Project Site/ Location- Barlanga, Ramgarh.	0.5 MTPA Integrated Steel Plant..	1280	23.45	Second Stage MoU has been signed.
6	M/s Arcelor Mittal India Ltd. Date of MOU-08.10.2005 Extended upto- 07.10.2010 Project Site/Location- Chas, Bokaro.	12 MTPA Integrated Steel Plant. 1 <sup>st</sup> -06 MTPA 2 <sup>nd</sup> -06 MTPA 1500MW CPP	40000.00	12.00	(Recommended Second Stage MoU)
7	M/s Jupiter Cement Industries. Date of MOU-23.03.2006 Extended upto- 31.03.2014 Project Site/ Location- Hansda, Saraikela-Kharswan	Cement Plant- 600 TPD Capacity enhanced to 1800 TPD & 20 MW CPP	508.17	15.00	Second Stage MoU has been signed.
8	M/s Ram Krishna Forgings Ltd. Date of MOU-24.08.2012(Validity for 1 year) Extended upto- Project Site/Location- Baliguma, Kolabira, Dist: Gamharia, Saraikela	Capacity: 56900MTPA Press Project for Front Axle Beam and others	554.00 Revised 700.00	431.00	Second Stage MoU has been signed.

Source: Department of Industries, Government of Jharkhand

### Appendix: 8.1.3 : Likely to be Setup

Sl. no.	Name of Company & Location	Capacity	Project cost (Rs. in Crores)	Investment (Rs. in Crores)	Remarks
1	2	3	4	5	6
1	<b>M/s Abhijeet Infrastructure Pvt.Ltd.</b> Date of MOU-26.02.2004 Project Site/Location-Begnadih, Kolebira, Saraikela-Kharsawa.	0.70 MTPA Integrated Steel Plant 60MW Plant CPP.	300.00	225.00	<b>Likely to be setup.</b>
22	<b>M/s Corporate Ispat Alloys Ltd.</b> Date of MOU-14.08.2008 Project Site/ Location- Tototalwari / Begnadih / Saraikela-Kharsawa.	2.5 MTPA integrated Steel Plant	9120.00	951.00	<b>Likely to be setup.</b>
3	<b>M/s Bhushan Power &amp; Steel Ltd.</b> Date of MOU-07.09.2006 Project Site/ Location-Potka, East Singhbhum	3.0MTPA integrated Steel Plant. 900 MW Captive Power plant.	<b>Phase-I</b> 7000.00 <b>Phase-II</b> 80.00		Likely to be setup.

Source: Department of Industries, Government of Jharkhand

### Appendix: 8.1.4: First Stage MOU

Sl. No.	Name of Company & Location	Capacity	Project cost (Rs. in Crores)	Investment (Rs. in Crores)	Remarks
1	2	3	4	5	6
1	M/s Ultra Tech Cement Ltd. Date of MOU-02.06.2015 Project Site-	5000 TPD Green field Integrated Cement Plant & 40MW CPP	1700.00	-	
2	M/s Adani Enterprises Ltd . Date of MOU-25.06.2015 Project Site-	Phase-I, Urea -1.3 MMTPA Methanol-3.3MMTPA SNG-8MMSCMD Power-4000MW Phase-II Urea-1.3 MMTPA	50000.00	-	-
3	<b>NMDC Ltd.</b> Date of MOU-28.06.2015 Project Site-	(3+3 or, 4+2 = 6 MTPA) Green field Integrated Project			
4	<b>M/s Kansal &amp; Kansal Agro farms co.</b> Date of MOU-24.04.2015 Project Site-	Production of herbal orgenic value added.	70 crore		
5	<b>M/s M.R. Food Processing Industries</b> Date of MOU-24.04.2015 Project Site-	Milk Power Plant	55.00	-	
6	<b>M/s L.L. Logistic Pvt. Ltd.</b> Date of MOU-24.04.2015 Project Site-	Agro Product storage & preservation	200.00	-	-
7	<b>M/s Triveni Mega Food Park (P) Ltd.</b> Date of MOU-24.04.2015 Project Site-	Mega food park	180-200		
8	<b>M/s Bridge Point Skills &amp; Network (P) Ltd.</b> Date of MOU-24.04.2015 Project Site-	Establishment of Centre of excellence & Training Resource Centre in Food Processing in HUB & Spoke model	55.00		
9	<b>M/s Crystal Logistic Cool Chain Ltd.</b> Date of MOU-24.04.2015 Project Site-	Agro Food Processing	100.00		
10	<b>M/s Kwality Ltd.</b> Date of MOU-24.04.2015 Project Site- Ranchi	Milk & Milk Products	100.00	-	
11	<b>M/s Pacific Alcobev Pvt Ltd.</b> Date of MOU-04.11.2015 Project Site-Madhukama, Ormanjhi (Ranchi)	Brewery Unit	51.11		

Source: Department of Industries, Government of Jharkhand

### Appendix 10.1: District wise Main Workers, 2011

District	Rural			Urban			Total		
	Male	Female	Persons	Male	Female	Persons	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 Singhbhum	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
Saraikele-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
Deoghar	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 Singhbhum	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

District	Rural			Urban			Total		
	Male	Female	Persons	Male	Female	Persons	Male	Female	Persons
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 Singhbhum	337,542	288,911	626,453	55,148	13,262	68,410	392,690	302,173	694,863
Saraikela-Kharsawan	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
Saraikele-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	100.0
Chatra	31.2	49.4	3.5	15.9	100.0
Kodarma	37.3	28.4	2.9	31.5	100.0
Giridih	37.6	36.8	3.1	22.6	100.0
Deoghar	26.5	43.2	7.5	22.9	100.0
Godda	26.8	57.2	3.4	12.6	100.0
Sahibganj	24.4	45.6	9.0	21.1	100.0
Pakur	27.6	39.1	4.5	28.8	100.0
Dhanbad	21.9	22.8	3.3	52.0	100.0
Bokaro	31.0	28.5	3.3	37.2	100.0
Lohardaga	48.4	39.1	1.9	10.6	100.0
Purbi Singhbhumi	24.6	45.5	3.0	26.9	100.0
Palamu	20.3	57.3	2.7	19.8	100.0
Latehar	34.6	47.2	2.9	15.3	100.0
Hazaribagh	41.5	29.4	2.5	26.7	100.0
Ramgarh	43.4	21.6	2.8	32.1	100.0
Dumka	32.2	50.3	3.6	13.8	100.0
Jamtara	34.7	44.3	3.6	17.5	100.0
Ranchi	41.1	33.5	3.2	22.2	100.0
Khunti	66.8	19.8	3.5	9.9	100.0
Gumla	68.1	20.6	2.4	8.8	100.0
Simdega	56.7	32.0	2.8	8.5	100.0
Pashchim Singhbhumi	38.8	42.1	3.6	15.5	100.0
Saraikele-Kharsawan	33.0	40.2	2.4	24.4	100.0
Jharkhand	34.8	40.3	3.5	21.4	100.0

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 11.1: 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
Deoghar	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
Purbi Singhbhum	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
Pashchimi Singhbhum	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: Dropout Rate - Primary Cycle (Mgt.=All/Total)

District	2010-11			2011-12			2012-13		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
Bokaro	38.37	37.39	37.88	30.91	32.17	31.54	27.75	30.69	29.21
Chatra	41.55	43.48	42.51	34.93	35.46	35.19	34.69	35.66	35.17
Deoghar	45.82	49.00	47.44	44.60	47.05	45.83	36.88	39.56	38.22
Dhanbad	29.49	26.49	27.98	24.45	20.47	22.45	9.58	5.45	7.52
Dumka	45.90	45.88	45.89	45.10	43.22	44.18	36.12	35.41	35.77
Garhwa	33.77	36.42	35.11	44.10	44.17	44.14	40.68	41.09	40.88
Giridih	45.16	48.50	46.89	53.94	54.96	54.46	51.13	51.47	51.30
Godda	37.93	40.74	39.32	33.17	33.43	33.29	26.59	29.41	27.99
Gumla	56.76	57.19	56.97	53.46	53.01	53.24	54.77	54.27	54.52
Hazaribagh	44.46	44.26	44.36	58.03	56.34	57.17	42.03	39.86	40.93
Jamtara	42.36	44.92	43.62	41.82	43.27	42.53	41.48	41.42	41.45
Khunti	52.39	52.49	52.44	-	-	-	51.49	51.75	51.61
Kodarma	43.45	44.06	43.76	45.78	44.19	44.99	39.87	39.92	39.89
Latehar	40.88	42.92	41.95	46.50	48.31	47.40	41.30	42.65	41.97
Lohardaga	44.89	43.62	44.25	46.24	43.85	45.05	39.73	39.54	39.64
Pakur	51.70	48.06	49.97	52.43	49.80	51.16	50.00	45.79	47.99
Palamu	36.67	38.21	37.44	28.33	29.83	29.08	34.51	34.50	34.51
Pashchimi Singhbhum	50.93	54.53	52.72	48.55	51.41	49.96	45.23	47.35	46.27
Purbi Singhbhum	25.09	26.91	25.99	18.26	21.35	19.78	17.09	18.10	17.58
Ramgarh	8.45	14.73	11.56	-	-	-	0.00	1.91	0.00
Ranchi	21.06	24.32	22.71	47.56	48.01	47.78	21.69	20.82	21.25
Sahibganj	52.13	51.78	51.96	41.71	41.28	41.50	36.00	36.33	36.16
Saraikela-kharsawan	32.07	32.86	32.47	27.69	39.64	33.66	35.78	35.39	35.60
Simdega	52.68	52.90	52.80	53.93	54.71	54.32	55.89	54.62	55.27
Jharkhand	40.93	42.17	41.55	40.64	41.24	40.94	36.75	36.90	36.82

Source: DISE, 2012-13

### Appendix 11.3: Dropout Rate - Upper Primary Cycle (Mgt.=All/Total)

District	2010-11			2011-12			2012-13		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
Bokaro	8.41	5.66	7.06	-7.36	-6.68	-7.02	-2.99	-5.00	-4.00
Chatra	14.32	9.21	11.89	19.72	17.97	18.86	10.27	7.48	8.89
Deoghar	15.87	13.79	14.99	11.34	12.76	11.98	9.29	7.66	8.54
Dhanbad	-7.72	-10.06	-8.89	-5.90	-14.30	-10.12	5.00	3.18	4.07
Dumka	23.16	18.68	21.07	18.74	12.43	15.73	10.41	11.33	10.86
Garhwa	15.28	11.05	13.41	14.96	10.33	12.71	12.98	4.87	9.00
Giridih	18.56	15.30	17.08	13.54	14.47	13.99	-5.06	4.77	-0.18
Godda	20.07	15.33	17.96	13.76	10.67	12.35	4.45	4.09	4.28
Gumla	23.61	19.79	21.70	19.33	19.12	19.22	12.48	11.72	12.09
Hazaribag	10.13	6.89	8.46	5.69	8.29	7.04	10.50	4.61	7.46
Jamtara	29.00	28.83	28.92	6.92	9.98	8.32	4.67	2.26	3.54
Khunti	15.62	8.80	12.34	14.76	12.40	13.62	11.83	9.27	10.58
Kodarma	14.91	10.39	12.74	6.26	8.88	7.56	10.72	10.69	10.70
Latehar	25.09	14.00	20.42	20.69	13.32	17.15	10.72	7.19	9.02
Lohardaga	13.70	6.29	9.92	26.43	9.11	17.46	16.44	12.82	14.58
Pakaur	24.25	15.84	20.21	15.40	10.13	12.77	17.54	15.46	16.50
Palamu	10.24	9.22	9.77	8.33	0.65	4.75	5.73	2.61	4.21
Pashchimi Dighbhum	25.73	21.32	23.69	12.59	10.03	11.37	9.25	6.04	7.73
Purbi Singhbhum	-0.84	0.35	-0.26	-0.40	3.29	1.44	3.11	4.12	3.60
Ramgarh	-43.07	-22.50	-33.79	26.98	22.85	24.96	-1.88	1.65	-0.19
Ranchi	-28.89	-25.52	-27.14	12.61	10.45	11.51	10.39	4.76	7.55
Sahibganj	-1.13	0.41	-0.39	4.53	8.76	6.64	8.19	5.77	6.99
Saraikela-kharsawan	10.14	5.93	8.14	-1.71	7.79	2.92	12.05	7.62	9.89
Simdega	13.72	9.48	11.60	15.99	9.21	12.57	13.68	10.80	12.21
Jharkhand	<b>8.95</b>	<b>5.68</b>	<b>7.36</b>	<b>9.94</b>	<b>7.77</b>	<b>8.88</b>	<b>6.99</b>	<b>5.24</b>	<b>6.13</b>

Source: DISE, 2012-13

### Appendix 11.4: Dropout Rate: Elementary Cycle (Mgt.-All/Total)

District	2010-11			2011-12			2012-13		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
Bokaro	30.62	26.52	28.62	2.84	-1.42	0.72	-26.16	-38.66	-32.23
Chatra	49.83	45.50	47.80	46.24	41.78	44.12	61.24	59.06	60.18
Deoghar	35.95	47.83	41.79	38.53	46.19	42.27	55.65	60.12	57.85
Dhanbad	20.48	18.05	19.28	19.76	12.77	16.26	40.12	37.09	38.60
Dumka	51.93	51.39	51.67	54.05	50.60	52.40	60.75	60.50	60.63
Garhwa	23.94	17.48	21.11	49.99	44.83	47.54	51.64	45.13	48.50
Giridih	59.58	58.45	59.06	60.29	59.70	60.01	56.72	58.38	57.52
Godda	48.13	47.12	47.66	51.91	53.34	52.58	49.98	50.87	50.40
Gumla	53.43	46.63	50.25	57.27	54.16	55.76	65.93	63.24	64.61
Hazaribag	48.98	44.75	46.87	60.22	57.96	59.09	30.11	28.98	61.64
Jamtara	50.83	51.73	51.23	26.98	31.85	29.26	50.76	53.18	51.94
Khunti									
Kodarma	31.78	30.21	31.01	50.17	50.01	50.09	54.43	52.94	53.71
Latehar	35.92	29.51	33.09	53.79	45.34	49.93	66.23	64.78	65.53
Lohardaga	42.41	33.58	38.08	56.15	41.42	48.91	59.18	56.68	57.92
Pakaur	63.45	59.16	61.45	62.52	56.94	59.97	70.01	66.45	68.34
Palamu	36.41	32.55	34.70	32.50	27.49	30.19	43.25	40.18	41.78
Pashchimi Singhbhum	55.95	55.33	55.66	51.23	49.16	50.25	59.94	59.79	59.87
Purbi Singhbhum	1.56	6.23	3.90	12.03	10.96	11.51	28.41	31.31	29.83
Ramgarh									
Ranchi	15.99	10.83	13.43	39.53	33.12	36.38	19.76	16.56	45.44
Sahibganj	49.03	44.44	46.99	46.10	42.36	44.34	69.90	67.72	68.85
Saraikela-Kharsawan	33.09	31.57	32.35	28.06	28.45	28.24	44.88	42.88	43.90
Simdega	51.16	45.76	48.63	44.36	39.89	42.17	63.44	58.00	60.82
Jharkhand	40.39	37.62	39.08	41.91	38.30	40.17	50.77	48.94	49.88

Source: DISE, 2012-13

**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	69,670
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
Deoigarh	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	205,874
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

### Appendix12.4: 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

### Appendix12.5: 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: Selected Demographic Characteristics, District Wise, 2011

District	Sex Ratio	Sex Ratio (0-6)	Population Density	Decadal Growth Rate, 2001-11(%)	Literacy (%)	Female Lit.(%)
Bokaro	922	923	715	16	72	61
Chatra	953	967	280	32	60	50
Deoghar	925	950	602	28	65	52
Dhanbad	909	916	1316	12	75	64
Dumka	977	966	351	-25	61	49
Garhwa	935	960	323	28	60	48
Giridih	944	942	493	28	63	49
Godda	938	960	580	25	56	44
Gumla	993	963	191	-24	66	56
Hazaribagh	947	933	488	-24	70	59
Jamtara	954	954	437	na	65	52
Khunti	997	964	210	na	64	54
Kodarma	950	949	282	43	67	53
Latehar	967	968	169	na	60	49
Lohardaga	985	970	307	27	68	58
Pakur	989	975	497	28	49	41
Palamu	928	945	442	-8	64	52
Pashchimi Singhbhum	1005	983	208	-28	59	46
Purbi Singhbhum	949	923	644	16	75	67
Ramgarh	921	927	708	na	73	63
Ranchi	949	938	572	5	76	67
Sahibganj	952	960	558	24	52	43
Saraikela-Kharsawan	956	943	401	na	68	56
Simdega	997	969	159	na	68	60
Jharkhand	948	948	414	22	66	55

Source: Annual Health Survey 2011-12

### Appendix 12.8: Average Household Size, District Wise

State / District	Average Household Size								
	SC			ST			All		
	Total	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban
Bokaro	5.0	5.0	5.1	4.8	4.9	4.8	5.1	5.0	5.1
Chatra	5.4	5.4	5.4	5.8	5.8	5.5	5.6	5.6	5.8
Deoghar	5.0	5.0	5.0	5.1	5.1	5.2	5.3	5.3	5.0
Dhanbad	5.2	5.0	5.3	5.2	5.2	5.0	5.2	5.2	5.3
Dumka	4.5	4.5	4.5	4.7	4.7	4.7	4.9	4.9	4.7
Garhwa	5.1	5.1	5.0	5.1	5.1	5.4	5.2	5.2	5.2
Giridih	5.4	5.4	5.4	5.6	5.6	5.3	5.9	5.9	5.7
Godda	5.1	5.1	5.3	4.5	4.5	4.3	5.1	5.1	5.1
Gumla	4.8	4.8	4.8	5.0	5.0	4.6	5.0	5.0	4.9
Hazaribagh	5.2	5.3	5.1	5.2	5.2	4.9	5.4	5.5	5.3
Kodarma	5.5	5.5	5.3	5.1	5.4	4.7	5.9	6.0	5.7
Lohardaga	4.9	4.9	4.8	5.3	5.3	4.7	5.2	5.2	5.1
Pakaur	5.0	5.0	5.1	4.7	4.7	4.1	4.9	4.9	4.5
Palamu	5.2	5.2	5.2	5.5	5.5	5.2	5.3	5.3	5.6
Pashchimi Singhbhum	4.6	4.6	5.0	4.9	4.9	4.5	4.8	4.8	4.8
Purbi Singhbhum	4.6	4.4	4.8	4.6	4.7	4.4	4.7	4.6	4.7
Ranchi	4.8	4.7	4.8	5.0	5.1	4.7	5.1	5.1	5.0
Sahibganj	4.9	4.9	5.0	4.6	4.6	5.0	5.0	5.0	5.1
Jharkhand	5.1	5.1	5.1	4.9	5.0	4.6	5.2	5.2	5.1

Source: Annual Health Survey 2012-13

### Appendix 12.9: Population (15+), Dependency Ratio and Current Married Illiterate, District Wise

State / District	Population below age 15 years (%)			Dependency Ratio			Currently Married Illiterate Women aged 15-49 years (%)		
	Total	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban
Bokaro	30.4	33.3	27.7	60.0	68.2	53.3	38.5	53.8	24.0
Chatra	37.6	38.1	33.3	79.4	81.2	63.8	52.3	55.1	21.6
Deoghar	35.8	37.2	28.7	73.5	77.4	56.9	51.3	57.1	20.5
Dhanbad	31.2	33.5	29.6	58.8	66.1	54.4	37.9	49.9	29.6
Dumka	33.9	34.4	27.8	71.2	72.6	55.2	56.4	58.7	28.3
Garhwa	37.0	37.4	31.8	81.0	82.5	63.2	61.4	64.3	26.7
Giridih	37.9	38.4	30.4	80.9	82.8	56.5	55.8	58.0	17.7
Godda	37.1	37.5	28.7	81.8	83.1	59.4	60.6	62.9	17.5
Gumla	35.0	35.3	30.8	76.7	78.2	57.8	49.6	51.8	18.9
Hazaribagh	33.3	34.6	28.6	66.4	71.0	52.0	40.1	45.4	19.3
Kodarma	36.5	37.5	32.2	77.9	81.3	64.0	44.6	48.3	25.8
Lohardaga	36.1	36.9	29.8	77.2	80.4	57.9	47.5	52.5	14.0
Pakaur	37.6	38.3	24.9	76.6	78.6	48.4	64.1	67.6	10.0
Palamu	37.0	37.4	31.8	80.6	81.7	64.9	56.6	58.6	25.3
Pashchimi Singhbhum	33.6	35.1	26.6	69.8	73.8	52.7	54.3	62.0	21.3
Purbi Singhbhum	27.4	29.8	25.6	55.5	62.5	50.8	32.8	52.0	19.1
Ranchi	31.7	34.1	28.0	63.2	69.6	54.0	31.0	44.2	11.3
Sahibganj	36.8	37.5	31.6	76.3	78.1	63.9	61.5	65.3	31.1
Jharkhand	33.8	35.7	28.4	69.3	75.4	54.1	46.7	55.4	21.9

Source: Annual Health Survey 2012-13

### Appendix 12.10: Children Currently Attending School (Age 6-17 years), District Wise

State / District	Children currently attending school (Age 6-17 years) (%)								
	Person			Male			Female		
	Total	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban
Bokaro	94.2	92.4	96.0	94.0	92.0	95.9	94.5	92.8	96.2
Chatra	92.0	91.7	95.1	92.5	92.4	93.3	91.5	90.9	96.8
Deoghar	91.1	90.3	95.1	91.7	90.8	96.4	90.3	89.8	93.7
Dhanbad	91.7	91.5	91.8	91.4	91.7	91.2	92.1	91.3	92.6
Dumka	87.5	87.1	93.6	87.4	86.9	93.6	87.7	87.2	93.7
Garhwa	96.1	96.2	-	96.5	96.7	-	95.7	95.8	-
Giridih	92.7	92.7	93.3	92.9	93.0	91.5	92.5	92.3	95.1
Godda	90.5	90.3	-	90.8	90.7	-	90.1	89.9	-
Gumla	90.2	90.0	93.3	89.8	89.6	92.0	90.7	90.4	94.6
Hazaribagh	96.4	96.2	97.1	96.0	95.9	96.0	96.8	96.5	98.2
Kodarma	96.4	96.2	97.3	96.3	96.2	96.7	96.5	96.3	97.8
Lohardaga	91.9	91.7	93.7	91.0	90.8	92.7	92.8	92.6	94.8
Pakaur	80.5	79.9	-	78.8	78.1	-	82.3	81.9	-
Palamu	93.6	93.3	97.6	94.0	93.8	96.2	93.1	92.8	99.0
Pashchimi Singhbhum	84.0	82.5	93.0	85.2	83.9	92.2	82.8	80.9	93.9
Purbi Singhbhum	92.5	90.5	94.0	91.9	90.0	93.4	93.1	91.0	94.7
Ranchi	92.5	91.4	94.5	91.5	90.5	93.4	93.6	92.4	95.7
Sahibganj	89.4	88.7	94.5	89.2	88.6	93.9	89.6	88.9	95.2
Jharkhand	91.7	90.9	94.1	91.6	91.0	93.5	91.8	90.9	94.9

Source: Annual Health Survey 2012-13

### Appendix 12.11: Children attended before / Drop out (Age 6-17 years), District Wise

State / District	Children attended before / Drop out (Age 6-17 years) (%)								
	Person			Male			Female		
	Total	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban
Bokaro	4.7	6.1	3.4	5.2	6.9	3.6	4.2	5.2	3.2
Chatra	5.2	5.3	3.6	4.9	4.8	5.7	5.5	5.9	1.6
Deoghar	7.3	8.0	3.3	7.0	7.8	2.9	7.6	8.3	3.8
Dhanbad	6.8	7.1	6.5	7.2	7.3	7.1	6.3	6.9	5.9
Dumka	10.3	10.7	5.9	10.9	11.3	5.7	9.7	9.9	6.1
Garhwa	2.6	2.4	-	2.6	2.3	-	2.6	2.6	-
Giridih	5.8	5.8	6.2	5.8	5.7	8.4	5.7	5.8	4.1
Godda	6.7	6.9	-	6.9	7.0	-	6.5	6.7	-
Gumla	7.9	8.1	5.2	8.6	8.7	6.4	7.2	7.4	3.9
Hazaribagh	3.1	3.3	2.5	3.6	3.6	3.6	2.6	3.0	1.4
Kodarma	2.9	3.0	2.4	3.1	3.1	3.1	2.6	2.9	1.6
Lohardaga	7.1	7.3	5.7	8.1	8.3	6.3	6.1	6.2	5.0
Pakaur	11.6	11.9	-	13.5	13.8	-	9.6	9.7	-
Palamu	3.9	4.1	1.4	4.0	4.1	2.3	3.8	4.0	0.4
Pashchimi Singhbhum	10.4	11.2	5.9	10.3	10.9	7.0	10.5	11.4	4.7
Purbi Singhbhum	6.3	7.9	5.2	7.0	8.7	5.7	5.6	7.0	4.5
Ranchi	6.6	7.5	4.9	7.6	8.4	6.0	5.5	6.5	3.8
Sahibganj	6.6	6.9	4.4	7.1	7.4	5.1	6.0	6.3	3.6
Jharkhand	6.3	6.7	4.9	6.7	7.0	5.6	5.8	6.3	4.1

Source: Annual Health Survey 2012-13

**Appendix12.12: Crude Birth Rate (CBR), Natural Growth Rate and Total Fertility Rate, District Wise**

State / District	Crude Birth Rate (CBR)			Natural Growth Rate			Total Fertility Rate		
	Total	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban
Bokaro	22.9	26.5	19.6	17.5	20.2	15.0	2.6	-	-
Chatra	23.6	23.6	23.4	19.1	19.0	19.4	3.0	-	-
Deoghar	21.7	22.4	18.6	17.4	17.9	14.8	2.5	-	-
Dhanbad	23.6	28.0	20.8	18.4	21.7	16.3	2.7	-	-
Dumka	25.4	26.0	18.7	18.7	19.2	12.7	3.0	-	-
Garhwa	23.3	23.6	19.5	18.7	19.0	15.3	3.0	-	-
Giridih	21.6	21.8	18.5	17.5	17.7	14.3	2.5	-	-
Godda	23.2	23.4	19.1	16.5	16.7	14.4	3.0	-	-
Gumla	25.2	25.6	19.0	16.3	16.5	12.3	3.5	-	-
Hazaribagh	19.9	20.7	16.8	15.4	16.3	12.6	2.3	-	-
Kodarma	22.6	23.1	20.6	18.2	18.6	16.1	2.7	-	-
Lohardaga	27.0	27.9	20.4	18.8	19.6	13.5	3.7	-	-
Pakaur	29.2	29.8	18.2	22.5	23.1	13.4	3.7	-	-
Palamu	21.9	22.0	19.9	16.8	17.0	14.7	2.9	-	-
Pashchimi Singhbhum	25.4	26.5	19.9	17.3	17.8	15.0	3.1	-	-
Purbi Singhbhum	20.1	23.4	17.8	14.7	17.1	13.0	2.2	-	-
Ranchi	22.7	24.8	19.5	16.5	18.4	13.6	2.7	-	-
Sahibganj	23.5	24.3	17.8	17.1	17.6	12.8	3.0	-	-
Jharkhand	23.0	24.3	19.4	17.3	18.2	14.5	2.7	2.9	2.2

Source: Annual Health Survey 2012-13

**Appendix12.13: Median Age at First live Birth (15-49 years), 25-49 years, after the interval of 36 months, District Wise**

State / District	Median age at first live birth of Women aged 15- 49 years			Median age at first live birth of Women aged 25-49 years			Live Births taking place after an interval of 36 months (%)		
	Total	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban
Bokaro	21.5	20.8	22.2	20.8	20.4	21.5	45.8	45.1	46.9
Chatra	21.5	21.3	22.9	20.7	20.6	21.7	57.7	58.6	50.8
Deoghar	20.9	20.5	23.4	20.4	19.9	22.5	51.6	51.7	50.5
Dhanbad	20.9	20.4	21.4	20.2	19.8	20.6	45.5	45.7	45.1
Dumka	20.8	20.7	21.4	20.4	20.3	20.8	53.0	53.2	50.1
Garhwa	21.4	21.3	-	20.8	20.8	-	52.8	52.7	-
Giridih	21.0	20.9	22.8	20.5	20.4	21.8	56.9	56.8	58.4
Godda	21.6	21.5	-	20.9	20.9	-	53.7	53.6	-
Gumla	22.9	22.9	23.9	22.4	22.4	23.0	51.2	51.1	52.1
Hazaribagh	21.3	21.0	22.7	20.6	20.4	21.6	47.1	47.5	45.6
Kodarma	21.1	20.8	22.4	20.5	20.3	21.8	52.1	53.1	45.9
Lohardaga	21.9	21.7	23.7	21.3	21.1	23.0	52.8	52.8	53.7
Pakaur	21.9	21.8	-	21.5	21.4	-	49.1	48.6	-
Palamu	21.7	21.6	23.3	20.8	20.7	22.3	56.8	57.2	49.3
Pashchimi Singhbhum	23.1	23.0	23.4	22.8	22.8	22.9	50.8	50.9	50.4
Purbi Singhbhum	22.4	21.6	23.0	21.8	21.1	22.4	52.1	54.0	50.2
Ranchi	22.6	22.2	23.4	21.9	21.5	22.6	52.1	51.9	52.4
Sahibganj	22.1	22.0	22.7	21.5	21.4	22.0	54.5	54.8	50.9
Jharkhand	21.7	21.5	22.5	21.0	20.9	21.7	51.1	51.9	48.6

Source: Annual Health Survey 2012-13

**Appendix 12.14: Institutional Delivery (%), Delivery at Government Institution (%) and Delivery at Private Institutions (%), District Wise**

State / District	Institutional Delivery (%)			Delivery at Government Institution (%)			Delivery at Private Institution (%)		
	Total	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban
Bokaro	54.8	40.0	72.1	16.3	11.9	21.5	36.6	25.3	50.0
Chatra	35.6	33.5	55.5	14.9	13.4	29.2	20.4	19.8	26.3
Deoghar	39.0	35.1	69.3	23.5	23.0	27.0	15.5	12.1	42.0
Dhanbad	52.0	37.0	65.3	13.0	9.2	16.2	36.3	27.2	44.3
Dumka	28.8	26.3	72.0	19.2	18.2	37.9	9.1	7.8	34.1
Garhwa	39.2	36.0	-	28.5	27.0	-	10.5	8.7	-
Giridih	35.1	33.5	67.2	15.5	15.1	22.4	19.5	18.3	44.3
Godda	31.2	30.3	-	18.6	18.2	-	12.5	11.8	-
Gumla	45.7	43.7	80.5	37.4	36.6	51.4	6.8	5.7	26.8
Hazaribagh	54.2	49.5	76.6	29.0	28.1	33.3	24.6	21.2	41.4
Kodarma	54.9	51.4	74.1	25.8	26.7	20.5	27.2	23.0	50.6
Lohardaga	54.7	50.9	87.9	37.0	37.8	29.4	12.3	9.0	41.7
Pakaur	27.7	26.1	-	21.7	20.8	-	5.8	5.1	-
Palamu	39.3	37.6	68.6	24.4	23.5	39.4	14.3	13.4	28.8
Pashchimi Singhbhum	38.5	32.2	78.6	24.4	24.1	26.2	13.5	7.8	50.7
Purbi Singhbhum	70.0	56.1	83.1	32.2	38.9	25.9	35.5	16.1	53.9
Sahibganj	29.5	25.0	78.2	21.1	17.5	60.0	8.1	7.1	18.2
Ranchi	64.2	53.3	85.8	32.2	33.8	29.0	30.6	18.2	55.3
Jharkhand	46.2	38.3	74.9	23.6	23.2	25.1	21.4	14.3	47.2

Source: Annual Health Survey 2012-13

**Appendix 12.15: Delivery at Home (%), Conducted by Skilled Health Personnel (%) and Self Delivery (%), District Wise**

State / District	Delivery at Home (%)			Delivery at home conducted by skilled health personnel (%)			Safe Delivery (%)		
	Total	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban
Bokaro	44.1	59.3	26.2	25.6	23.5	30.9	63.1	50.6	77.7
Chatra	64.1	66.2	44.5	19.3	18.4	32.4	43.4	41.4	62.3
Deoghar	60.7	64.6	30.3	30	29.4	41	51.4	48.5	73.4
Dhanbad	47.4	62.6	34	33.4	31.4	36.8	64.4	53.2	74.4
Dumka	71	73.4	28	26	26	23.5	43.6	41.6	78.6
Garhwa	60.4	63.7	-	30.7	29.8	-	50.6	47.4	-
Giridih	64.4	66	32.3	27	26.8	37.1	46.8	45.6	70.3
Godda	68.5	69.5	-	25.8	25.7	-	44.8	44	-
Gumla	54.1	56	19.5	21.4	21.3	28.6	51.5	49.7	82.8
Hazaribagh	45.5	50.2	23.2	33.9	33.5	37.1	65.5	62.2	81.5
Kodarma	44.7	48.1	25.9	43.9	44.9	33.3	69.8	68	80.4
Lohardaga	44.9	48.6	11.7	22.3	22.4	16.9	59.8	56.5	88.9
Pakaur	72.2	73.8	-	22.6	22.5	-	38.5	37.1	-
Palamu	60.3	62	31.4	28.1	27.9	35.2	52.2	51	74.3
Pashchimi Singhbhum	61.3	67.5	21.2	23.5	23.3	27.3	45.6	39.9	81.9
Purbi Singhbhum	29.8	43.8	16.7	31	29.8	34.2	75.8	64.7	86.1
Ranchi	35.3	46.1	13.9	30.8	30	35.7	70.3	60.7	89.5
Sahibganj	70.1	74.7	20.4	21.5	21.2	33.5	39.6	35.7	81.4
Jharkhand	53.4	61.3	24.5	27.4	26.6	34.7	56.2	49.5	80.5

Source: Annual Health Survey 2012-13

**Appendix 12.16: Detail of Janani Suraksha Yojna (JSY), District Wise**

State / District	Mothers who availed financial assistance for delivery under JSY (%)			Mothers who availed financial assistance for institutional delivery under JSY (%)			Mothers who availed financial assistance for Government Institutional delivery under JSY (%)		
	Total	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban
Bokaro	13.3	15.9	10.2	18.2	25.8	13.6	44.0	57.1	35.5
Chatra	16.3	15.8	20.3	35.0	34.9	35.9	77.6	80.1	66.7
Deoghar	24.1	24.2	24.1	56.3	61.7	34.9	90.0	90.6	86.5
Dhanbad	14.0	17.2	11.2	20.0	26.0	16.8	59.3	64.1	56.9
Dumka	18.2	17.2	35.7	42.9	42.4	45.8	58.6	55.5	85.5
Garhwa	27.2	26.2	-	60.8	63.1	-	79.8	80.1	-
Giridih	16.0	15.8	18.2	39.1	40.4	25.8	80.8	81.1	76.7
Godda	23.4	23.3	-	57.6	58.8	-	86.0	86.6	-
Gumla	44.4	44.1	49.4	81.6	83.8	60.5	91.2	91.7	85.7
Hazaribagh	26.1	26.6	23.6	45.1	49.5	30.9	77.0	80.2	64.0
Kodarma	20.9	21.6	17.0	36.3	39.8	22.6	68.8	68.9	68.1
Lohardaga	39.2	40.1	31.6	70.7	76.1	39.4	88.7	88.7	88.6
Pakaur	21.4	21.1	-	55.5	57.3	-	67.8	68.7	-
Palamu	24.7	23.7	41.2	55.6	55.2	59.1	81.3	80.1	93.3
Pashchimi Singhbhum	27.9	28.1	26.1	61.5	72.6	31.9	84.5	86.3	74.1
Purbi Singhbhum	28.1	39.5	17.3	38.0	64.5	20.8	74.0	83.9	60.0
Ranchi	32.4	38.6	20.1	42.5	59.1	22.2	77.5	85.1	59.8
Sahibganj	21.3	19.1	45.3	55.2	55.2	55.2	73.1	73.9	70.6
Jharkhand	23.9	25.5	18.0	43.6	54.3	23.5	75.9	80.3	61.3

Source: Annual Health Survey 2012-13

**Appendix 12.17: Immunization Vitamin A & Iron Supplement and Birth Weight, District Wise**

State / District	Children aged 12-23 months having Immunization Card (%)			Children aged 12-23 months who have received BCG (%)			Children aged 12-23 months who have received 3 doses of Polio vaccine (%)		
	Total	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban
Bokaro	88.6	88.8	88.3	96.9	96.5	97.4	88.9	87.9	90.1
Chatra	79.8	78.8	89.6	92.6	92.2	95.8	71.5	70.9	77.1
Deoghar	71.3	71.1	72.8	90.1	89.9	91.9	68.8	68.4	72.0
Dhanbad	84.6	81.3	87.9	93.8	91.9	95.6	81.4	82.0	80.8
Dumka	80.6	80.0	94.8	93.3	93.1	98.5	81.7	81.3	90.3
Garhwa	78.3	76.9	-	95.1	94.8	-	74.7	74.1	-
Giridih	72.5	72.1	80.5	86.7	86.6	89.3	61.8	61.3	70.5
Godda	79.1	79.0	-	93.7	93.7	-	67.7	67.5	-
Gumla	88.7	88.3	95.9	97.0	97.0	97.9	86.1	85.9	88.8
Hazaribagh	89.2	89.1	89.5	97.2	97.3	96.8	80.1	80.2	79.5
Kodarma	87.2	87.1	87.6	97.2	96.8	99.3	75.0	78.5	55.9
Lohardaga	89.9	89.5	93.5	97.6	97.5	98.6	91.3	91.1	92.6
Pakaur	80.9	80.6	-	94.8	94.7	-	62.3	62.1	-
Palamu	83.3	83.3	83.3	94.0	93.6	99.5	77.5	77.1	84.9
Pashchimi Singhbhum	86.5	85.6	92.7	95.5	95.0	99.0	84.1	82.9	91.8
Purbi Singhbhum	94.4	93.9	94.8	98.5	98.2	98.8	92.0	92.8	91.3
Ranchi	90.6	88.9	94.1	97.5	97.1	98.1	90.1	89.8	90.7
Sahibganj	81.6	80.9	88.7	91.6	91.0	97.2	70.7	70.0	78.1
Jharkhand	84.6	83.1	90.2	94.8	94.1	97.1	80.0	78.5	85.6

Source: Annual Health Survey 2012-13

**Appendix 12.18: Children who have received Polio doses at birth, did not receive any vaccination and children (6-35 Months) received at least one vitamin A dose during last six months (%), District Wise**

State / District	Children who have received Polio dose at birth (%)			Children who did not receive any vaccination (%)			Children (aged 6-35 months) who received at least one Vitamin A dose during last six months (%)		
	Total	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban
Bokaro	85.5	82.0	89.4	1.6	2.2	0.9	66.1	65.1	67.1
Chatra	66.7	65.1	82.3	6.2	6.4	4.2	47.5	47.4	49.0
Deoghar	75.2	74.5	80.1	5.6	5.7	4.9	51.3	51.5	49.6
Dhanbad	77.7	72.3	83.1	2.0	2.2	1.9	45.8	45.1	46.4
Dumka	66.2	65.5	80.6	3.0	3.1	0.7	50.2	49.8	58.2
Garhwa	70.5	69.5	-	3.9	4.1	-	62.1	63.6	-
Giridih	67.5	67.1	75.8	9.4	9.4	9.4	40.7	40.4	46.3
Godda	76.7	76.5	-	4.5	4.5	-	49.2	49.5	-
Gumla	86.4	86.3	88.8	1.4	1.4	0.6	78.0	78.4	70.6
Hazaribagh	84.0	82.8	89.7	1.8	1.9	1.2	59.8	59.0	63.6
Kodarma	81.6	80.0	90.0	2.4	2.7	0.3	54.4	55.2	50.3
Lohardaga	87.0	86.1	94.7	1.2	1.3	0.7	85.6	86.8	74.7
Pakaur	72.5	71.8	-	3.4	3.4	-	52.2	52.1	-
Palamu	73.6	72.8	88.0	4.5	4.7	0.5	58.3	58.1	62.0
Pashchimi Singhbhum	62.1	57.8	90.2	2.7	3.1	0.4	66.0	65.5	69.8
Purbi Singhbhum	87.9	84.8	90.8	0.7	0.5	0.9	70.0	73.3	66.8
Ranchi	89.1	87.6	92.1	1.3	1.6	0.7	69.1	69.5	68.5
Sahibganj	70.1	68.4	88.8	6.1	6.4	2.7	48.4	47.7	56.4
Jharkhand	77.2	74.3	87.8	3.1	3.5	1.4	58.6	58.2	60.1

Source: Annual Health Survey 2012-13

**Appendix 12.19: Children (aged 6-35 months) who received IFA tablets/syrup during last 3 months (%), Children whose birth weight was taken (%), Children with birth weight less than 2.5 Kg. (%), District Wise**

State / District	Children (aged 6-35 months) who received IFA tablets/syrup during last 3 months (%)			Children whose birth weight was taken (%)			Children with birth weight less than 2.5 Kg. (%)		
	Total	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban
Bokaro	7.5	6.9	8.0	51.4	36.6	69.4	30.3	37.5	25.5
Chatra	22.6	22.8	19.8	43.1	41.8	55.3	20.4	21.4	13.5
Deoghar	21.3	22.0	16.7	40.0	36.6	66.5	28.4	28.4	28.6
Dhanbad	9.5	6.2	12.8	51.6	36.4	65.3	32.6	37.7	29.9
Dumka	7.7	7.6	10.5	26.1	24.1	60.9	33.5	32.1	43.2
Garhwa	24.1	24.1	-	41.1	38.4	-	20.7	21.4	-

State / District	Children (aged 6-35 months) who received IFA tablets/syrup during last 3 months (%)			Children whose birth weight was taken (%)			Children with birth weight less than 2.5 Kg. (%)		
	Total	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban
Giridih	20.5	20.1	28.2	38.6	37.2	66.7	24.9	24.7	26.1
Godda	20.7	20.9	-	39.1	38.1	-	29.8	30.9	-
Gumla	11.8	11.5	17.9	45.2	43.7	72.4	32.5	33.2	26.0
Hazaribagh	22.4	21.8	24.9	59.4	56.3	73.8	22.9	23.1	22.3
Kodarma	29.7	30.2	26.9	56.1	53.3	71.2	25.5	25.5	25.5
Lohardaga	10.0	9.6	13.7	51.8	48.9	77.6	38.0	37.5	40.9
Pakaur	21.8	22.3	-	31.5	30.1	-	29.1	29.4	-
Palamu	27.9	28.0	25.0	41.4	39.8	66.8	21.7	22.1	17.6
Pashchimi Singhbhum	10.6	9.7	16.6	34.6	29.4	68.8	23.3	25.1	18.6
Purbi Singhbhum	12.6	11.4	13.7	70.9	59.0	82.1	25.6	32.6	20.6
Ranchi	14.4	14.3	14.2	70.2	62.8	85.1	31.5	34.8	26.9
Sahibganj	24.2	24.4	22.9	35.5	31.6	76.2	25.8	27.7	17.8
Jharkhand	15.9	16.3	14.4	47.7	40.7	72.9	28.1	29.5	25.4

Source: Annual Health Survey 2012-13

### Appendix 12.20: Birth Registration, Children whose birth was registered and received Birth Certificate (%) District Wise

State / District	Birth Registered (%)			Children whose birth was registered and received Birth Certificate (%)		
	Total	Rural	Urban	Total	Rural	Urban
Bokaro	69.3	57.4	83.8	31.5	22.5	42.4
Chatra	40.6	38.1	63.2	19.4	17.9	33.6
Deoghar	52.7	49.7	75.8	23.2	21.0	40.2
Dhanbad	71.6	61.9	80.3	34.3	25.2	42.6
Dumka	57.0	55.8	78.6	19.6	18.2	45.3
Garhwa	49.3	45.7	-	21.0	20.4	-
Giridih	43.5	42.1	71.1	21.4	20.1	46.8
Godda	46.7	45.4	-	21.3	20.2	-
Gumla	70.9	70.0	85.8	16.8	15.4	41.3
Hazaribagh	61.1	56.2	85.1	36.1	32.0	56.2
Kodarma	62.1	59.5	76.2	33.2	30.0	50.1
Lohardaga	76.4	74.7	91.2	19.0	15.8	46.8
Pakaur	37.1	35.7	-	18.6	17.5	-
Palamu	45.5	44.3	66.0	20.4	19.6	34.0
Pashchimi Singhbhum	68.1	64.8	89.5	19.4	14.5	51.5
Purbi Singhbhum	84.6	78.1	90.6	56.6	44.9	67.5
Ranchi	78.6	72.5	90.9	36.0	29.6	48.7
Sahibganj	36.7	32.6	79.3	18.0	15.7	42.1
Jharkhand	62.1	55.8	84.6	27.8	22.1	48.5

Source: Annual Health Survey 2012-13



**Appendix 12.21: Women who are aware of HIV/AIDS, RTI/STI and HAF/ORS/ORT & ZINC (%) District Wise**

State / District	Women who are aware of HIV/AIDS (%)			Women who are aware of RTI/STI (%)			Women who are aware of HAF/ORS/ORT & ZINC (%)		
	Total	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban
Bokaro	91.7	88.5	96.7	86.2	80.2	95.6	99.1	99.1	99.2
Chatra	61.9	59.9	87.4	75.3	75.2	76.3	96.0	96.4	91.0
Deoghar	50.6	46.4	71.2	63.9	59.1	87.0	95.9	95.3	98.9
Dhanbad	60.1	50.2	71.6	71.8	73.4	69.9	96.5	95.2	98.1
Dumka	34.1	31.4	65.7	73.0	72.8	74.9	77.8	76.9	88.3
Garhwa	58.5	56.1	-	69.1	67.4	-	96.5	96.3	-
Giridih	63.8	63.3	74.3	88.1	88.4	80.8	97.2	97.9	82.2
Godda	57.8	55.5	-	77.6	76.6	-	98.8	98.8	-
Gumla	55.1	53.4	83.5	60.7	59.6	77.8	90.3	89.8	98.4
Hazaribagh	80.2	78.1	93.2	76.3	75.0	84.8	98.4	98.1	100.0
Kodarma	73.5	72.1	84.4	75.3	74.9	78.5	99.9	99.9	100.0
Lohardaga	54.8	51.0	86.9	52.5	49.5	77.7	97.8	97.6	99.1
Pakaur	54.5	51.3	-	62.4	59.9	-	96.8	96.6	-
Palamu	61.3	61.0	68.1	70.9	71.2	65.0	97.6	98.3	84.4
Pashchimi Singhbhum	58.6	51.3	94.6	59.7	56.1	77.4	94.6	93.8	98.8
Purbi Singhbhum	78.2	60.5	91.8	63.2	57.6	67.6	97.4	95.5	98.8
Ranchi	76.5	69.0	91.9	68.9	57.4	92.2	95.7	93.9	99.4
Sahibganj	59.1	58.1	70.8	64.5	64.3	67.3	96.7	97.2	91.0
Jharkhand	64.7	59.6	86.6	69.4	67.4	77.8	96.1	95.6	97.8

Source: Annual Health Survey 2012-13

**Appendix 12.22: Crude Death Rate (CDR), District Wise**

State/District	Crude Death Rate (CDR)								
	Total			Rural			Urban		
	Person	Male	Female	Person	Male	Female	Person	Male	Female
Bokaro	5.4	5.7	5.1	6.4	6.6	6.1	4.6	5.0	4.2
Chatra	4.5	4.6	4.4	4.5	4.6	4.5	4.0	4.5	3.4
Deoghar	4.3	4.8	3.8	4.5	5.1	3.8	3.8	3.5	4.0
Dhanbad	5.2	5.5	4.9	6.3	6.5	6.2	4.4	4.8	4.0
Dumka	6.7	7.0	6.3	6.7	7.1	6.4	6.0	6.3	5.6
Garhwa	4.6	4.7	4.4	4.6	4.7	4.5	4.2	4.8	3.6
Giridih	4.1	4.6	3.6	4.1	4.6	3.6	4.3	4.6	3.9
Godda	6.7	6.8	6.6	6.8	6.9	6.7	4.7	4.7	4.7
Gumla	8.9	10.0	7.8	9.1	10.2	8.0	6.6	8.2	5.0
Hazaribagh	4.4	4.7	4.1	4.5	4.8	4.2	4.2	4.6	3.8
Kodarma	4.5	4.7	4.2	4.5	4.8	4.1	4.5	4.4	4.6
Lohardaga	8.1	8.6	7.7	8.3	8.8	7.8	6.8	7.0	6.7
Pakaur	6.6	6.9	6.4	6.8	7.1	6.4	4.8	4.4	5.2
Palamu	5.1	5.0	5.1	5.0	5.0	5.1	5.2	5.6	4.9
Pashchimi Singhbhum	8.1	8.7	7.5	8.7	9.3	8.1	4.9	5.6	4.2
Purbi Singhbhum	5.5	6.0	4.8	6.4	7.1	5.6	4.8	5.3	4.3
Ranchi	6.2	6.9	5.5	6.4	6.9	5.9	5.9	6.8	4.9
Sahibganj	6.5	6.7	6.2	6.6	6.9	6.3	5.0	5.2	4.8
Jharkhand	5.7	6.1	5.3	6.0	6.4	5.7	4.8	5.3	4.3

Source: Annual Health Survey 2012-13

### Appendix 12.23: Infant Mortality Rate (IMR), District Wise

State / District	Infant Mortality Rate (IMR)								
	Total			Rural			Urban		
	Person	Male	Female	Person	Male	Female	Person	Male	Female
Bokaro	28	27	29	35	36	35	19	16	22
Chatra	42	40	45	43	41	45	-	-	-
Deoghar	31	27	34	31	27	35	31	30	32
Dhanbad	26	25	27	35	36	33	19	16	21
Dumka	45	44	46	45	45	46	-	-	-
Garhwa	33	35	31	33	35	32	-	-	-
Giridih	28	28	28	29	29	29	-	-	-
Godda	54	55	53	55	56	54	-	-	-
Gumla	45	48	42	46	50	42	24	22	26
Hazaribagh	29	27	33	30	28	32	26	20	33
Kodarma	27	27	27	27	27	27	-	-	-
Lohardaga	53	53	53	55	56	54	30	24	36
Pakaur	52	44	60	52	45	59	-	-	-
Palamu	40	39	40	40	40	41	26	23	29
Pashchimi Singhbhum	53	53	53	57	56	57	28	31	25
Purbi Singhbhum	25	25	25	31	31	30	19	19	20
Ranchi	30	30	30	35	34	36	21	23	18
Sahibganj	52	51	53	53	52	54	33	32	34
Jharkhand	36	36	37	40	40	41	22	21	23

Source: Annual Health Survey 2012-13

### Appendix 12.24: Neo-natal Mortality Rate and Post Neo-natal Mortality Rate, District Wise

State / District	Neo-natal Mortality Rate			Post Neo-natal Mortality Rate				
	Total	Rural		Urban	Total	Rural		Urban
		Urban	Urban			Urban		
Bokaro	20	27	12	8	8	7		
Chatra	25	25	-	18	18	-		
Deoghar	16	16	12	15	14	19		
Dhanbad	20	27	14	6	7	5		
Dumka	33	33	-	12	13	-		
Garhwa	19	20	-	13	13	-		
Giridih	18	18	-	10	11	-		
Godda	29	29	-	25	26	-		
Gumla	34	34	24	11	12	-		
Hazaribagh	14	15	12	15	15	14		
Kodarma	18	18	-	9	9	-		
Lohardaga	39	41	20	14	15	10		
Pakaur	30	30	-	21	22	-		
Palamu	23	23	13	17	17	13		
Pashchimi Singhbhum	35	37	21	18	20	8		
Purbi Singhbhum	17	21	12	8	10	7		
Ranchi	21	26	13	9	9	8		
Sahibganj	30	30	23	22	23	10		
Jharkhand	23	26	14	13	14	8		

Source: Annual Health Survey 2012-13

### Appendix 12.25: Under Five Mortality Rate (U5MR)

State / District	Under Five Mortality Rate (U5MR)								
	Total			Rural			Urban		
	Person	Male	Female	Person	Male	Female	Person	Male	Female
Bokaro	38	37	38	50	52	48	24	22	28
Chatra	53	49	57	54	50	58	-	-	-
Deoghar	40	37	43	41	38	45	35	33	37
Dhanbad	37	35	39	52	53	51	25	21	30
Dumka	55	50	60	55	50	61	-	-	-
Garhwa	47	49	44	47	49	44	-	-	-
Giridih	37	37	37	38	38	38	-	-	-
Godda	76	74	79	78	76	80	-	-	-
Gumla	70	73	66	72	76	67	35	28	43
Hazaribagh	35	32	38	37	34	39	30	26	35
Kodarma	33	33	33	33	33	33	-	-	-
Lohardaga	70	69	70	74	74	74	33	28	39
Pakaur	78	71	86	80	73	87	-	-	-
Palamu	52	50	54	54	52	55	30	23	37
Pashchimi Singhbhum	87	85	89	96	93	98	38	40	37
Purbi Singhbhum	34	34	34	45	47	43	24	22	27
Ranchi	44	44	44	50	48	52	32	36	28
Sahibganj	76	73	79	80	77	83	40	36	43
Jharkhand	51	49	52	57	56	58	29	27	31

Source: Annual Health Survey 2012-13

### Appendix 12.26: District-Wise Availability of Health Centres in Jharkhand

Districts	Sub Centres	PHCs	CHCs	Sub Divisional Hospital	District Hospital
Jharkhand	3957	327	188	10	24
Bokaro	116	16	8	3	1
Chatra	93	11	6	0	1
Deoghar	181	4	7	1	1
Dhanbad	140	26	8	0	1
Dumka	258	36	10	0	1
E. Singhbhum	244	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	0	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	12	8	0	1
Simdega	162	7	7	0	1
W. Singhbhum	342	15	15	1	1

Source: Department of Health, Govt. of Jharkhand

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				% Households with monthly Income of highest earning household member	
							< 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	Deoghar	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
	<b>State Total</b>	<b>5044234</b>	<b>1468637</b>	<b>653283</b>	<b>29.12</b>	<b>12.95</b>	<b>80.65</b>	<b>14.12</b>	<b>5.14</b>	<b>82.12</b>	<b>11.04</b>	<b>6.83</b>

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)	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	Saraikela-Kharsawan	167827	9075	5.41	18.8	52.9	13.4	2.7	1.8	0.3	10.1
	<b>State Total</b>	<b>5044234</b>	<b>653283</b>	<b>12.95</b>	<b>15.6</b>	<b>68.2</b>	<b>3.7</b>	<b>0.5</b>	<b>0.7</b>	<b>0.3</b>	<b>10.9</b>

Source: Socio-Economic Caste Census 2011

**Appendix 15.3 District Wise Source Of Monthly Household Income Among STs In Jharkhand**

Sl. No.	District Name	Total Households	Total ST Households	% of ST Households	% Households with income source (ST)	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	19719299	10.97	37.94	51.34	1.99	0.22	0.63	0.23	7.60
1	Garhwa	229414	31164	13.58	37.19	55.78	3.28	0.20	0.47	0.22	2.85
2	Chatra	175409	7922	4.52	31.41	55.68	1.65	0.04	0.61	0.28	10.34
3	Kodarma	96609	945	0.98	6.14	73.33	0.63	2.96	0.53	0.11	16.30
4	Giridih	383640	41141	10.72	17.34	75.99	1.43	0.08	0.10	0.15	4.91
5	Deoghar	216632	33142	15.30	35.31	57.38	1.89	0.07	0.15	0.08	5.11
6	Godda	243676	55081	22.60	43.03	48.57	2.04	0.09	0.16	0.09	6.02
7	Sahibganj	205762	65187	31.68	43.76	46.87	2.97	0.11	0.63	0.08	5.58
8	Pakur	173746	78702	45.30	49.74	44.12	0.90	0.05	0.96	0.07	4.16
9	Dhanbad	260908	37285	14.29	15.32	68.78	2.79	0.13	0.27	0.37	12.33
10	Bokaro	276821	46458	16.78	16.57	64.58	2.59	0.12	2.37	0.19	13.58
11	Lohardaga	79897	48460	60.65	64.18	30.33	1.31	0.08	0.27	0.12	3.70
12	E. Singhbhum	273216	126107	46.16	27.35	49.61	10.18	0.44	0.76	0.15	11.51
13	Palamu	325420	30543	9.39	30.54	54.94	5.26	2.23	0.26	0.17	6.60
14	Latehar	128904	60141	46.66	51.60	36.38	2.79	0.09	0.58	0.11	8.45
15	Hazaribagh	278302	21033	7.56	28.68	55.46	2.49	0.13	0.36	0.11	12.76
16	Ramgarh	155863	36613	23.49	18.95	60.51	2.41	0.06	0.82	0.15	17.09
17	Dumka	262618	121357	46.21	45.26	48.49	1.23	0.07	0.17	0.12	4.66
18	Jamtara	139849	45259	32.36	46.21	48.28	1.64	0.05	0.10	0.14	3.57
19	Ranchi	346242	133072	38.43	46.75	41.50	2.73	0.33	0.52	0.18	7.00
20	Khunti	95140	71400	75.05	66.85	24.98	3.02	0.21	0.61	0.08	4.24
21	Gumla	172479	99915	57.93	63.04	20.00	6.05	1.24	1.12	0.32	8.23
22	Simdega	108003	72374	67.01	74.75	15.83	3.21	0.94	0.53	0.44	4.31
23	W. Singhbhum	247857	154862	62.48	28.06	51.38	9.66	2.17	0.78	0.23	7.72
24	Saraikeela-Kharsawan	167827	50474	30.08	43.42	42.15	5.50	0.57	1.59	0.11	6.67
	State Total	5044234	1468637	29.12	42.55	44.68	4.13	0.55	0.65	0.18	7.17

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	Deoghar	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	Saraikela-Kharsawan	167827	9075	5.41	2.7	1.8	7.5
<b>State Total</b>		<b>5044234</b>	<b>653283</b>	<b>12.95</b>	<b>5.1</b>	<b>1.6</b>	<b>1.5</b>

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
	<b>State Total</b>	<b>5044234</b>	<b>1468637</b>	<b>29.12</b>	<b>3.49</b>	<b>0.95</b>	<b>1.64</b>

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	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	Deochar	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
	<b>State Total</b>	<b>5044234</b>	<b>653283</b>	<b>12.95</b>	<b>19.62</b>	<b>3.01</b>	<b>41.03</b>	<b>29.77</b>

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	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 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	Saraikela-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 : 16.1 : District wise status of implementation of the forest right act 2006 in jharkhand state 30.11.2015**

Sl. No	Districts	No. of Gram Sabha Meeting Organised For Expalining The Provisions of ohe Act And The Rule Responsibilities of Pris Gram Sabha Frs Etc	No. of Forest Right Committee Constituted By The Gram Sabhas	No. of Claims Received By The Gram Sabhas	No. of Claim Verified By The Frs And Submitted To Gram Sabha	No. of Claims Recommen Ded By The Gram Sabha To Sdlc	No. of Claims Rejected By The Gram Sabha	No. of Claims Recommen Ded By Sdlc Tp Dlc	No. of Claims Rejected By Sdlc	No. of Claims Approved By Dlc For Title	No. of Titles Distributed	Extent of For Forest Land For Which Titles Deeds Issued (In Acres)	No. of Claims Rejected By Dlc	Pending By Dlc	Total No. of Claims Pending
1	Bokaro	2053	693	3748	2870	2854	16	711	2135	697	697	651.6	14	0	886
2	Chatra	2229	612	3960	3960	1215	2294	1215	0	1215	1215	2587.3	0	0	451
3	Garhwa	2388	602	3512	3512	2872	640	2548	0	2171	2171	2012.1	0	377	701
4	Gumla	1991	954	2887	2035	1210	130	1048	162	1035	1035	811.2	8	5	1552
5	Hazaribagh	1187	1335	4187	4187	2460	1727	2460	0	2460	2460	1853.9	0	0	0
6	Latehar	439	486	3025	3025	2081	14	2003	78	1836	1620	3208.5	167	216	1146
7	Lohardaga	353	353	1281	712	576	136	434	142	427	427	288.55	7	0	569
8	W.Singhbhum	1342	1342	5254	5254	5254	0	4778	415	4778	4778	23593	0	0	61
9	Palamu	1910	1910	4819	4814	3863	553	3720	143	3313	2969	11289	4	747	1150
10	E.Singhbhum	6421	1635	5232	5232	2637	2205	2360	277	2317	2317	1180.3	43	0	390
11	Ramgarh	351	331	1797	1797	1346	91	483	772	483	483	199.79	0	0	451
12	Simdega	2096	449	11081	11081	6628	1615	5978	0	5978	5978	2640.2	0	0	3488
13	Ranchi	1324	1324	1149	1149	1149	0	1149	0	1143	1143	2926.6	0	6	6
14	Khunti	768	768	1050	1014	728	232	782	0	782	782	472.21	0	0	36
15	Giridih	2552	2552	6701	6701	6094	476	6043	0	5992	5992	5703.9	51	0	182
16	Dumka	1429	1429	9023	9023	3766	5257	3766	0	2344	2344	2543.9	1	1421	1421
17	Dhanbad	1224	1115	2752	2752	1086	949	421	665	416	416	69.36	5	0	717
18	Seraikela	480	998	3386	1834	1530	1431	1220	0	1220	1220	1048.1	0	0	735
19	Koderma	641	635	1046	1046	759	287	343	416	343	343	171.93	0	0	0
20	Pakur	344	344	908	908	5601	0	601	0	579	579	485.94	22	0	307
21	Deoghar	720	714	1043	1043	783	25	565	29	565	529	575.35	0	36	460
	<b>Total</b>	32242	20581	77841	73949	49549	18078	42628	5234	40094	39498	64311	322	2808	14709
22	Jamtara	234	234	1193	1193	951	24	943	8	935	935	654.7	8	0	218
23	Sahebganj	542	542	1494	1494	1494	0	1494	0	1488	1488	3300.1	6	0	0
24	Godda	2634	2634	3025	1259	1259	1766	1204	0	1204	1204	19724	0	0	55
	<b>Total</b>	3410	3410	5712	3946	3704	1790	3641	8	3627	3627	23679	14	0	273
	<b>G. Total</b>	35652	23991	83553	77895	53253	19868	46269	5242	43721	43125	87990	336	2808	14982

**Appendix : 16.2 : Break-up of the number of individual and community claims filed at Gram Sabha Level**

Sl. No.	District	[A] Individual		[B] Community				[A] Individual				[B] Community					
		Total no of claims filed at Gram Sabha level	No. of claims recommended by Gram Sabha to the SDLC	No. of claims pending with the Gram Sabha	No. of Titles given	Total no of claims filed at Gram Sabha Level	No. of claims recommended by Gram Sabha to the SDLC	No. of claims pending with the Gram Sabha	No. of Titles Given	Total no of claims filed at Gram Sabha level	No. of claims recommended by the Gram Sabha to the SDLC	No. of claims pending with the Gram Sabha	No. of titles Given	Total no of claims filed at Gram Sabha level	No. of claims recommended by the Gram Sabha to the SDLC	No. of claims pending with the Gram Sabha	No. of titles Given
		Lap districts															
1	Bokaro	2346	1578	878	694	80	80	0	3	1308	1182	0	0	14	14	0	0
2	Chatra	2373	1192	423	1192	22	71	28	22	1482	0	0	0	34	1	0	1
3	Garhwa	2714	2074	0	1373	798	798	0	798	0	0	0	0	0	0	0	0
4	Gumla	2854	1198	1526	1028	2	13	11	1	20	10	10	6	0	0	0	0
5	Hazaribagh	2806	2458	0	2458	2	48	0	2	1333	0	0	0	0	0	0	0
6	Latehar	2649	1940	695	1499	0	2	2	0	374	141	233	121	0	0	0	0
7	Lohardaga	1277	572	569	423	4	4	0	4	0	0	0	0	0	0	0	0
8	W.Singhbhum	5193	5193	0	4717	61	61	0	61	0	0	0	0	0	0	0	0
9	Palamu	4009	3590	399	2969	15	19	4	0	790	257	0	0	1	1	0	0
10	E.Singhbhum	5184	2625	354	2305	12	21	9	12	27	0	27	0	0	0	0	0
11	Ramgarh	868	808	0	483	25	25	0	0	863	472	360	0	41	41	0	0
12	Simdega	9973	5946	2554	5361	19	19	0	19	1089	663	284	598	0	0	0	0
13	Ranchi	1117	1117	0	1113	0	0	0	0	24	24	0	22	8	8	0	8
14	Khunti	932	720	36	720	62	79	0	62	39	0	0	0	0	0	0	0
15	Giridih	6483	6052	98	5987	27	27	5	8	182	37	19	0	9	3	3	0
16	Dumka	5046	2338	0	2338	56	56	7	6	3906	1421	0	0	15	0	0	0
17	Dhanbad	1891	985	411	374	702	702	59	280	117	0	26	0	42	42	0	42
18	Saraikela	2585	1515	367	1207	70	70	11	58	718	2	0	0	13	2	0	2
19	Koderma	651	486	0	330	3	3	3	3	321	260	0	0	71	10	0	10
20	Pakur	904	601	303	579	4	4	0	4	0	0	0	0	0	0	0	0
21	Deoghar	1020	776	227	527	23	23	7	8	0	0	0	0	0	0	0	0
	Total	62875	47464	8840	37677	2125	2125	1194	412	12593	4469	959	747	248	122	3	63
		Non Lap District															
22	Jamtara	1181	949	218	933	0	0	0	0	10	0	0	0	2	2	0	2
23	Sahebganj	1369	1369	0	1369	114	114	0	113	11	11	0	6	0	0	0	0
24	Godda	2733	1009	0	954	245	245	0	245	47	5	0	5	0	0	0	0
	Total	5283	3327	218	3256	359	359	359	0	68	16	0	11	2	2	0	2
	Grand total	68158	47091	9058	40933	2484	2484	1553	412	12661	4485	959	758	250	124	3	65

**Appendix 17.1: District wise distribution of State funds in Rs. Lacs as per different categories of disaster, 2014-15**

District	Flood etc (from SDRF)	State Budget for flood in Jammu-Kashmir	Drought (State budget)	Lightning (State budget)	Miscellaneous (State budget)	Total
Ranchi	90.35	8.343		15.74	9	198.53
Gumla	4.5			10.60	1	16.10
Simdega				2	2	4
Lohardaga	0.24			12.12	2	14.36
East Singhbhum	50.19			10.65	0.5	65.84
West Singhbhum	0.70			3	4	7.70
Saray Kela (Kharsawa)	4.18			4	1	9.18
Palamu	0.96		166.5	1.81	5	174.27
Gadwa			121.5		0.2	123.5
Latayhar	0.48			10.5	0.1	11.98
Hazaribagh	3.24			15.13	1.5	19.86
Chatra	6			8.71	1	15.71
Kodarma	24.05			7.8	2	33.85
Giridih	0.5			25	2	27.5
Dhanbad	106			18	1.5	125.5
Bokaro	4.11			0.93	0.3	8.04
Dumka	0.69				3	3.69
Jamtara	3.18			18.61	1	22.79
Devghar	2.97				5	7.97
Godda	46.17			6	2.5	54.67
Sahebganj	56.44			1.99	3	61.43
Pakur	0.47			18	1.5	19.97
Ramgarh	0.18			6.15	1.25	7.58
Khunti	0.17			6.16	2	8.33
D.M.D.	1.7	7				8.7
Fire Brigade Service	870.65					870.65
Jammu & Kashmir		500				500
<b>TOTAL</b>	<b>1278.14</b>	<b>590.44</b>	<b>288</b>	<b>202.92</b>	<b>62.25</b>	<b>2421.75</b>

**Appendix 17.2 : Details of loss due to various disasters in 2014-15**

District	No. of Blocks affected	No. of Panchayats affected				Affected no. in lacs		Affected area in lac hectare			estimated loss in crop damage in Rs.lacs
		Fully	Partially	Total	Gram	Human life	Livestock	Agricultural	Non agricultural	Total	
2	3	4	5	6	7				11	12	14
Ranchi	10		3	3	7					0.0029	19.9
Khunti	6		21	21	1					0.00669	0.90
Lohardaga	3	1	4	5		8	9	10			20.65
Gumla	9	3	23	26	38			0.0029			
Simdega	4		16	16	29			0.00669		0.00031	1.83
Latayhar	7		28	28	20						
Palamu	10	18	63	81	45	0.00056	0.00026			0.00348	8.08
Gadwa	19	11	31	42	37	0.00168	0.00013	0.00031			
West Singhbhum	11		11	11	19	0.00105	0.0002				
Saray Kela (Kharsawa)	6	1	22	23	36	0.46961	0.5782	0.00348			
East Singhbhum	7		30	30	43	0.00783	0.00103				
Dumka						0.0022	0.00025				
Jamtara	5					0.00194					
Sahebganj	9	26	32	58	53	0.00303					
Pakur	5	4	15	19	9						
Godda			17	17	17		0.00005				
Decghar			2	2	14	0.0075	0.00004				
Hazaribagh	5	23	36	59	93	0.00062					
Ramgarh	2					0.0091					
Chatra	10	7	20	27	29	0.0028					
Kodarma	6					0.00921	0.0001				
Giridih											
Dhanbad	6				5	0.00031	0.00026				
Bokaro	7	7		7	11					0.00018	2.49
TOTAL	146	101	374	475	506	0.51909				0.01356	0.014



**Appendix 17.3: Physical and Financial details of loss due to disasters, 2014-15**

District	No. of Blocks affected	No. of houses damaged				Total	Estimated value of Houses damaged in Rs.lacs	Estimated value of public property damaged in Rs.lacs	Loss to life	
		Pucca		Kaccha					Human life	Livestock
		Fully	Partially	Fully	Partially					
Ranchi	10			14	211	225	5.619	12	9	
Khunti	6		2		74	76	1.739	2	7	
Lohardaga	3			1	4	5	0.112	6	5	
Gumla	9				40	40	0.76	4	17	
Simdega	4			1	71	72	1.407	4	13	
Latayhar	7	3	1	3	3	10	10.8	6	6	
Palamu	10		10	21	8	39	0.697	2	19	
Gadwa	19	1		25	23	49	35.547	19	7	
West Singhbhum	11			2	190	192	12.976	3	25	
Saray Kela(Kharsawa)	6			2	62	64	1.6065	3		
East Singhbhum	7			75	111	186	113.237	11		
Dumka										
Jamtara	5			31	0	31	3.185			
Sahebganj	9			235	72	307	44.21	5	4	
Pakur	5			8	19	27	1.268	5	3	
Godda				150	2	152		2		
Deochar			1	22	18	41	7.15			
Hazaribagh	5		21	20	218	260	10.174	18	10	
Ramgarh	2			1		1	0.15	3	4	
Chatra	10	8	1			9	4.4	22	26	
Kodarma	6	1	1	56	386	444		10	4	
Giridih							25.5	18		
Dhanbad	5									
Bokaro	7				114	114	2.166			
<b>TOTAL</b>	<b>146</b>	<b>13</b>	<b>38</b>	<b>667</b>	<b>1626</b>	<b>2344</b>	<b>252.2035</b>	<b>166</b>	<b>159</b>	