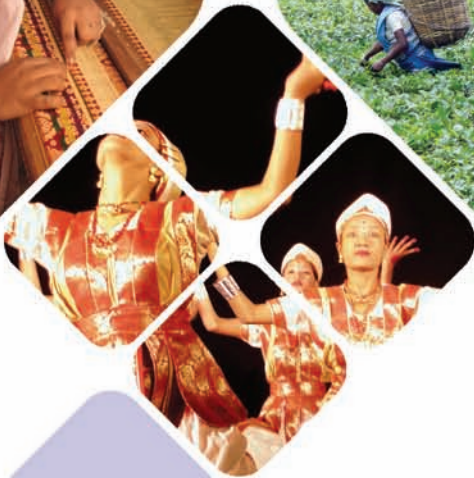




Economic Survey Assam 2010-11



Directorate of Economics and Statistics, Assam
Planning and Development Department, Govt of Assam.





M Message



Tarun Gogoi,

Chief Minister, Assam
Guwahati
Dispur
3-7-11

It is a matter of great happiness that the Directorate of Economics and Statistics, Assam is bringing out its well-known publication the "Economic Survey, Assam, 2010-11".

The present publication besides giving focus on the state of economy, also provide latest statistical updates and analysis of various developmental schemes taken up for socio-economic development in the State in a comprehensive manner. This publication will be of immense use for Administrator, Planner, Academician, Researchers and of Students.

I convey my appreciation to the officials of the Directorate of Economics and Statistics associated with this publication for bringing out such a valuable publication.

July, 2011

(TARUN GOGOI)
Chief Minister, Assam



M Message



Tanka Bahadur Rai,
Minister of Planning
and Development, Assam

Dispur,
Guwahati-781006

It is really a matter of pleasure that the Directorate of Economics and Statistics, Assam is bringing out its prestigious publication "Economic Survey-2010-11".

This comprehensive and informative document contains information about the achievements of various schemes & programmes taken by the State Government for socio-economic development as well as employment generation and poverty alleviation in the State.

I appreciate the sincere efforts of the officers and officials of the Directorate of Economics and Statistics, Assam in bringing out this valuable publication.

June, 2011

(Tanka Bahadur Rai)
Minister of Planning and Development,
Assam

FOREWORD

The Directorate of Economics and Statistics, Assam has been publishing this annual report "Economic Survey, Assam" regularly with a view to focus the trends of performance based development of the State economy.

In the current issue of the report endeavor has been made to depict and analyze the latest economic situation and sectoral performance of Assam economy. Special efforts have been made to provide information of various measures/programmes undertaken by the State Government for all round socio-economic development and the achievements thereof through collated data made available by different Government Departments, Organisations, Institutions and Agencies. The salient feature of the State's economy is discussed in Part-I with reference year 2010-11 and number of statistical tables on important economic sectors are incorporated in the appendix in Part-II of this issue.

I gratefully acknowledge the co-operation extended by the Government Departments and Organisations for making relevant information available in bringing out the publication. "Economic Survey, Assam, 2010-11" is the outcome of the sincere and incessant efforts of the Officers and Staff of the Directorate associated in compiling the report. I hope this edition could be of immense use to the administrators, planner, academician, students etc.

However, comments and suggestion for improvement of the future issues of this publication are most welcome.

Dated, 20th June, 2011



*P.K. Bhattacharjya,
Director of Economics & Statistics,
Assam, Guwahati-28.*



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ASSAM AT A GLANCE

1. AREA, ADMINISTRATIVE UNIT AND POPULATION

<i>Sl. No.</i>	<i>ITEM</i>	<i>Particulars</i>
A.	AREA	
(a)	Geographical area (in sq. Km.) as per 2001 Census	78438
B.	ADMINISTRATIVE UNITS	
(a)	District	27
(b)	Sub-Division	56
(c)	Revenue Circle as per 2001 Census	145
(d)	Police Station (2009)	273
(e)	Police out post (2009)	179
(f)	Town as per 2001 Census	125
(g)	Community Development Block	219
(h)	Gaon Panchayat	2202
(i)	Total Villages 2001 Census	26312
	(i) Inhabited Villages (2001 Census)	25124
	(ii) Un-inhabited Villages (2001 Census)	1188
C.	POPULATION as per 2001 Census	26655528
(a)	Male	13777037
(b)	Female	12878491
(c)	Rural	23216288
(d)	Urban	3439240
(e)	Sex Ratio per '000 males	935
(f)	Population density per sq. Km.	340
(g)	Literacy Rate	63.25
	(i) Male	71.28
	(ii) Female	54.61
(h)	Total workers	9538591
(i)	Main workers	7114097
(j)	Marginal worker	2424494

2. SECTORAL STATISTICS

Sl. No.	ITEM	Ref. Year	Unit	Particulars
I	AGRICULTURE			
A.	Land Utilisation			
	(a) Net area sown	2008-09	000 Hectare	2810
	(b) Area sown more than once	"	"	1188
	(c) Total cropped area	"	"	3999
	(d) Percentage of Net Area sown to total Geographical Area	"	Percent	35.82
	(e) Percentage of area sown more than once to net area sown	"	"	42.27
B.	Area under important crops			
	(a) Autumn Rice	2009-10	000 Hectare	346
	(b) Winter Rice	"	"	1789
	(c) Summer Rice	"	"	4
	(d) Total Rice	"	"	2530
	(e) Wheat	"	"	60
	(f) Pulses	"	"	119
	(g) Other cereals & small millets	"	"	6
	(h) Maize	"	"	20
	(i) Total food grains	"	"	2735
	(j) Sugarcane	"	"	27
	(k) Jute	"	"	65
	(l) Total oil Seeds (Excluding coconut)	"	"	269
C.	Production of important crops			
	(a) Autumn Rice	2009-10	000 tonnes	335
	(b) Winter Rice	"	"	3214
	(c) Summer Rice	"	"	6
	(d) Total Rice	"	"	4408
	(e) Wheat	"	"	65
	(f) Pulses	"	"	66
	(g) Maize	"	"	14
	(h) Other cereals & small millets	"	"	4
	(i) Total food grains	"	"	4557
	(j) Total Oil seeds (excluding Coconut)	"	"	142
	(k) Sugarcane (in cane)	"	"	1062
	(l) Jute (000 bales of each 180 kgs)	"	"	713
D.	Yield rate			
	(a) Autumn Rice	2009-10	Kg/Hectare	982
	(b) Winter Rice	"	"	1824
	(c) Summer Rice	"	"	1554
	(d) Total Rice	"	"	1765
	(e) Wheat	"	"	1087
	(f) Maize	"	"	718
	(g) Total Cereals	"	"	1738
	(h) Total Food grains	"	"	1686
	(i) Total Pulses	"	"	558
	(j) Sugarcane (gur)	"	"	39110
	(k) Jute (Dry fibres)	"	"	1967

Sl. No.		ITEM	Ref. Year	Unit	Particulars
	E.	Index of Agricultural Production	2009-10	-	186
		(All commodities) (Base Triennium ending 1981-82=100)			
	F.	Per capita Food Grain Production	2009-10	Kg.	152
		AGRICULTURE CENSUS			
	G.	Number of operational holdings			
	(a)	Size Marginal (below 1 hectare)	2005-06	000 Nos.	1753
	(b)	Size Small (1.0 to 2.0 hectare)	"	"	591
	(c)	Size Semi Medium (2.0 to 4.0 hect.)	"	"	318
	(d)	Size Medium (4.0 to 10.0 hectare)	"	"	83
	(e)	Size Large (above 10 hectare)	"	"	5
	(f)	All size	"	"	2750
	H.	Area under operational holdings			
	(a)	Size Marginal (below 1 hectare)	2005-06	000 Hectare	760
	(b)	Size Small (1.0 to 2.0 hectare)	"	"	718
	(c)	Size Semi Medium (2.0 to 4.0 hect.)	"	"	846
	(d)	Size Medium (4.0 to 10.0 hectare)	"	"	425
	(e)	Size Large (above 10 hectare)	"	"	299
	(f)	All size	"	"	3049
	I.	Average size of operational holdings	"	Hectare	1.11
	II.	LIVESTOCK AND VETERINARY			
		Livestock and Poultry Population (Sample Survey)			
	A.	Livestock:			
	(a)	Crossed Breed Cattle	2009-10	Nos.	446185
	(b)	Indigenous Cattle	"	"	7762572
	(c)	Buffaloes	"	"	571756
	(d)	Goat	"	"	2828529
	B.	Poultry:			
	(a)	Fowls	"	"	7942817
	(b)	Ducks	"	"	3106136
	C.	Hospitals & Dispensaries	"	"	454
	D.	(a) Production of Milk	"	Million Ltrs.	830
		(b) Production of Egg	"	Million Nos.	468
		(c) Production of Meat	"	000 Tonnes	32
	III.	FOREST			
	(a)	Area under Reserved Forest	2009-10	000 Hectare	1421
	(b)	Area under proposed Reserved Forest	"	"	194
	(c)	Total Forest excluding unclassified State Forest	"	"	1958
	(d)	Number of National Parks	"	Nos.	5
	(e)	Number of Wildlife Sanctuaries	"	"	19
	(f)	Total Forest revenue	2009-10	Rs. in lakh	14678.11

Sl. No.	ITEM	Ref. Year	Unit	Particulars
IV.	FISHERY			
	(a) Registered Beel Fisheries	2009-10	Number	430
	(b) Area under Registered Beel Fisheries	"	Hectare	100815
	(c) Ponds and Tanks	"	Number	278755
	(d) Area under Ponds and Tanks	"	Hectare	39583
	(e) Production of Fish Seed	"	Million Nos.	3326.22
	(f) Production of Fish	"	000 Tonnes	219
	(g) Regd. River Fisheries	"	Number	177
V.	SERICULTURE			
A.	Sericulture Villages	2009-10	Nos.	10532
B.	Families engaged in Sericulture			
	(a) Eri	"	"	182984
	(b) Muga	"	"	39444
	(c) Mulberry	"	"	38279
C.	Total area under Silk worm's food plants			
	(a) Eri	"	Hectare	7623
	(b) Muga	"	"	9802
	(c) Mulberry	"	"	4704
D.	Yield of Cocoons			
	(a) Eri Cut Cocoon	2009-10	M.T	1089
	(b) Muga Cocoon	"	Lakh Nos.	4436
	(c) Mulberry reeling Cocoon	"	M.T	84
E.	Production of Silk Yarn			
	(a) Eri Raw Silk	2009-10	M.T	819
	(b) Muga Raw Silk	"	"	88
	(c) Mulberry Raw Silk	"	"	8
F.	Number of Spinning Charkhas	"	Nos.	4447
VI.	POWER			
	(a) Total Installed Capacity	2009-10	M.W	339.5
	(b) Total Unit Generation	"	MU	1712.21
	(c) Availability	"	"	4590
	(d) Total Unit Billed to ultimate consumers	"	"	3258.786
	(e) Energy Requirement	"	"	5049
	(f) Total villages electrified	Mar'2010	Nos.	16814
VII	INDUSTRY AND MINERALS			
A.	Production of some Selected Industries			
	(a) Petroleum (Crude)	2009-10	000 M. T	4738
	(b) Coal	"	"	1203
	(c) Jute	"	"	12511
	(d) Fertilizer	"	"	338185
	(e) Cement	"	"	644
	(f) Wheat Flour	"	"	1044
	(g) Lime Stone	2009-10	000'M.T.	402
	(h) Natural Gas (Utilized)	"	MCM	2476

Sl. No.		ITEM	Ref. Year	Unit	Particulars
	B.	Registered Factories	2009	Nos.	3971
	C.	Average No. of daily workers in Registered Factories	„	000' Nos.	137
	D.	(a) Index of Industrial Production (Base 1999-2000=100)	2009-10(p)	Nos.	155.83
		(b) Index of Mineral Production (Base 1999-2000=100)	2009-10(p)	-	100.99
VIII.		TEA COFFEE & RUBBER INDUSTRY			
	(a)	Tea Gardens	2006	Nos.	51605
	(b)	Area under Tea Cultivation	2008(E)	000 Hectare	322
	(c)	Production of Tea.	2008(E)	000 tonnes	487
	(d)	Area under Coffee Cultivation	2009-10	Hectare	733.37
	(e)	Production of coffee	„	M.T	39.61
	(f)	Area under Rubber Cultivation	„	Hectare	25806
	(g)	Production of Rubber	„	M. T	9832
IX.		TRANSPORT & COMMUNICATION			
	A.	Vehicle			
	(a)	Total Vehicles Registered	2009-10	Nos.	241247
	(b)	Total Vehicle on Road	„	Nos.	1320867
	B.	ROAD			
		Total Road Length (P.W.D)	2009-10	Km.	40342
	(a)	Surfaced (Black topped)	„	„	16004
	(b)	Un-Surfaced	„	„	24338
	(c)	National Highway	„	„	2841
	(d)	State Highway	„	„	3134
		Railway Route Length (Total)	2009-10	Km.	2433.34
	(a)	Broad Gauge	„	„	1376.22
	(b)	Meter Gauge	„	„	1057.12
	C.	Air Transport			
	(a)	Air Traffic Movement	2008-09	Nos.	34855
	(b)	Passenger Handled	„	„	1693319
	(c)	Freight(Loaded + Unloaded)	„	Tonne	2404
	(d)	Average flight per day	„	Nos.	95
	(e)	Average Passenger Handled per day	„	Nos.	4639
	(f)	Average Cargo Handled per day	„	Tonne	13
	D.	Inland Water Transport			
	(a)	Total No. of Ferry Services	2009-10	Nos.	73
	(b)	Passengers Transport	„	('000 Nos.)	23535
	(c)	Goods Transported	„	M.T.	80024.9
	(d)	Revenue earned	„	(Rs. in lakh)	526
	E.	POSTAL			
	(a)	Post Office (As on 31 st March)	2009-10	Nos.	4005
	(b)	Letter Boxes (As on 31 st March)	„	„	14749

P: Provisional, E: Estimated

Sl. No.		ITEM	Ref. Year	Unit	Particulars
	F.	TELEPHONE			
	(a)	No. of Telephone Exchanges	31-03-2010	Nos.	605
	(b)	Direct Exchange lines (Fixed + WLL + CMTS)	"	"	1449647
	(c)	Villages covered by Public Telephones (VPTs)	"	"	23992
	(d)	Wire line Phones (Fixed DELs)	"	"	308339
	(e)	Wireless Phones (GSM+CDMA)	"	"	8756053
	(f)	Public call offices	"	"	33862
	X.	TOURISM			
	(a)	No. of Tourists using Tourist Lodges	2009-10	Nos.	26329
		(i) Indian Tourist	"	"	25665
		(ii) Foreign Tourist	"	"	664
	(b)	Number of Tourist using other accommodation like Hotel etc.			
		(i) Indian Tourist	"	"	3869860
		(ii) Foreign Tourist	"	"	14030
	(c)	Revenue earned from Tourist lodges	"	(Rs. in Lakh)	131.63
	XI.	VITAL STATISTICS			
	(a)	Birth rate			
		(i) Combined	2009	Per thousand	23.6
		(ii) Rural	"	"	24.9
		(iii) Urban	"	"	15.9
	(b)	Death rate			
		(i) Combined	"	"	8.4
		(ii) Rural	"	"	8.8
		(iii) Urban	"	"	5.9
	(c)	Infant mortality rate			
		(i) Combined	"	"	61
		(ii) Rural	"	"	64
		(iii) Urban	"	"	37
	(d)	Maternal Mortality Ratio (MMR)	2004-05	Deaths per lakh live births	480
	(e)	Maternal Mortality Rate (Women in age group 15-45 years)	"	Deaths per lakh women	34.4
	XII.	EMPLOYMENT			
	(a)	Total No. of Employment Exchanges	2009	Nos.	82
	(b)	Employment in Organised Sector	"	"	
		(i) Employment in Public Sector	"	"	531747
		(ii) Employment in Private Sector	"	"	571651
	(c)	Educated Unemployed in Live Register	"	"	1520310
	(d)	(d) Total Un-employed in Live Register	"	"	2079558

Sl. No.		ITEM	Ref. Year	Unit	Particulars
XIII.		HEALTH			
	(a)	Government Hospitals	2009	Nos.	22
	(b)	Primary Health Centres	"	"	844
	(c)	Dispensaries	"	"	261
	(d)	No. of Beds	"	"	10099
	(e)	Bed per lakh population	"	"	34
	(f)	Sub Centres	"	"	4592
XIV.		EDUCATION			
	A.	Institution			
	(a)	No. of Primary School	2009-10	Nos.	30054
	(b)	No. of Middle School	"	"	11038
	(c)	No. of High School	"	"	5506
	B.	Enrolment			
	(a)	Primary School	2009-10	Nos.	2298928
	(b)	Middle School	"	"	1739082
	(c)	High School	2009-10	"	1085506
XV.		BANKING			
	(a)	Scheduled Commercial Banks (Reporting offices)	March/2010	Nos.	1434
	(b)	Total deposit	"	Rs. in crore	49545
	(c)	Total credit	"	"	18311
	(d)	Credit Deposit Ratio	"	Percent	36.96
	(e)	Population served per Bank	"	000 Nos.	19
	(f)	Regional Rural Bank	"	Nos.	399
	(g)	Deposit of Regional Rural Banks	"	Rs. in crore	3678
	(h)	Credit of Regional Rural Banks	"	"	1746
XVI.		RURAL DEVELOPMENT PROGRAMME			
	A.	SGSY			
	(a)	Physical Achievement			
		(i) Self-Help Group formed	Up to 2009-10	Nos.	208212
		(ii) Women SHGs formed	"	"	153268
	(b)	Financial Performance			
		(i) Total fund available	2009-10	Rs. in lakh	25561.94
		(ii) Total expenditure	"	"	22522.07
		(iii) Percentage of expenditure	"	Percent	88.10
	B.	IAY			
	(a)	Annual Target	2009-10	Nos.	240446
	(b)	Physical Achievement	"	"	181162
	(c)	Percentage of Achievement	"	Percent	75.34

Sl. No.		ITEM	Ref. Year	Unit	Particulars
	C.	MGNREGA			
		(i) Total Fund Available	2009-10	Rs. in lakh	131203.57
		(ii) Total Expenditure	"	"	97155.57
		(iii) Person days generated	"	Lakh Mandays	735.17
XVII.		STATE INCOME			
	A.	Net State Domestic Product			
	(a)	At Current Prices	2009-10(Q)	Rs. in crore	8169100
	(b)	At Constant (2004-05) Prices	"	"	6091182
	B.	Per Capita Net State Domestic Product			
	(a)	At Current Prices	2009-10(Q)	Rupees	27197
	(b)	At Constant (2004-2005) Prices	"	"	20279
XVIII.		STATE GOVERNMENT RECEIPTS AND EXPENDITURE			
	A.	Total Revenue Receipts	2010-11(BE)	Rs. in lakh	2640893
	(a)	Central Taxes	"	"	571951
	(b)	State Taxes	"	"	685090
	(c)	Non-Tax Revenue (Collection by the State)	"	"	278205
	(d)	Non-Tax Revenue (Contribution from Centre)	"	"	1105647
	B.	Total Revenue Expenditure	2010-11(BE)	Rs. in lakh	3236902
	(a)	General Services	"	"	996835
	(b)	Social and Community Services	"	"	1223488
	(c)	Economic Services	"	"	673036
	(d)	Grants-in-aid & Contribution	"	"	343543
XIX.		STATE PLAN			
	(a)	Tenth Plan Expenditure	2002-07	"	981618
	(b)	Eleventh Plan proposed outlay	2007-12	"	3917657
	(c)	Annual Plan Expenditure	2008-09	"	373434
	(d)	Annual Plan Expenditure	2009-10	"	525800
	(e)	Annual Plan Outlay (approved)	2010-11	"	812997

Q : Quick, BE : Budget Estimate

C O N T E N T S

(Part - I)

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CHAPTER – I

AN OVERVIEW OF THE STATE

Population

According to the Census of India, 2001 the population of Assam stands at 2,66,55,528, of which 1,37,77,037 are males and 1,28,78,491 females. The decadal growth of the State's population works out to 18.92 per cent during the decade 1991-2001 as against 21.54 per cent for the country as a whole. Assam has been a victim of large scale migration. In most of the decades during the last century the growth rate of population in Assam has been well above the national growth rate. The difference can be attributed only to large scale migrations. What is more disturbing and alarming is that migration to Assam has been continuing from the neighbouring countries in normal time. The density of population of the State has gone up to 340 in 2001 Census which was 286 in 1991 Census. In 2001, Census the density of population of India was 325 as against Assam's density 340.

State Domestic Product

The economy of the State in terms of Gross State Domestic Product (GSDP) at factor cost is expected to grow at the rate of 7.4 per cent in real terms (at 2004-05 prices) as per Advance Estimates for 2010-11 as against the growth rate of 8.1 per cent estimated in the previous year. The Gross State Domestic Product (GSDP) at constant (2004-05) prices for the year 2010-11 (Advance Estimates) is estimated at ₹75082.07 crores as against ₹69923.65 crores for 2009-10 (Quick Estimates) reflecting a growth of 7.4 per cent. The estimated growth of 7.4 per cent in GSDP of the State for 2010-11 comprises of a growth of 6.1 per cent in Agriculture and Allied sector, 1.9 per cent in Industry sector and 10.0 per cent in Services sector.

As per Advance Estimates for 2010-11 the growth of the 'Industry' sector, comprising of 'Mining & quarrying', 'Manufacturing' (Registered and Unregistered), 'Electricity, Gas & Water Supply' and 'Construction', is expected to be remain low as against 2.9 percent in the previous year 2009-10. The slow growth of the 'Industry sector's is effected lower growth of the sub sectors especially 'Manufacturing' and 'Electricity.

The Services sector comprising of Trade, Hotels & Restaurants, Transport by other means & Storage, Real Estate & Business Services and Communications, Banking & Insurance, Social & Personal services is likely to grow by 10.0 per cent during 2010-11 as compared to 12.2 per cent growth in 2009-10 due to under performance of the key sub sectors like 'Transport, Communication, Trade, Hotels and Restaurants', 'Real estate and Business services' etc.

In case of Agriculture and Allied sector, the growth of, forestry and fishing sector is likely to achieve moderately low growth of 4.8 and 2.1 per cent respectively in 2010-11 than the growth of 5.0 and 3.8 per cent experienced in 2009-10. However, the Agriculture alone has registered a significant growth rate of 6.6 percent and all together Agriculture and Allied sector is expected to attain a favourable growth rate of 6.1 per cent in 2010-11 against 4.2 per cent of the previous year.

The Net State Domestic Product (NSDP), also known as State Income, at 2004-05 prices is expected to grow by 7.3 per cent as per Advance Estimates for the year 2010-11 compared to 7.7 per cent achieved during 2009-10.

It is expected that as per Advance Estimates for 2010-11 the per capita income will attain the level of ₹ 21500.00 at constant prices (2004-05) and ₹30413.00 at current prices as against ₹20279.00 and ₹27197.00 at constant (2004-05) prices and current prices respectively in the previous year 2009-10. In terms of growth rate, per capita income at constant (2004-05) prices is increased by 6.0 per cent and 11.8 per cent in 2010-11 over the previous year.

State Finance

The Assam Government Budget, 2010-11 reveals that the Govt. of Assam is expected to receive by way of revenue a sum of ₹26408.93 crore as against the expenditure estimated ₹32369.02 crore thereby showing a deficit of ₹5960.09 crore in the Revenue Account. The Budget also reveals a deficit of ₹3460.47 crore at the beginning of the fiscal which is expected to increase to ₹3464.46 crore after taking the deposit of ₹6500.00 crore from the Reserve Bank of India. The Capital Receipts has been estimated at ₹96170.09 crore in Budgetary Estimates for 2010-11 as against the estimate of capital disbursement of ₹96170.09 crore during the year. The State's own resources is expected to increase to ₹9632.95 crore in 2010-11(B.E) from ₹7739.65 crore achieved in 2009-10 and registered an increase of 24 percent as compared to the previous year. While the share of the State to total revenue receipts is estimated at 36 percent, the central share is 64 percent in Budget Estimates for 2010-11.

The total outstanding debt on the State during 2009-10 was ₹23832.94 crore (27.0 per cent of the GSDP). The per capita loan outstanding as on March 2010 was calculated at ₹8194.00.

Banking

As per the "Quarterly Statistics of deposits and credit of Scheduled Commercial Banks of Reserve Bank of India, March, 2010", the number of reporting Bank Offices of all Scheduled Commercial Banks in Assam stood at 1434. The average population covered per Bank branch office (based on the projected mid-year population) in the State was around 21000. The aggregate bank deposit and gross credit was ₹49545.00 crore and ₹18311.00 crore respectively with scheduled commercial bank in the State as on March 2010. The credit deposit ratio was 37.0 per cent during the year against 38.3 percent in 2009-10. Out of the total 1434 reporting offices as on March 2010, 791 bank offices (55% of the total reporting offices) located in the rural areas of Assam and share 17% of the total bank deposit of the State.

Agriculture

The economy of Assam continues to be predominantly agrarian, the dependence of rural labour force on agriculture and allied activities was nearly 53 per cent as per Population Census, 2001. The contribution of Agriculture sector to the State Domestic Product was more than 25 per cent during 2009-10. The area covered under Paddy cultivation was 25.30 lakh hectares and around 93.0 per cent of the total area under foodgrains in the State during the year 2009-10. During the year 2009-10, the productivity of Winter Rice was very encouraging and it has increased to 1824 Kg. per hectare from 1681 Kg. per hectare i.e.8% increase in productivity per hectare. The Summer Rice has also increased to 2180 Kg. per hectare from 2133 Kg. per hectare. However, the productivity of Autumn Rice has decreased to 982 Kg per hectare from 1084 Kg per hectare during the same period. As a result of effect of yield rate, the production of Rice, the most important cereal crop grown in the State, has increased to 44.08 lakh tonnes in 2009-10 from 40.08 lakh tonnes in 2008-09 registered about 10 per cent increase in Rice production in the State as compared to the previous year. In view of growing demand and to attain self sufficiency in food production, the State Agriculture Department has set the target to cover 26.65 lakh hectare of area under Rice so as to increase the production of Rice more than 46.0 lakh MT during the year 2010-11. As per available estimates, the production of total foodgrains in the State was 45.57 lakh tonnes during 2009-10 as against 41.42 lakh tonnes during 2008-09 showing an increase of Foodgrain production of 10 per cent over the previous year. An impressive increase in the production of Pulses and Wheat (Pulses and Wheat recorded 6.4 per cent and 14.0 per cent respectively) have also been observed during 2009-10 over 2007-08. During the same period, the production of oilseeds has also increased by 3.6 per cent as compared to the previous year. The production of commercial crop 'Jute' too has shown a substantial increment to 657 bales in 2007-08 from 558 bales in the previous year.

Horticultural crop in the State occupy about 15 percent gross cultivated area and annually produces more than 14.0 lakh MT of fruites, 39.0 lakh MT of vegetables and 2.0 lakh MT of spices besides nut crops, flowers and medicinal & aromatic plants thus contributing significantly towards food and nutritional security of the State. Under Horticulture, 16.61 lakh MT fruits, 44.20 lakh MT vegetables and 2.8 lakh MT of spices were produced during the year 2008-09. The area under horticulture crop is 5.40 lakh hectares which is 14 per cent of net cropped area of the State.

The Index of Agricultural Production (base triennium ending 1981-82=100) for the State increased to 186 (provisional) for all commodities, including food and non-food items, in 2009-10 as against 170 in 2008-09.

Irrigation

The achievement made by Irrigation Department in creation of additional irrigation potential has not been much encouraging as per available report. Out of the Gross Cropped Area of 39.99 lakh hectare of the State, the State Irrigation Department created potential of 7.76 lakh hectare till 2009-10 and out of which 1.69 lakh hectare irrigation potential was utilised during the year.

Fishery

There are about 3.91 lakh hectare of water area in the State in the form of rivers, beel, derelict water bodies and ponds and tanks. Scientific fish farming in natural water bodies has been mostly traditional capture fishery only. The scientific fish farming is practiced generally in individual and community tanks. Recently emphasis has been given for scientific fish farming in beels and community tank through awareness, training, government support and subsequent bank linkage. There is a positive trend in fish productivity during recent past. During the year 2009-10, the fish production has reached the tune of 2.18 lakh metric tone against 2.06 lakh metric tone fish produced in 2008-09.. State is yet to reach self-sufficiency in productivity with regards to economic as well as minimum nutritional requirement of 11kg/Person.

Forest

As per Forest profile of the State, the Reserved Forest area and Proposed Forest area is 14206 sq km and 19418 sq km respectively in 2009-10. The total Forest area excluding unclassified State Forest is 19418 sq km and 3436 sq km area is under protected area as reported by State Forest Department. Thus, the reserved forest area constitutes around 18 per cent and total forest area excluding unclassified forest with constitutes around 25 per cent of the total geographical area of the State. The amount of revenue earned from the forest products during the year 2009-10 was ₹7761.60 lakh against ₹6266.00 lakh earned in the previous year.

Livestock and Veterinary

As per estimation, the number of Indegeneous Cattle is 7762572 and Crossbreed Cattle numbered 446185 in the State during 2009-10 as reported by State Animal Husbandry and Veterinary (AH&V)Department. The estimate also shows that the population of Buffalo and Goat is 571756 and 2828529 respectively. The AH&V Department has also published the estimated figure of Fowl and Duck as 7942817 and 3106136 respectively during the same year. The milk production in the State during 2009-10 was estimated at 830 million liters. The egg and meat production were estimated at 4680 lakh numbers and 32000 M.T. respectively during the same period.

Industry

The Industrial scenario of the of the State is mainly confined within the growth of employment oriented Small Scale Sector, which comprises of manufacturing and processing industries. The contribution of

Manufacturing sector to Gross State Domestic Product is estimated at around 8% during 2010-11 which is not encouraging. However, the State Government as well as some other agencies have been making efforts for implementation of various promotional schemes for sustainable growth and development in the industrial sector of the State. To achieve the goal of development, the State Government has been increasing its Budget allocation every year. At present there are 16 Industrial Estates, 4 Industrial growth centre, 11 Integrated Infrastructure Development (IID) Projects, 17 Industrial Areas, 11 Growth Centers, 6 mini Industrial Estate, One Export Promotional Park, one Food Processing Industrial Park spread over the different parts of the State, and these are the major infrastructural support and facilities to the entrepreneurs of the State.

The total SSI units in the State numbered 32984 are providing employment to 167216 persons till the year 2009-10. In 2009-10, the value of produced goods of 1667 number SSI units was worth ₹584.00 crores. During the year the number of factories registered was 3971 and provided employment to 137164 persons. The growth of Manufacturing Sector is estimated at 0.5 percent at constant (2004-05) prices and 7.1 percent at current prices in 2010-11 over previous year. The growth observed in the manufacturing sector was the result of benefit achieved in the production of some selected industrial items like Tea, Wheat Flour, Jute textiles, Cement, Coal, Crude Oil, Fertiliser etc. over the level of production of the previous year. The General Index of Industrial Production of the State also pegged at 155.83 in 2009-10 (Base 1999-2000) as against 151.40 in 2008-09.

The Tea Industry of Assam, which is about 170 years old, playing a vital role in the State as well as in the national economy. The Assam's Tea industry also possesses a significant reputation in the global economy. The total area under tea cultivation is accounting for more than half of the country's total area under tea and the Tea Industry of Assam provides average daily employment to more than six lakh persons in the State which is around 50 percent of the total average daily number of labour employed in the country. The number of Tea Gardens in the State was 49102 covering land of 301000 Hectares out of 140712 Tea Gardens covering 556000 Hectares of land in the country as a whole. The estimated tea production of the State was 4875 lakh kg. as against 9808 lakh kg. total tea produced in the country during the year 2008 as per report of Tea Board of India. The tea production in Assam constitutes more than 50 percent of the total production of the country.

Among the Plantation crops, Rubber cultivation is also gaining its popularity in the State due to congenial agro climate as well as its eco-friendly activity.

Assam has ample scope for Bamboo based industry like Paper manufacturing industry, since this region has highest concentration of bamboo i.e, around 60% of the total Bamboo of the country. In view of the potentialities, The Ministry of Agriculture, Govt of India, has recently launched the National Bamboo Mission and under this Mission it is proposed for plantation of selected species of Bamboo in the State, in an area of 176000 Hectare, as a raw material for Bamboo based industry.

Sericulture, a major cottage industry of the State, is practiced in more than 10500 villages and provided employment to 2.6 lakh of family. Assam has the monopoly in production of Muga, the Golden Silk in the world and 99% of Muga Silk produced in Assam. Assam has also achieved the right of "Geographical Indication" in Muga Silk.

Minerals

Assam is richly endowed with mineral resources. The performance of Mining Sector during the year 2009-10 was observed as satisfactory as compared to previous year. Apart from Natural Gas (Utilised) the all other major minerals Coal, Petroleum (Crude) and Limestone of the State have shown upward volume in production during the year as reported by the Indian Bureau of Mines, Government of India. The Index of Mineral Production is worked out at 100.99 in 2009-10

Transport

The rapid increase of numbers of motor vehicles on road in Assam has been observed over the past few years. The vehicle population in the State has reached to 1432997 as on March 2010 as against 1236257 as on March 2009. During the year as many as 241247 vehicles were registered in the State as against 119126 vehicles registered in 2008-09, as reported by Department of Transport. The registration of Motor vehicles in the State has showed a record increase of 102 percent in 2009-10 over the previous year. The number of Motor vehicles registered per lakh of population of the State has reached at 803 in 2009-10 against 402 in 2008-09. Total number of Motor vehicles on road in the State have increased by about 12 percent as on March 2010 over the March, 2009.

The density of motor vehicles in Assam was 17.0 per sq. km. during 2009-10 as against 15.0 per sq. Km. during 2008-09.

Telecommunication

The tele-density (Telephone per 100 population) of the State as on March 2010 was 29.99 as against the national average of 52.74. Disaggregated figures however show that the telecom penetration has been uneven across the urban and rural segments. While the urban tele-density of the State stood at 96.54, the rural tele-density was only 18.49.

Roads

The Public Works Department (PWD) of the State is mainly responsible for the development of the road infrastructure for surface road transport & communication of the State. Excluding national highway, the length of surfaced road is 13163 in the State and the length of un-surfaced road is 24338. The total road length in the State that is maintained by State PWD is 37501 kilometer.


Power

The power supply position in the State was not much encouraging during the past several years. The total available installed capacity of generating plants in the State has remained the same at 401.5 MU during the 2009-10 also as it was in the previous year.

As a result of functioning of Hydel Power Project the scenario in respect of power generation has slightly been improving since 2006-07. During 2009-10 the generation of electricity in the State was 1712.210 MU as against 1682.820 MU, a nominal increment of 1.7% only than the year previous year 2008-10. The energy requirement in the state has been worked out at 5049 Million Units during 2009-10 as against 5039 Million Units in the previous year. But the availability of energy during 2009-10 was 4590 Million Units and the State is facing power deficit of 459 Million Units i.e. by 10%. However, to meet the demand of the requirement of power, the ASEB Ltd has been purchasing power from other public and private sources. The per capita availability of power in the State was 153 Kwh in 2009-10. The total transmission and commercial losses was calculated at 28 % during the year 2009-10. The revenue earned by the ASEB Ltd was ₹1566.00 crore during the year 2009-10. Like most of the states of the country, Assam is also lagging behind in respect of rural households electrification. Till the end of the 2009-10 electrification of only 67.0 per cent villages of the State could be completed. However, for better improvement of the power supply position in the State, various projects have been undertaken and are in progress.

Price situation

Price situation in the State was not satisfactory during the period under report. During the last couple of



years the price level, in the State as well as country as a whole, more or less remained in the high trend. The behaviour of price level can be observed from the movement of Consumer Price Index Number (CPI) for the Working Class Population and the Wholesale Price Index Number for Agricultural Commodities. The average Consumer Price Index Number for the Working Class Population (Base 1982=100) for the State revealed a price rise of around 11.0 per cent in 2010 over 2009. The annual average Wholesale Price Index Number for Agricultural Commodities (Base 1993-94=100) stood at 249 in 2009-10 as against 221 in 2008-09 and 204 in 2007-08 and there by recorded an increase of price of 12.67%, 8.33% and 10.27% respectively over the respective previous year for Agricultural commodities of the State. During 2010 the annual average of Consumer Price Index for Industrial Workers for Assam has shown a rise of 9.5 per cent over 2009 as against 12.1 percent increase has recorded at all India level.

Public Distribution System

Under the Public Distribution System the State has a network of 34,536 Fair Price Shops as on March 2010, out of which 30,506 are located in rural areas and 4030, in urban areas. On an average, each shop covers 898 persons. The State has achieved target of selecting 19.06 lakh beneficiaries from BPL families by providing BPL PDS item at subsidized rate.

Employment situation

The percentage of main workers to total workers declined from 86 percent in 1991 to 75 percent in 2001 as per census data. The Census reports from 1961 to 2001 indicates there is a decline of percentage of cultivators from 1961 to 2001. This percentage decline was recorded from 65 in 1961 to 28 in 2001 which implies attribution of shift of employment to the other sector. The other sectors of the economy could not solve the unemployment problem among the youths of the State as it has revealed by the Live Register of Employment Exchanges. The number of un-employed person as per Live Register is 2079558 number in 2009. Acute unemployment specially educated unemployment continues to be a serious problem in the State. As per data available from the Employment Exchanges of the State it is revealed that the number of job-seekers on the Live Register of Employment Exchanges has stood at 15 lakh in 2009. The registration during the year was 154999 from different disciplines of education. The previous year's registration of educated job seekers was 134101. The number of persons employed in organized economic activity (comprising both Public and Private Sectors) was 11.03 lakh in the year 2009 which was 2.1% more than that of 2008. The employment of women in the organised sector of the State was 360 thousand at the end of 2009 which was around 32.7 per cent of the total employment. The Small Scale Industries of the State providing employment to 167216 persons till the end of 2009-10.

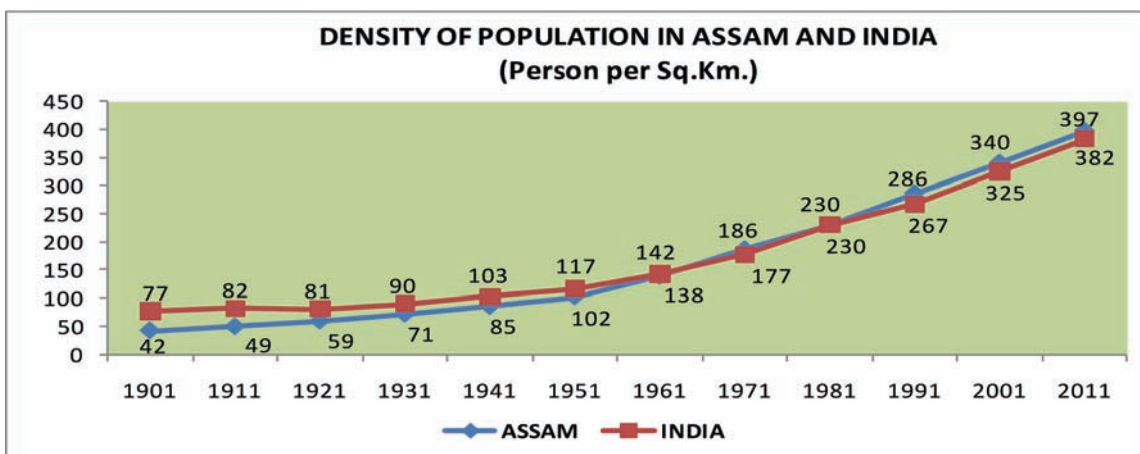
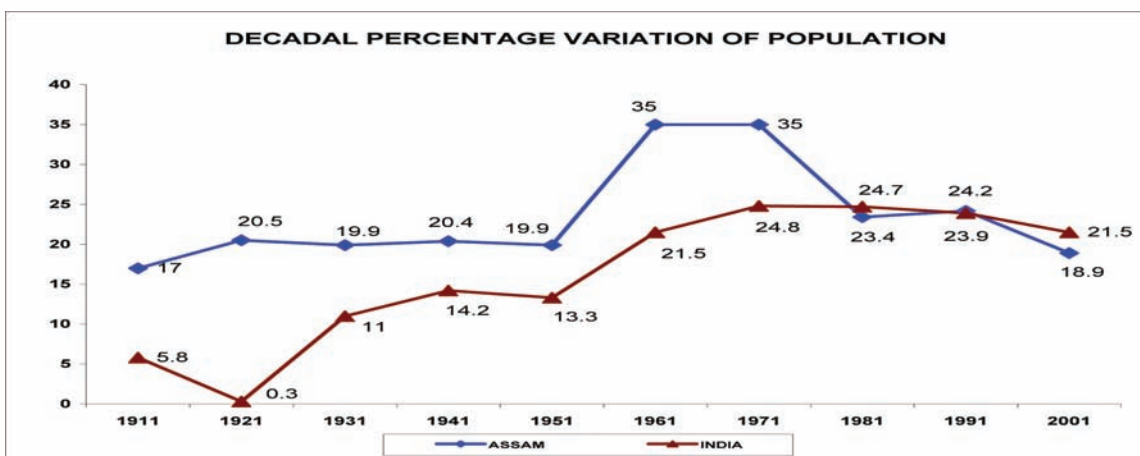
Panchayat and Rural Development

The Commissionerate of Panchayat and Rural Development of Assam has been implementing various schemes for poverty alleviation and upliftment of rural poor. For eradication of poverty the Panchayat wing has been implementing various schemes viz. Indira Gandhi National Old Age Pension Scheme, National Family Benefit Scheme, Annapurna, Chief Minister's Assam Bikash Yojana, Backward Region Grant Fund etc. The Rural Development, on the other hand implementing programmes like SGSY, which provides help to form Self Help Group for taken up economic activity, IAY provides dwelling to the BPL families, MGNREGA provides employment to the job card holder, etc.

Against the backdrop of constraints like continued insurgency problem, debt burden unemployment problems, recurrence of natural calamities in the shape of flood, drought etc. the State is expected to achieve 7.4 per cent growth of the State's economy in terms of GSDP in real terms during the year 2010-11, a positive development is already under way.

CHAPTER - II POPULATION

Assam is situated in the North-East region of India – bordering seven States viz. Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, Tripura and West Bengal and two countries viz. Bangladesh and Bhutan. With a geographical area of 78,438 sq. kms. i.e, about 2.4 per cent of the country’s total geographical area, Assam provides shelter to 2.2 per cent population of the Country. Most of the State’s population lives in the lush and verdant valleys of its two major river systems in the twenty four districts of the Brahmaputra valley and the three districts of the Barak valley. Less densely populated are the two hill districts of Karbi-Anglong and the North Cachar Hills, set in the low-lying hills that separate the two valleys. For administrative and revenue purposes, the State has 27 districts including Kamrup (Metro) district and four districts under the Bodoland Territorial Council (BTC) areas viz. Kokrajhar, Baska, Chirang and Udalguri.



According to the Census of India, 2011 the population of Assam stands at 3,11,69,272, of which 1,59,54,927 are males and 1,52,14,345 females. The decadal growth of the State’s population works out to 16.93 per cent during the decade 2001-2011 as against 17.64 per cent for the country as a whole. In most of the decades during the last century the growth rate of population in Assam has been well above the national growth rate. This difference has been witnessed perhaps due to continuous migration from the neighbouring states and countries. The density of the population of Assam has gone upto 397 in 2011 which was 340 in 2001 Census. In 2011 Census the density of population of India was 382 as against State’s density 397. The trend of high density of population in the State than national density of population continues since 1971.

TABLE – 2.1
POPULATION TREND IN ASSAM AND INDIA

Year	Population (in lakh)		Percentage Decadal Variation		Density (Person per Sq.Km.)	
	ASSAM	INDIA	ASSAM	INDIA	ASSAM	INDIA
1901	33	2384	-	-	42	77
1911	38	2521	17.0	5.8	49	82
1921	46	2513	20.5	0.3	59	81
1931	56	2789	19.9	11.0	71	90
1941	67	3186	20.4	14.2	85	103
1951	80	3611	19.9	13.3	102	117
1961	108	4392	35.0	21.5	138	142
1971	146	5481	35.0	24.8	186	177
1981	*180	6833	*23.4	24.7	*230	230
1991	224	8463	24.2	23.9	286	267
2001	266	10270	18.9	21.5	340	325
2011#	312	12102	16.9	17.6	397	382

*Interpolated. # Provisional

Source: Census of India.

Some important features of population of Assam and India are shown in the following Table.:

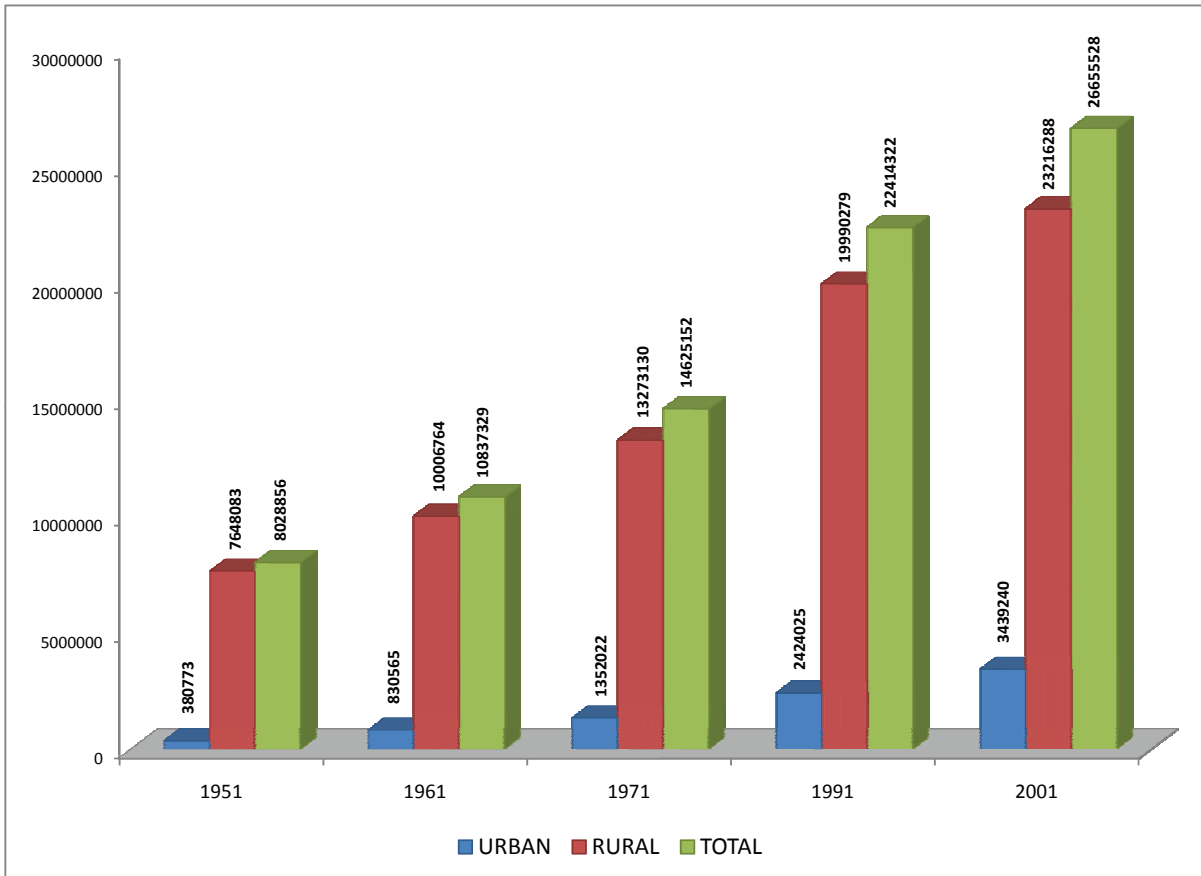
TABLE – 2.2
POPULATION FEATURES AT A GLANCE ASSAM AND INDIA

Particulars	Unit	2001 Census		2011 Census (P)	
		Assam	India	Assam	India
1. Population	Lakh	267	10287	312	12102
2. Decadal Growth	Per cent	18.92	21.54	16.93	17.64
3. Change in percentage of decadal growth	Per cent	(-) 5.32	(-) 2.32	(-) 2.03	(-) 3.86
4. Density	Per Sq. Km.	340	325	397	382
5. Sex-Ratio	Females per 1000 males	935	933	954	940
6. Literacy	Per cent	63.25	64.80	73.18	74.04
(a) Male	Per cent	71.28	75.30	78.81	82.14
(b) Female	Per cent	54.61	58.70	67.27	65.46
7. Urban Population	Per cent	12.90	27.82	-	-
(a) Male	Per cent	13.33	28.29	-	-
(b) Female	Per cent	12.44	27.31	-	-
8. Rural Population	Per cent	87.10	72.18	-	-
(a) Male	Per cent	86.67	71.71	-	-
(b) Female	Per cent	87.56	72.69	-	-
9. S.C. Population	Per cent	6.85	16.20	-	-
10. S.T. Population	Per cent	12.41	8.20	-	-

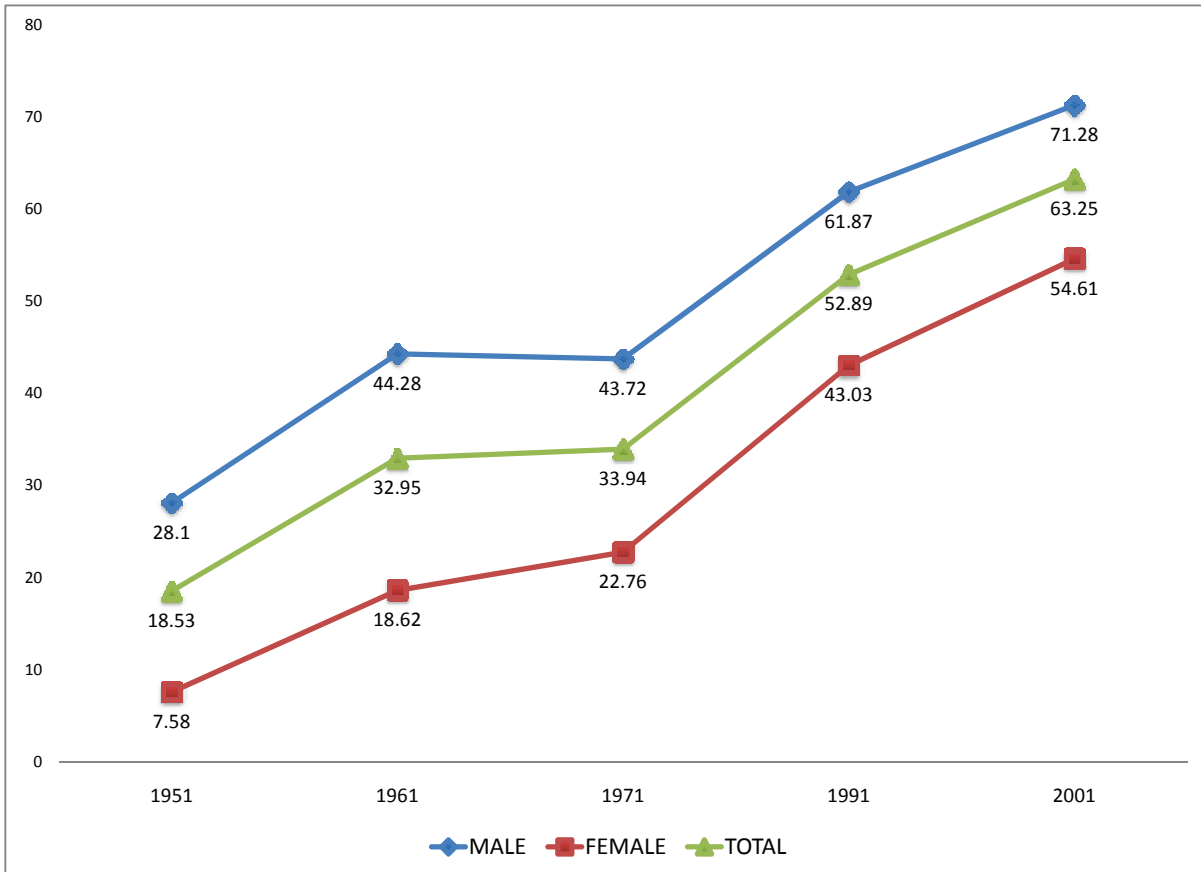
(P) Provisional

Source : Census of India, 2001 and 2011.

POPULATION TREND IN ASSAM



LITERACY RATE OF ASSAM



Population: Rural and Urban

As per Population Census, 2001, the rural population of the State was 87 per cent of the total population. This percentage was much higher than that for All-India (72 per cent). The proportion of rural population in the State decreased from 89 per cent in 1991 to 87 per cent in 2001. As per the Population Census around 13 per cent of the State population was living in urban areas. The proportion of urban population in the State increased from 11 per cent in 1991 to 13 per cent in 2001.

Sex Ratio

The sex-ratio in the State shows an improvement from 923 in 1991 to 935 in 2001. The sex ratio in the age-group 0-6 years is the vital indicator of the future trends of the sex composition in the population in the State. Child sex ratio in the State was 965 female per 1000 male child. The sex ratio in the State for the age-group 0-6 years declined to 967 in 2001 from 975 in 1991. The growth of literacy in Assam has shown an encouraging sign. The literacy rate for Assam as per Census 2001 comes to 63 per cent with 71 per cent for males and 55 per cent for females. The literacy rates for rural and urban areas remained at 60 per cent and 85 per cent respectively. Some important characteristics such as highest and lowest population, percentage of growth, literacy rate, sex ratio and density among the districts of Assam may be seen at Table- 2.3.

TABLE – 2.3
COMPARATIVE DEMOGRAPHIC STATISTICS of ASSAM (2001 Census)

Information on		Highest among the districts		Lowest among the districts	
1) Total Population		Kamrup	25,22,324	North Cachar Hills	1,88,079
2) Total Rural population		Nagaon	20,36,342	North Cachar Hills	1,28,644
3) Total Urban population		Kamrup	9,08,217	Nalbari	27,486
4) Percentage of population growth (1991-2001)		Kamrup	26.11	Kokrajhar	12.00
Information on		Highest among the districts		Lowest among the districts	
5) Literacy Rates	Total	Jorhat	76.33	Dhubri	48.21
	Rural	Jorhat	74.07	Dhubri	43.90
	Urban	Karimganj	90.37	Goalpara	76.65
6) Sex ratio		Goalpara	956	North Cachar Hills	884
7) Density		Dhubri	585	North Cachar Hills	38

Population – religion-wise:

Religion-wise percentage distribution of population, according to Population Census 2001, reveals that out of total population in the State 64.89 per cent were Hindus, 30.92 per cent were Muslims, 3.70 per cent were Christians, 0.08 per cent were Sikhs, 0.19 per cent were Buddhists, 0.09 per cent were Jains, 0.09 per cent were from other religions and persuasions and 0.04 per cent were religion not stated.

Following table shows the distribution of population in Assam by major scheduled languages:

TABLE – 2.4
DISTRIBUTION OF POPULATION BY SCHEDULED LANGUAGES IN Assam

(Census, 2001)

Mother Languages	Total Population	Percentage of Population
1) Assamese	13010478	53.08
2) Bengali	7343338	29.96
3) Hindi	1569662	6.40
4) Bodo	1296162	5.29
5) Nepali	564790	2.30
6) Santali	242886	0.99
7) Oriya	231474	0.94
8) Manipuri	154059	0.63
9) Others	100082	0.41
All Total (ASSAM)	24512931	100.00

Population by Economic Activity

Classification of population by economic activity according to the result of Population Census, 2001 reveals that out of total population of 26655528 in the State, 9538591 were total workers of which 7114097 were main workers and 2424494 were marginal workers. Among male workers 85 per cent were main workers, 15 per cent were marginal workers, while among females 47 per cent were main workers and 53 per cent were marginal workers. Out of the total 9538591 workers in Assam, 3730773 were Cultivators (39 per cent), 1263532 were Agricultural labourers (13 per cent), 344912 were engaged in Household Industries (4 per cent) and 4199374 were Other Workers (44 per cent). Thus, about 52 per cent working population was engaged in Agriculture (i.e. cultivators and agricultural labourers) in the State.

TABLE-2.5
DISTRIBUTION OF WORKERS AND NON WORKERS IN ASSAM, 2001 CENSUS

WORKERS	PERSON	MALE	FEMALE
Total workers	9538591	6870960	2667631
Main workers	7114097	5849032	1265065
Marginal workers	2424494	1021928	1402566
WORKERS	PERSON	MALE	FEMALE
Cultivators	3730773	2634068	1096705
Agricultural labourers	1263532	832508	431024
Household Industries workers	344912	133902	211010
Other workers	4199374	3270482	928892
Non workers	17116937	6906077	10210860

Birth and Death Rates

The data obtained from the Sample Registration Bulletin published by the Registrar General of India depicts some idea about the trend in the birth and death rates, natural growth rate and infant mortality rate in the State. It is evident from the information that birth rates, death rates and infant mortality rates in the State were found to be higher than that of the country as a whole, although there has been a trend of gradual declination. As per available information received from the Registrar General of India, during the year 2009, the birth rates, death rates and infant mortality rates of Assam have been 23.6, 8.4 and 61 per mille as against 22.5, 7.3 and 50 per mille respectively at all-India level. The Table - 2.6 shows the birth, death, natural growth and infant mortality rates of Assam and India from 2001 to 2009.

TABLE - 2.6
BIRTH RATE, DEATH RATE, NATURAL GROWTH RATE AND INFANT
MORTALITY RATE OF ASSAM AND INDIA (PER MILLE)

YEAR	Birth Rate		Death Rate		Natural Growth Rate		Infant Mortality Rate	
	ASSAM	INDIA	ASSAM	INDIA	ASSAM	INDIA	ASSAM	INDIA
2001	27.0	25.4	9.6	8.4	17.4	17.0	74	66
2002	26.6	25.0	9.2	8.1	17.4	16.9	70	63
2003	26.3	24.8	9.1	8.0	17.2	16.8	67	60
2004	25.1	24.1	8.8	7.5	16.3	16.6	66	58
2005	25.0	23.8	8.7	7.6	16.3	16.3	68	58
2006	24.6	23.5	8.7	7.5	15.9	16.0	67	57
2007	24.3	23.1	8.6	7.4	15.7	15.7	66	55
2008	23.9	22.8	8.6	7.4	15.4	15.4	64	53
2009	23.6	22.5	8.4	7.3	15.2	15.2	61	50

Source : Sample Registration Bulletin, R.G.I., New Delhi.

POPULATION CENSUS 2011

The published result of Population Census, 2011, revealed that total Provisional Population of Assam as on 1st March, 2011 stands at 311,69,272 out of which 159,54,927 are males and 152,14,345 are female representing a decadal growth of 16.93 percent during the last decade 2001-11. On the other hand, the percentage of population in the age group 0-6 has declined to 14.47 in 2011 from 16.87 percent in 2001. The provisional population of the country as a whole, as per Census 2011, stands at 1,210,193,422 out of which male and female population figured at 623,724,248 and 586,469,174 respectively. Assam provides shelter to 2.57 per cent population of the Country. The highest growth, at the District level, is found in Dhubri (24.40). The Sex ratio, i.e. number of females per 1000 males in the State shows an improvement from 935 in 2001 to 954 in 2011. According to the Provisional Population calculated at the Census of India 2011, the Density of Population per square kilometre in the State has gone up to 397 as against 340 in 2001 with no change in the State geographical area of 78,438 square kilometers. The Density is found highest in the district of Kamrup. The Density of the country per sq kilometers calculated at 382 in 2011 against 325 in 2001. The effective Literacy rate as per Census 2011 for Assam comes to 73.18 percent while it is 78.81 percent for males and 67.27 percent for females. The figure for the Literacy rate of the country stands at 74.04 percent, as per Population Census, 2011.

CHAPTER - III

STATE INCOME

The State Domestic Product (SDP) and its related aggregates reflected the economic development process of the State. The estimates of State Domestic Product over a period of time reveal the extent and direction of changes in the levels of economic development of the State. During the first four years of the 11th Five Year Plan (2007-08 to 2010-11) the State registered an average growth rate of 6.76% against the Nation's GDP growth rate of 8.16% (base year 2004-05).

The Central Statistics Office (CSO) introduced the new series of National Accounts Statistics with Base year 2004-05, in place of previous series with Base year 1999-2000, to incorporate the availability of latest data from various surveys and censuses conducted by State/Central Government as per latest international standards to capture the structural changes that have taken place in the economy. Accordingly, Base year for the State Domestic Product of Assam has also been revised by the Directorate of Economics and Statistics, Assam, and information has been presented in the new series of Base year 2004-05.

Advance Estimates of Gross State Domestic Product (GSDP) And Net State Domestic Product (NSDP) For 2010-11

The GSDP at constant (2004-05) prices for the year 2010-11 (Advance Estimates) is estimated at ₹75082.07 crore as against ₹69923.65 crore for 2009-10 (Quick Estimates) reflecting a growth of 7.4 per cent. The estimated growth of 7.4 per cent in GSDP of the State for 2010-11 comprises of a growth of 6.1 per cent in Agriculture and Allied sector, 1.9 per cent in Industry sector and 10.0 per cent in Services sector.

As per Advance Estimates for 2010-11 the growth of 'Industry' sector', comprising of 'Mining & Quarrying', 'Manufacturing' (Registered and Unregistered), 'Electricity, Gas & Water Supply' and 'Construction', is to be depicted at 1.9 per cent in 2010-11 from 2.9 per cent in the previous year 2009-10. Among the sub sectors of Industry lower growth has shown by key sub sectors 'Manufacturing' and 'Electricity, Gas & Water supply'.

The Services sector comprising of Trade, Hotels & Restaurants, Transport by other means & Storage, Real Estate & Business Services and Communications, Banking & Insurance, Social & Personal services is likely to grow by 10.0 per cent during 2010-11 as compared to 12.2 per cent growth in 2009-10 due to under performance of the key sub sectors like 'Transport, Communication, Trade, Hotels and Restaurants', 'Real estate and Business services' etc.

In the Agriculture and Allied sector the growth of forestry and fishing sector is likely to achieve moderately low growth of 4.8 and 2.1 per cent respectively in 2010-11 than the growth of 5.0 and 3.8 per cent experienced in 2009-10. However, the Agriculture alone has registered a significant growth rate of 6.6 percent and all together Agriculture and Allied sector is expected to attain a favourable growth rate of 6.1 per cent in 2010-11 against 4.2 per cent of the previous year.

The Net State Domestic Product (NSDP), also known as State Income, at 2004-05 prices is expected to grow by 7.3 per cent as per Advance Estimates for the year 2010-11 compared to 7.7 per cent achieved during 2009-10.

Per Capita Income for 2010-11

It is expected that as per Advance Estimates for 2010-11 the per capita income will attain the level of ₹21500.00 at constant prices (2004-05) and ₹30413.00 at current prices as against ₹20279.00 and ₹27197.00 at constant (2004-05) prices and current prices respectively in the previous year 2009-10. In terms of growth rate of per capita income at constant (2004-05) prices is increased by 6.0 per cent and 11.8 per cent in 2010-11 over the previous year.

TABLE-3.1
ADVANCE ESTIMATES OF STATE DOMESTIC PRODUCT FOR ASSAM, 2010-11

Year-2010-11	GSDP	NSDP	Per capita NSDP (Rs)
At Constant (2004-05) Prices (Rupees in crore)	75082.07	65388.48	21500
At Current Prices (Rupees in crore)	104217.70	92495.60	30413

Source: Directorate of Economics and Statistics, Assam.

The expected estimated sectoral growth of State Domestic Product for 2010-11 is presented in the following table:

TABLE-3.2

Sector	Growth of GSDP at 2004-05 prices
1. Agriculture and Allied Service	6.13
2. Industry	1.9
3. Services	10.0

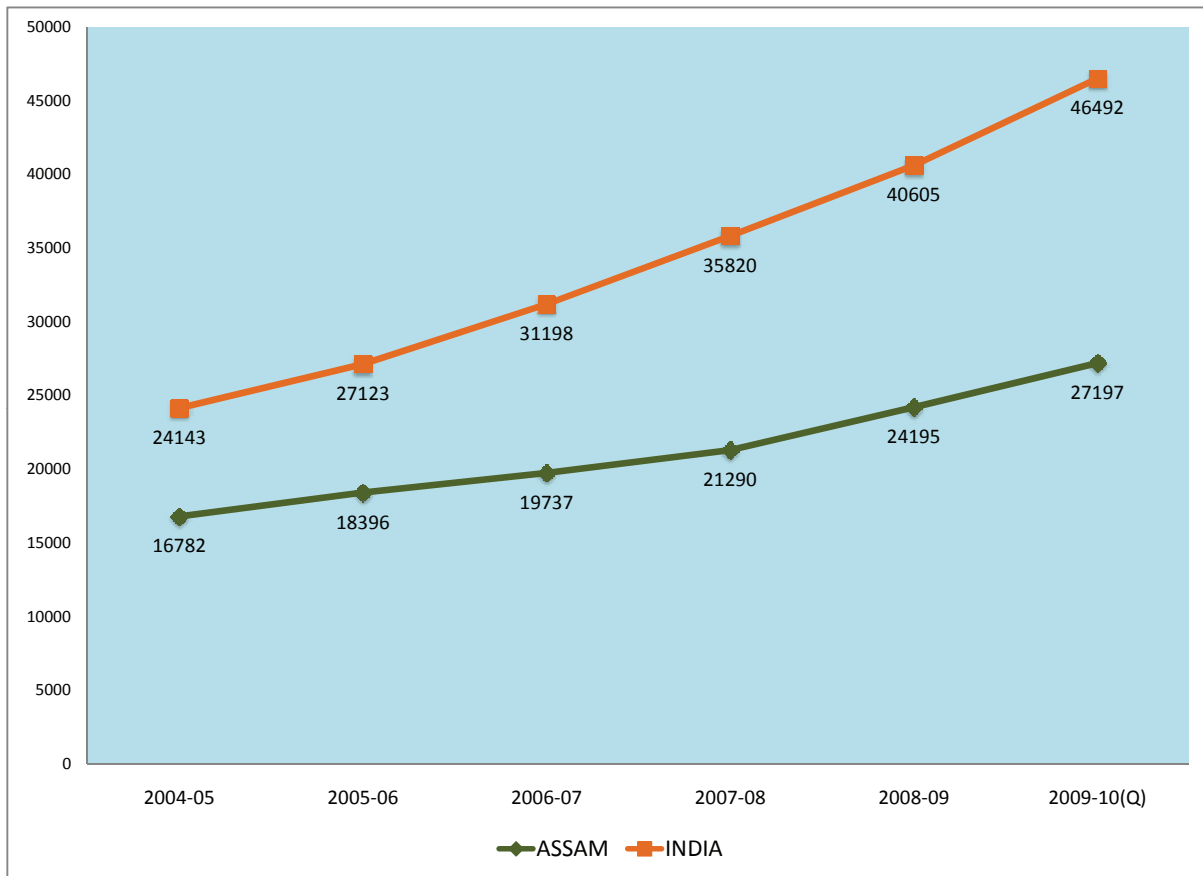
Source: Directorate of Economics and Statistics, Assam.

Gross State Domestic Product (GSDP) for 2009-10 (Quick Estimates)

The Gross State Domestic Product (GSDP) of the State of Assam, during 2009-10 (Quick estimates) at current prices was ₹92472.45 crore which is 13.8 percent higher than that of ₹81221.01 crore in 2008-09 which was the composition of substantially high growth of 18.2 per cent of Agriculture and Allied sector, 8.8 per cent of Industry Sector and 13.7 per cent of Services Sector. In Agriculture and Allied sector Agriculture sector alone achieved an extensively high growth of 19.9 per cent over the previous year. The record production of rice is the impact of production of 'Winter Rice' which leads to increase the overall rice production of the State. This high production of rice is due to the effort taken by State Agriculture Department and also favourable agro climatic condition prevailed during the year,

The Gross State Domestic Product of the State during 2009-10 (Quick estimates) at constant (2004-09) prices was ₹69923.65 crore against ₹64696.88 crore in 2008-09 showing an increase of 8.1 per cent growth over the previous year. As per quick estimates the Agriculture and Allied Activities showed a slow growth of 4.2 percent compared to the growth of 6.3 per cent experienced in 2008-09. The Industry Sector has also experienced marginally lower growth of 2.5 per cent against 3.3 per cent recorded during 2008-09. The growth of Service Sector has slide down to 10.0 percent in 2009-10 from 12.2 percent in 2008-09.

PER CAPITA INCOME OF ASSAM AND INDIA AT CURRENT PRICES



PER CAPITA INCOME OF ASSAM AND INDIA AT CONSTANT (2004-05) PRICES

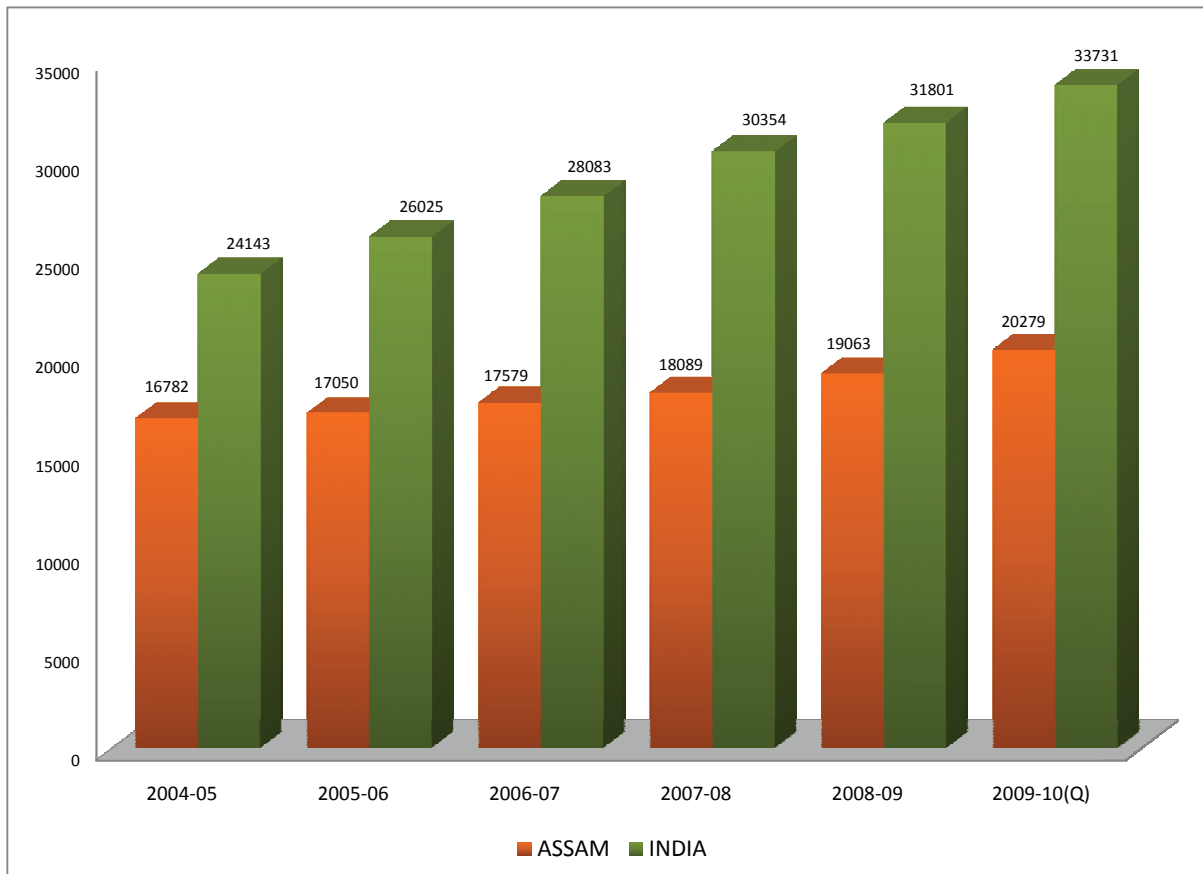


TABLE-3.3
SECTORAL GROWTH RATES OF GSDP AT CONSTANT (2004-05) PRICES

Sector		Percentage change over previous year		
		2007-08	2008-09	2009-10(Q)
1.	Agriculture	3.0	6.4	4.1
2.	Forestry & logging	4.1	4.5	5.0
3.	Fishing	(-)2.5	8.3	3.8
4.	Mining & Quarrying	4.0	2.0	1.7
5.	Manufacturing	(-)6.5	5.9	2.6
6.	Construction	3.0	2.5	3.0
7.	Electricity, Gas & Water Supply	15.7	(-)0.5	3.7
8.	Trade, Hotels & Restaurant, Transport, Storage & Communication	6.1	5.1	8.0
9.	Banking & Insurance, Real Estates and Business Services	11.7	14.5	14.4
10.	Public Administration & Other Services	8.5	10.7	16.1
11.	Gross State Domestic Product (GSDP)	4.8	6.8	8.1
12.	Agriculture & Allied Services	2.8	6.3	4.2
13.	Industry (2+3+4+5)	0.7	3.3	2.5
15.	Services (6+7+8)	7.8	8.6	12.2

Q-Quick Estimate.

Source : Directorate of Economics & Statistics, Assam

State Income 2009-10 (Quick Estimates)

The State Income i.e, Net State Domestic Product (NSDP) at current prices is estimated at ₹81691.00 crores in 2009-10 (quick estimates) which is higher by 13.83 per cent than that of ₹71762.98 crores in 2008-09. At current prices while the agriculture & allied activities recorded a commendable high growth of 19.0 per cent the industry and service sector also registered an impressive growth of 9.27 per cent and 13.83 per cent respectively.

Per Capita Income

The per capita NSDP of Assam at constant (2004-05) prices and current prices during the year 2009-10 calculated at ₹20279.00 and ₹27197.00 respectively against ₹19063.00 and ₹24195.00 respectively in the previous year. The percentage increase in per capita income during 2009-10 was 6.4 at constant (2004-05) prices and 12.41 per cent over the previous year.

Sectoral Composition of Gross State Domestic Income (GSDP)

The Sectoral composition of GSDP both at current and constant (2004-05) prices has undergone considerable change during the past few years. In 2004-05 at constant (2004-05) the share of Agriculture and Allied sector was 26%, Industry 27% and Services sector was 47%.

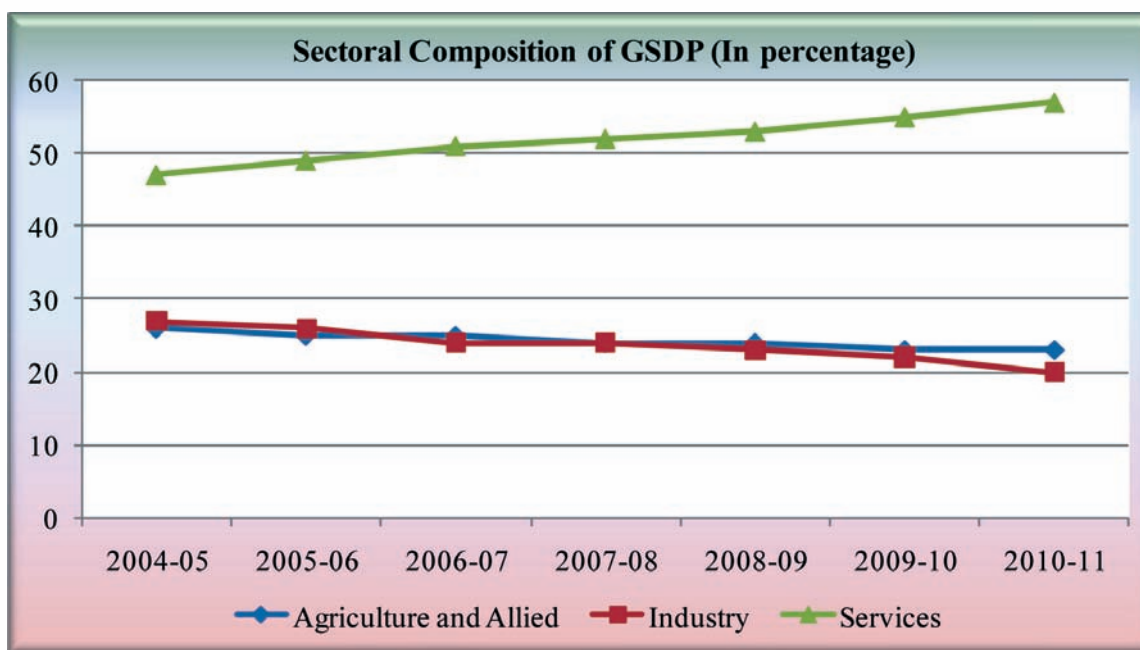
TABLE-3.4
SECTORAL CONTRIBUTION TO GROSS STATE DOMESTIC PRODUCT
AT CONSTANT (2004-05) PRICES

Sector/Year	Agriculture and Allied	Industry	Services	Total GSDP
2004-05	1365566(26)	1470509(27)	2503697(47)	5339772(100)
2005-06	1400591(25)	1418571(26)	2702195(49)	5521356(100)
2006-07	1427368(25)	1417783(24)	2933101(51)	5778253(100)
2007-08	1467602(24)	1427424(24)	3161725(52)	6056750(100)
2008-09	1560458(24)	1474138(23)	3435093(53)	6469688(100)
2009-10	1626141(23)	1510495(22)	3855729(55)	6992365(100)
2010-11	1725901(23)	1539107(20)	4243199(57)	7508207(100)

*Bracketed figure is percentage to total.

Source: Directorate of Economics and Statistics, Assam.

It is evident from the above that over the years the share of Agriculture and Allied sector in the GSDP has declined from 26% in 2004-05 to 23% by 2010-11. The Industry sector has also shown a gloomy picture of downfall to 20% in 2010-11 from 27% in 2004-05 in the share to the GSDP, while the share of Services sector has progressed from 47% in 2004-05 to 57% by 2010-11. Thus, that the State Economy has experienced a picturesque change over the periods the primary sector witnessed a shift to service sector and service sector has flourished very rapidly in the State's economy.



The Assam Economy has been growing with the average growth rate at 5.9 per cent per annum during the last seven years (2004-05 to 2010-11). Except Industry sector Agriculture & allied and Services sector witnessed notable growth during the period. The Agriculture & Allied sector recorded 3.97 percent growth as compared to 1.89 percent growth registered by the Industry sector during the years. Within industry sector while Manufacturing sector, a major sub sector, showed a **negative** growth of 0.77 per cent, the Electricity, Gas & Water Supply showed marginally positive growth of 2.23 per cent.

GSDP of Assam and GDP of India

The GSDP Assam and GDP of India at constant (2004-05) prices are shown in the table 3.5.

TABLE-3.5

Year	Assam		India	
	GSDP (Rs. Crore)	Growth Rate (%)	GDP (Rs. Crore)	Growth Rate (%)
2004-05	53397.72	—	2971464	—
2005-06	55213.56	3.4	3254216	9.5
2006-07	57782.53	4.7	3566011	9.6
2007-08	60567.50	4.8	3898958	9.3
2008-09	64696.88	6.8	4162509	6.8
2009-10	69923.65	8.1	4493743	8.0
2010-11	75082.07	7.4	4879232	8.6

Source: Directorate of Economics and Statistics, Assam.

Central Statistical Office, New Delhi.

Per Capita Income of Assam and India at Current Prices

The per capita income gives an idea of standard of living of the people. The per capita income of Assam and India at current prices is given in the table 3.6

TABLE-3.6

PER CAPITA INCOME AT CURRENT PRICES

Year	Assam		India	
	Per capita Income (in Rs.)	Growth Rate (%)	Per capita Income (in Rs.)	Growth Rate (%)
2004-05	16782	-	24143	-
2005-06	18396	9.62	27123	12.3
2006-07	19737	7.29	31198	15.0
2007-08	21290	7.87	35820	14.8
2008-09	24195	13.64	40605	13.4
2009-10	27197	12.41	46492	14.5
2010-11	30413	11.82	54527	17.3

Source: Directorate of Economics and Statistics, Assam

Central Statistical Office, New Delhi.

The Per capita Income of Assam at current prices for 2010-11 has been worked out at ₹30413.00 against ₹54527.00 at all India level as per Advance Estimates. From the above table it is observed that there is a large gap in respect of Per capita Income of Assam and Assam is significantly lagging behind the average Per capita Income of all States and Union Territories of the country as a whole.

Advance Estimates of National Income, 2010-11

The Central Statistics Office (CSO), Ministry of statistics and Programme Implementation, Govt. of India, has released the advance estimates of National Income at constant (2004-05) and current prices for the financial year, 2010-11.

These advance estimates are based on anticipated level of agricultural and industrial production, analysis of budget estimates of government expenditure and performance of key sectors like, railways, transport other than railways, communication, banking and insurance, etc. The advance estimates at current prices are derived by estimating the implicit price deflators (IPDS) at sectoral level from the relevant price indices. The salient features of these estimates are detailed below.

Estimates at constant (2004-05) Prices

Gross Domestic Product

Gross Domestic Product (GDP) at factor cost at constant (2004-05) price in the year 2010-11 is likely to attain a level of ₹48,79,232 crore, as against the Quick Estimates of GDP for the year 2009-10 of ₹44,93,743 crore, released on 31st January 2011. The growth in GDP during 2010-11 is estimated at 8.6 per cent as compared to the growth rate of 8.0 per cent in 2009-10.

The growth rate of 8.6 per cent in GDP during 2010-11 has been due to the growth rates of over 8.0 per cent in the sectors of 'manufacturing', 'construction', 'trade', Hotels, transport and communication', 'financing, insurance, real estate and business services'. Agriculture sector registered a growth rate of 5.4 percent.

Agriculture

The 'agriculture, forestry and fishing' sector is likely to show a growth of 5.4 per cent in its GDP during 2010-11, as against the previous year's growth rate of 0.4 per cent. According to the information furnished by the Department of Agriculture and Cooperation (DAC), which has been used in compiling the estimate of GDP from agriculture in 2010-11, production of foodgrains and oilseeds is expected to grow by 6.5 per cent and 11.9 per cent respectively, as compared to the previous agriculture year. The production of cotton and sugarcane is also expected to rise by 41.2 per cent and 15.2 per cent respectively in 2010-11. Among the horticultural crops, production of fruits and vegetables is expected to increase by 4.1 per cent and 3.8 per cent respectively during the year 2010-11.

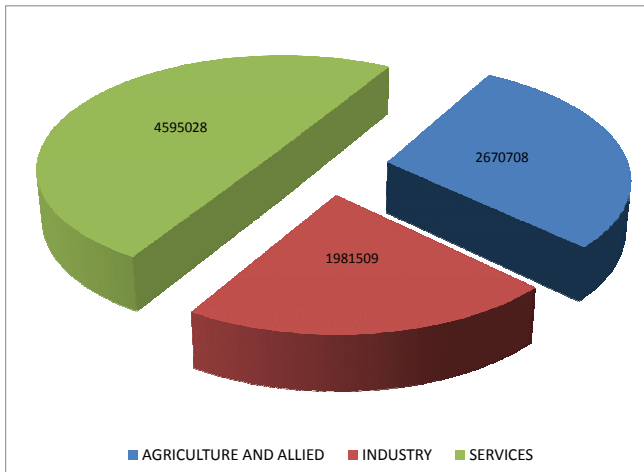
Industry

The growth in GDP for mining and quarrying and manufacturing sectors during 2010-11 is expected to be 6.2 and 8.8 percent respectively over previous year. According to the latest estimates available on the index of Industrial Production (IIP), the Index of mining and manufacturing registered growth rates of 8.0 per cent and 10.0 per cent during April-November, 2010. The estimated growth rate for construction sector is 8.0 per cent in 2010-11. The key indicators of construction sector, namely, cement production and steel consumption have registered growth rates of 4.4 per cent and 8.8 per cent respectively during April-December, 2010.

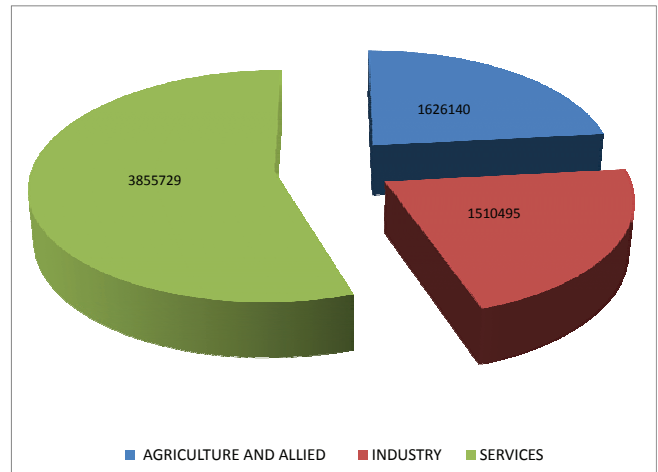
Services

The estimated growth in GDP for the trade, hotels, transport and communication sectors during 2010-11 is placed at 11.0 percent, mainly on account of growth during April-November, 2010-11 of 14.9 per cent in passengers handled in civil aviation, 21.3 per cent in air cargo handled and 40.9 per cent in stock of telephone connections. The sales of commercial vehicles witnessed an increase of 34.1 per cent in April-December, 2010. The sector, 'financing, insurance, real estate and business services', is expected to show a growth rate of 10.6 per cent during 2010-11, on account of 14.0 per cent growth in aggregate deposits and 22.6 per cent growth in bank credit during April-November, 2010 (against the respective growth rates of 18.6 per cent and 10.1 per cent in the corresponding period of previous year). The growth rate of 'community, social and personal services' during 2010-11 is estimated to be 5.7 per cent.

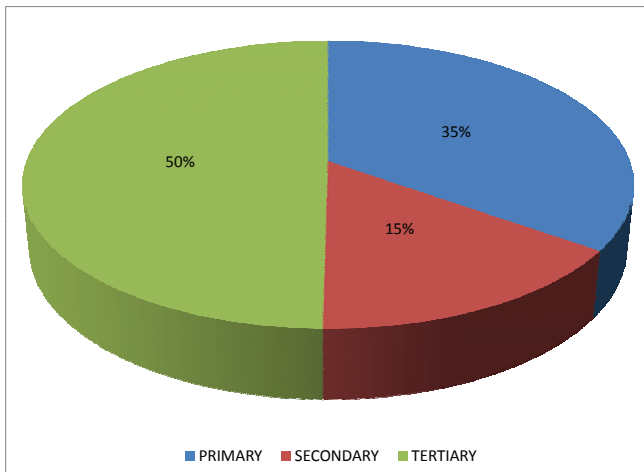
**GSDP OF ASSAM AT CURRENT PRICES
2009-10**



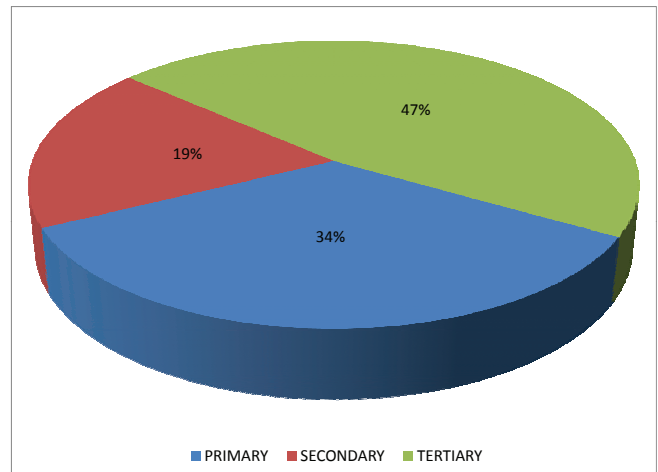
**GSDP OF ASSAM AT CONSTANT (2004-05)
PRICES 2009-10**



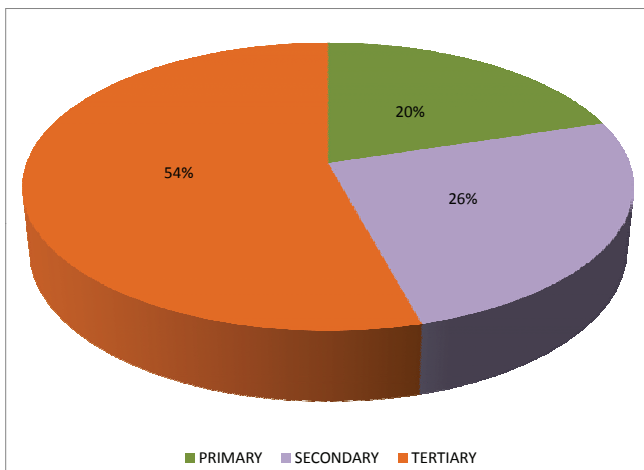
**GSDP OF ASSAM AT CURRENT PRICES
2009-10**



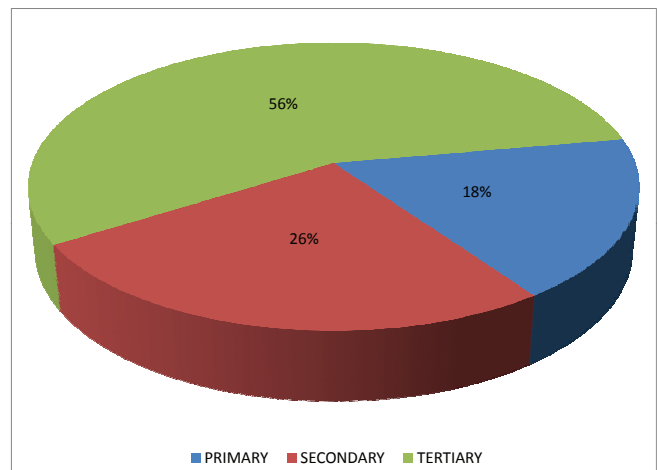
**GSDP OF ASSAM AT CONSTANT (2004-05)
PRICES 2009-10**



**GDP OF INDIA AT CURRENT PRICES
2009-10 (RS IN CRORES)**



**GDP OF INDIA AT CONSTANT
(2004-05) PRICES 2009-10**



National income

The net national income (NNI) at factor cost, also known as national income, at 2004-05 price is likely to be ₹42,69,994 crore during 2010-11, as against the previous year's quick Estimate of ₹39,46,540 crore. In terms of growth rates, the national income is expected to rise by 8.2 per cent during 2010-11 in comparison to the growth rate of 7.5 per cent in 2009-10.

Per capita income

The per capita income in real terms (at 2004-05 prices) during 2010-11 is likely to attain a level of ₹36,003 as compared to the Quick Estimate for the year 2009-10 of ₹33,731. The growth rate in per cent capita income is estimated at 6.7 per cent during 2010-11, as against the previous year's estimate of 6.1 per cent.

Estimated at Current Prices

Gross domestic product

GDP at factor cost at current prices in the year 2010-11 is likely to attain a level of ₹72,56,571 crore, showing a growth rate of 18.3 per cent over the Quick Estimates of GDP for the year 2009-10 of ₹61,33,230 crore.

National income

The NNI at factor cost at current prices is anticipated to be ₹64,66,860 crore during 2010-11, as compared to ₹54,39,557 crore during 2009-10, showing a rise of 18.9 per cent.

Per capita income

The per capita income at current prices during 2010-11 is estimated to be 54,527 as compared to ₹46,492 during 2009-10, showing a rise of 17.3 per cent.

CHAPTER-IV

STATE FINANCE

Present Status

The fiscal position of Assam State, since 2005-06, staged a remarkable recovery due to consistent and cohesive reformatory measures undertaken by the State Government. A turn around in fiscal scenario took place in 2005-06, in which year revenue; fiscal and primary deficits were not only wiped out but also became positive. This surplus persisted from 2005-06 to 2008-09. But during 2009-10, there was a sudden fall in the three major indicators viz., revenue, fiscal and primary mainly due to abnormal increase of salary expenditure on account of implementation of revised scale of pay and pension of State Government employees from 2009-10.

A study of the Assam Government Budget, 2010-11 reveals that the expected revenue receipts of the Government of Assam is estimated at ₹26408.93 crore as against the expenditure estimated at ₹32369.02 crore, thereby showing a deficit amounting to ₹5960.09 crore in the Revenue account. The Budget also reveals a deficit of ₹3460.47 crore at the beginning of the fiscal which is expected to increase to ₹3464.46 crore at the end of the year after taking the deposit of ₹6500.00 crore from the Reserve Bank of India.

In the Budget for 2010-11, the Capital Receipts along with Contingency Fund and Public Account have been estimated at ₹95626.19 crore as against ₹94828.98 crore in 2009-10 (R.E.). The total capital along with Contingency Fund and Public Account disbursement has been estimated at ₹96170.09 crore in the Budgetary Estimate for 2010-11 as against the amount of ₹96850.44 crore in the previous year thereby recording a decrease of capital expenditure by 0.70 percent in 2010-11(B.E.) over 2009-10(R.E.). As regards to allocation of funds under Capital Expenditure, the Budget for 2010-11 provides ₹4441.01 crore as against the anticipated receipt of ₹3424.93 crore.

TABLE-4.1
RECEIPT AND EXPENDITURE FROM THE CONSOLIDATED FUND OF
ASSAM GOVERNMENT BUDGET, 2010-11

(Rupees in lakh)

Year	Receipt			Expenditure			Surplus (+) Deficit (-)
	Revenue Account	Capital Account	Total	Revenue Account	Capital Account	Total	
1980-81	43616	34450	78066	34399	56070	90469	(-) 12403
1990-91	177394	220058	397452	192040	204384	396424	(+) 1028
2000-01	563764	674276	1238040	641711	633297	1275008	(-) 36968
2007-08	1532492	117863	1650355	1274416	240614	1515030	(+) 135325
2008-09	1807704	291234	2098938	1424333	324256	1748589	(+) 350349
2009-10(R.E)	2448516	338193	2786709	2981595	583265	3564860	(-) 778151
2010-11(B.E.)	2640893	342493	2983386	3236902	444101	3681003	(-) 697617

Note: R.E.-Revised Estimates B.E.- Budget Estimates

Source: Assam Budget in Brief, 2010-11.

Position of Revenue, Fiscal and Primary Balances

The State's FRBM Act 2005 set the target that revenue deficit should be eliminated and the fiscal deficit should be brought down to 3.5 percent of GSDP by 2008-09. In the year 2009-10 the fiscal deficit was estimated at 4.59 percent of GSDP that crossed the limit set by the State's FRBM Act and also 4 percent of GSDP limit raised by the Government of India for 2009-10. The table below shows the position of revenue, fiscal and primary balances and also the fiscal deficit/surplus as percentage of GSDP over the last five year period from 2005-06 to 2009-10.

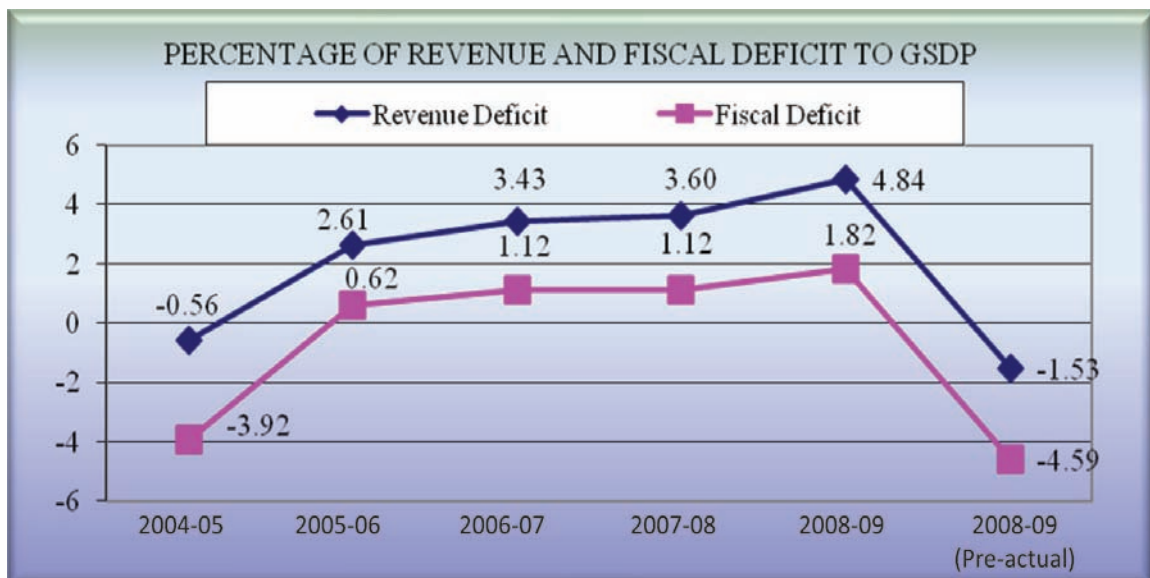
TABLE-4.2
POSITION OF REVENUE, FISCAL AND PRIMARY BALANCES

Year	Revenue deficit(-) / surplus(+) (Rupees in crore)	Fiscal deficit(-) / surplus(+) (Rupees in crore)	Primary deficit(-)/ surplus(+) (Rupees in crore)	Fiscal deficit(-) /surplus(+) as percentage of GSDP
2005-06	(+) 1509	(+) 356	(+) 1866	(+) 0.62
2006-07	(+) 2211	(+) 712	(+) 2228	(+) 1.12
2007-08	(+) 2581	(+) 790	(+) 2302	(+) 1.12
2008-09	(+) 3834	(+) 1407	(+) 3000	(+) 1.82
2009-10 (Pre-Actual)	(-) 1348	(-) 4043	(-) 2210	(-) 4.59

Source: Department of Finance (Economic Affairs), Government of Assam.

In 2009-10, sudden deterioration of financial position of the State was mainly caused due to abnormal increase of salary expenditure on account implementation of revised scale of pay and pension of State Government employees from 2009-10.

The percentage of revenue deficit to GSDP was 0.56 percent in 2004-05 and thereafter, for four consecutive years the State enjoyed a revenue surplus. But due to enhancement of the State Govt. employees salary as per recommendation of fifth Pay Commission, revenue deficit was going high to 1.53 percent of GSDP during 2009-10 (Pre-actual). The graph below shows the trend of percentage of revenue and fiscal deficit to GSDP from the year 2004-05 to 2009-10 (Pre-actual).



Revenue Receipts and Expenditure

Revenue Receipts comprises two major components of State's Own resources and Transfer from the Centre. Table-4.3 shows Revenue Receipts position during the period 2005-06 to 2009-10.

TABLE-4.3
REVENUE RECEIPTS

(Rupees in crore)

Year	Tax Revenue [A]	Non-Tax Revenue [B]	State's Own Resources [A+B]	Transfer from the Centre [C]	Total Revenue Receipts [A+B+C]	Percentage Share of the State to total Revenue Receipts	Percentage Share of the Centre to total Revenue Receipts
2005-06	3232.21	1459.28	4691.49	7353.90	12045.39	38.95	61.05
2006-07	3483.32	1859.27	5342.59	8324.36	13666.95	39.09	60.91
2007-08	3359.50	2134.59	5494.09	9830.84	15324.93	35.85	64.15
2008-09	4150.21	2271.90	6422.11	11654.93	18077.04	35.53	64.47
2009-10 (Pre-actual)	4986.71	2752.94	7739.65	12144.84	19884.49	38.92	61.08
2010-11 (B.E.)	6850.90	2782.05	9632.95	16775.98	26408.93	36.48	63.52
Annual Average Growth Rate(%)	10.99	15.83	12.58	14.35	13.68		

Source: Department of Finance (Economic Affairs), Government of Assam.

It reveals from the Table that while the 'State's Own Resources' is expected to increase from ₹4691.49 crore in 2005-06 to ₹9632.95 crore in 2010-11 at an annual growth rate of around 15 percent, 'Transfer from the Centre' is expected to be ₹16775.98 crore in 2010-11 from ₹7353.90 crore in 2005-06 at an annual growth rate of nearly 18 percent. The annual growth rate of Revenue Receipts over the last six years is 17.00 percent. The relative share of State to total revenue receipts on the other hand, has declined from 39.09 percent in 2006-07 to 35.85 percent in 2007-08 and further to 35.53 percent in 2008-09 on account of fall of State's tax collection. Although the State's own resources and Total revenue receipt has recorded 20.5 percent and about 10.0 percent respectively increase in 2009-10(Pre-actual) over 2008-09, the relative share of the State to Total revenue receipt in 2009-10 has almost reached the level of 38.92 percent as it was in 2005-06(38.95 percent). But the Budget Estimates reveals that the expected share of State's own resources will reach the point to 36.48 percent in 2010-11. The trend of relative Central share to total revenue receipts has been expected to reach the level of 63.52 percent in 2010-11 as it was in 2005-06 (61.08 percent) after remaining high for two consecutive years 2007-08 (64.15 percent) and 2008-09 (64.47 percent). However, the relative Central Share to Total revenue receipt was low in 2006-07 (60.91 percent) over 2005-06.

State's Own Resources

State's own resources consist of tax revenues and non-tax revenues. The following table presents the details of tax revenues raised over the last five years from 2005-06 to 2009-10.

TABLE-4.4
STATE TAXES

(Rupees in crore)

	Items	2005-06	2006-07	2007-08	2008-09	2009-10 (Pre-Actual)	Growth Rate (%)
1.	Agriculture Income Tax	7.02	2.52	3.14	18.18	78.34	97.40
2.	Taxes on Professions etc.	99.80	108.36	124.68	137.73	150.15	11.15
3.	Land Revenue (Taxes on specified lands)	74.65 (52.18)	74.15 (63.92)	79.76 (68.55)	113.36 (80.00)	116.91 (85.00)	14.13
4.	Stamps and Registration	85.88	97.32	109.91	111.17	108.45	6.18
5.	Taxes on Immovable Property other than Agricultural Land	0.23	0.00	0.00	0.00	0.00	0.00
6.	State Excise	160.40	174.88	188.71	198.68	239.19	9.71
7	Sales Tax (CST)	2568.41 (490.34)	2783.24 (550.49)	2691.43 (443.15)	3110.58 (415.81)	3535.26 (305.82)	7.79
8	Motor Vehicle Tax	155.91	151.15	138.62	145.21	177.26	2.19
9	Taxes on Goods & Passengers (Assam Entry Tax)	61.52 (0.00)	70.15 (0.00)	12.39 (1.51)	284.67 (268.84)	545.41 (526.26)	77.98
10	Taxes on Electricity Duty	13.29	15.89	4.62	22.36	27.07	19.30
11	Other Taxes & Duties on Commodities and Services.	5.10	5.66	6.24	8.27	8.67	15.18
TOTAL TAX REVENUES		3232.21	3483.32	3359.50	4150.21	4986.71	10.99
Tax GSDP ratio		5.59	5.41	4.69	5.23	5.67	
GSDP at current price (Rupees in crore)		57816.87	64429.32	71625.40	79276.66	88020.87	

Source: Department of Finance (Economic Affairs), Government of Assam.

It appears from the above table that the total tax collection declined to ₹3359.50 crore in 2007-08 from ₹3483.32 crore in 2006-07. This decline was due to non-realisation of Assam Entry Tax, as the Hon'ble Gauhati High Court scrapped the entry tax. Moreover, collection from Central Sale Tax was gradually declining from 2007-08, as there was a consensus arrived at between the Central and State Governments that Central Sale Tax would be reduced annually by 1 percentage point from 4 percent to nil by 2010-11 over three years period beginning from 01.04.2007. The revenue loss to the States as per the consensus would be compensated by non-plan grants in aid from GOI on the basis of audited figure. The Twelfth Finance Commission has fixed a target of Tax-GSDP ratio at 6.8 percent by 2009-10, the terminal year of its award period. Further, The Twelfth Finance Commission has assumed an annual growth rate of 13.20 percent in collection of State Taxes up to 2009-10. But the collection of State's Taxes has increased at an annual growth rate of 10.99 percent from 2005-06 to 2009-10, which is much below the growth rate assumed by the Twelfth Finance Commission.

Non-Tax Revenues

Non-Tax Revenues of the State consists of interest receipt, royalty from crude oil & natural gas, royalty from coal & lignite and forest. Other receipts of non-tax revenues are in the nature of fees, fines, user charges and reimbursement from GOI. Table-4.5 presents details of non-tax revenues raised during the last five years from 2005-06 to 2009-10.

TABLE-4.5
NON-TAX REVENUES

(Rupees in crore)

	Non-Tax revenues	2005-06	2006-07	2007-08	2008-09	2009-10 (Pre-Actual)	Growth Rate (%)
1	Interest	36.41	167.49	240.72	433.16	493.63	85.23%
2	Dividend	15.47	18.54	24.00	19.45	14.92	(-)24%
(a) General Services							
3	Election	0.00	4.27	7.76	5.66	77.27	
4	Grants under debt waiver scheme	0.00	0.00	105.42	105.41	210.85	
5	Other general services	34.74	28.47	27.11	28.70	63.38	12.87%
6	(b) Social Services	38.58	135.26	30.91	20.88	24.96	23.96%
(c) Economic Services							
7	Forestry & Wild Life	38.42	42.99	75.03	115.63	160.56	46.96%
8	Royalty from crude oil & natural gas	1216.16	1385.82	1547.88	1430.12	1574.18	5.63%
9	Royalty from coal & lignite	15.03	19.71	17.88	19.20	37.54	19.77%
10	Other Economic Services	64.47	56.72	57.88	93.69	95.65	13.78%
	Total Non-Tax	1459.28	1859.27	2134.59	2271.90	2752.94	15.83%

Source: Department of Finance (Economic Affairs), Government of Assam.

The contribution of Non-tax revenues increased from ₹1459.28 crore in 2005-06 to ₹2752.24 crore in 2009-10 at an annual growth rate of 15.83 percent. The increase in non-tax revenue was mainly due to increased realisation of interest on cash balance investment, increased receipts from forestry and wild life and non-plan grants from GOI on account of debt waiver scheme granted by Government of India on recommendations of the Twelfth Finance Commission. Debt waiver scheme of Government of India was co-terminus with the award period of the Twelfth Finance Commission. State Government will not get non-plan grant at the rate of ₹105 crore from 2010-11 on account of debt waiver scheme of GOI, since the award period of the Twelfth Finance Commission ended on 31.03.2010. Moreover, growth of royalty from crude oil and natural gas does not give much impact over the five years, due to high volatility of the crude oil prices in the international market and dollar-rupee value fluctuations. Royalty from crude oil dropped to ₹1430.12 crore in 2008-09 from ₹1547.88 crore in 2007-08 on account of severe global economic recession during 2008-09.

Transfer from the Centre

Transfer from the centre mainly consists of State's share in Central Taxes, grants for plan schemes, grants under the award of Central Finance Commission and other non-plan grants. The table will present the position of transfer of funds from the Centre during the last five years:

TABLE-4.6
TRANSFER FROM THE CENTRE

(Rupees in crore)

	Transfer from the Centre	2005-06	2006-07	2007-08	2008-09	2009-10 (Pre-Actual)	Growth Rate (%)
1	Share in Central Taxes	3056.78	3898.99	4918.21	5189.89	5339.53	15.04
2	Plan Grants	3417.25	3576.67	4026.97	5444.09	5211.58	13.48
3	Plan Grants under Finance Commission	8.00	16.76	66.69	8.00	74.36	45.05
4	Non-Plan Grants under Finance Commission	772.95	704.57	544.95	561.23	1036.15	3.65
5	Other Non-Plan Grants	98.92	127.37	274.02	451.72	483.22	55.87
	Total Transfer	7353.90	8324.36	9830.84	11654.93	12144.84	14.35

Source: Department of Finance (Economic Affairs), Government of Assam.

Transfer from the Centre has increased at an annual growth rate of 14.35 percent over the last five years. Plan grants consist of grants under annual state plan, central sector, NEC, special areas and centrally sponsored schemes. Share in Central Taxes comprises of Corporation Tax, Income Tax, Wealth Tax, Customs, Union Excise and Service Tax. The Share in Central Taxes have increased from ₹3056.78 crore in 2005-06 to ₹5339.54 crore in 2009-10 at an annual growth rate of 15.04 percent. The Twelfth Finance Commission recommended total amount of ₹19850.69 crore for the five-year period 2005-10. As against this, State Government received total amount of ₹22402.98 crore. Quantum of transfer of share in Central Taxes to the States depends upon the actual collection. In respect of non-plan grants substantial growth was noticed during 2007-08, 2008-09 and 2009-10, since the State Government received compensatory amount of ₹70.89 crore for revenue loss on account of phasing out of Central Sales Tax (CST), ₹300.00 crore from National Calamity Contingency Fund and ₹378.89 crore as compensation for revenue loss on account of phasing out of CST.

Share in Central Taxes

Detailed break-up of share in Central Taxes has been shown in the following table-

TABLE-4.7
SHARE IN CENTRAL TAXES

(Rupees in crore)

	Share in Central Taxes	2005-06	2006-07	2007-08	2008-09	2009-10 (Pre-Actual)
1	Corporation Tax	844.00	1216.91	1560.93	1702.01	2197.48
2	Income Tax	594.95	738.97	1047.67	1068.71	1224.08
3	Other Taxes on Income & Expenditure	(-) 0.18	(-) 0.20	(-) 0.08	(-) 0.11	0.00
4	Taxes on Wealth	1.66	1.53	1.73	1.61	4.97
5	Customs	595.95	760.49	929.65	992.08	747.32
6	Union Excise Duties	705.28	807.53	887.47	865.10	601.97
7	Service Tax	225.37	374.00	491.03	560.60	563.71
8	Other Taxes & Duties on Commodities & Services	(-)0.24	(-) 0.24	(-) 0.19	(-) 0.11	0.00
	Total	3056.78	3898.99	4918.21	5189.89	5339.53

Source: Department of Finance (Economic Affairs), Government of Assam.

The pace of growth of the Central tax transfer has been slow down during 2008-09 and 2009-10 due to global economic recession compared to increasing trend from 2006-07 to 2007-08. Central tax transfer grew by 27.55 percent during 2006-07 over 2005-06 and by 26.14 percent during 2007-08 over 2006-07. But it increased by 5.52 percent and 2.88 percent during 2008-09 and 2009-10 over the previous years 2006-07 and 2007-08 respectively.

Revenue Expenditure

Revenue expenditure is segregated into plan and non-plan expenditure. The trend of expenditure of Government of Assam for the last five years is presented in the table below.

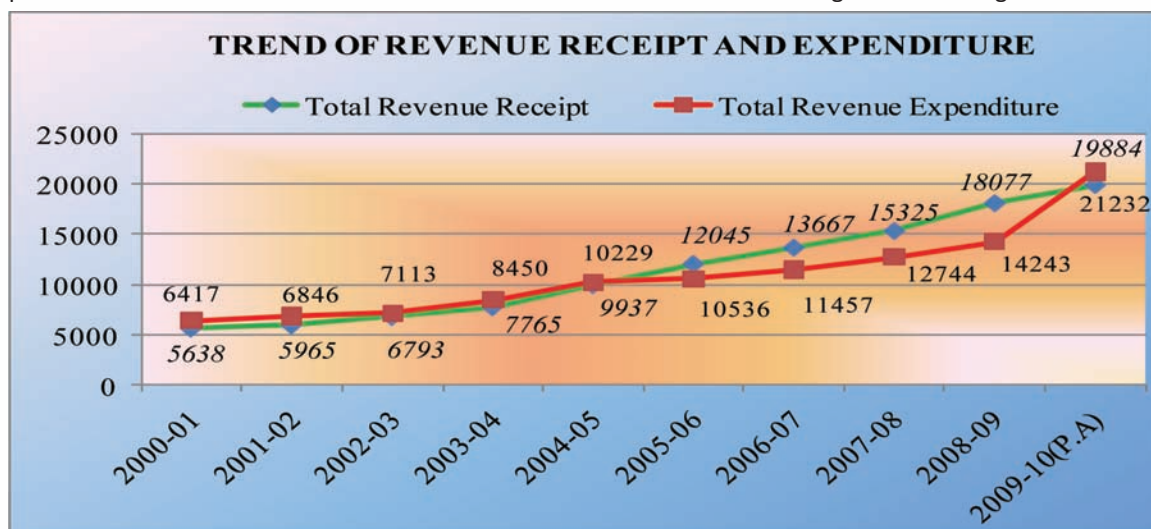
TABLE-4.8
REVENUE EXPENDITURE

(Rupees in crore)

	Items of Expenditure	2005-06	2006-07	2007-08	2008-09	2009-10 (Pre-Actual)	Growth Rate (%)
I	Plan expenditure	2129.01	1662.50	2067.38	3110.65	4168.91	21.78
(a)	Of which salary and wages	237.86	200.21	172.62	256.68	297.59	7.21
II	Non-Plan expenditure	8407.29	9794.03	10676.78	11132.68	17063.29	16.69
(a)	Of which- Election	43.48	48.66	13.32	79.21	44.91	5.67
(b)	Interest payment	1510.12	1515.67	1512.24	1593.33	1832.58	4.47
(c)	Salary and wages	3882.63	4484.19	5068.58	5583.70	7804.80	17.53
(d)	Pension	1011.48	1177.86	1340.68	1437.37	1769.28	14.08
(e)	Devolution to Local Bodies	10.89	7.80	8.94	147.51	549.89	193.98
	Total Revenue Expenditure (I+II)	10536.30	11456.53	12744.16	14243.33	21232.20	17.57

Source: Department of Finance (Economic Affairs), Government of Assam.

It reveals from the Table that the Interest payment has been increased at an annual growth rate of 4.47 percent, which is much lower than 7.5 percent, prescribed by the Twelfth Finance Commission for the period from 2005-06 to 2009-10. The Twelfth Finance Commission although assumed a growth rate of



10 percent for pension payment for the period 2005-10, the pension expenditure has grown at the rate of 14.08 percent annually during the last five years. Overall Salary expenditure under non-plan revenue account has increased at an annual growth rate of 17.53 percent, which is much higher than the Twelfth Finance Commission assumed for education sector (6 percent) and for other sectors (5 percent) for the period 2005-10. The increase of salary expenditure from ₹5583.70 crore in 2008-09 to ₹7804.80 crore in 2009-10 is due to implementation of 6th State Pay Commission recommendations for revised pay scale for the State Government employees as well as pensioners with effect from 2009-10. The graph below shows the trend of revenue receipt and revenue expenditure from 2000-01 to 2009-10 (Pre-actual).

Capital Expenditure

Capital expenditure consists of capital outlay and lending (disbursement of loans and advances). Capital expenditure relates to creation of assets of the State Government. The Table given below shows the trend of capital expenditure from 2005-06 to 2009-10 (Pre-actual).

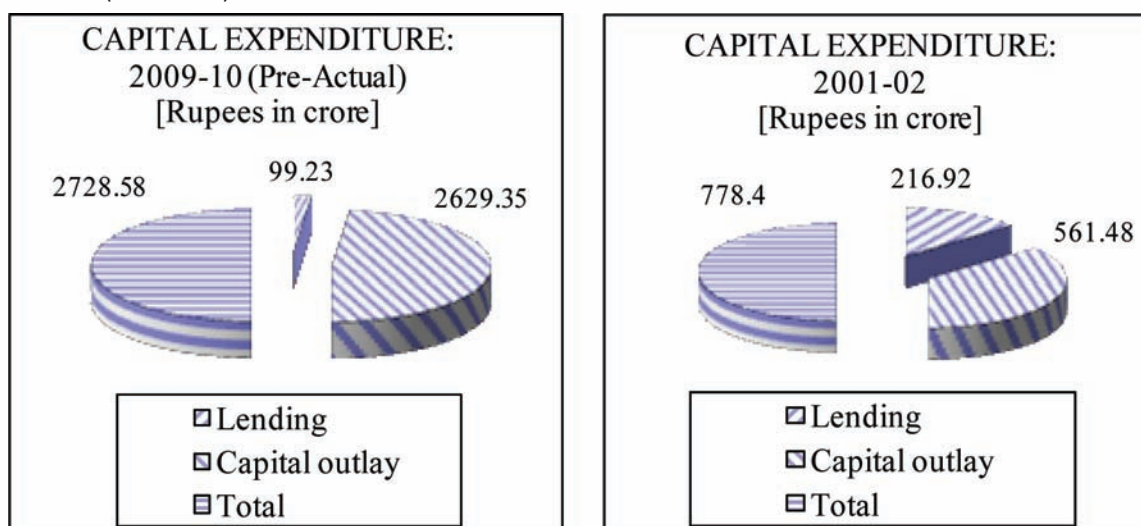
TABLE-4.9
CAPITAL EXPENDITURE

(Rupees in crore)

Capital Expenditure	2005-06	2006-07	2007-08	2008-09	2009-10 (Pre-Actual)	Growth Rate (%)
Capital Outlay	1085.32	1452.97	1688.11	2373.01	2629.35	25.36
Lending	105.62	80.63	142.89	88.74	99.23	-0.29
Total	1190.94	1533.60	1831.00	2461.75	2728.58	23.75

It is inferred from the Table that the capital expenditure of the State has increased from ₹1190.94 crore in 2005-06 to ₹2728.58 crore in 2009-10 at an annual growth rate of 23.75 percent. Of the total capital expenditure, capital outlay increased at an annual growth rate of 25.36 percent, while lending showed a negative growth of 0.29 percent during the same period. This shows State Government is increasing its capital expenditure for creation of more assets, which will generate more resources for development of the State.

The pie-diagram below shows the composition of total capital expenditure during the year 2001-02 and 2009-10 (Pre-actual).



Debt Position

The standard criteria for determining the debt sustainability of the States are acceptable level of the debt-GSDP ratio and the ratio of interest payment to total revenue receipts. Twelfth Finance Commission recommended 28 percent and 15 percent as the acceptable levels of debt-GSDP ratio and the ratio of interest payment to total revenue receipts respectively. The debt position of the State during the last five years is shown below-

TABLE-4.10
DEBT POSITION

(Rupees in crore)

Year	Market Loan	Institutional loan	NSSF Loan	Central Loan	State Provident Fund	Year end total Outstanding Debt	Debt-GSDP Ratio
2005-06	6704.52	375.11	4602.21	2875.02	3265.39	17822.25	30.82
2006-07	7296.53	417.74	4688.26	2775.31	3614.78	18792.62	29.17
2007-08	7841.09	511.80	4679.66	2708.44	3932.74	19673.73	27.47
2008-09	9855.85	645.26	4697.03	2639.56	4322.97	22160.67	27.95
2009-10 (Pre-actual)	11261.30	690.92	4721.82	2346.38	4812.52	23832.94	27.08

Source: Department of Finance (Economic Affairs), Government of Assam.

The debt position of the State as revealed from the Table-4.10 that at the end of 2007-08, 2008-09 and 2009-10 (Pre-actual) has come within the manageable level of 28 percent of GSDP as prescribed by the Twelfth Finance Commission.

Interest Payment to Revenue Receipts

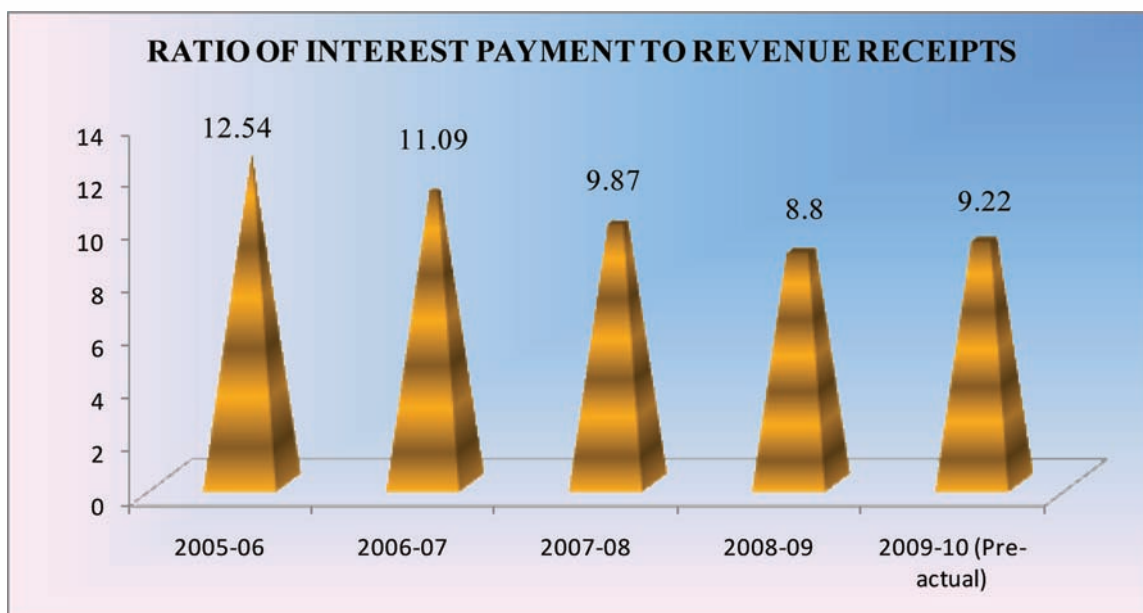
The position interest payment to total revenue receipts in terms of percentage is indicated in the Table 4.11.

TABLE-4.11
INTEREST PAYMENT TO REVENUE RECEIPTS

(Rupees in crore)

Year	Total Revenue Receipts	Interest Payment	Ratio of Interest Payment to revenue Receipt (in %)
2005-06	12045.39	1510.12	12.54
2006-07	13666.95	1515.67	11.09
2007-08	15324.93	1512.24	9.87
2008-09	18077.04	1593.33	8.80
2009-10 (Pre-actual)	19884.49	1832.58	9.22

Source: Department of Finance (Economic Affairs), Government of Assam.



The ratio of interest payment to revenue receipts has been falling persistently and has come down to 8.80 percent in 2008-09 and increased to 9.22 percent in 2009-10. The graph clearly shows that the ratio of interest payment to revenue receipts remains well below the 15 percent benchmark (refer para 4.5.0) during last five-year period 2005-10.

Borrowings and Repayment

State Government's borrowing and corresponding repayment components are Market loans, Institutional loans, ways and means advance from RBI, NSSF loans, Central loans and State Provident Fund. The prudent debt management is that revenue expenditure should be met from revenue receipts and capital expenditure should be funded by borrowings. Hence, revenue deficit is always required to be maintained at zero level so that borrowed funds may not be diverted to meet revenue expenditure. Net loans available for funding the expenditure of the State Government is shown in the table 4.12.

TABLE-4.12
BORROWINGS AND REPAYMENT

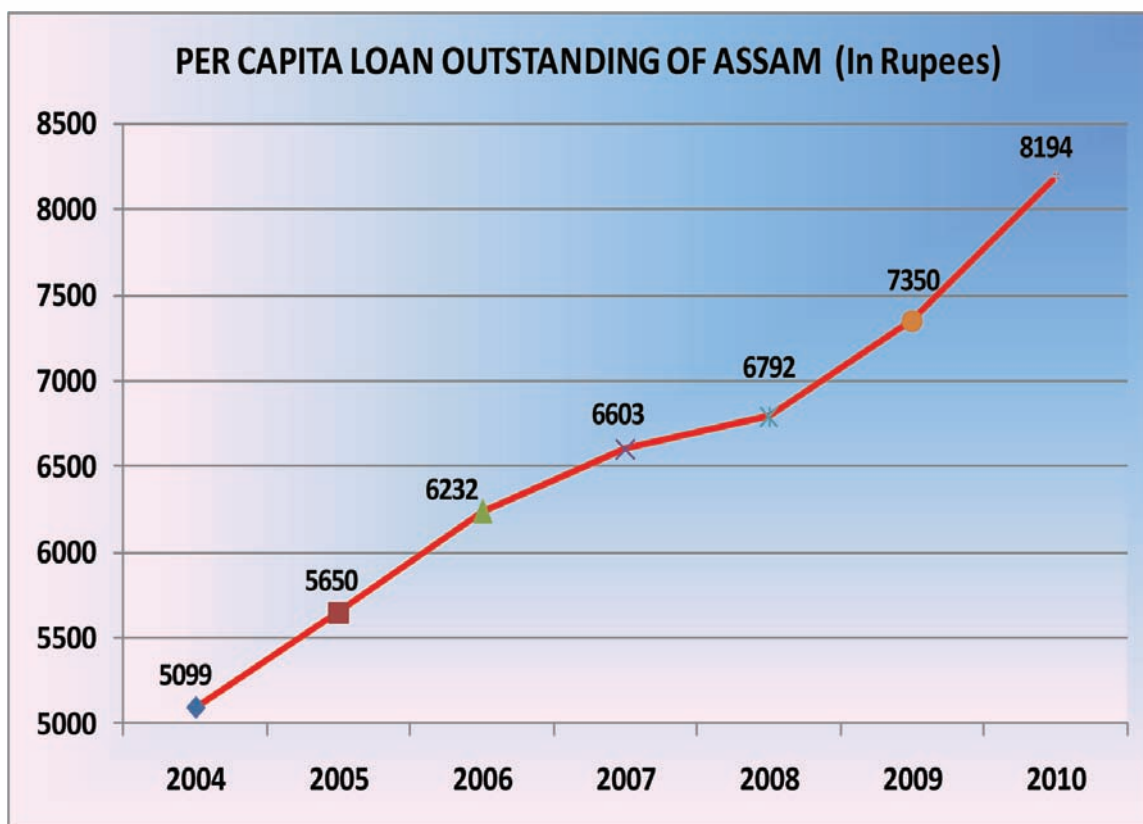
(Rupees in crore)

Year	Borrowings	Repayment of Loans	Net Loans	Borrowing Ceiling fixed by GOI
2007-08	1852.00	970.89	881.11	2223.31
2008-09	3505.40	1018.46	2486.94	2540.00
2009-10 (Pre-Actual)	2945.08	1272.82	1672.26	3223.00
2010-11 (B.E.)	4145.80	1334.86	2810.94	2951.00

Source: Department of Finance (Economic Affairs), Government of Assam

Govt. of India every year fixes annual borrowing ceiling of all States in order to keep States debt to the sustainable level. The year-wise net annual borrowing ceiling fixed by the GOI for Assam is indicated in the above table. It appears that the State Government has kept its borrowings within the limit fixed by the GOI to keep its debt to the sustainable level.

The loan outstanding has been increasing from year to year. The total loan outstanding as on 31st March 2009 was ₹22076.85 crore increased to ₹24842.40 crore as on 31st March 2010 thereby showing an increase of 13 percent over the previous year. The trend of per capita loan outstanding as on 31st March of the years 2004, 2005, 2006, 2007, 2008, 2009 and 2010 is depicted in the graph given below.



CHAPTER – V

AGRICULTURE

Agriculture and its allied activities played an important role in the socio- economic development of the State of Assam as this sector is the major contributor to the State economy as well as providing livelihood to a significant proportion of the population of the State. About 99 per cent area of total land mass of the State is rural and almost 50 per cent of the total land area is utilised for cultivation. The net cultivated area of the State is 28.10 lakh hectares (2008-09) and the per capita availability of net sown area comes to around 0.1 hectare. On the top of it, 23 per cent of the net sown area is either flood or draught prone. The average operational holding is 1.15 hectare only and more than 83 per cent of the farmer family is small and marginal farmers [2005-06, Agricultural Census]. The contribution of the agriculture sector to the GSDP (at constant 2004-05 prices) was pegged at 4.1 per cent in 2009-10 (Quick estimate) recorded showing a growth from 2005-06 but remained lower over 2008-09. However, this sector continues to support more than 75 per cent population of the State directly or indirectly providing employment of more than 53 per cent of the workforce.

After critical analysis of the sectoral Growth of the State Economy it has been observed that the growth of the agriculture and allied sector was not encouraging during the last three consecutive Five-Year Plan [8TH, 9TH and 10TH Five-Year Plan] periods. This depressing performance was continued even during the first year of 11TH Five-Year Plan, but made some recovery over the average growth of the 10TH Five Year Plan. However, the growth of this sector shoots up and reached a comfortable level at 6.4 percent [GSDP at Constant (2004-05) prices] during 2008-09 surpassing the targeted annual growth of the sector @2.00 percent set for the Plan period. The main reason of achievement of this growth is due to the bumper production of Rice [mainly Winter Rice]. As per 2009-10 quick estimates, the growth of Agriculture sector is expected to be moderately lower with 4.1 percent. The declining trend of growth rate is due to the adverse weather condition experienced during 2009-10. The growth of the Agriculture and Allied sector is projected at 6.6 percent in 2010-11(A) as the State has experienced sufficient rainfall during the kharif season which is congenial for rice cultivation in the State.

The State Agriculture Department has given more focus of attention to increase production of food grains to provide food security to the growing population through increasing productivity of crops and cropping intensity. Accordingly, the State Agriculture Department has prioritized optimum and efficient use of available resources to enhance the production and productivity of the crops including the horticultural crops by harnessing the best in frontier technologies. The Department has formulated District/State specific plan depending on Agro-Climatic condition, growth potential and specific requirement of Districts through improved farm mechanization and assured irrigation, use of quality certified seeds of HYV, popularizing the integrated Nutrient and Pest Management with the special use of bio-fertilizer and bio-pesticides and organic farming etc.

TABLE: 5.1
TREND OF GROWTH AGRICULTURAL SECTOR
GSDP at Constant (2004-05) Prices

(Figure in percentage)

2005-06	2006-07	2007-08	2008-09 (P)	2009-10 (Q)	2010-11 (A)
1.9	1.7	3.0	6.4	4.1	6.6

Source: Directorate of Economics and Statistics, Assam

Special emphasis has been given by the State Agriculture Department through systematic and schematic effort for providing irrigation facilities, seed replacement, organic farming and development of marketing & market infrastructure so as to encourage the farming community and to create maximum potential for employment generation

The Table below shows the trend of food production in Assam during the period 2001-02 to 2009-10.

TABLE-5.2
TREND OF PRODUCTION OF FOODGRAINS IN ASSAM

(Figure in 000 tonnes)

Item	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10
Total Rice	3854	3738	3880	3470	3552	2916	3319	4008	4408
Wheat	85	78	73	68	54	67	71	55	65
Total Pulses	66	60	63	61	56	59	61	62	66
Total Food grains	4023	3894	4034	3617	3680	3060	3468	4142	4557
Total oilseeds [excl.Coconut]	151	144	152	142	110	129	135	137	142

Source: Directorate of Economics and Statistics, Assam

Agriculture Scenario: 2009-10

Weather and Rainfall

Rainfall during 2009-10

From the Table 5.3 it is evident that the State had experienced 1735.8 mm rainfall during 2009-10 out of which 1512.4 mm was occurred during the Kharif crop season. According to the State Agriculture Department, the acute deficiency of rainfall experienced by the State since March 2009 also continued during the Kharif season of 2009-10 both in terms of total rainfall and its spread. During the peak Kharif period from June 2009 to September 2009, the overall rainfall deficit in the State of Assam was recorded as (-) 35% by 30th June, (-) 18% by 31st July, (-) 20% by 31st August and (-) 38% by 30th September, 2009. Even though the deficit reduced to (-) 13% and (-) 18% by 31st August and 30th September respectively, there was wider variation in rainfall deficit in the various districts in the State ranging from (-) 20% to (-) 65%. This drought like situation caused serious damage to seedlings and standing Kharif crops, more particularly the **Winter Paddy**. However, immediate measures taken by the Agriculture Department to provide irrigation help to the farmers to save the affected crops from further damage. As the weather condition improved from last part of July the farmers were able to cover most of the Winter Paddy area by late transplanting of fresh Winter Paddy seedlings.

TABLE –5.3
RAINFALL IN ASSAM DURING KHARIF AND RABI SEASON, 2009-10

Month	Actual rainfall received (mm)	Normal rainfall (mm)	Departure from normal
Kharif Season :			
April, 2009	145.2	185.1	-22%
May, 2009	185.3	334.4	-45%
June, 2009	270.7	419.5	-35%
July, 2009	341.2	415.9	-18%
August, 2009	409.4	340.7	20%
September, 2009	160.6	258.0	-38%
Total :	1512.4	1953.6	-23%
Rabi Season :			
October, 2009	118.1	141.1	-16%
November, 2009	12.6	24.8	-49%
December, 2009	2.9	12.1	-76%
January, 2010	0.2	18.4	-99%
February, 2010	2.4	27.4	-91%
March, 2010	87.2	79.1	10%
Total :	223.4	302.9	-26%

Source: Directorate of Agriculture, Assam.

Overall rainfall pattern during the Rabi crop season of 2009-10 was deficient. During the period from October, 2009 to March, 2010 the State had received 223.4 mm of rainfall against normal rainfall of 302.9 mm, a deviation of 26%. This deviation was recorded (-)76% to (-) 99% during the months of December 2009 to January 2010 as the State had received scanty rainfall ranged between 0.2 mm to 2.9 mm.

Rainfall during Kharif Season of 2010

Table-5.4
RAINFALL IN ASSAM DURING KHARIF SEASON, 2010

Month	Actual (mm)	Normal (mm)	Departure from normal
April, 2010	360.0	186.0	93%
May, 2010	329.6	328.8	0%
June, 2010	443.5	429.6	3%
July, 2010	326.0	416.8	-22%
August, 2010	319.4	347.3	-8%
September, 2010	287.8	267.5	8%
Total :	2066.3	1976.0	5%

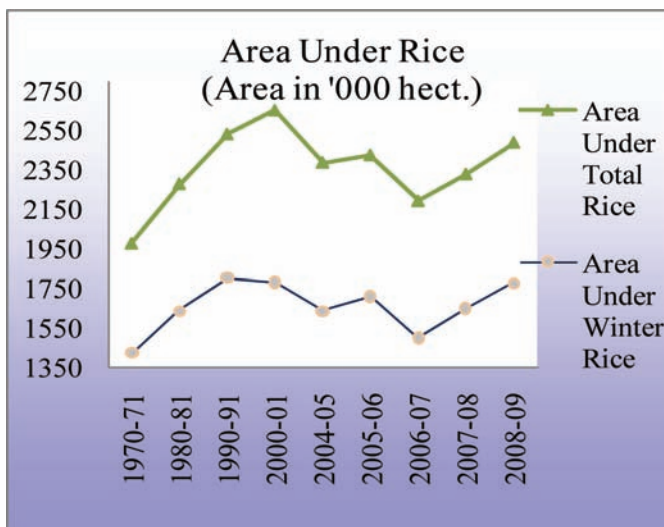
Source: Directorate of Agriculture, Assam

The rainfall pattern in the State during the Kharif crop season of 2010 was favourable both in terms of total rainfall and its spread. The overall rainfall recorded during the season was 2066.3 mm against the normal 1976.0 mm (+5% deviation from normal). The State had experienced excessive rainfall in the month of

April, normal during the months from May to September except July. Rainfall was marginally deficient in the month of July. During the season excessive rainfall and down stream water from the neighbouring hill states and countries caused flood in few districts. Immediate steps taken by Agriculture Department helped farmers to save the Kharif crops, mainly Sali Paddy, in most of the flood affected areas.

Area Under Crops

In Assam, the soil, topography, rainfall and climate in general are congenial for agricultural activities mainly for paddy cultivation. The Paddy cultivation occupies 91.9 per cent of the net cropped area and 65.9 per cent of the Gross Cropped area in the State during the year 2009-10. As per final estimates, the average area covered for normal paddy cultivation during the year was 25.30 lakh hectares or about 92.5 percent of the total area under food grains in the State.



However, there has been a gradual decline in respect of area covered for cultivation of Autumn Rice, which has switched over

to the Summer Rice due to its higher productivity and hazard risk. During period 2001-02 to 2009-10, the area under Autumn Rice cultivation recorded 30.24 percent decline over the period of nine years. During the year 2005-06, the area under Autumn Rice was 3.98 lakh hectares and declined to 3.79 lakh hectares during 2006-07. Final forecast estimates shows that the area under Autumn Rice has declined further to 3.46 lakh hectares during 2009-10.

The area covered under Winter Rice, the principal Kharif Crop of the State, which was declined due to serious drought like situation experienced by the State during the year 2006-07 [14.98 lakh hectares] had increased to 16.47 lakh hectares during 2007-08 due to improvement of normal seasonal rainfall, weather condition and irrigation support. However, the area coverage under the crop further increased to 17.89 lakh hectares during 2009-10. The area coverage under the crop recorded 19.43 percent [or 2.91 lakh hectares] increase during 2009-10 compared to the area under the crop during 2006-07.

According to the final estimates, the area covered for cultivation of Summer Rice during 2009-10 was 3.94 lakh hectares. This estimated area under Summer Paddy has been recorded highest over the period of last nine years [2001-02 to 2009-10]. Compared to the area covered during 2007-08 [3.23 lakh hectares], the area under Summer Rice during 2009-10 was about 22.0 percent more.

The area coverage under Pulses and Oilseeds in 2009-10, as per final estimates, has been expected to reach the level of 1.19 lakh hectares and 2.69 lakh hectares respectively against 1.14 lakh hectares and 2.47 lakh hectares in 2008-09. It is evident from the table 5.5 that while the area under Pulses has been gradually increasing from 1.00 lakh hectare in 2005-06 to 1.19 lakh hectares in 2009-10, the area coverage under Oilseeds recorded moderate increase from 2.47 lakh hectares in 2008-09 to 2.69 lakh hectares in 2009-10 irrespective of overall scanty/deficient rainfall experienced during the rabi season of 2009-10.

The trend of crop-wise land utilization in Assam during the last nine years may be evident from the Table 5.5.

TABLE -5.5
AREA UNDER CROPS IN ASSAM DURING THE PERIOD
2001-02 to 2009-10

(In lakh hectares)

Crop	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10
Autumn Rice	4.96	4.64	4.41	4.36	3.98	3.79	3.54	3.51	3.46
Winter Rice	17.15	17.49	17.69	16.36	17.07	14.98	16.47	17.73	17.89
Summer Rice	3.26	3.27	3.19	3.11	3.15	3.12	3.23	3.60	3.94
Total Rice*	25.37	25.40	25.29	23.83	24.20	21.89	23.24	24.84	25.30
Wheat	0.72	0.69	0.70	0.64	0.50	0.60	0.56	0.50	0.60
Total Pulses	1.18	1.11	1.14	1.08	1.00	1.07	1.13	1.14	1.19
Total Food grains	27.55	27.48	27.41	25.82	25.97	23.82	25.18	26.71	27.35
Total Oilseeds (excl. Coconut)	2.99	2.87	2.89	2.68	2.35	2.60	2.57	2.47	2.69

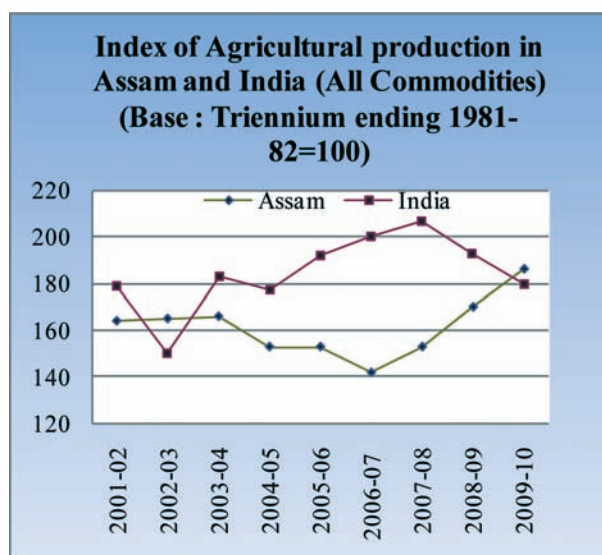
*Total figure may not be equal due to rounding off to nearest zero.

Source: Directorate of Economics and Statistics, Assam.

Production

As per final estimates, the production of Rice in the State was 44.08 lakh MT during the year 2009-10 as against 40.08 lakh MT rice during the year 2008-09. Total production of rice in the State recorded 9.98 percent increase during the year over 2008-09. Adverse weather condition at the early part of the Kharif season although affected Kharif crops, more particularly the **Winter Paddy**, impact of timely measures taken by the Agriculture Department by providing irrigation support to save the standing crops and subsequent improvement of weather condition from the last part of July and increase of area under winter or Sali Rice and Summer Rice influenced the increase of rice production during the year 2009-10.

The production of Pulses, on the other hand, increased marginally from 0.62 lakh MT in 2008-09 to 0.66 lakh MT during the year 2009-10. The increase of estimated production of Pulses during the year 2009-10 was 11.9 per cent more compared to the production of Pulses during 2006-07[0.59 lakh MT]. The increasing trend of production of Pulses continued since 2005-06. The Oilseeds production was also increased by 4.4 percent during the year 2009-10 with 1.42 lakh MT as against 1.36 lakh MT in 2008-09. The production of Oil seeds in the State was 1.10 lakh MT and 1.29 lakh MT during the years 2005-06 and 2006-07 respectively.



Yield Rate

The trend of yield rate of Autumn Rice was erratic. During 2005-06 the yield rate of Autumn Rice increased to 1016 Kg/ hectare from 667 Kg. / hectare in 2004-05. It again it decreased to 899 Kg/hectare during 2006-07. The yield rate of the Autumn Rice increased to 999 Kg/hectare during 2007-08 and it further increased to 1084 kg/hectare during 2008-09. During the year 2009-10, the yield rate of Autumn Rice has been expected to come down to 982 kg/hectare.

TABLE-5.6
YIELD RATE OF PRINCIPAL AGRICULTURAL CROPS IN ASSAM

(Kg/Hect)

Name of Crop	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10
Autumn Rice	667	1016	899	999	1084	982
Winter Rice	1598	1543	1321	1380	1641	1824
Summer Rice	1959	1780	2017	2267	2133	2180
Total Pulses	569	550	564	555	545	558
Total Oilseeds	535	464	506	493	550	530

Source: Directorate of Economics and Statistics, Assam.

The yield rate of winter rice (kg/ hectare) maintains its decreasing trend during the years from 2004-05 to 2007-08. The yield rate of winter rice was low during the years 2006-07 and 2007-08 over the previous two years mainly due to drought like situation and severe floods that the State had experienced during the peak Sali Paddy season of the aforesaid years respectively. However, due to good seasonal rainfall during the year 2008-09, the yield rate of winter rice has increased about 19.0 percent during the year compared to the yield rate in 2007-08. The yield rate (kg/hectare) of winter rice recorded 11.15 percent increase during the year 2009-10 over 2008-09.

The productivity of Summer Rice, on the other hand, continued to maintain its increasing trend during the period 2004-05 to 2009-10 except in the year 2005-06. However, the yield rate of summer paddy was marginally low during 2009-10 [3.8 percent] compared to the yield rate of 2007-08.

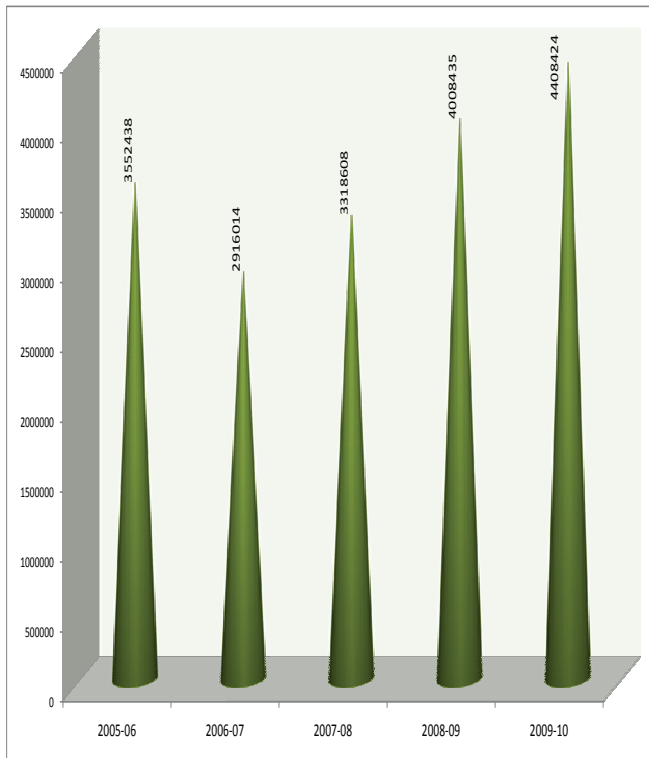
The trend of productivity of Pulses and Oil Seeds was erratic during the period 2004-05 to 2009-10. While the productivity of Oil Seeds recorded 3.64 percent decrease during 2009-10 over 2008-09, the productivity of pulses shown 2.4 percent recovery during the same period.

Area and Productivity under High Yielding Variety (HYV)

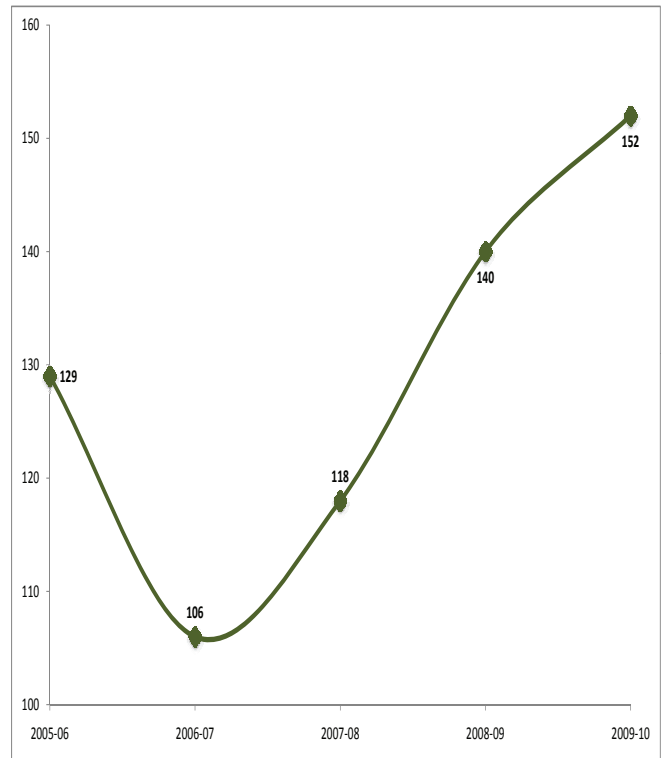
Total area under HYV of Autumn Rice, Winter Rice, and Summer Rice has increased from 13.45 lakh hectares in 2006-07 to 16.26 lakh hectares in 2009-10. During the year 2005-06 the area under HYV was 14.5 lakh hectares. The area coverage under HYV rice in 2009-10 was 7.5 per cent more over the preceding year i.e., 2008-09. The area coverage of HYV rice to total rice area has been increasing step by step from 59.9 per cent in 2005-06 to 65.0 percent in 2009-10. Considering the productivity, cultivators preferred the seed of HYV rice viz., Mala, IR-36., Lachit, Masuri, Joya, Ranjit, Ratna, China Boro, Biplov, Bahadur, Kaveri, Krishna etc.

The area covered under HYV rice and their productivity shown in the Table 5.7.

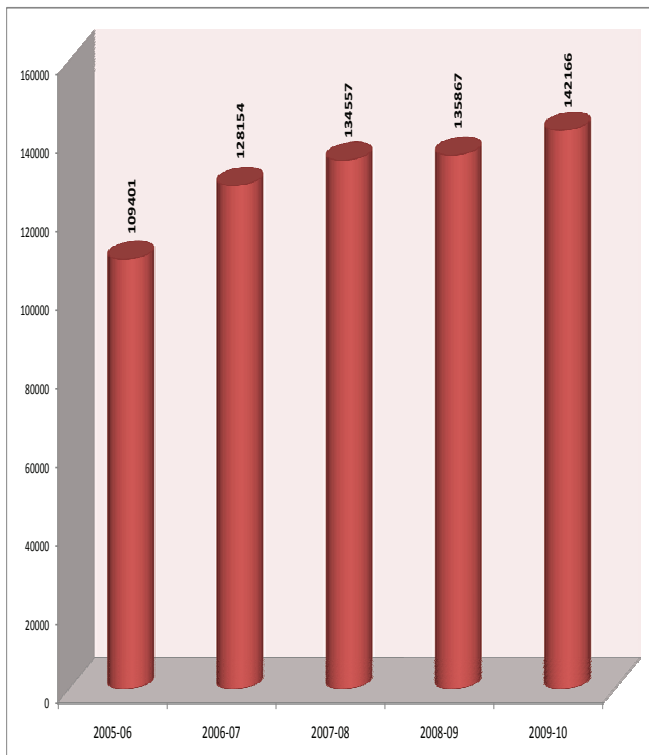
PRODUCTION OF RICE IN ASSAM (IN TONNE)



PER CAPITA AVAILABILITY OF FOOD GRAINS IN ASSAM (IN Kg)



PRODUCTION OF OIL SEEDS IN ASSAM (MT)



PRODUCTION OF PULSES IN ASSAM (IN TONNES)

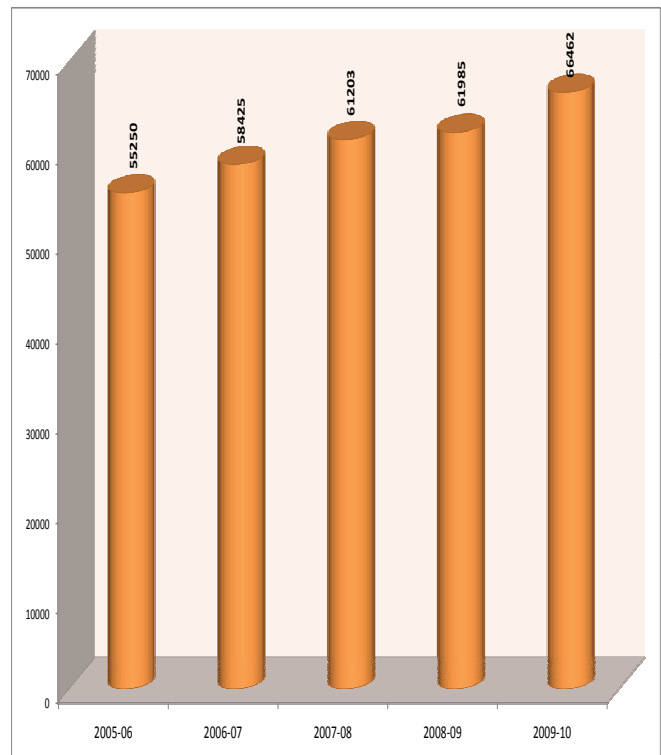


TABLE- 5.7

AREA AND PRODUCTIVITY UNDER HIGH YIELDING VARIETY RICE

(Area in lakh hectares/ Productivity in Kg /hectares)

Sl. No.	Crop	2005-06		2006-07		2007-08		2008-09		2009-10	
		Area	Productivity	Area	Productivity	Area	Productivity	Area	Productivity	Area	Productivity
1.	Autumn Rice	2.35	1866	2.15	1686	2.23	1858	2.24	1959	2.40	1858
2.	Winter Rice	9.50	2281	8.63	1990	8.94	2152	9.75	2256	10.5	2152
3.	Summer Rice	2.65	2192	2.67	2228	2.78	2509	3.14	2371	3.36	2509

Source: Directorate of Agriculture. Assam

Target of Area, Production & Productivity of Major Crops During 2009-2010

In view of growing food demand and attainment of food & nutrition security, sustainable agricultural development through crop diversification is the need of the hour. To achieve the objective and to attain self-sufficiency in food production, the Agriculture Department has set the target to cover 26.65 lakh hectare of area under rice so as to increase the production of rice to 46.31 lakh MT during the year 2010-11. Details of target set for production of various food crops during the year 2010-11 shown below.

TABLE-5.8

TARGET OF PRODUCTION OF MAJOR CROPS IN 2010-11

Crop	Area (in lakh hect)	Production (in lakh MT)	Average Yield (in Kg/hectare)
Autumn Rice	3.65	4.11	1126
Winter Rice	18.00	30.60	1700
Summer Rice	5.00	11.60	2325
Total Rice	26.65	46.31	1738
Wheat	0.75	1.04	1380
Pulses	1.70	1.10	647
Oilseeds	3.70	2.35	635

Source: Directorate of Agriculture. Assam.

Index of Agricultural Production

Index of Agricultural Production (Base triennium ending 1981-82=100) for the State stands at 186 in 2009-10 compared to 170 in 2008-09. The All India Agricultural Production Index, on the other hand, stands at 180 in 2009-10. The table 5.9 shows the trend of Index of agricultural production in the State as well as in the country as a whole, for the last nine years.

TABLE -5.9
Index of Agricultural production in Assam and India
 (Base : Triennium ending 1981-82=100)

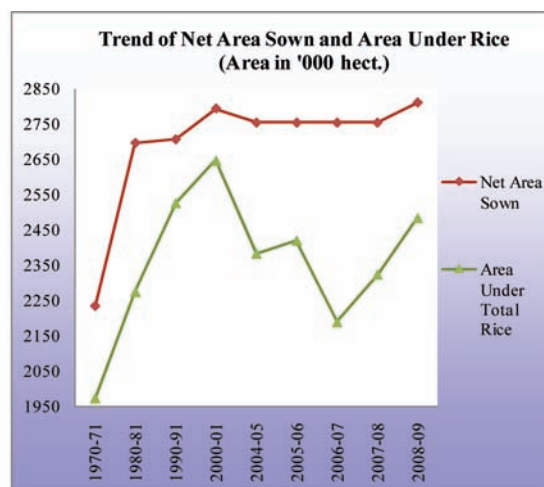
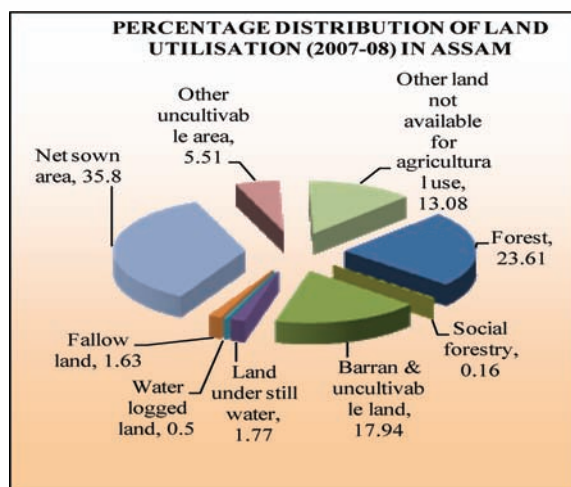
Year	Assam			India		
	Food	Non-Food	All Commodities	Food	Non-Food	All Commodities
2001-02	169	160	164	172	190	179
2002-03	164	166	165	140	166	150
2003-04	170	162	166	172	201	183
2004-05	152	154	153	160	206	177
2005-06	155	148	153	169	230	192
2006-07	128	156	142	176	241	200
2007-08	145	161	153	187	247	207
2008-09	174	167	170	190	221	193
2009-10	192	180	186	177	206	180

N. B.: The Agricultural Indices for Assam are constructed only on the crops covered by the Crop Forecast. Figure rounded to nearest zero.

Source : (1) Directorate of Economics and Statistics, Assam; (2) Department of Agriculture and Cooperation, Ministry of Agriculture, Govt. of India.

Land Utilization Statistics

As per the Land Utilization Statistics for the year 2008-09(Provisional), the total reporting area (Village paper) of the State was 78.50 lakh hectares. Out of the total reporting area, net sown area constitute 35.80 percent [28.10 lakh hectares], 23.61 percent was under forest, land not available for cultivation 26.26 lakh hectares or 33.45 percent of the total reporting area and other uncultivable area was 4.32 lakh hectares or 5.5 percent . While Fallow land constitutes 1.63 percent of the total reporting area with around 1.28 lakh hectares, land under still water and water logged area jointly constitutes 1.78 lakh hectares or 2.27 percent. The area under Social forestry was only 0.13 lakh hectares or 0.16 percent of the total reporting area.



The Gross Cropped Area recorded increase from 38.39 lakh hectares in 2007-08 to 39.99 lakh hectares in 2008-09. The area sown more than once and the net cropped area recorded 9.4 percent and 2.1 percent with 11.88 lakh and 28.10 lakh hectares during the year 2008-09 over the figures of 2007-08.

Thus, it reveals from the above that the ratio of area sown more than once to the net area sown 42.28 percent during 2008-09 as against 39.45 percent during the year 2007-08. The ratio of net sown area to gross cropped area, on the other hand, was calculated at 70.28 percent during the year 2008-09 compared to 71.71 percent during the year 2007-08.

Agricultural Holding

According to the Agricultural Census, 2005-06 there were 27.5 lakh operational holdings in Assam covering an area of 30.49 lakh hectares of land compared to 27.1 lakh operational holdings covering an area of about 31.1 lakh hectares of land in 2000-01. The Table 5.10 depicts the trend of number of holding and area between the two Agricultural censuses, 2000-01 and 2005-06.

TABLE- 5.10
AGRICULTURAL CENSUSES 2000-01 AND 2005-06

Size class (In hectare)	Number of holding		PC increase/ decrease over 2000-01	Area operated (in hectare)		PC increase/ decrease over 2000-01
	2000-01	2005-06		2000-01	2005-06	
Marginal (Below 1.0)	1699107	1752989	(+) 3.17	662780	760145	(+) 14.69
Small (1.0-2.0)	561039	591431	(+)5.42	730513	718383	(-) 1.66
Semi-medium (2.0-4.0)	351521	317859	(-)9.6	957959	846006	(-)11.69
Medium (4.0-10.0)	95500	82933	(-) 13.2	498797	425403	(-)14.71
Large (10.0 & above)	4970	4902	(-) 1.4	263529	298606	(+) 13.31
Total	2712137	2750114	(+) 1.4	3113578	3048543	(-) 2.09

Source: Directorate of Economics and Statistics, Assam.

As per the Agricultural Census, 2005-06, the marginal holdings with less than one hectare of land accounted for 63.7 per cent of the total holdings and 24.9 per cent of the total operated area of the State in 2005-06. The small holding with size class between 1-2 hectares, shared 21.5 per cent of the total holdings and 23.6 per cent of the total operational area. On the other hand, the large holdings (10 hectares and above) constituted only 0.18 per cent of the total number of holdings and 9.8 per cent of the total operated area in the State.

The Table 5.11 shows the trend of agricultural holdings and operated area in the State from 1970-71 to 2005-06.

TABLE- 5.11
AGRICULTURAL HOLDINGS AND OPERATED AREA IN ASSAM

(As per Agricultural Censuses)

Agricultural Census year	Number of Holdings	Total operated area (in thousand hectare)	Average size of Holdings (in hectare)
1970-71	1964376	2882	1.47
1976-77	2253654	3079	1.37
1980-81	2297588	3121	1.36
1985-86	2419156	3161	1.31
1990-91	2523379	3205	1.27
1995-96	2682997	3138	1.17
2000-01	2712137	3114	1.15
2005-06	2750114	3049	1.11

Source: Directorate of Economics and Statistics, Assam

Horticulture

Assam is traditionally rich in horticultural production due to its diverse and unique agro-climatic condition which is conducive for growing wide range of horticultural crops like various fruits, vegetables, flowers, spices, nuts, tuber crops and medicinal and aromatic plants. World citrus belt encompasses Assam within it.

Horticultural crops occupy about 15 percent of the gross cultivated area of Assam and annually produces more than 14.0 lakh MT of fruits, 39.0 lakh MT of vegetables and 2.0 lakh MT of spices besides nut crops, flowers and medicinal & aromatic plants thus contributing significantly towards food and nutritional security of the State. In spite of having all these inherent potentiality, commercialisation of horticulture sector in Assam is not yet achieved.

During the 11th Five Year Plan period maximum focus on raising productivity of various commercially potential crops through use of better technology, management and planting materials is being given. Similarly due importance has been given on various aspects of post harvest aspects like pre-harvest treatment, proper harvest, setting up of collection centres with grading facilities and transport facilities. Marketing and processing, involvement of private sectors more particularly for contractual farming and buy back arrangement are also being considered as prime area of intervention.

Details of area, production and productivity of horticulture crop in Assam during the period 2005-06 to 2008-09 presented in the Table 5.12.

TABLE-5.12
AREA, PRODUCTION & PRODUCTIVITY OF HORTICULTURAL CROPS

Crop		2005-06	2006-07	2007-08	2008-09
Fruits	Area (lakh hectares)	1.13	1.14	1.16	1.34
	Production (lakh MT)	13.52	13.72	14.08	16.61
	Productivity (Kg./ hectare)	12005	12139	12142	12425
Spices	Area(lakh hectares)	0.86	0.86	0.88	0.93
	Production (lakh MT)	2.12	2.14	2.18	2.80
	Productivity (Kg./ hectare)	2475	2476	2478	3023
Vegetables	Area (lakh hectares)	2.32	2.36	2.38	2.46
	Production (lakh MT)	38.18	38.87	39.18	44.20
	Productivity (Kg./ hectare)	16485	16469	16462	17923

Source: Directorate of Agriculture, Assam.

Technology Mission for Integrated Development of Horticulture (TMIDH) in Assam:

For achieving integrated development of Horticulture Sector, the scheme “Technology Mission for Integrated Development of Horticulture (TMIDH)”, a centrally sponsored scheme, is under implementation in Assam since 2001-02 which has received overwhelming response from farmers. The objective of the Scheme is to augment the productivity of horticulture crops with precise strategies in the form of Mini Missions. The speciality of the scheme is comprehensive which encompasses all the issues associated with development of horticulture right from generation of technologies (Mini Mission-I), increasing production and productivity (MM-II), storage and marketing (MM-III) and processing (MM-IV). The impact of this scheme in the State is gradually emerging in various fronts including products, productivity, infrastructure development, per capita income, commercialization etc.

Assam Small Farmers Agri-Business Consortium (ASFAC) receives fund from the Government of India who in turn releases fund to the State Horticulture Directorate for MM-II and also MM-III. The Assam State Agriculture Marketing Board (ASAMB) received fund to perform the activities under MM-III.

Following major achievements were made by the Directorate of Horticulture, Assam under the Mission:

- During the year 2009, the Directorate of Horticulture and FP could cover an additional area of 4585 ha. under various crops viz: Banana, Orange, Pineapple, Assam lemon, Cashewnut, Black pepper, Ginger, Turmeric, Potato, Aromatic plants, Bhut Jalakiya etc. under 'Horticulture Technology Mission'.
- The Directorate could train 496 nos. of farmers on improved practices of horticultural crops, deputed 430 nos. of farmers to outside the State for exposure visit, deputed 52 nos. of officers and 25 nos. of VLEWs outside the State under trainers training programme in premier horticultural institutes of the country.
- The Directorate could successfully organize National Horti-Expo-2009 amidst enthusiasm of farmers, hortipreneurs with the involvement of stake holders of various states of the country.
- As many as 41 nos. of floriculture projects were set up which are entering into commercial production of crops like Anthurium and Orchids.

Impact of Implementation of TMIDH on Production and Productivity of Horticultural Crops in Assam

Implementation of the TMIDH Scheme has brought some major changes in production of horticultural crops. Achievements attained during the Mission Period presented in the Table 5.13.

TABLE-5.13
PRODUCTION AND PRODUCTIVITY OF HORTICULTURE CROPS
DUE TO IMPLEMENTATION OF TMIDH

(Production in lakh MT/Average yield in Kg/hectare)

Crop	Production		Average Yield		% Achievement Increase (+)/ Decrease (-)	
	2000-01	2008-09	2000-01	2008-09	Production	Average Yield
Fruit Crops	12.94	14.95	11870	12256	(+) 15.5	(+) 3.3
Spice Crops	1.87	2.24	2309	2490	(+)19.8	(+)7.8
Vegetable Crops	24.71	40.52	12660	16744	(+) 64.0	(+)32.3

Source: Directorate of Agriculture, Assam

Other Physical Achievements under TMIDH:

Following physical achievements was made under the TMIDH during the period of three years of 11th Plan period 2007-08 to 2009-2010:

TMIDH: Achievements made in 3 years of 11TH Plan Period (2007-08 to 2009-10)

Sl. No.	Component	Achievement
1	Area expansion: under fruit, spice, tuber, medicinal & aromatic crops vegetable	38596 hect.
2	Floriculture unit	10400 units
3	Model floriculture unit for production of planting materials	1 unit
	Creation of water sources:	
4	a. Community tank	53 nos.
	b. Tube Well (STW)	1598nos.
5	Bee Keeping (Bee colony & hives)	3800 units
	On farm water management	
6	a. Drip / Sprinkler irrigation	1608 hect.
	b. Plastic mulching	1768 hect.
	c. Shade net	107500 Sqm.
	d. Green house (low cost & high tech)	160000 Sqm
	e. On farm handling unit	33 units
	Transfer of Technology:	
7	a. Training of farmers (inside & outside State)	10233 farmers
	b. Supervisory training centre	4 units
8	Organic farming (Earthworm unit)	995 units
9	Adoption of IPM	10421 hect.
	Agril. Implements:	
10	a. Manual equipments	3935 sets
	b. Diesel engine (LLP)	921 nos.
	c. Power Tiller	78 nos.
	Women development	
11	a. Capacity building	6502 trainees
	b. Women SHG formed / supported	425 nos.
12	Distillation unit	2 units

Source: Directorate of Agriculture, Assam

Action Plan of TM-IDH For The Year 2010-11:

Total financial outlay under the scheme for the year is ₹35.00 crores and proposed to cover an area of 6800 ha under thrust crops along with other supporting components like creation of irrigation potential, water sources, mechanization, Plasticulture, bee keeping, IPM, training etc.

Sl.	Components	Physical target	Financial target
1	Area expansion		
a	Banana	1600 ha	646.88
b	Pineapple	1000 ha	562.50
c	Orange	100 ha	36.00
d	Litchi	100 ha	36.00
e	Rejuvenation- Orange	1000 ha	150.00
2.	Promotion of IPM	1700.00	17.00
3	Training of farmers	1300 nos.	13.00

Source: Directorate of Horticulture, Assam

Export of Horticulture Produce

Exporting horticultural commodities from Assam was a distant dream during pre 2001 period. Now, Assam is exporting Orange and Ginger.

Year	Value of Orange exported	Value of Ginger exported
2005-06	1.09 crores	2.22 crores
2007-08	3.64 crores	2.21 crores
2008-09	4.57 crores	NA

Source: Directorate of Horticulture, Assam

National Mission on Medicinal Plants

The medicinal and aromatic plants sector was a neglected area and no systematic cultivation was taken up. With more than 95 percent of the AYUSH products being plant based, the raw material base needs to be shifted from forests to the cultivated source for its long term sustainability. Increasing concerns of unsustainable collection from the wild, disappearance of certain species on the one hand and concerns of quality and standardization on the other make it imperative to promote cultivation of species critical to **AYUSH** systems of medicine through appropriate financial incentives, policy, infrastructural and marketing support in a synergic manner. Keeping the matter on view the Govt. of India has initiated a centrally sponsored scheme 'National Mission on Medicinal Plants' from the year-2009-10.

Achievement made under the scheme during the year 2009-10 is presented below:

Components	Physical		Financial (Rs. in lakh)	
	Target	Achievement	Target	Achievement
Model Nursery - 4 ha (Public sector)	2 nos.	2 nos.	40.00	40.00
Small Nursery -1 ha (Public sector)	3 nos.	1 no.	12.00	4.00
Model Nursery – 4ha (Pvt. sector)				
Small Nursery – 1 ha (Pvt. sector)	8 nos.	8 nos.	16.00	16.00
Sub total-	13 nos.	11 nos.	68.00	60.00
Area expansion				
Chirata	25 ha	20.5 ha	15.47	12.67466
Ashol	20 ha	20 ha	6.25	6.25
Beal	20 ha	20 ha	4.00	4.00
Sarpagandha	20 ha	20 ha	6.25	6.25
Amla	20 ha	20 ha	2.60	2.60
Ashwagandha	20 ha	20 ha	1.00	1.00
Giloi	20 ha	20 ha	1.10	1.10
Pipali	30 ha	30 ha	3.75	3.75
Tulsi	50 ha	50 ha	3.00	3.00
Sub total-	225ha	221.50 ha	43.42	40.62466
Total-	—	—	111.42	100.62466

Source: Directorate of Horticulture, Assam

Floriculture

Floriculture is another sector which has high potential to contribute in the growth of agriculture sector in the State. At present markets are primarily dominated by Marigold followed by Tube Rose, Gladiolus, Roses, and lotus. Apart from these Assam is a house of more than 600 varieties of tropical orchids and have enough potentiality and commercially viable from the point of view of export. Due to agro-climatic condition the flowers produced in the State is superior in quality. This indicates the potentiality of this sector for commercial exploitation which can be attained through bio-technological intervention and commercial exploration of flowers and their value addition. However, the present level of production can cater to a part of the local demand. At present, thrust has been given for improvement of this fastest growing sector in the State. Currently Kamrup and Kokrajhar District of Assam are emerging as major commercial growers of Anthurium, Orchid and Tuberose under protected condition. These crops are being grown commercially by Self Help Groups under buy back arrangement with flower exporters. During the year 2007-08, 10932 sticks of orchid and 8000 numbers of Anthurium sticks were sent out of the State.

Integrated Nutrient Management (INM):

Fertilizer and Manure:

Fertilizer is an important input, which plays a dominant role in augmenting the productivity of crops. Therefore thrust has been given on “Integrated Nutrient Management” (INM) to make a major breakthrough in this direction with the following objectives:

- i) Less dependence on inputs from outside source and encourage farmers to utilize on farm resources.
- ii) Economize the production cost by using optimum dose of fertilizer.

The trend in use of bio-fertilizer, compost and green manures and organic farming have been increasing gradually as the application of chemical fertilizer is posing a major threat in depletion soil nutrients.

Much stress has been given by the State Government on timely availability of fertilizers at the door step of farmers during peak period of cultivation. AAIDC, NAFED, GPSS, and organization like IFFCO, BRFVCL, Green Chemicals Ltd, Teesta Agro Industries Ltd. have been plying a pivotal role in distribution of fertilizer through their respective branches located at various corners of the State.

Consumption of Fertilizer

The trend of fertilizer consumption in the state in terms of nutrient (NPK) per hectare is much lower than the National average consumption. According to the State Agriculture Department consumption of fertiliser in the State was at 63.16 kg per hectare during the year 2009-10. It reveals from the Table 5.14 that the consumption of chemical fertilizer is low during the Kharif season than that of Rabi season. The reason behind the lesser consumption is that the farmers are reluctant to use fertilisers during Kharif season fearing monetary loss due to heavy rainfall and flood. Moreover, disruption of transport movement fertilizers cannot reach destination in time for delivery to farmers. However, the level of consumption of fertiliser can be increased substantially by making timely availability of fertiliser in this season of the State.

The details consumption of fertilisers in Assam during the last four years is presented in the Table 5.14.

TABLE- 5.14
SEASON WISE CONSUMPTION OF FERTILIZERS

(Fig in '000MT)

Year	Season	Consumption in terms of Materials					Consumption in terms of Nutrient			
		Urea	SSP	MOP	DAP	Total	N	P	K	Total
2005-06	Kharif	77.19	51.09	35.42	37.61	201.31	42.28	25.48	21.25	89.01
	Rabi	94.43	66.92	45.53	41.37	248.23	51.34	29.74	27.32	108.40
2006-07	Kharif	95.53	40.95	32.24	29.08	197.80	49.08	20.19	19.44	88.71
	Rabi	93.47	65.06	50.63	38.92	248.08	53.44	30.89	30.55	114.88
2007-08	Kharif	92.88	62.55	44.14	37.34	236.91	49.44	28.52	26.49	104.45
	Rabi	195.41	113.23	92.43	74.83	475.91	103.36	54.61	55.97	213.94
2008-09	Kharif	103.67	49.36	46.66	31.16	229.85	53.30	22.69	28.00	103.99
	Rabi	119.81	37.77	46.39	48.60	252.57	61.70	29.85	31.15	122.69
2009-10	Kharif	111.73	51.07	44.53	26.26	233.59	56.12	20.78	26.72	103.62
	Rabi	139.58	59.38	65.91	38.47	303.34	68.75	28.58	39.54	136.87

Source: Directorate of Agriculture, Assam.

The trend of per hectare consumption of fertilizer, according to the Agriculture Department, also increased more than 27 percent during the period 2003-04[49.5 kg] to 2009-10[63.16 kg]. Table 5.15 shows the trend of fertilizer consumption in the State.

TABLE -5.15
CONSUMPTION OF FERTILIZER PER HECTARE

(Fig. in Kg.)

Item	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10
Fertilizer Consumption	49.5	42.65	50.66	52.27	56.20	57.80	63.16

Source: Directorate of Agriculture, Assam

Application of Bio-Fertilizers

Depletion of soil nutrient poses a major threat to sustainable crop production, which needs tapping of other plant nutrient sources. Bio-fertilizer has given tremendous result in crop production, increase in productivity and maintenance of soil health by narrowing the gap between nutrient removal and supply. Of late, the trend in use of Bio-fertilizer has increased significantly due to its motivation through extension machinery and initiation of demonstration programmes by the Department of Agriculture. Special thrust has been given in use of Bio-fertilizer by initiating Programme 'Input support to the agriculturist having KCC' under State Priority Scheme which has been implemented from 2006-07 with an aim to attract the farming communities to go for credit support in cultivating crops. Under the Programme bio-fertilizer kits have been distributed to farmers.

TABLE -5.16
PRODUCTION OF BIO-FERTILISER, GREEN MANURE AND ORGANIC MANURE

(in lakh MT)

Item	Year			
	2006-07	2007-08	2008-09	2009-10
Bio-fertiliser	0.00175	0.00159	0.00145	0.00175
Green manure	10.67	13.96	15.71	29.82
Organic Manure (including FYM)	75.24	82.38	82.78	84.10

Source: Directorate of Agriculture, Assam

TABLE -5.17
CONSUMPTION OF BIO-FERTILISER (2008-09 AND 2009-10)

(in lakh MT)

Item	Year			
	2008-09		2009-10	
	Kharif	Rabi	Kharif	Rabi
Bio-fertiliser	0.00088	0.0009	0.00113	0.00114
Green Manure	12.51	3.20	25.96	3.86
Organic Manure (including FYM)	32.22	49.02	33.35	48.57

Source: Directorate of Agriculture, Assam

Organic Farming

The objective in organic farming is to achieve a sustainable farming system that preserves the environment and soil fertility without disturbing the rules of nature. It is being proved that the indigenous practices in the traditional farming system were good in respect of maintenance of ecological balance through nutrient management and plant protection measures. Therefore, emphases have been given on promotion of organic farming by using green manure, adopting crop rotation management and ecologically sound plant protection measures. In organic farming system, priority in use of bio-fertiliser is also given.

At present, due to globalisation, market preference for organic food is tremendously increased. Therefore, the State Agriculture Department has given emphasis on organically produced crops in the 11th Plan period with the following objectives:

- Popularization of organic cultivation of crops, which have market potential and thereby taking emerging market opportunities in the areas where the state has an competitive advantage.
- Dissemination of refined technical knowledge to the farmers.
- Motivating farmers to use their own resources.

TABLE – 5.18
AREA UNDER ORGANIC FARMING

(Figure in Hectare)

Crop	Year			
	2006-07	2007-08	2008-09	2009-10
Joha Rice	91.00	91.00	267.00	267.00
Pineapple	-	-	157.00	157.00
Ginger	-	-	957.00	957.00
Turmeric	-	-	236.00	236.00
Orange	2483.00	2483.00	2483.00	2483.00
Total :	2574.00	2574.00	4100.00	4100.00

Source: Directorate of Agriculture, Assam

Programme for 2009-10 (Under National Project on Organic Farming)

- Four Model Organic Farms established covering an area of 8.0 hectares.
- Implementation of 10 nos. of Service Provider Schemes involving 15000 farmers to cover minimum of 4000.0 hectares is on. Baseline survey is in the process of completion.

Seed: Development of Seed Sector

Quality seed is the primary and pivotal input for crop production. Certified Seed production is a process through which seeds are produced in conformity with the standard variety, characters by taking specific measure as required for seed production. In Assam, production of certified seed has been taken up in the Field Trial Stations (FTSs) and in some State Govt. Seed Farms & Assam Seed Corporation's seed farms. But there is dearth of quality seeds in the State and so the Seed Replacement Rate (SRR) in the State stands at a very low level. Moreover, the State has to depend on outside sources for quality seeds of some crops every year to meet the demand immediately after every unwarranted natural calamity. To meet the growing demand and increase quality seed production, the Agricultural Department has taken the following steps:

- Expansion of Seed Village Programme;
- Production of certified seeds of Paddy, Pulse & Oilseeds in Seed Village in large scale;
- To focus on capacity building of Registered Seed Growers;
- Strengthen Seed Farms to facilitate production, processing & storage of seeds.

TABLE –5.19
CROP SEASON WISE AVAILABILITY OF QUALITY
SEEDS IN THE STATE

(in thousand quintal)

Crop	Kharif season		Rabi season	
	2008-09	2009-10	2008-09	2009-10
Paddy	148.69	833.77	8.456	76.240
Wheat	-	-	11.462	49.087
Maize	-	-	0.590	4.733
Pea	-	-	6.597	14.362
Lentil	-	-	0.472	4.394
Rape- Mustard	-	-	19.250	19.703
Arahar	-	0.250	-	-
Sesamum	0.280	0.230	-	-
Black gram	0.150	8.560	-	-
Green ram	0.500	1.000	-	-
Jute	1.000	1.015	-	-

Source: Directorate of Agriculture, Assam

Seed Village Programme

To meet the demand of seeds so as to raise the SRR to the desired level the facilities like seed production, seed distribution, seed storage and other related facilities need to be augmented.

The State Agriculture Department has been taking initiative to mobilize the farmers through different seed production programmes and Seed Village is one of such concepts with the following objectives:

- To increasing Seed Replacement Rate.
- To make quality seeds available at farmers' doorsteps to achieve targeted SRR.
- To provide necessary assistance to farmers in terms of quality Foundation Seeds, Seed Processing Units and Storage Facilities for farmers saved seeds.

Apart from the above, the Department is taking initiatives to increase the quantity of quality seed production and to make availability to the farmers through departmental seed farms & FTS, Seed Farms of Assam Seed Corporation Ltd. and through other private Registered Growers in collaboration with Assam State Seed Certification Agency (ASSCA).

TABLE – 5.20
PRODUCTION OF FOUNDATION SEEDS UNDER SEED
VILLAGE PROGRAMME

(Figure in '000Qt.)

Organisation	Crop	Year		
		2008-09	2009-10	2010-11
Agriculture Department	Paddy	589.16	-	534.36
	Rape & Mustard	9.10	-	-
	Black gram	8.56	-	4.4
ASC Ltd.	Paddy	127.08	164.00	-
	Rape & Mustard	17.90	7.50	-
	Black gram	-	9.0	-
	Green gram	-	2.50	-
	Sesamum	-	0.80	-
ASSCA	Paddy	61.68	132.30	130.10

Source: Directorate of Agriculture, Assam

Seed Replacement Rate (SRR)

Seed replacement improves the productivity of crops to a large extent. The actual seed replacement rate of Paddy, Wheat, Pea and Oilseeds (Rape & mustard) during 2009-10 was 33 per cent, 51 per cent, 51 per cent and 60 per cent respectively.

Table 5.21 shows the Seed Replacement Rate during the period 2004-05 to 2009-10.

TABLE –5.21
SEED REPLACEMENT RATE (SRR)

(Figure in percentage)

Crop	Year					
	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10
Paddy	3.01	3.41	10.7	17	23	33
Wheat	37.25	7.80	34.8	28	42	51
Black gram	-	-	17.8	20.5	7	64
Lentil	-	-	9.0	21	7	51
Pea	-	-	12.4	20.2	37	88
Oilseed (Rape & Mustard)	4.17	12.60	15.3	16	24	60

Source: Directorate of Agriculture, Assam

Seed Certification:

Assam State Seed Certification Agency (**ASSCA**) is the Nodal Agency for seed testing & seed certification in the State. ASSCA is entrusted for Seeds Certification of Paddy, Mustard and Pulses as per feasibility in the State. The planting crops like Coconuts, Litchi, and Guava etc are under consideration for certification. There are 3 nos. of notified Seed Testing Laboratories under ASSCA located at Guwahati, Jorhat and Silchar. Total annual testing capacity of these three notified laboratories is 20,000 seed samples. Seed testing & certification guidelines are strictly followed for proper quality control and certification.

Table 5.22 below shows the status of seed certification in Assam.

TABLE – 5.22
STATUS OF SEED CERTIFICATION

(Area in Hectare/Quantity in Qntl)

Crop	Year	Area Registered	Quantity Certified
Paddy	2008-09	10098	20500
Rape & Mustard		925	8180
Black gram		90	290
Paddy	2009-10	6026	19750
Rape & Mustard		3970	9780
Black gram		370	2010

Source: Directorate of Agriculture, Assam

Integrated Pest Management (IPM)

Integrated Pest Management (IPM) is the key component of sustainable agricultural production. Assam having a diverse eco-system with sub-tropical climate, the crop production is associated with loss of biotic stress problem which share 20-30 percent of the yield loss. Excessive and injudicious use of chemical pesticides in the field as well as horticultural crops result into development of pest resistance, pest resurgence, pest replacement and pesticides residue problem.

Intensification of agriculture with the introduction of HYV, Hybrid, STW, Mechanization and other advance inputs also enhance the pest population dynamics and pest status.

In order to facilitate the availability of the Bio-Control Agent (BCA) in the Biological pest management intensive IPM (BIPM), the thrust has been given to increase production of the already established BCA and the newly introduced BCA in the State Bio-Control Laboratory (SBCL). Therefore steps have been taken to strengthen the SBCL by the State Government during the year 2008-09. Emphasis has also been given for establishment of Plant Health Clinic for identification and management of biotic stress.

However, consumption of pesticides in Assam is very low (0.05 Kg. per hectare) compared to national average of 0.50 Kg. per hectare.

TABLE – 5.23
CONSUMPTION OF PESTICIDES

2006-07	2007-08	2008-09	2009-10
165 MT	158 MT	150 MT	143MT
(41.25 gm ai per hectare)	(39.50 gm ai per hectare)	(37.50 gm ai per hectare)	(38.75gm ai per hectare)

Source: Directorate of Agriculture, Assam

Farm Mechanization and Irrigation

Farm mechanization is a critical input as it facilitates timely agricultural operation. But in Assam the growth of mechanisation is slow. The low availability of Farm Power has become constraints for double or multiple cropping in the State. In order to boost up farm mechanization, special thrust has been given by the State Agriculture Department in a systematic/ schematic manner. At present the availability of farm power in the state is only 0.69 HP per hectare as compared to 1.20 HP per hectare at national level. The low availability of farm power has become the constraints to double or multiple cropping in the State.

TABLE – 5.24
STATUS OF FARM MECHANISATION

(Figure in Nos)

Item	Year			
	2006-07	2007-08	2008-09	2009-10
Tractor	338	855	1705	451
Power Tiller	2552	4748	1281	1251
Small Implement	200	850	1527	18933
Potato Planter	-	-	9	-
Self-propelled Reaper	-	-	2	2
Zero tillage seed cum fertiliser drill	-	-	6	-
Potato digger	-	-	7	-
Rotovator	-	-	272	72
Farm power available [HP per hectare]	0.54	0.60	0.60	0.69

Source: Directorate of Agriculture, Assam

Irrigation

The State Agriculture Department has prioritized improvement of irrigation facilities in the State and accordingly created irrigation potential of 4.57 lakh hectares through distribution of Sallow Tube Wells and

Low Lift Pumps etc., with support from Central / State sponsored schemes and EAP. However, there exists gap between irrigation potential created and actual utilisation. There are several reasons:

- The STWs installed long back (1993) are not effective.
- Use of STWs / LLPs has become crop specific and location specific.
- Some schemes under Irrigation Department are not functioning due to damage of structures, lack of maintenance of old machineries and inadequate power availability in rural areas etc.
- Most of the schemes of minor irrigation in Assam (STWs and LLPs) are diesel operated and hence the cost of operation is high.

TABLE – 5.25

IRRIGATION POTENTIAL CREATED BY THE AGRICULTURE DEPARTMENT

Source	Year			
	2006-07	2007-08	2008-09	2009-10
STW [Nos]	1297	4463	14259	20610
LLP [Nos]	764	6166	3462	4295
Flow Irrigation(Ha)	-	-	250	2510
Micro Irrigation [Sprinkler/Drip] (Ha)	280	365	1001	292
Deep Tube well[Nos]	-	-	-	11

Source: Directorate of Agriculture, Assam.

Action proposed to increase irrigation coverage

- Efficient use of ground and surface water in Rabi season for area expansion.
- Encourage of electricity based irrigation to reduce cost of irrigation.
- Installation of STWs, LLPs, DTWs and Flow Irrigation Projects with support from Central & State sponsored Schemes and EAP.
- Small Flow Irrigation Schemes will be taken up to exploit perennial water sources.

Crop Insurance

The state of Assam has been experiencing flood in almost every year and therefore the crop insurance is an area to help farmers at the time when there is crop loss/ crop damage due to natural calamities, severe pest infestations and diseases in notified crops. It is to note that around 4.75 lakh hectare area in the State is chronically flood prone and around 0.94 lakh hectares area is draught prone. Thus implementation of the Crop Insurance scheme in Assam is highly essential.

The Government of India launched a Crop Insurance programme under the nomenclature “National Agricultural Insurance Scheme” (NAIS). This programme covers 8 (Eight) crops i.e. 3 crops in Kharif and 5 crops in Rabi season. This scheme, under the **Area Approach**, not only facilitate insurance coverage to each of the notified crop damage within the defined area for widespread calamities but also on an individual basis for localised calamities such as hailstorm, landslide, cyclone and flood .

National Agriculture Insurance Scheme, unfortunately, has not been able to provide desired solution to the risk hedging in the agriculture sector in the State. Because the slow response of banks in issuance of Kissan Credit Cards which has affected a large number of farmers of the State from getting benefit from the NAIS. Moreover, some important horticulture crops like ginger etc. are not covered under the Scheme.

TABLE: 5.26

PERFORMANCE OF NATIONAL AGRICULTURAL INSURANCE SCHEME IN ASSAM

Season & Year	No. of Farmers covered	Area covered (Ha)	Sum Insured (Rs in lakh)
Kharif 2006	8800	8304.30	1083.81
Rabi 2006-07	5818	4757.90	9115.04
Kharif 2007	8938	7541.80	1172.09
Rabi 2007-08	10780	5854.91	1359.78
Kharif 2008	7458	7332.90	826.46
Rabi 2008-09	28359	5565.22	4171.48
Kharif 2009	24619	23616.62	4801.81
Rabi 2009-10	27280	19486.44	5719.95

Source: Directorate of Agriculture, Assam

Agriculture Marketing

The Assam Agricultural Produce Market Act, 1972 has been amended in 2006 to make provisions for (a) Private Marketing (b) Direct Marketing (c) Consumer-Farmers Market and (d) Contract Farming as per guidelines of Govt. of India. The act also empowers Market Boards to levy cess and relieve existing restrictions on movement, storage and transportation etc of agricultural produces. At present the act is under implementation in 25 out of 27 districts of Assam.

The Assam State Agricultural Marketing Board (ASAMB) has established 24 Regulated Market Committees, 20 Primary Market Yards, 206 Sub-market Yards, 735 Rural Primary Markets and 405 Wholesale Markets. The Regulated Markets have been covered under AGMARKNET. The details of Agricultural Market infrastructure available in the State may be evident from the Table 5.27.

TABLE: 5.27

MARKET INFRASTRUCTURE AND PROCESSING UNIT DEVELOPED

1	Regulated Market Committees	24 nos.
2	Principal Market Yard	20 nos.
	Sub-market Yard	206 nos.
	Total Regulated Market	226 nos.
3	Wholesale Market	405 nos.
	Rural Primary Market	735nos.
	Total market	1140 nos.
4	Organic Market	1 no. [being established].
5	Godown	<ul style="list-style-type: none"> ▪ Rural Godown -22nos. ▪ Rural Seed Storage Godown – 18 nos. ▪ Other Godown-29 nos.
6	Cold Storage	25 nos. (Total capacity : 107535 MT)
7	Processing Unit	6 Nos.
8	Drying Platform	33 nos
9	Grocery Society	680 nos.
10	Auto vans for transportation	224 nos.

Source: Directorate of Agriculture, Assam

Problems of marketing

Availability of above marketing, storing and processing infrastructures, however, appears to be insufficient to fulfill the marketing aspects. As a result farmers of the State are facing problem in disposing their produces.

- During peak harvesting season of Rabi Vegetables i.e., from January to March, the markets are overloaded with vegetables and the farmers have to dispose their produce at a very low price on the very market day due to non availability of cold storage facility near the market.
- Inadequate availability of processing units/ cold storage / post harvesting infrastructure like godowns.
- Inability of small and marginal farmers to transport their produces to the markets where they can fetch justified market price.
- Inadequate transfer of off season Vegetable Technology.

Therefore, it is necessary to improve/ establish agricultural markets within the distance of farmer's accessibility, which will promote market demand farming.

Agriculture Marketing: New Initiative

The State Government has taken special initiatives to improve the marketing of agriculture produces in the State.

- Planned to set up one modern Producer-Consumer Market at Guwahati.
- A modern Organic Market is in the stage of completion.
- Extension through e-channel: A project has been undertaken on pilot basis for setting up facilities on the pattern of e-Choupal in two districts where a private company is being engaged for dissemination of information electronically on weather conditions, farm management, risk management and pricing of various commodities in different markets.
- Encourage contract farming amongst producers of Sugarcane, Ginger, Potato and Flowers.
- Planned to set-up cool chain facilities in 11 markets in the current financial year at a cost of ₹5.0 crores.
- Initiatives have been taken to strengthen marketing infrastructure under RKVY and AACP.
- Prices of major agricultural commodities are to be telecast through Door-Darshan everyday.
- Construction of Mega Food Park at Tihu under Nalbari District[about 110 Km. from Guwahati] which will have facilities like Cold Chain, Dry Ware House, Common facility Centre, Standard Design Factory for local entrepreneurs etc.
- Special focus area is Contract Farming of various horticultural products like Assam Lemon, Pineapple, and Passion Fruits.
- Setting up of Agri-Export Zone on Ginger to facilitate scientific collection/handling of Ginger, formation of organised Ginger Grower Societies;
- Central Pack House under construction at Guwahati.

Reforms in Agricultural Extension

The scheme "Support to State Extension programme for Extension Reforms" is a major scheme launched by the Govt. of India in 2005-06 to make Agricultural Extension Reforms operational across the country. Under the Scheme a New Institutional Arrangement – **Agricultural Technology Management Agency (ATMA)**

has been established. ATMA is an autonomous participatory institution with all the key stake holders involved in Agricultural activity for sustainable agricultural development and has the flexibility to receive funds directly. ATMA has the main responsibility of all the technology dissemination activities at the district level by establishing linkage with all the Line Departments, Research Organizations, NGOs and agencies associated with agricultural development in the district and are supported by a Governing Board (GB) and a Management Committee (MC). Under each of the ATMA, block level Farm Information and Advisory Centres (FIACs) have been created and operated by a Block Technology Team (BTT) of technical advisors and a Farmer Advisory committee (FAC). Commodity oriented Farmers Interest Groups (FIGs) are promoted at block / village level. The State Agricultural Management and Extension Training Institute (SAMETI) provides required training support in innovative areas of extension delivery.

Accordingly reorganization of Agricultural Extension has been taken up in 12 districts of Assam. Societies have been registered and Strategic Research Extension Plan (SREP) and State Extension Work Plan (SEWP) have been approved by the Govt. of India. Massive extension activities have been continuing under **ATMA** model.

The ATMA programmes have also been implemented in another 11 districts under the World Bank assisted Assam Agricultural Competitiveness Project (AAP).

Status of ATMA

Centrally Sponsored

ATMA Districts	12 nos.
ATMA Registered	12 nos.
Farm Information and Advisory Centre (FIAC) formed	12 nos.
Block Technology Team (BTT) Registered	96 nos.
State Extension Work Plan (SEWP), 2009-10	Under implementation

World Bank Aided AAP

ATMA Districts	11 nos.
ATMA Registered	11 nos.
District Agricultural Development Strategy (DADS) approved	11 nos.
Block Resource Centre (BRC)	118 nos.
Block Action Plan in action	123 Blocks.

Strengthening Extension Machinery under RKVY

Farm information Advisory Centre (FIAC) at Block Level	84 nos
Focal Point set up	58 nos (covering 580 villages)

Fund Received under Centrally Sponsored ATMA (Rs. in lakh)

Year		
2008-09	2009-10	2010-11
200.00	Nil	375.50

Source: Directorate of Agriculture, Assam

Strategy to Strengthen Agricultural Extension Services

- Engaging one Kisan Bandhu in each village.
- Organising Regional Workshop / Kisan Mela.
- KVKs to demonstrate composite farming practices / technologies.
- Documentation & publication of successful case studies.
- Developing entrepreneurial skills and competencies of farmers through exposure visits and training.
- Convergence of activities of line departments through ATMA / KVKs.
- Capacity building of extension workers.
- Addressing problem of manpower shortage in extension system.

Macro Management Mode of Agriculture

Macro Management Mode of Agriculture (MMMA) is a centrally sponsored scheme on sharing basis. MMMA is comprehensive and encompasses all activities associated with the development of agriculture in the State. The Government of India sponsored this scheme as per State's requirement since 2000-01. Out of the total fund provided by the Government of India, 80 per cent is in the form of Grants and 20 per cent in the form of loan.

PHYSICAL ACHIEVEMENT UNDER MMMA DURING 2008-09 AND 2009-10

Sl. No.	Item	2008-09	2009-10
1. Agricultural Mechanization -			
a	Power Tiller.	60 nos	394 nos
b	Self Propelled Reaper.	21 nos	-
c	Power Paddy Thresher.	33 nos	-
2. Integrated Cereal Development Programme (ICDP)- Rice			
a	Demonstration of 0.4 ha size for rice with Improved package of practices with assistance limited to ₹2500/-per demonstration –	500 nos.	500 nos
b	Demonstration on system of Rice Intensification (SRI) with assistance @ ₹3000 per Demonstration as Summer Rice –	250 nos.	500 nos
c	Demonstration on Hybrid Rice Technology with assistance @ ₹3000 per Demonstration as Kharif Sali	150 nos.	300 nos
d	Assistance for production of Hybrid Rice Seeds @ 50% of the cost limited to ₹1000/Qtls –	250 quintals	-
e	Assistance for distribution of Hybrid Rice Seeds	300 quintals	-
f	Distribution of HYV Certified Seeds to increase SRR	2040 quintals	2500 quintals
g	Distribution of Paddy HYV Seeds of 5 Kg. kits as demonstration –	1750 nos.	22500 nos
h	Incentive for Micronutrients (in deficit soils) –	2500 hectares	5000 hectares
i	Incentive for Liming in acid soils –	2500 hectares	-
j	Assistance for plant protection chemicals and bio-pesticide–	1500 hectares	3920 hectares
k	Farmers Field School.	60 nos.	28 nos
3. Integrated Cereal Development Programme (ICDP)- Wheat			

Sl. No.	Item	2008-09	2009-10
a	Demonstration of 0.4 ha size for Wheat with improved package of practices with HYV Seeds, Fertilizer, PP Chemical etc. –	350 nos.	193 nos
b	Distribution of Certified improved variety of Wheat Seeds to increase SRR –	1560 quintals	
c	Distribution of Wheat Seed mini-kit of 5 Kg. Size.	1500 nos	606 nos
d	Distribution of Micronutrient	2500 hectares	1876 hectares
4. Crop Production Programme-			
a	Purchase of Breeder Seeds of Black Gram	3 quintals	16 quittals
b	Purchase of Breeder Seeds of Moong (Green Gram) –	1.25 quintals	-
c	Foundation Seeds production assistance –	100 Qtls. @₹500/- per Qtls.	112 Qtls. @ ₹1000 per Qtls.
d	Certified Seeds production assistance–	500 quintals @ ₹500/- per Qtls	1512 Qtls @ ₹1000/- per Qtls
e	Distribution of Certified Pulse Seed of improved variety of Black Gram & Green gram	925 quintals	-
f	Integrated Nutrient management (INM) –	1750 hectares	2000 hectares
g	Purchase of Breeder Seed of Mustard: Variety-M-27; TS-38–	250 quintals	12kg
h	Production of Certified Seed of Rape & Mustard	1000 quintals	1500qntls
i	Production of Foundation Seed of Rape & Mustard	125 quintals	75 qntls
j	Distribution of Certified Seed of Rape & Mustard Variety-M-27;TS-36; TS-38	1000 quintals	506 qtls
k	Integrated Nutrient Management (INM)	1500 hectares	2000 hectares
l	Integrated Pest Management (IPM)	750 hectares	-
m	One acre Maize Demonstration with improved Practice & Packages	387 nos.	-
n	Distribution of High Yielding/Improved Varieties of Certified Seeds to increase Seed Replacement Rate (SRR) –	750 quintals	506 qntls
o	Incentive for Maize Nutrients (In deficient Soils)	3750 hectares	-
p	Incentive for Gypsum (Salt affected Soils)	1545 hectares	-
q	Farmers Field School.	40 nos	-
5. Sustainable Development Of Sugarcane Based On Cropping System Areas -			
a	Demonstration of Technology (0.5 Ha.)	300 nos.	-
b	Foundation Nursery	5 hectares	-
c	Primary Nursery	5 hectares	-
d	District Level training.	12 nos	-
e	State Level training	2 nos.	-
f	Frontline Demonstration	18 hectares	-

Sl. No.	Item	2008-09	2009-10
g	Production of Breeder Setts –	4 hectares	-
h	Distribution of Planting Materials –	600 hectares	-
i	Use of Bio-Fertilizer & Vermi-compost –	300 hectares	-
6. Integrated Nutrient Management -			
a	Setting up of Compost Plants to process city waste for compost production.	1 no	1 no
b	Organization of orientation training course on STLS.	2 nos	
c	Promotion of Green Manu ring –	525 quintals	476.18 kg
d	Promotion / Distribution of Micro-Nutrient –	2013.8 hectcs.	-
7. Integrated Pest Management			
a	Establishment of Plant Health Clinic –.	1 no	
b	Strengthening of State Bio-Control Laboratory –.	1 no	1 no
8. Reclamation of Acid Soils		5000 hectares	-

In addition to the above physical achievements under MMMA, the State Agriculture Department has taken initiative for development of Tribal farmers as well as farmers of Char areas. Special steps have also been taken for empowerment of Women involved in agriculture farming.

FINANCIAL STATUS SINCE 2007-08 TO 2009-10 (UPTO 31ST AUGUST, 2010) UNDER MMMA

(Rupees in lakh)

Year	Amount released by GOI	Amount received by State Govt.	Amount drawn by Department	Amount utilized by Department
2007-08	1594.64	1594.64	1594.64	1594.64
2008-09	812.50	812.50	812.50	812.50
2009-10	812.50	812.50	812.50	664.81
Total :	3219.64	3219.64	3219.64	3071.95

Source: Directorate of Agriculture, Assam

National Food Security Mission (NFSM)

National Food Security Mission [NFSM], a 100% central scheme on components- Rice, Pulses and Wheat has been launched by the GOI in 2007-08. Out of the three components Govt. of India has provided only NFSM-Rice for implementation in 13 identified districts of Assam selected by the Govt. of India on the basis of low production and productivity of Rice namely, Kokrajhar, Bongaigaon, Goalpara, Nalbari, Barpeta, Morigaon, Nagaon, Darrang, Sonitpur, Lakhimpur, Dhemaji, Tinsukia and Karbi Anglong districts are selected for implementation of the programme. The programme is under Implementation w.e.f. Rabi season of 2007-08. NFSM –Pulse programme has been under implementation in 10 selected districts of Assam wef 2010-11 (kharif season).

The main objective of the scheme is to increase production of Rice and pulses through area expansion & productivity enhancement. Apart from this, special emphasis has been given for restoration of Soil Fertility, Creation of employment opportunity and to enhance farm level economy through the programme.

National Food Security Mission (RICE)

During the first three years of implementation of the programme i.e., 2007-08, 2008-09 and 2009-10 an amount of ₹7461.30 lakh has been released by the Govt. of India out of which ₹7456.30 lakh has been utilised. Physical and financial achievements under NFSM-Rice programme may be evident from the tables below.

TABLE-5.28
FINANCIAL ACHIEVEMENTS UNDER NFSM-RICE

(Rupees in lakh)

Year	Fund Received from Govt of India	Utilization	Balance
2007-08	1139.42	1139.42	-
2008-09	2705.65	2705.65	-
2009-10	3616.23	3611.23	5.00

Source: Directorate of Agriculture, Assam

TABLE-5.29
INPUT CONSUMPTION IN NFSM DISTRICT (PHYSICAL)

District	Input	Unit	2007-08	2008-09
NFSM District (13 Nos.)	HYV Seed	Qtls	25172	155695
	Hybrid	Qtls	133.5	3979
	Minikit HYV	Qtls	-	1137
	Micronutrient	Ha.	1000	55860
	Lime	Ha.	100000	95000
	PP Chemicals	Ha.	-	39819
	Manual Equipments	No	21000	9950
	Conoweeder	No.	5000	11550
	Pump Set	No	-	1460
	Knapsack Sprayer	No	-	7050
	Paddy Weeder	No.	-	4666

Source: Directorate of Agriculture, Assam

TABLE: 5.30
ACHIEVEMENTS OF NFSM-RICE IN ASSAM

Sl. No.	Crop	Item	2006-07 (Pre-Mission)	2008-09 (after 2 years of Mission)	% increase / decrease in 2 years	2009-10 (anticipated)
1	Kharif Rice	Production (lakh MT)	11.38	15.42	36.0	16.05
		Productivity (Kg/ ha.)	1098	1305	19.0	1386
3.	Rabi Rice Summer/ Boro	Production (lakh MT)	3.53	4.84	37.0	6.75
		Productivity (Kg/ ha.)	1858	2142	15.0	2278
4.	Total Rice	Production (lakh MT)	14.91	20.26	36.0	22.80
		Productivity (Kg/ ha.)	1216	1440	19.0	1515

Source: Directorate of Agriculture, Assam

National Food Security Mission (Pulse)

Govt. of India has approved implementation of NFSM-Pulse programme from the Kharif season of 2010-11 in 10 districts of Assam, viz., Baska, Barpeta, Bongaigaon, Dhubri, Jorhat, Kamrup(Rural), Kokrajhar, Nagaon, Sonitpur and Udalguri for which an amount of ₹696.215 lakh was allocated by the Govt. of India.

FINANCIAL STATUS OF NFSM-PULSE (AS ON 31ST AUGUST, 2010) (RS. IN LAKH)

Year	Approved Allocation	Fund Received	Fund Utilised	Balance
2010-11	696.215	348.110	54.865	293.245

Source: Directorate of Agriculture, Assam

Rashtriya Krishi Vikas Yojana (RKVY)

The National Development Council (NDC) has affirmed that to achieve 4% annual growth in the agricultural sector at the national level during 11th plan the agricultural development, the strategies must be oriented to meet the needs of farmers. NDC has also resolved that a Food Security Mission will be launched covering Rice, Wheat and Pulses as a Central Scheme aimed at producing an additional 10 million MT of Rice, 8 million MT of Wheat and 2 million MT of Pulses over the base year (triennium ending 2006-07). It also resolved to introduce a new Additional Central Assistance Scheme as incentive to the states to draw up more comprehensive agricultural plans. Accordingly, the Govt. of India has introduced of a new additional central assistance scheme for the States called the Rashtriya Krishi Vikas Yojana (RKVY) to draw comprehensive plans by integrating agriculture sector with that of livestock, fisheries and poultry.

Assam was not eligible for assistance under RKVY during 2007-08. During 2008-09 State became eligible for availing assistance under RKVY and accordingly an amount of ₹142.62 crore was allocated to the State for the said year. An amount of ₹79.86 crore was allocated to the State during the year 2009-10.

The RKVY has been of great benefit to the State as it helps to strengthen the facilities of irrigation, mechanization and extension as well as the areas not covered by the other developmental schemes.

TABLE: 5.31
FUND ALLOCATION UNDER RKVY

(Rupees in crore)

Sl. No.	Department	Year	
		2008-09	2009-10
1.	Agriculture	62.62	49.86
2.	Animal Husbandry and Veterinary	26.70	10.00
3.	Dairy	03.30	05.00
4.	Fisheries	20.00	10.00
5.	Soil Conservation	10.00	-
6.	Assam Agriculture University (Research)	10.00	05.00
7.	Assam State Agricultural Marketing Board	10.00	-
Total:		142.62	79.86

Source: Directorate of Agriculture, Assam

Performance Under Special Programmes

A. Assam Bikash Yojana

The increasing demand for food grains and other crops in the state can only be achieved by adoption of practices of multiple cropping. At present Assam has a per hectare availability of farm power to the extent of 0.60 HP / hectare which is below the national average of about 1.20 HP / hectare. Again, the National average of Tractor is 15 Nos. per 1000 ha. At present there are about 5100 Tractors available for farming in Assam. To achieve the National level, Assam State still requires 32,500 Tractors. Hence, to provide mechanised infrastructure support to farming communities for multiple cropping, special impetus has been given under the provision of the Scheme for acquisition of Tractors.

During 2008-09 under the Scheme Assam Bikash Yojana, the Department of Agriculture, Government of Assam has distributed 1479 Tractors to farmers at subsidised rate with an allocation of ₹4000.00 lakh.

Moreover, 61,500 no. of Japi have been distributed under the scheme to **Women Farmers** with an allocation of ₹125.00 lakh to enhance working efficiency and to undertake Agricultural operations during adverse climatic condition.

B. Tribal Sub-Plan (TSP)

The population of ST farmers of the state comprises of 12.82 percent and are mostly belong to small and marginal farmer category with limited land holdings and dependent on agriculture as primary source of livelihood. Thus, they are handicapped to raise their level of income as well as for socio-economic transformation. So, the State Government has taken policy decision to uplift the economic condition of the ST farmers. The following major programmes were undertaken during 2008-09 with provision of ₹119.20 lakh:

- i. Construction of Community Godown – 7 Nos.
- ii. Construction of Community Threshing Floor – 7 Nos.
- iii. Bundh / Dong for irrigation – 6 Nos.
- iv. Procurement of Power Operated Paddy/ Wheat Thresher – 10 Nos.
- v. Procurement of Power Tiller – 20 Nos.

C. Scheduled Caste Component Plan (SCCP)

Out of the total population of the State, 7.4 percent are of SC category. Like ST farmers, large section of the SC farmers are also belong to small and marginal farmer category. They have limited land holdings and depend upon agriculture as their livelihood. The subsistence living and marginal holding have impaired them to raise the level of income and socio-economic transformation. So, the Government has taken policy decision to uplift the economic condition of the SC farmers.

The major programmes undertaken by the State Government to uplift the income and socio-economic status of these farmers during 2008-09 with financial provision of ₹324.20 lakh:

- i. Construction of Community Godown – 7 Nos.
- ii. Construction of Community Threshing Floor – 7 Nos.
- iii. Bundh / Dong for irrigation – 30 Nos.
- iv. Procurement of Power Operated Paddy/ Wheat Thresher – 30 Nos.
- v. Procurement of Power Tiller – 120 Nos.

D. Farmers' Award & Gaon Challo Programme

To encourage the Farmers of the State as well as Field functionaries to get the best affinity towards Agriculture Sector, a scheme has been introduced to reward the best performing 3 farmers at State level and 3 farmers from each District along with 3 prizes to best performing District in the State with an amount of ₹49.00 Lakh under Farmers' Award and Gaon Challo Programme.

E. Disaster Management

In order to compensate the loss caused by Flood, the State Government has implemented the Disaster Management Scheme under State Plan 2008-09 with an amount of ₹600.00 lakh and successfully covering around 2.64 lakh affected farmer families. Under the scheme following quantity of seeds were distributed to the flood affected farmer families-

- i. Certified Sali Paddy Seeds – 1000.00 Qtls,
- ii. Open Polinated Vegetable Seed – 246662 Pkts.
- iii. Hybrid Vegetable Seeds – 246662 Pkts.
- iv. Certified Summer Paddy Seeds – 825.00 Qtls.

F. Distribution of Seeds of Cereals, Pulses and Oilseeds

To increase the production and productivity of Cereals (Rice, Wheat & Maize), Pulses and Oilseeds through adoption of higher production technologies, systematic area expansion by improved HYV / Hybrid Seeds with an allocation of ₹2000.00 lakh. The major components under implementation are as follows-

Rice Development Programme

- Block Demonstration of 10 hectare size – 592 Nos.
- Hybrid Paddy Seed Mini-kit Distribution - 64262 Kits [2 kg per kit]
- HYV paddy demonstration [1 hectare size] – 1500 Nos.
- SRI Hybrid Paddy Demonstration [0.4 hectare size] – 1978 Nos.
- SRI HYV Paddy Demonstration [0.4 hectare size] – 2000 Nos.

Wheat Development Programme

- Distribution of Improved Variety of Wheat Seed – 4000 Qtls.
- New Wheat Varieties - 10,000 Kits [5kg per kit]
- Wheat Demonstration [1 hectare size] - 1000 Nos.
- 2 days Farmers Training- 200 Nos.

Maize Development Programme

Distribution Hybrid maize Seeds - 600 Qntls.

Maize Demonstration [0.4 hectare size] - 5100 Nos.

Pulse Development Programme

- Distribution of Black Gram Seed - 3000 Qntls.
- Green Gram Seeds -2000 Qntls.
- Certified Pea Seeds - 2000 Qntls.
- Black Gram Demonstration [1 hectare size] - 2500 Nos.

- Green Gram Demonstration [1 hectare size] - 1500 Nos.
- Arhar Seeds - 5000 kits [5 kg per kit]

Oilseed Demonstration Programme

Distribution of Rape & Mustard Seeds - 4100 Qntls.

- Rape & Mustard Demonstration [1hectare size] - 2300 Nos.
- Sesamum Demonstration [0.4 hectare size] - 2100 Nos.
- Nizer Demonstration [one hectare size] -1500 Nos.

G. Fertilizer Distribution

An integrated roadmap has been drawn to increase and maintain the soil health and to preserve soil, air and water free from pollution due to application of chemical fertilizer with an allocation of ₹683.41 lakh through distribution of Fertilizer, Bio-fertilizer and Micronutrients. The components under the programme of implementation are as follows:

16000 Nos. kits of Chemical Fertilizer, Vermi-compost, Micronutrients for Paddy, Rape & Mustard and Wheat; Distribution of 15000 Nos. kits of Bio-fertilizer for Paddy and Wheat are being distributed.

H. Plant Protection Campaign

To protect the crop loss due to outbreak of pest and diseases and to facilitate the handling of plant protection campaign an amount of ₹549.368 Lakh has been earmarked for implementation of the following-

Distribution and Maintenance of Plant Protection Machineries/Equipments

Power Sprayer-260nos, Foot Sprayer-312nos and Hand Rotary Duster -2080nos are being distributed in the District H.Q. Apart from the above 3900 nos. of H.C. Sprayers are being distributed free to the farmers.

Distribution of PP Chemicals

Free distribution of 9100 kg Fungicides; 84500 kg Insecticide/ Pesticides; 11,128 kg Rodenticide; 75,242 Nos. of Sex Hormone Traps & Lure; 37,700 kg Bio-pesticides etc.

NEC Scheme

The State Agriculture Department has been implementing three different schemes under NEC assistance viz., (1) Development of Singimari Wholesale Market (Vegetable) under Guwahati Sub-Divisional Market Committee (2) Establishment of Cold Storage and Allied Marketing facilities at Gossaigaon under Kokrajhar district and (3) Setting up of Organic Citrus Farm at Dimoria Development Block in Kamrup district.

1. The scheme '**Development of Singimari Wholesale Market**' (Vegetable) under Guwahati Sub-Divisional Market Committee' is being implemented by the Assam State Agricultural Marketing Board (ASAMB) has been completed.
2. The scheme '**Establishment of Cold Storage and Allied Marketing facilities at Gossaigaon**' under Kokrajhar district' is also being implemented by the Assam State Agricultural Marketing Board (ASAMB) through Kokrajhar Regulated Market Committee. The outlay of the project is ₹348.80 lakh.
3. The scheme '**Setting up of Organic Citrus Farm at Dimoria Development Block in Kamrup district**' is being implemented by the Deputy Commissioner, (Metro), Kamrup through an NGO, Organic Farmers'

Association, Sonapur (Started during 2003-04). The project outlay was fixed at ₹130.00 lakh. The fruiting of the early planted Orange and Assam Lemon have started. As far as organic certification is concerned, one Netherlands based organization SKAL International has agreed to help the project.

A Few Departmental Initiatives

The State Agriculture Department has undertaken a few integrated programmes for improvement of agriculture sector and initiate action to create & motivate the farmers to increase production. Some of such approaches are given below-

Soil Health Mapping: Soil Health Mapping will show the status of soil P^H, soil structure & texture, NPK content & micronutrient content.

- Sampling at 1 sq. Km distance.
- Soil Health card will be issued to each farmer.
- Mapping of 13 districts covered under NFSM is going on.
- Another 10 districts will be covered under RKVY.

Large scale Hybrid Rice Programme

- Encouraging farmers to go for hybrid rice cultivation to achieve self sufficiency and food security.
- Extensive programme is already in action under National Food Security Mission and National Agricultural Extension Programme (NAEP) under State Plan.

Technology Showcasing: The Department of Agriculture and Assam Agricultural University is organizing demonstration programme on Winter Rice covering an area of 100 hectare per demonstration. The significance of this demonstration programmes are -

- This will be a compact area of 100 ha in a field strategically located and attached to National Highway only.
- All scientific package of practice are being adopted with farmers' participation.
- Entire plot will be brought under Seed Certification.
- The same plot of land will be utilized for production of Rapeseed / Lentil in ensuing Rabi season after harvest of Winter Rice.
- Altogether 11 nos. of districts are covered under this programme.

Cultivation of Bhut Jolokia (Capsicum chinense)

- A hottest Chilli variety of highest Scoville content i.e. 1.00 Lakh plus which is under Guinness Book of World Record.
- The crop is valued for production of wide range of products besides defence requirement and export demand.
- It was never cultivated in an organized manner.
- The State has take up cultivation in 700 ha involving large number of SHGs / Women SHGs and the product of first harvest has started arriving local markets.

Agriculture Production Management Group (APMG)

- The growers, especially vegetable growers are organised into the producers group called the Agriculture Production Management Group (APMG). The groups can be village based or can consist of a number of villages depending on the area of vegetable cultivation. Each group can have 20-50 members. 10 nos. of APMGs have already been formed in each district.

Public Private Partnership (PPP)

- PPP is a new concept that has been implementing in the state and tremendous result has been observed in this sector.
- Contractual farming under PPP model is spreading in a few selected districts of the state in case of potato, zinger and commercial flowers.

Technology Dissemination through Demonstration (TDTD)

This new venture promotes Banana production in the state with following objectives -

- In case of Banana production, Assam ranks 6th position in the country with an annual production of about 7.00 lakh MT.
- The pseudo-stems of banana being targeted for commercial exploitation through extraction of banana fibre to augment farmer's income.
- The required machineries are being provided to Banana Growers' Societies and series of trainings are being organized in the districts of Morigaon, Kamrup, Goalpara and Kokrajhar.

Organic Market Complex

In view of absence of a systematic market for disposal of organically produced fresh and some added products, one modern organic market is being set-up with forward and backward linkers at Panjabari, Guwahati with a financial outlay of 20.00 crore through ASAMB.

Extending Green Revolution to Assam

Govt. of India has duly recognised the need of extending Green Revolution to the North-East India and Assam in particular. The logic behind this new initiative is to tap its potential in the Agri-Horticultural Sector in the perspective of its current status of sluggish growth. While the achievable target as regards to productivity and thereby production of various crops can be better than the best of the states, Assam is below national average in most cases with the exception of horticultural crops. The main objective of Green Revolution is to provide food security by enhancing productivity of crops and to bridge the gap between requirement and production. In accordance with this new initiative for extending Green Revolution in Assam, an attempt has been made to project the gaps in the existing system and to prepare a road map with a dynamic outlook to finally achieve the objective of Green Revolution in Assam in the days to come. The entire approach is based on Agro-Climatic Zone-wise strategies with precision concept to make it more and more realistic and need based.

An amount of ₹35.00 crore has been allocated by the Govt. of India for implementation of programmes / schemes prepared to meet the objective of Green Revolution.

CHAPTER – VI

IRRIGATION

Irrigation is the main input of Agricultural economy of the State. To cope with the growing problem of food shortage due to formidable increase of population and natural calamities etc., multiple cropping, modernization of agricultural practices in agricultural sector is highly essential. For a sustained development in the agricultural sector availability of assured irrigation facility is undoubtedly the most important prerequisite. Thus, the importance of irrigation development bears special significance in the context of efforts towards economic development of the State.

Out of the total geographical area of 78.44 lakh hectares, the Gross Cropped Area of Assam is 39.99 lakh hectares. Against this, the ultimate irrigation potential i.e. the ultimate Gross Irrigation Potential (Annually Irrigable Area) has been estimated at about 27 lakh hectares, which constitutes 67.5 per cent of the Gross Cropped Area. Out of the estimated ultimate Irrigation Potential of 27 lakh hectares necessary plan has been taken up to irrigate 10 lakh hectares through Major and Medium Irrigation projects from surface water sources and 17 lakh hectares through Minor Irrigation Schemes (including ground water schemes).

The development programmes for improvement of irrigation facility in Assam taken up under two broad heads, viz., Major & Medium Irrigation and Minor Irrigation. While the Irrigation Schemes are classified as Major, Medium and Minor, they are categorised as Surface Flow, Surface Lift (For Major / Medium and Minor) and Ground Water Lift (for Minor only). Three Departments, viz. Irrigation, Agriculture and Panchayat and Rural Development are associated with development of irrigation facilities in the State. While the Irrigation Department, being the Nodal Department for development of irrigation in the State, executes and maintains Major, Medium and Minor Irrigation Schemes, the irrigation works of the other two departments are confined to Minor Schemes like Shallow Tube Wells, Low Lift Points and Temporary Minor Irrigation Schemes only.

Out of the Gross Cropped Area of 39.99 lakh hectares of the State the Irrigation Department created potential of 7.76 lakh hectares up to 2009-10 of which 2.39 hectares through Major & Medium Irrigation Projects and the rest 5.37 lakh hectares Minor Irrigation Schemes including the Shallow Tube Wells and Low Lift points implemented through Assam State Minor Irrigation Development Corporation (ASMIDC) Limited. The position of creation of irrigation potential under different sectors is shown below.

Department/ Agency	Gross Irrigation Potential Created upto 2009-10 (in hectares)		
	Major & Medium Irrigation Sector	Minor Irrigation Sector	Total
Irrigation Department	239239	387470	626709
ASMIDC	NIL	149205	149205
Total	239239	536675	775914

Source: Chief Engineer, Irrigation Department, Assam

Creation of Irrigated Area and Utilisation of Potential

During 2006-07 and subsequent years the State irrigation Department undertake various irrigation schemes in the State under Accelerated Irrigation Benefit programme (AIBP) funded by the Government of India. At present 727 minor irrigation schemes are under progress of which 173 schemes have been completed achieving 67021 hectares of irrigation potential (including revival of lost potential). Remaining 554 schemes are expected to be completed by 2012-13 through which 260045 hectares of irrigation potential will be achieved. Apart from this 2(two) Major/Medium Irrigation Projects viz., Pahunara Irrigation Project and Modernisation of Jamuna Irrigation Project have been completed with the fund received under the AIBP during the year 2007-08 and 2008-09 respectively. These two projects help in achieving a potential of 11751

and 11700 hectares. At present 4(four) Major/Medium Irrigation Projects are in ongoing stage and 47132 hectares irrigation potentials have been achieved including revival of lost potential. These 4(four) projects are expected to be completed by 2011 to achieve balance potential of 79844 hectares.

The utilisation of irrigation potential in respect of State Government owned irrigation projects/schemes under Irrigation Department during the first three years of XIth Five Year Plan period is shown below:

Year	Irrigation Potential Utilised (Figures in hectares)								
	Kharif crops season			Rabi & Pre-Kharif crops season			Total		
	Minor	Major/ Medium	Total	Minor	Major/ Medium	Total	Minor	Major/ Medium	Total
2007-08	41795	32668	74463	10486	4322	14808	52281	36990	89271
2008-09	40775	34902	75677	10923	9071	19994	51698	43973	95671
2009-10	77495	70274	147769	11178	9907	21085	88673	80181	168854

Source: Source: Chief Engineer, Irrigation Department, Assam

It is pertinent to mention that the utilisation of irrigation potential is not upto the mark and there is a gap between the created irrigation potential and potential actually utilised. The primary reason of less utilisation of irrigation potential is that that the cultivators are reluctant to take advantage of irrigation facilities. In order to encourage the farmers to go for multiple cropping, Farmers' Motivation Training Programmes are conducted from time to time.

Review of Annual Plan 2008-09

Major/Medium Irrigation

Plan allocation for 2008-09 for Major/Medium Irrigation sub-sector was ₹8730.00 lakh. This included ₹5530.00 lakh as AIBP component, ₹1200.00 lakh as State Plan component and ₹2000.00lakh from NABARD funding. Actual expenditure under AIBP funding during the year was ₹6223.94 lakh and potential achieved was 8795 hectares.

The physical target for Annual Plan 2008-09 was 25,658 hectares. Moreover a target of 5000 hectare had been fixed as revival of lost potential from NABARD scheme viz., Modernisation of Sukla Irrigation Project which however, will rise to 24400 hectares as revival of lost potential on completion.

Further, for restoration of one sick completed Medium Irrigation Project viz., Improvement of Rupahi Irrigation Project was taken up for execution under Assam Bikash Yojana with a proposed allocation of ₹80.00 lakh during 2008-09.

Minor Irrigation

The approved outlay for Annual Plan for 2008-09 of Minor Irrigation Sector was ₹4132.00 lakh. This includes AIBP component of ₹2877.00 lakh. The allocations for TSP & SCSP are ₹325.00 lakh and ₹730.00 lakh respectively.

The physical target for Annual Plan 2008-09 was 14379 hectares. Moreover, a target of 7775 hectares is kept for creation of additional potential, under assistance from NABARD.

Review of Annual Plan 2009-10

Major/Medium Irrigation

Plan allocation for 2009-10 for Major/Medium Irrigation sub-sector was ₹8400.00 lakh. This includes ₹5400.00 lakh as AIBP component, ₹1000.00 lakh as State Plan component and ₹2000.00 lakh as NABARD funding.

The physical target for Annual Plan 2009-10 was 74,786 hectares. Moreover a target of 24,400 hectare has been fixed as revival of lost potential from NABARD Scheme viz., Modernisation of Sukla Irrigation Project.

Under Assam Bikash Yojana, the work of Improvement of Rupahi Irrigation Project is going on with a budget allocation of ₹197.00 lakh during 2009-10. On completion of the Project a potential of 5668 hectare will be restored.

Minor Irrigation

The approved outlay for Annual Plan for 2009-10 of Minor Irrigation Sector was ₹3230.00 lakh. This includes AIBP component of ₹2410.00 lakh, ₹620.00 lakh as State Plan component and ₹200.00 lakh under Assam Bikash Yojana.

The physical target for Annual Plan 2009-10 was 135347 hectares. This includes 424 hectares in General area, 5659 hectare under NABARD, 128204 hectare under AIBP funding, 1060 hectare under Assam Bikash Yojana.

Command Area Development and Water Management (CADWM)

For bridging the gap between potential created and potential utilised and for equitable distribution of water within respective command, stress has been given not only for creation of additional irrigation potential but also on improvement of water use efficiency of created potential. During the XI Five Year Plan the physical target has been planned for 35755 hectare under CADWM programme. Accordingly 3(three) Irrigation Department namely (i) Kaldiya Irrigation Project, (ii) Dekadong Irrigation Project and (iii) Bardkarai Irrigation Project has been taken up by the State Irrigation Department. The Pahumara Irrigation Project has been proposed to be included under the CADWM programme in 2009-10.

Review of Annual Plan 2008-09 and 2009-10

The approved Annual Plan for the year 2008-09 was ₹1200.00 lakh to create a physical target of 7292 hectare. However, only 5935 hectares (81.4 percent) of the physical target could be achieved during the year.

The state Government has made budget provision of ₹670.00 lakh out of the total fund of ₹1340.00 lakh (₹670.00 lakh as Central Share) for implementation CAD programme during the year 2009-10 alongwith ₹70.00 lakh against the new proposed project i.e. Pahumara CAD Project. The physical target of 2750 hectares has been fixed for the project for the year 2009-10. In respect of on-going Bardikrai Irrigation Project although no budgetary provision has been made during the year 2009-10, physical target of 500 hectares has been fixed against the Scheme. Moreover, budget provision of ₹100.00 lakh has been made during the year against the Integrated Irrigation Scheme for Kollong and Sonai River Basin which was not considered for Central Assistance under the CADWM Programme during the year 2003.

Area Irrigated During 2009-10

The table below shows the crop season-wise area irrigated during the year 2009-10 in different districts of Assam from Government sources of irrigation:

CROP SEASON-WISE AREA IRRIGATED DURING THE YEAR 2009-10 (Provisional) (In Hectare)

Sl. No.	Name of district	Kharif	Rabi & Pre-Kharif	Total
1.	Dhubri	624.00	447.60	1071.60
2.	Kokrajhar	6325.00	16.00	6341.00
3.	Bongaigaon	263.20	34.26	297.46
4.	Goalpara	1752.00	411.60	2163.60
5.	Barpeta	12286.00	4088.33	16374.33
6.	Nalbari	189.00	78.55	267.55
7.	Kamrup (Metro & Rural)	4540.10	1656.50	6196.60
8.	Darrang	6163.00	1572.00	7735.00
9.	Sonitpur	11981.00	15.50	11996.50
10.	Lakhimpur	289.00	272.00	561.00
11.	Dhemaji	-	606.00	606.00
12.	Morigaon	554.00	654.50	1208.50
13.	Nagaon	33011.00	6522.85	39533.85
14.	Golaghat	1731.50	255.21	1986.71
15.	Jorhat	977.00	85.45	1062.65
16.	Sivasagar	817.50	27.13	844.63
17.	Dibrugarh	1232.00	6.00	1238.00
18.	Tinsukia	1085.00	36.10	1121.10
19.	Karbi Anglong	16233.50	1926.00	18159.50
20.	Dima-Hasao	3915.00	-	3915.00
21.	Karimganj	131.00	13.00	144.00
22.	Hailakandi	290.00	-	290.00
23.	Cachar	2130.00	-	2130.00
24.	Chirang	5592.00	1363.00	6955.00
25.	Baska	14837.00	207.00	15044.00
26.	Udalguri	20820.00	790.00	21610.00
	Total	147769.00	21084.58	168853.58

Source: Chief Engineer, Irrigation Department, Assam

Realisation of Irrigation Service Charges

As sufficient fund is required for operation and maintenance of Irrigation Schemes and the fund provided in the state's budget is not adequate, the State Irrigation Department has introduced the system of realisation of service charges from the beneficiary cultivators since 1993. The rates of Irrigation Service Charges have

been revised during 2000-01 to cope with the increasing cost of maintenance and in accordance with the Fiscal Reform Measures of the State Government. The current rates of Irrigation Service Charges are as follows:

IRRIGATION SERVICE CHARGES

Crops	Rate/Bigha. (Rs)	Rate/Hect. (Rs)
Kharif	37.50	281.24
Wheat and Other Rabi	75.00	562.50
Early Ahu	100.00	751.00
Ahu	100.00	751.00
Jute	20.00	150.00
Sugarcane	29.60	222.00

Source: Chief Engineer, Irrigation Department, Assam

In spite of Government's Notification for realisation of Irrigation Service Charges from the beneficiary cultivators the position of realisation is not upto the satisfaction due to various reasons-

1. Poor economic condition of the cultivators;
2. General tendency of the beneficiary cultivators to get free water from Govt. Irrigation Schemes;
3. Absence of legal authority of Water Users' Associations empowering them to collect Irrigation Service Charges;
4. Some authorities have not permitted to collect the Irrigation Service Charges.
5. Adverse law and order situation in some areas for certain periods.

However, the Department is endeavouring to realize the Service Charges from the beneficiary cultivators. The status of Irrigation Charges actually realised during the last ten years is presented below:

IRRIGATION CHARGES REALISED

(Rupees in Lakh)

Year	Amount realized
2000-2001	0.23
2001-2002	0.24
2002-2003	1.74
2003-2004	2.86
2004-2005	4.92
2005-2006	3.53
2006-2007	2.02
2007-2008	1.96
2008-2009	2.02
2009-2010	3.40

Source: Chief Engineer, Irrigation Department, Assam.

In order to improve the position of realisation of Irrigation Service Charges the Department has undertaken the following steps-

- a. The Assam Irrigation Act, 1983 as well as the Assam Irrigation Rules, 1997 was enacted;
- b. The Assam Irrigation Water Users' Act, 2004 has been enacted.

- c. District wise Farmers' Motivation Training Programmes are conducted time to time to create awareness about the utility of irrigation for Multiple Cropping with a view to uplift their economic condition of cultivators through scientific agriculture.
- d. 795 Water Users' Associations (WUA) have been constituted in the Command Areas of Irrigation Schemes/Projects.
- e. District wise WUA Farmers' Training was conducted to adopt scientific agriculture in Irrigation Command.
- f. Out-of-State exposure visit in Tamilnadu, Andhra Pradesh and Jharkhand have been organised for officials of Irrigation Department, NGOs and WUA farmers.

Irrigated Area As Per Agriculture Census-2005-06

As per Agriculture Census 2005-06 there is about 1.45 lakh hectare net irrigated area (including private sources) in the State of which 0.23 lakh hectare area irrigated from 'canal', 0.031 lakh hectare from 'tanks', 0.17 lakh hectare from 'tubewells' and 1.02 lakh hectare receives irrigation from 'other sources'. The table below shows the size class wise area receives irrigation from different sources in the State.

SIZE CLASS AND SOURCE-WISE AREA IRRIGATED IN ASSAM

(Area in Hectare)

Sl. No.	Size Class (in Ha)	Area under Operational Holding	Area Receiving Irrigation from Sources					Net Irrigated Area
			Canal	Tanks	Wells	Tube wells	Other Sources	
1	Below 0.5	353051.83	1904.95	1197.90	28.13	1545.57	10486.60	15163.15
2	0.5-1.0	407092.81	2538.38	281.01	80.01	2374.69	9879.69	15153.78
3	1.0-2.0	718383.23	5499.75	331.41	66.71	4146.96	18333.57	28378.40
4	2.0-3.0	496982.96	3862.86	379.48	37.94	2471.65	10661.63	17413.56
5	3.0-4.0	349023.18	3354.49	198.91	25.41	2004.46	9996.45	15579.72
6	4.0-5.0	203932.59	1647.67	125.39	11.04	845.12	6617.06	9246.28
7	5.0-7.5	177267.26	2379.52	135.41	16.60	775.95	6222.10	9529.58
8	7.5-10.0	44203.07	395.95	64.33	0.00	415.22	2237.11	3112.61
9	10.0-20.0	34251.16	80.40	28.02	0.00	252.87	2398.58	2759.87
10	20 & above	264354.79	1456.23	400.01	65.06	1863.33	25580.87	29365.50
11	All Classes	3048542.88	23120.20	3141.87	330.90	16695.82	102413.66	145702.45

Source: Agriculture Census, 2005-06

CHAPTER – VII

FLOOD AND FLOOD CONTROL MEASURES

The State of Assam covers an area of 78,438 Sq. Km. The Brahmaputra and Barak valleys, which are named after the mighty Brahmaputra and Barak rivers and two hill districts constitutes the total land mass of the State. The unique geographical location criss-crossed by a vast network of 48 major and 128 small rivers originating from the hills and mountains surrounding the State is largely responsible for the recurring floods and erosion of river banks. When the discharge in the rivers along with their tributaries synchronises during monsoon, the State faces flood havoc and the damage caused is colossal. Further, deforestation in upstream and downstream areas of surrounding Hill States and Assam respectively has caused excessive siltation, resulting in abnormal rise in the surfaces of major rivers. The siltation problem is acute in the case of rivers of Upper Assam and Central Assam.

The problem of flood and erosion in Assam is menacing and probably the most acute and unique in the country. The heavy monsoon rain over catchments of Himalayan and Patkai ranges of hills posing threats to gently sloping narrow valley of the rivers coupled with high seismic activities in the easily erodable hill slopes along with certain anthropogenic causes create heavy flood in the State. Every year during the successive weaves of floods, most of the areas in the valley of Assam remain submerged for a considerable numbers of days causing wide spread damages to crops, public & private properties, disruption of vital communication link within the State, with neighbouring States and also with the rest of the country. This phenomenon takes place because of the occasional failure of the already existing flood prevention structure, which have outlived their lives. The recurrence of flood added with unabated erosion too caused thousands of hectares of land loss and hundreds of people landless virtually destroyed the socio-economic development of the State. It is reported that on an average 2500 hectares of land is being eroded by the Brahmaputra annually.

Flood control activities in Assam started after announcement of National Policy for Flood in 1954 by the Govt. of India. Though there was short term and long term measures envisaged in National Flood Policy of 1954, to get the immediate relief to the flood ravaged state, construction of embankments as short term measures had been widely adopted. In the State as a whole total area eroded by the Brahmaputra, Barak and their tributaries since 1954 is 3.86 lakh hectares, which constitute 7 per cent of the total area of the State.

The 'Rashtriya Barh Ayog' has identified 31.05 lakh hectares of flood prone area in the State of which Water Resource Department through implementation of various project has protected 16.50 lakh hectares of flood affected land.

At a glance, the achievements of Water Resources Department in terms of infrastructures development are:-

- | | |
|------------------------------------|--|
| 1. Construction of embankment | 4465.85 Km |
| 2. Drainage Scheme | 854.19 Km |
| 3. Anti erosion / protection works | 746 nos. |
| 4. Sluice | 86 nos. (major) & 539 (medium & minor) |

Flood Control Strategy During 11th Plan

Till 10th Five Year Plan, flood and erosion problem in Assam has been tackled by executing various short term measures with the funding under State Plan, Central Sector, Additional Central Assistance (ACA), NEC, JRC

and NABARD [RIDF-XI, RIDF-XII (2006-07)]. The funds available from the above sources were inadequate to combat such complex and gigantic problem. These short term measures although yielded good results, such measures have its limitations. Moreover, the flood management network which had provided reasonable protection to flood prone area, the protective measures mainly embankments got shattered during the unprecedented flood of 2004. The Task Force constituted by the Government of India on the aftermath of 2004 flood devastation strongly recommended fortification of present embankment system by scientific methods and with protective and river training measures wherever necessary. Accordingly the Task Force recommendation of ₹720.00 crore forms the core part of the 11th Five Year plan programme.

Strategies Short Listed

The flood problem in Assam is critical and enormous as recurrence of flood apart from inflicting damages in the protected area, damages existing vital infrastructure facilities, the core sector of development. In order to combat/reduce flood problems, the Water Resource Department has chalked out action plan for implementation during the 11th Five Year Plan.

- Raising & Strengthening of existing embankment system, so as not to cause any dwindling of already protected area;
- New embankment to be taken up to bring more areas benefited as under benefited area, in present perpetual flood inundation area;
- Anti-erosion works and protection works of valuable fertile lands, protection of vital important towns and industrial areas;
- Removal of drainage congestion to bring more areas under protective arena;
- Flood proofing programme, such as raised platforms etc.;
- Dredging of selective reaches, particularly in the tributaries and at the outfalls;
- Annual scientific collection of flood damage data, basin wise preparations of flood risk maps and flood plain zoning;
- River morphological studies through satellite imageries for study of bank migration to find out probabilities of areas likely come under attack of erosion and take cost effective and timely preventive measures;
- The north bank tributaries originating from Bhutan, creates acute flood problem in the lower Assam Districts particularly Barpeta, Kokrajhar and Dhubri due to sudden onrush of flood discharge, particularly with breach of Artificial dams caused due to huge landslides in the upper catchments in Bhutan territory, along with flow of huge sediment loads. Frequent monitoring by the Joint group of Experts Committee may be given priority to tackle the problem;
- The existing flood forecasting and flood warning network is to be further augmented, particularly bringing tributaries flowing down from Bhutan and Tibet (China) under the umbrella of this network;
- Water shed management in selected hilly catchments of Northern tributaries, which have deteriorated in recent times very fast, due to varied reasons, should get priority, so that the functioning of flood management structures have desired results.

Implementation of Various Schemes and Achievements

The Water Resources Department of Assam has been implementing various schemes for tackling the erosion problem and to prevent inundation of the nearby area under different funding heads viz. Central sector schemes and State sector schemes.

FMP (Flood Management Programme): For the 11th Five Year Plan the Ministry of Water Resource,

Government of India has given financial approval to 73 nos. of schemes (each scheme costing less than ₹7.50 crore) with benefited area of about 3,12,672 hectare and total cost being ₹43170.34 lakh. Till date an amount of ₹21648.18 lakh have been utilised against the schemes.

Under FMP nine schemes each costing more than ₹7.50 crore with benefited area of about 1,00,463 hectare has been approved. A total amount of ₹27544.93 lakh has been earmarked to implement the schemes of which ₹14089.42 lakh have been utilised.

Another three schemes with a benefited area of 53000 hectare and estimated cost of ₹109.20 crore have been sanctioned by the Government of India under FMP for the year 2010-11.

NEC (North Eastern Council): NEC has taken up two numbers of schemes with benefited area of about 24,500 hectare with an estimated cost of ₹1993.13 lakh. An amount of ₹849.866 lakh have been utilised against these schemes.

Year	Number of schemes	Estimated Amount (Rs. in lakh)	Benefitted area (in Hectare)	Achievement	
				Physical progress (in percentage)	Financial progress (Rs. in lakh)
2009-10	2	1993.13	24,500	100	849.866

Source: Office of the Chief Engineer, Water Resource Department

JRC (Joint River Commission): Under this head four number of schemes with an estimated cost of ₹374.187 lakh have been completed successfully. An amount of ₹251.39 lakh have been utilised against these schemes.

Year	Number of schemes	Estimated Amount (Rs. in lakh)	Benefitted area (in Hectare)	Achievement	
				Physical progress (in percentage)	Financial progress (Rs. in lakh)
2009-10	4	374.187	16.88	100	251.39

Source: Office of the Chief Engineer, Water Resource Department

NLCPR (Non-Lapsable Central Pool of Resources): Under NLCPR, a scheme with an estimated cost of ₹1150.327 lakh was taken up in Dhemaji District and has been completed successfully in an anticipated benefit area of about 10,000 hectare. Amount utilised for this scheme is ₹982.38 lakh.

Year	Number of schemes	Estimated Amount (Rs. in lakh)	Benefitted area (in Hectare)	Achievement	
				Physical progress (in percentage)	Financial progress (Rs. in lakh)
2008-09	1	1150.327	10,000	99.5% of work completed (progress of work)	983.00

Source: Office of the Chief Engineer, Water Resource Department

ACA (Additional Central Assistance)/SPA SCHEMES: Under the ACA/SPA scheme Govt. of India approved five numbers of schemes for the year 2007-08 for ₹1668.00 lakh. An amount of ₹1535.60 lakh have been utilised for completion of the schemes with benefited area of about 10900 hectare.

In the year 2008-09, Govt. of India has approved 45 numbers of schemes with estimated cost of ₹14133.56 lakh under ACA/SPA with an anticipated benefited area of about 188200 hectare. Out of the total schemes, 29 number of scheme are completed so far and the rest are in progress.

During the year 2009-10, another 4 number of schemes with estimated cost of ₹2187.00 lakh have been sanctioned under the same head. The work is in progress and ₹100.00 lakh have been utilised so far. Moreover, an amount of ₹13349.00 lakh has been proposed for 60 number of flood management schemes under one time Additional Central Assistance for the year 2010-11.

NABARD

A. NABARD (RIDF-XI):

Under RIDF-XI, 19 schemes were taken up with an anticipated benefited area of about 89960 hectare and all the schemes have been completed as on October, 2010. An amount of ₹7983.11 lakh have been utilised out of the estimated amount of ₹8244.408 lakh.

B. NABARD (RIDF-XII):

Under RIDF-XII, proposal for 20 schemes with an estimated amount of ₹9962.97 lakh with benefited area of 99800 hectare have been approved. Out of the total, 18 schemes have been physically completed and the remaining two are on the verge of completion. Expenditure incurred against the schemes is ₹9646.65 lakh.

C. NABARD (RIDF-XV):

The NABARD has sanctioned a loan amount of ₹48.0925 crore for 13 numbers of schemes for the year 2009-10 against the estimated amount for the schemes is ₹50.62 crore. Administrative approval for implementation of the schemes is awaited.

State Plan

Under State Plan, five schemes amounting to ₹1155.26 lakh with expected benefited area of about 5239 hectare have been taken up during last four years. Works of four schemes have been completed and the rest is on the verge of completion. An amount of ₹955.09 lakh have been utilised against these schemes.

Another five new schemes amounting to ₹900.00 lakh with an anticipated benefited area of 8000 hectare have been proposed for execution during the year 2010-11.

Schemes Proposed under the aegis of Asian Development Bank (ADB)

The Government of Assam is negotiating for a loan of ₹40000.00 lakh from the Asian Development Bank for implementation of an Integrated Flood and Erosion Mitigation Scheme. The fund will be available in the ratio 90:10 i.e. the State will have to bear 10 percent of the total cost. Since long-term measures will take at least 20 years or more to implement, the present flood management in the State is still dependent on various short-term structural measures. Considering the menace of annual devastation of flood with unabated erosion in both the valleys, the proposal namely Assam Integrated Flood Control and Erosion Mitigation Project has been conceived. It is expected that the implementation of this project in phased manner will considerably reduce the annual havoc and subsequent devastation and foster the balanced infrastructural and socio-economic development for the North-East Region of India as a whole.

The three numbers of schemes under the project will be routed through in two trenches. The estimated cost of 1 (first) trench is as follows:

Sub- Project Kaziranga	:	₹1990.15 lakh
Sub- Project Dibrugarh	:	₹9579.94 lakh
Sub- Project Palasbari	:	₹8199.42 lakh

All these three number of schemes have been submitted to the CWC, New Delhi and it is under scrutiny. Clearance from CWC and Planning Commission is awaited for execution of the schemes.

The estimated cost of the II (second) trench is as follows:

Sub- Project Kaziranga	:	₹1825.00 lakh
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Sub- Project Dibrugarh	:	₹3982.00 lakh
Sub- Project Palasbari	:	₹14423.49 lakh

The II (second) trench projects are still waiting for recommendation from the State T. A. C. to send to the CWC for clearance.

To begin the execution of the projects during Annual Plan 2009-10, an amount of ₹5000.00 lakh was provided but work could not be started as the project was not cleared by the CWC, New Delhi. During the Annual Plan 2010-11 an amount of ₹6000.00 lakh has been proposed for implementation of three schemes under the new Projects. The project will benefit 110000 hectare with population of about 1 million of the three selected sub-project areas of Dibrugarh, Kaziranga and Palasbari. The project is proposed to be implemented in 6 years (2010-11 to 2015-16).

Ongoing Project

Use of Space Technology for Project Planning

The Water Resources Department with the technical guidance of the North Eastern Space Application Centre (NESAC) and ARSAC Guwahati has adopted the latest space technology such as the Remote Sensing (RS) and Geographic Information System (GIS) for understanding the flood, erosion and other related problems of various reaches of the Brahmaputra River.

Use of Kiramat Tubular Sand filled Mattress for Bank Protection Work

Kiramat Tubular Sand Filled Mattress is used for bank pitching work at Kamarkuchi area in Nalbari district to prevent erosion of river Pagladia. Similarly, bank protection work with geo-mattress at Desang L/B in Sibsagar district is yielding a satisfactory result. Kiramat is EMAS KIARA's erosion control system suitable for application to drainage, river and estuary bank erosion control and is a practical cost effective solution.

Use of Vetiver Grass for Reducing Soil Loss in Embankment

The Vetiver, botanical name *Chrysopogon Zizanioides* is a grass that grows on any kind of soil- sandy, loamy, clay, alkaline, acidic and saline, soil polluted with heavy metals and tolerates very heavy rainfall as well as can withstand drought. Most importantly, it can survive in total submergence in flood water for as long as five months. Its root system attains a length of about 10 feet and has tensile strength of nylon to effectively arrest bank erosion, prevent landslides, reduce runoff and consequently associates the top soil. However, the vetiver system requires a planned maintenance programme in the first two years of plantation to have a matured plant and the expected result thereof.

The grass has been planted in Morigaon District on trial basis and the result has been found to be fruitful.

Use of Geo-Tube for Construction of Dyke

The soil available for earthen embankment on the northern bank is basically sandy which lacks the required cohesion and stability. Thus, the embankments frequently fail due to flood water pressure causing breaches in the dykes. But, if the same material is used in geo-tubes made up of geo-textile materials with sufficient tensile strength gives sufficient stability.

The embankment at Matmara in Dhakuakhana has been constructed using geo-tubes. The dyke is constructed by using geo-textile tube (Mega containers), the geo-tube with fill height of 2.5m, and tensile strength of more than 200 KN/m and UV resistance (ASTMD 4355-500 hrs) more than 80 percent. The construction of the dyke has been completed with financial involvement of ₹110.00 crore.

CHAPTER – VIII

LIVESTOCK, ANIMAL HUSBANDRY AND DAIRY DEVELOPMENT

Assam economy continues to be predominately an agrarian economy as more than 85% of the population is living in the rural areas and more than 52 percent of the total labour force are found to be engaged in agriculture and allied activities as per Population Census 2001. Animal Husbandry sector has significant impact on employment generation in the State and plays a vital role in income generation of both the rural and semi-urban economy. The Animal Husbandry and Veterinary Department of the State has been implementing various socio-economic programmes to create gainful employment opportunities in the rural areas through various developmental schemes with the objectives-

- To provide health coverage to all the livestock and poultry of any breed in respect of contagious and non-contagious diseases.
- To improve livestock generating production viz- milk, egg and meat as well as to improve socio-economic status of the farmers and enhance contribution to the Gross Domestic Product of the State.

To achieve the goal, the Animal Husbandry and Veterinary Department of the State has been providing animal health care service and breed improvement facilities through 22 veterinary hospitals, 432 dispensaries, 10 ICDP center, 3 Frozen semen production centre, 515 A.I. Centre, 14 hatcheries, 18 poultry breeding farm, 13 pig breeding farm, 2 sheep breeding farm etc. However, existence of a large and low productive population of non-descript animals and birds, the State has to depend on import of livestock products from outside the State to meet the increasing demand.

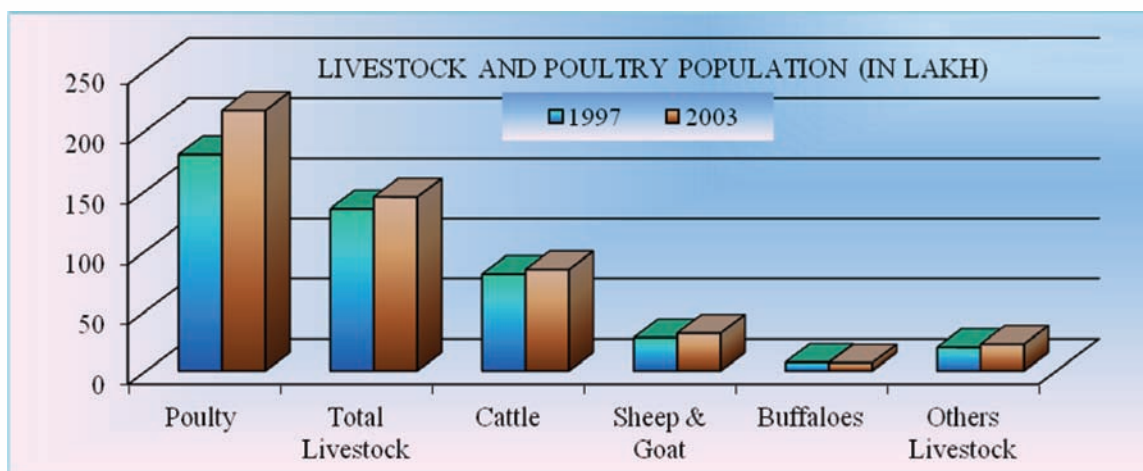
Livestock Population

According to the Livestock Census 2003, the livestock population in Assam was 144.55 lakh where the cattle population constitutes the largest group numbering 84.19 lakh followed by goat population 29.87 lakh, pig 15.44 lakh while the buffalo population is 6.78 lakh. While species like cattle, goat and pig have witnessed positive growth over the population of the census of 1997, the population of buffalo, horses and ponies has shown a negative growth over the same period. The table 8.1 provides the species-wise comparative picture of livestock population with growth rate in Assam as per Livestock Census 1997 and 2003.

TABLE-8.1
LIVESTOCK AND POULTRY POPULATION BETWEEN 1997 AND 2003

Livestock Species		1997	2003	Growth Rate
1.	Total Cattle	8029865	8419647	+4.85%
	a) C.B Cattle	369160	440321	+19.27%
	b) Indigenous Cattle	7482293	7979326	+6.64%
2.	Buffalo	727707	677669	-6.88%
3.	Sheep	83608	154597	+84.9%
4.	Goat	2677357	2986913	+11.56%
5.	Horse and Ponies	12476	11642	-6.68%
6.	Pigs	1082335	1543789	+42.64%
7.	Dogs	857329	656354	-23.44%
8.	Elephant	1183	-	-
9.	Rabbit	2417	4647	+91.84%
10.	Fowls	12930514	14757979	+14.13%
11.	Ducks	5049361	6888679	+36.42%

Source: Directorate of Animal Husbandry & Veterinary, Assam.



Poultry Population

The poultry population of the State as revealed by the Livestock Census 2003 has registered an increase of 25.23% over the previous census 1997. The category-wise population of these species during 2003 was fowls 147.58 lakh and duck 68.9 lakh.

According to the State Animal Husbandry & Veterinary Department, the estimated population [Sample survey] of different category of livestock and poultry during 2009-10 was – indigenous cattle 77.63 lakh, cross breed cattle 4.46 lakh, buffaloes 5.72 lakh, goats 28.29 lakh, fowls 79.43 lakh and ducks 31.06 lakh. Table below shows the estimated population of livestock and poultry during the period 2005-06 to 2009-10.

TABLE: 8.2
ESTIMATED LIVESTOCKS/POULTRY POPULATION IN ASSAM
PERIOD: 2005-06 TO 2009-10

Year	Category-wise Livestock & Poultry Population (Numbers)					
	Indigenous Cattle	Crossbreed Cattle	Buffaloes	Goats	Fowls	Ducks
2005-06	7922556	401601	616349	2776664	10128936	4003028
2006-07	7814638	428884	589389	2769320	9461886	3566488
2007-08	7815062	430943	574820	2772275	10012032	3153441
2008-09	7729249	424544	561210	2807367	9035338	3343114
2009-10	7762572	446185	571756	2828529	7942817	3106136

Source: Directorate of Animal Husbandry & Veterinary Department, Assam

Review of Annual Plan 2007-2010

Breed upgradation programme

Despite having sizeable number of cattle milk production in the State it is not upto the level of satisfaction as the major percentage of the cattle population in the State are of non-descript type. Implementation of schemes under World Bank and National Project on Cattle-Buffalo Breeding[NPCBB], although assisted increase of milk production to a considerable extent in the State, achievements in case of production of cross breed animal was not upto the satisfaction. According to the Animal Husbandry & Veterinary Department the State could produce only 4.5 percent cross breed animal. At present, breed upgradation programme is carried out through 515 centres under AACP and another 600 and 300 centres are strengthened under

RKVY and NPCBB. The private AI workers engaged in remote areas could not create much impact due to lack of awareness among the farmers.

Poultry Development

The major obstacle of poultry industry in Assam is the cost of poultry feed. Since Assam is deficient in oilseed production, most of the oilcakes are imported from other states of the country. Although there are 23 poultry breeding farms including five Duck breeding farms, commercial egg producing farms are not gaining popularity in the State due to the high cost of poultry feed. To popularise poultry farming emphasis have been given in back yard poultry farming and rearing of special type of birds like Banaraja, Giriraja other than locally available birds which are regarded as zero input birds with high production of eggs (180 eggs per annum against 78-80 eggs by locally available birds).

Piggery Development

Eleven Govt. owned Pig Farms have been strengthened with financial assistance under World Bank and Integrated Piggery Development Programme (100% Central Assistance) to produce quality piglets and to distribute the same to the farmers/ breeders to upgrade the local variety for meat production. The Department also taken steps to establish "Pig Villages" to create organised net work for more production of meat and to create gainful employment. At present, 460 SHGs are supported for production of pigs and a farm is expanded to accommodate 100 sows for production of piglets to cater the need of the State. An amount of ₹63.50 lakh was utilised upto 2008-09 of 11TH five year Plan.

Goat Development

Considering the low productivity of meat and milk from local breed of goat, the Department has proposed to introduce superior germplasm (Beetal) for upgradation of the local Assam hill goat and also to conserve the local hill goat for its hide & meat and its high rate of proliferation.

Fodder Development

The quantum of green fodder production in the State is 13683MT while the requirement is 21144MT. Due to heavy rainfall in the region and for availability of wild grass in the monsoon season; farmers are not habituated with fodder cultivation. The Department has planned to popularise fodder cultivation by providing free fodder seeds and also to develop VGR, PGR of the State for the purpose in cooperative sector. During the last 2-3 years, a noticeable change is observed among the progressive farmers in fodder cultivation. The State government is also taking massive fodder production plan with financial support from Government of India under RKVY, AACP (World Bank assisted programme) and also State Plan. About 33000 farmers and 600 DCS members are provided with Oat seed under RKVY and AACP respectively.

Health Coverage

The Department has upgraded Animal Health Centre, at Guwahati to a Regional Diagnostic Laboratory with financial assistance from Govt. of India. An ambitious programme "ASCAD" (**ASSISTANCE TO STATE FOR CONTROL OF ANIMAL DISEASE**) with financial assistance from Govt. of India has been undertaken to modernise the laboratory upto the ISO standard. Besides 10 District Diagnostic Laboratory also have been strengthened under World Bank Project. Animal health camps for vaccination and de-worming of young animals are organised regularly throughout the State under ASCAD and AACP.

Livestock Products: Estimated Production of Milk, Egg and Meat

The Directorate of Animal Husbandry & Veterinary, Assam published the estimated production, consumption

etc., of Milk, Egg and Meat in the State in its Sample Survey report titled “The Report on Integrated Sample Survey for estimation of production of Milk, Egg and Meat for the Year 2008-09”.

Milk Production

According to the Report, the total milk production of the State for the year 2008-09 has been estimated at 753.40 thousand metric tones or 827.01 million liters which was about 0.32 percent more than the estimated production of milk during the previous year. The cattle milk contributes 83 percent of the total milk production during the year. The production of buffalo and goat milk shared, on the other hand, 17 percent of the total milk production.

TABLE-8.3
TOTAL MILK PRODUCTION IN ASSAM DURING 2008-09

(in million liters)

Season	Cattle			Buffalo	Goat	Total
	Crossbreed Cattle	Indigenous Cattle	Overall			
Summer	68.99	162.31	231.31	38.44	9.93	279.69
Monsoon	42.71	151.42	194.13	30.58	8.23	232.94
Winter	71.89	193.62	265.52	40.87	7.97	314.36
Annual 2008-09	183.60	507.36	690.96	109.89	26.14	827.01
Annual 2007-08	181.33	506.42	687.75	109.26	27.38	824.39
Variation (%)	(+)1.25	(+)0.18	(+)0.47	(+)0.58	(-)4.5	(+)0.32

Source: Report on Integrated Sample Survey for estimation of production of Milk, Egg and Meat-2008-09

The availability of milk per capita/per day in the State during the year was estimated to be at 69 gram or 76 ml, which was marginally lower compared to the availability of milk per capita/per day during the previous year. Moreover, availability of milk per capita/per day in the State during the year was much lower than that of national level availability of 258 gram milk during the same period as well as ICMR recommended milk availability norms of 208 gram per head per day.

Egg Production

The estimated layer population both of fowl and duck in the state during the year 2008-09 was around be 30.39 lakh and 13.19 lakh respectively. Out of the total layer fowl and duck population, 96 per cent fowl and 86 percent duck were of **desi** category. According to the report, although the yield rate of layer bird of improved category of both fowl and duck is high, the less growth of these categories of layer bird led to less production of eggs in the State. Moreover, people of the State rear birds mostly for meat purpose not for egg production purpose. Besides impact of outbreak of “Bird Flu” in some districts also one of the cause lesser production of egg in the State.

Total egg production in the State was estimated for the year 2008-09 to be about 4665 lakh numbers out of which fowl egg contributed 67 percent of the total egg production.

The Table below shows season wise total egg production in the State based on the estimated average egg yield per layer per season.

TABLE: 8.4

EGG PRODUCTION AND AVERAGE YIELD PER LAYER IN THE STATE DURING THE YEAR 2008-09

Season	Total egg production (in lakh nos.)					Average yield per layer (in nos.)			
	Fowl		Duck		Total	Fowl		Duck	
	Desi	Improved	Desi	Improved		Desi	Improved	Desi	Improved
Summer	890.35	108.8	338.63	163.3	1501.08	30	54	28	53
Monsoon	808.95	58.55	311.96	73.83	1253.29	27	53	27	54
Winter	1245.68	57.02	513.22	95.14	1911.06	45	77	50	76
Overall	2944.99	224.41	1163.16	332.30	4664.86	102	184	105	183

Source: The Report on Integrated Sample Survey for estimation of production of Milk, Egg and Meat-2008-09

The per capita availability of egg in the State for the year 2008-09 was estimated at 16 numbers per head /per annum as against the ICMR recommended nutritional requirement norms of 180 number of egg per head per annum. **Therefore, our State is far behind the required norms**, which clearly indicates the quantum of shortfall in respect of egg production. **In view of the on going shortfall, it can be stated that there is much scope for improvement in poultry activities for boosting up of egg production in the State.**[Source: The Report on Integrated Sample Survey for estimation of production of Milk, Egg and Meat-2008-09]

Meat Production

The estimated meat production in the State, according to the Report, was calculated on the basis of number of animals slaughtered per season/per year and average meat yield. The total meat production in the State during 2008-09 was estimated around 30.69 thousand tones comprising of both livestock and poultry.

TABLE: 8.5

MEAT PRODUCTION IN ASSAM DURING 2008-09

Sl No	Item	Animals/Birds Slaughtered (No.)	Average meat yield per animal / bird (in kg)	Meat production (in tonne)
1	Cattle Exotic	6203	53	328.81
2	Indigenous Cattle	125373	38.74	4856.81
3	Buffalo	6692	55.35	370.38
4	Goat	1008223	6.46	6516.07
5	Sheep	25553	6.80	173.80
6	Pig	530349	22.65	12013.55
7	Fowl	5776883	0.887	5126.44
8	Duck	1328726	0.983	1307.28
Total				30693.13

Source: The Report on Integrated Sample Survey for estimation of production of Milk, Egg and Meat-2008-09

The Table 8.5 shows the number of animals/birds slaughtered, average meat yield per animal/bird and total production of meat during the year 2008-09. It is observed from the above that pig meat contributes 39 percent of the total meat production in the State followed by goat meat (21 percent) and fowl meat (17 percent) respectively during the year. The estimated total meat production in the State was 29.90 thousand tones during the year 2007-08.

Live Stock Products During 2009-10

The volume of milk production of the State was estimated at 830 million litres for the year 2009-10 against 827 million litres in 2008-09 showing a marginal rise of milk production over the previous year. Meat production of the State was also showing a growth from 30.7 thousand tonnes in 2008-09 to 32.0 thousand tonnes in 2009-10. Estimated production of egg in the State although shown some increase during 2009-10 over the previous year but remained considerably low compared to the estimated egg production in 2006-07 [535 million no]. The trend of production of Livestock products from 2004-05 to 2009-10 is shown in the Table 8.6.

Table-8.6

TRENDS OF PRODUCTION OF LIVE STOCK PRODUCTS IN ASSAM

Item		2004-05	2005-06	2006-07	2007-08	2008-09	2009-10
1.	Milk (million litres)	812	821	823	824	827	830
2.	Egg (million number)	522	536	535	490	466	468
3.	Meat (000 tonnes)	24.07	26.06	28.8	29.9	30.7	32.0

Source: Directorate of Animal Husbandry & Veterinary Department, Assam

Developmental Efforts

The various schemes being implemented by the Animal Husbandry and Veterinary Department supported by Assam Livestock Development Agency (ALDA), ARIASP, AACP, ASCAD, NERDDL and State Plans are discussed below briefly:

Assam Agricultural Competitiveness Project (AACP)

Though Assam has enormous potential for livestock and poultry farming, lack of knowledge and interest are some of the factors that prevent the youths to avail opportunity in joining this entrepreneurship. To create awareness on scientific rearing and management of Crossbred Cattle through A.I. (Artificial Insemination), the department has organized various programmes like holding of free Animal Health Camps and Calf Rallies etc., under AACP (Assam Livestock Development Agency-ALDA which is a component of AACP).

Achievements of AI done in the State during the last 5 years are given below.

TABLE-8.7

ARTIFICIAL INSEMINATION DONE DURING 2005-2010

Year	A.I. done	Calves born (nos)		
		Female	Male	Total
2005-06	109227	19373	18715	38088
2006-07	128570	22805	22456	45261
2007-08	113789	25178	23221	48399
2008-09	139386	27940	22860	50800
2009-10	204185	33723	36533	70256

Source: Directorate of Animal Husbandry & Veterinary Department, Assam

Frozen Semen

The process of A. I. with the use of Frozen Semen to upgrade the local indigenous cattle to increase milk productivity has received a gaining popularity in the state and the production of Frozen Semen is going on in the Frozen Semen Bull Station at Khanapara.

The table 8.8 shows the physical achievements under this scheme.

TABLE - 8.8
PHYSICAL ACHIEVEMENTS DURING THE PERIOD 2004-05 TO 2009-10

Year	No of doses	
	F.S. Production	F.S. Distribution
2004-05	92740	96453
2005-06	97734	118747
2006-07	96845	170741
2007-08	200180	178747
2008-09	133168	191577
2009-10	153987	269843

Source: Directorate of Animal Husbandry & Veterinary Department, Assam.

National Project for cattle and Buffalo Breeding [NPCBB]

This is a centrally sponsored scheme. The State Implementation unit of NPCBB was established in the name of Assam Livestock Development agency in the year 2004. Under NPCBB, Assam Livestock Development Agency (ALDA) renovated the semen station and restructured it as per the advice of the Central Monitoring Unit. ALDA also brought 14 new purebred Jersey Bull Calves of high pedigree as per MSP norms from **Sunaveda Central Government Jersey Bull Rearing Farm** in Orissa. Currently the station is producing annually around 1.50 lakh - 2.00 lakh frozen semen doses.

TABLE – 8.9
FUND UTILIZATION UNDER NPCBB

(Rupees in Lakh)

Year	Fund Released	Fund Utilized	
		Ph-I	Ph-II
2006-07	269.50 (Ph-I) 50.00 (Ph-II)	187.00	Nil
2007-08	Nil	95.00	20.00
2008-09	Nil	73.70	25.70
2009-10	614.14	127.17	1.50

Source: Directorate of Animal Husbandry & Veterinary Department, Assam

Coordinated Cattle Breeding Project [CCBP]

The main component of the Veterinary Department is Cattle Breeding. India, although shares more than 20 percent of the World's Cattle population, contributes only 15 percent of the live stock products due to poor productivity from the non-descript cattle breed. The basic aim of launching the CCBP is to select future proven bull through the process of SIRE EVALUATION in order to enhance the milk production economically as well as to reduce the gap between demand and supply of milk.

Physical Target	Physical Achievement	Financial Achievement (Phase-I)		
		Year	Fund Release (Rs. in Lakh)	Achievement (in Rupees)
i) Procurement of 10 bulls under CCBP for collection of semen to be used in FPR area.	In Process	2007-08	10.00	-
		2008-09	NIL	2,62,274.00
		2009-10	NIL	3,68,863.00
ii) Identification of 50 village in 5 (five) districts viz. Darrang, Barpeta, Nagaon Morigaon, Kamrup, as FPR Area.	In Process	NIL	NIL	NIL
Total			10.00	6,31,137.00

Source: Directorate Of Animal Husbandry & Veterinary Department, Assam

Bovine Contagious Pneumonia Project [BCPP]

The **BOVINE CONTAGIOUS PNEUMONIA** eradication programme in Assam is implemented by the Department since 2001 as per the guidelines of NPRE, Govt. of India. Considerable success has been achieved in the clinical surveillance of BCCP eradication programme in Assam. Till the end of March 2010 as many as 56891 villages and 8256 institutions of eight endemic districts were searched. In addition to the above, 17373 animals were examined in the slaughter houses of the said districts and 98878 animals were examined in the stock routes.

TABLE – 8.10
PHYSICAL ACHIEVEMENTS OF BCPP ERADICATION PROGRAMME
IN ASSAM UNDER NPRE DURING YEAR 2009-10

Item	Target	Achievements during 2009-10	Cumulative total since 2001
Village Search	1000 villages per month (Total villages in 8 endemic district 9690)	8421	56891
Institutional Search	100 institutions per month (1200 No. Per Year)	1209	8256
Animal examined in slaughter place	All the bovines in slaughter place in 8 endemic district	2019	17373
Collection of clinic material for isolation and histopathology	PM sample	8 Nos. per month (96 Nos. per year)	473
	Biopsy Material	48 Nos. per month (576 Nos. per Year)	2557
No. of animals examined in stock routes (Check Posts)	All the animals passing through the CBPP Check posts	13891	98878
No. of serum collected for sero-surveillance	Only from animals showing distractive CBPP like symptoms	0	13910

Source: Directorate of Animal Husbandry & Veterinary, Assam.

TABLE – 8.11
FINANCIAL ACHIEVEMENT OF BCPP ERADICATION
PROGRAMME UNDER NPRE (Wef. 2002-2003 to 2009-10)

Year	Fund allotted (Rs. in lakh)	Fund utilized (Rupees)
2002 - 2003	7.5	7,49,786.00
2003 - 2004	8.0	7,99,593.00
2004 - 2005	5.0	4,98,832.00
2005-2006	4.0	3,98,700.00
2006 -2007	5.0	4,93,807.00
2008-2009	5.0	4,95,635.00
2009-2010	5.0	4,67,399.00
Total	39.5	39,03,752.00

Source: Directorate of Animal Husbandry & Veterinary, Assam

National Project on Rinderpest Eradication [NPRE]:

The department has successfully completed all the three phases of the NPRE programme in the state as per the guidelines of Govt. of India. Surveillance programme are being conducted under NPRE for total eradication of **Rinderpest** and **Bovine Contagious pluro Pneumonia**. At present surveillance work in the State is in operation and sero-surveillance work temporarily suspended and will restart on receipt of instruction from NPRE Govt. of India.

Veterinary Biological

The Institute of Veterinary Biologicals, Khanapara is producing and procuring vaccines against economically important diseases of animals and birds to fulfill the need of the State. During 2008-09 and 2009-10, 33.28 lakh doses of different types of vaccines have been distributed to the field under the aid of ASCAD.

Schemes for Women

Considering the specific needs and for development of economic conditions of womenfolk the Animal Husbandry & Veterinary Department has formulated strategies to involve them in livestock and poultry development programmes. Women SHGs will be given preference for selection of beneficiaries and special employment oriented schemes for women individually or through SHG's in the areas of Poultry & Duckery, Cattle, Piggery and Goatery. Schemes of Special training programme will also be provided to the women beneficiaries for capacity building.

Dairy Development

The Dairy Development in Assam was initiated in the latter part of the Second Five Year Plan period with the basic concept of procurement, processing and distribution of milk and aiming at economic upliftment of rural milk producers as well as to generate employment opportunities among the farming communities and to help urban consumers to get quality milk at a reasonable price.

Against this backdrop following strategies have been adopted for dairy development in Assam:

- Dairy Farming will be developed on cluster basis in the potential districts of Assam;
- The small dairy farmers will be organised into dairy cooperative societies (DCS) or Self Help Groups (SHGs). The primary DCS/SHGs will form the district level milk union or NGO. All the organisations will function democratically and the State Govt. will have little say over the unions.

- The Animal Husbandry & Veterinary Department and Dairy, DRDA, SFAC etc., will provide back ended subsidy for taking up the self employment activities. Bank or other financial institutions will be linked up for remaining project cost.
- Support services/facilities like rural milk collection centres, cold storage, farm inputs, selling booths will be created and run in collaboration with cooperative societies or private parties.
- Milk produced by farmers will be collected and tested and the same will be transported to Dairy Plant from rural milk collection centres.
- Milk will be processed in the Dairy Plant and will be marketed through the modern milk selling booths
- All the beneficiaries will be imparted orientation training programme by the Dairy Development Department. Some selected beneficiaries will be sent for exposure visit to other parts of the country.

Eleventh Five Year Plan (2007-12)

The 11th Five Year Plan for the Dairy Development Sector was formulated with the following objectives:

- To give thrust on the programmes to enhance the milk production of the State and programme benefiting the rural dairy farmers for economic upliftment through self employment scope.
- To continue all projects/schemes existing at the end of the 10th five year plan with rational proposition for further strengthening wherever it feels to be necessary.
- To avail more benefits out of centrally sponsored schemes, schemes under NEC, schemes under World Bank and schemes funded by other related agencies.

The plan allocation approved for the 11th five year plan was ₹1750.00 lakh.

Implementation of Various Projects

The State Dairy Development Department have been implementing various schemes/projects to increase milk production in the State.

Assam Agricultural Competitiveness Project (AACP) (Externally aided project)

The objective of the project in respect of Dairy Development is to organize the dispersed dairy farmers in to Dairy Cooperative Society (DCS) and Self Help Group (SHG) and to provide both forward and backward linkage to them in order to strengthen their capacity, economically viable and able to take advantage of emerging commercial opportunities. A substantial number of dispersed dairy farmers have been organized in viable groups with assured linkages under the Assam Agricultural Competitiveness Project (AACP).

Physical Progress:

Sl. No	Item	Physical Target	Target achieved
1	DCS Organised	350	237
2	SHG Organised	150	89
3	Registration of DCS		
4	Community Procurement	DCS-350	DCS-116
		SHG-63	SHG-63
5	Capacity building of Dairy Farmers		DCS Secy-119, SHG Secy.-31, Farmers couple-182, Exposure visit-136, Orientation camp-76
6	Capacity building for officers/contractual staff		137

Source: Draft Annual Plan, Assam 2010-11

Financial Progress:

Sl. No.	Items	Rs. in lakh
1.	Original Project Cost	1666.47
2.	Revised Project Cost	1183.09
3.	Fund Released to the Department by PCU	424.54
4.	Fund Utilized by the Department	371.67
5.	Percentage of Utilization in regard to PCU's release	87.54

Source: Draft Annual Plan, Assam 2010-11

Integrated Dairy Development Project (IDDP), Phase-I (100% GOI funded)

Under IDDP-I, Tezpur Dairy Plant, Silchar Dairy Plant and Sarbhog Chilling Plant have been completed and started commissioning and are running under public-private collaboration till District Milk Union/State Federation is formed. The matter relating to management, procurement and marketing of the Silchar Dairy Plant is looking after by the Project Implementation Committee headed by the Deputy Commissioner, Cachar. Other Dairy Plants and Chilling Plants located at Barpeta, Panbari, Karimganj, Biswanath Chariali and Dhekiajuli are in various stages of completion. Under the provision of the project various inputs have been distributed to already form 350 DCSs.

Intensive Dairy Development Programme (IDDP, Phase-II) (100% GOI funded)

The project: Like IDDP, Phase-I, this is also a centrally Sponsored Project. The project has been sanctioned by Govt. of India for the Upper Assam districts in order to strengthen processing and preservation of infrastructure in the districts as well as to organize the farmers into DCS.

- Area of implementation: Jorhat, Dibrugarh and Tinsukia districts.
- Total project cost: ₹588.35 lakh. Lately the Government of India suggested to revise the project in consultation with NDDB.
- Funding Pattern: 100% grant from Department of Animal Husbandry and Dairying, Ministry of Agriculture, Govt. of India.
- Present Implementation Status: Steps have been taken to bring up the Milk Union on 3 tier basis as per recommendation of World Bank. After setting up of the Milk Union the amount would be spent as per items of expenditure that are already earmarked.

Clean Milk Production (CMP-I & II) (CSS)

Under the Clean Milk Production (CMP) a proposal was approved for implementation of the scheme in the area of Sitajkhala Dugdha Utpadak Samabai Samity Ltd., Jagiroad, Morigaon at a total project of ₹26.38 lakh out of which 21.06 lakh was of GOI share and the rest of ₹5.32 was of Society share. Out of the total fund, GOI has released ₹16.54 lakh to the Govt. of Assam. Out of the total released fund ₹8.02 lakh have been utilised by the implementing agency and the utilisation of the remaining amount meant for the Sitajkhala Dugdha Utpadak Samabai Samity Ltd., Jagiroad, Morigaon is awaited.

Under the CMP II the project will be implemented in Darrang and Udalguri District with a total cost of

₹116.94 lakh out of which ₹97.63 lakh is of GOI share and ₹19.31 lakh is State share. Both GOI and the State government have released their 1ST instalment of ₹20.00 lakh and ₹3.86 lakh to the implementing agency. The training of 862 Farmers of 31 DCSs has been completed under the project.

Rastriya Krishi Vikash Yojana (RKVY)

Under the RKVY an amount of ₹330.00 lakh has been received from the Govt. of India through the Nodal Agency i.e., Agriculture Department during the year 2008-09. The objective of the project is to enhance milk production in the state through induction of 1000 no of Milch cattle to the selected 500 beneficiaries in the 9 project districts namely Kamrup, Barpeta, Darrang, Sonitpur, Morigaon, Nagaon, Golaghat, Jorhat and Cachar district. The capacity building to rear high yielding milch cattle with fodder development has also been completed under the scheme. During the year 2009-10, it is planned to induct 2000 no milch cattle to the selected 1000 beneficiaries in 21 project districts under the scheme.

Milk Village Scheme (State Plan)

This is a State Plan Scheme meant for distribution of cross bred cattle among the people of selected villages on a cluster basis in different sub-divisions of the State. Based on the fund allocation, the numbers of beneficiaries are selected for each district and sub-division. Cattle along with calf and other inputs like cattle insurance, cowshed, medicine, feed and fodder are provided to the beneficiaries. An amount of ₹242.00 lakh is proposed to assist 311 beneficiaries during 2010-11. The assistance include two cross breed jersey cows along with calf, cattle shed, insurance, medicine and fodder, training etc under the scheme.


Town Milk Supply Scheme

There are all together 7 (seven) nos. of Town Milk Supply Schemes in Assam which are running at Khanapara (Guwahati), Jorhat, Dibrugarh, Tezpur, Silchar, North Lakhimpur and Garampani (Umrangshoo). These Town Milk Supply Schemes procure milk from the rural farmers and after processing the milk, it is distributed to the urban consumers at a reasonable price. There are all together 18 (eighteen) nos. of Chilling Plants under these Town Milk Supply Schemes which are actually engaged in collection of raw milk and Chilling of the same. But most of these Chilling Plants are non-functional. Steps have been taken to revive / up-grade the non-functional plants with a schematic approach in consultation with NDDB.

The main objective of the scheme is to procure process and market the milk produced by the rural milk producers with a view to give them an assured market as well as to provide hygienic and clean milk and milk products to the urban consumers at reasonable prices. To achieve the goal the state Dairy Department planned to revitalise the existing milk chilling plants and processing plants by inducting new machineries etc. Fund for the purpose will be allocated with rational proposition. Further due to activities resulted out of implementation of the projects like EAP and CSS, the societies have taken steps to increase milk production in the producers' level which has started showing results.

Employment Generation Scheme for Local Dairy Unit (State Plan)

Under this programme the rural NGOs, Dairy Co-operative Societies (DCSs) and Self Help Groups will be imparted training for rearing high yielding milch animal, preparing indigenous dairy products etc. This will be a bankable scheme where in ₹7,91,645.00 per unit will be borne by the department as margin money.



The farmers group under 6 districts will be covered under this employment generation scheme for unemployed youth, rural NGOs, DCSs and SHGs including women folk undertaking dairy business as the main source of their livelihood.

The main thrust of this scheme would be to create gainful employment /engagement as well as to provide remunerative price to the milk produced in the rural areas having less or no scope for marketing the milk. The programme covers the following:

- Training of NGOs, DCSs and SHGs – Rearing of High Yielding milch cattle, collection of quality milk, hygienic preparation of milk products and its preservation and marketing;
- Provide 24 nos of high yielding milch cattle to each group;
- Provide infrastructure for rearing cattle;
- Provide infrastructure for preparation of the indigenous dairy products. Margin money @50 percent of the total capital cost of the scheme i.e., ₹7.92 lakh to each group;

Schemes for women

The Dairy Development department has taken special initiative for empowerment and economic upliftment of the womenfolk involved in dairy farming through formation of women groups like dairy cooperative societies, self help groups so as to avail easy credit, inputs and marketing under the Milk Village scheme and Local Dairy Unit. The department also initiated training to give updated exposure and skill development on the animal rearing front and other management activities including marketing of their produce.

CHAPTER - IX

FISHERY

There are about 3.91 lakh hectare of water area in the State in the form of rivers, *beel*, derelict water bodies and ponds and tanks. Scientific fish farming in the State, in natural water bodies has been mostly traditional capture fishery only. The scientific fish farming is practiced generally in individual and community tanks. Recently emphasis has been given for scientific fish farming in *beels* and community tank through awareness, training, government support and subsequent bank linkage. There is a positive trend in fish productivity during recent past. The State is yet to reach self-sufficiency in fish production in respect of economic as well as minimum nutritional requirement of 11kg/Person considering 90% of the state's population is fish eating. The gap is partially maintained by import of fish from other states.

Fishery sector has a higher growth rate than other agriculture and allied sectors and could play a pivotal role in the socio-economic development and employment generation in the State. Department of Fishery has been implementing a number of schemes in the State with a view to achieve self-sufficiency in fish production and socio-economic development of poor section of the society. Fish farming is gradually gaining popularity in the State, as farmers have taken up fish seed farming and fish farming on commercial scales as a result of extensive awareness campaign by the Department. Fish production in the State during 2009-10 is 218 thousand tones which is 5.82 percent higher than 2008-09.

In view of the importance of the sector in providing nutrition to the people , employment generation and livelihood to the rural sector, and in view of the bright prospects for the sector to grow further, State Government has been giving due emphasis to the sector. Total annual plan allocation for the sector during 2009-10 was ₹3990.00 lakh. Government is also facilitating easy institutional credit to the sector.

Fishery Resource and Fish Production

Assam is one of the richest state in the country with surface water resources where *beel* fisheries and pond & tank fisheries alone occupies about 1.40 lakh hectares area. Besides swamps and low-lying areas, two major rivers and their tributaries have a high growth potential for scientific fish farming/ fishing and could play a pivotal role in the socio- economic development and employment generation in the State. Although the scope for utilization of the potential water spread area for profitable economic activity in terms of fish farming/fishing is very high, yet at present scientific fish farming/fishing is carried out in only 5 percent of the total water resource area [3.91 lakh hectare]. To support this sector, availability of quality fish seed of standard size is essential which needs to be addressed with adequate efforts. To ensure protection of fingerlings, Government of Assam had introduced the Assam Fish Seed Act, 2005 which is the first of its kind in the country.

The statistics of fisheries on inland water bodies and annual fish seed & fish production in Assam is presented in the tables 9.1 and 9.2.

TABLE-9.1
PRODUCTION OF FISH SEED AND FISH IN ASSAM

Sl No	Year	Production of Fish Seed (in million Nos)	Production of Fish (in tone)
1	2004-2005	2741.47	186314
2	2005-2006	3207.99	187378
3	2006-2007	2062.61	181479
4	2007-2008	3206.61	190320
5	2008-2009	3429.30	206700
6	2009-2010	3326.22	218824

Source: State Fishery Department.

TABLE-9.2
STATISTICS OF FISHERIES ON INLAND WATER BODIES, 2009-10

Sl. No	Resource	Water Spread Area (Hectare)
1	River Fisheries	205,000
2.	Beel Fisheries	100,815
3.	Forest Fisheries	5,017
4.	Derelict Water Bodies/ Swamp	39,240
5.	Reservoir Fisheries	1,713
6.	Ponds and Tanks	38,767
	Total	39,0552

Source : State Fishery Department.

Activity and Programme of The Department During, 2008-09 and 2009-10

Fish Seed Farming

During the year 2008-09, 10 Departmental fish seed farms and 94 hectare of nursery and rearing water area of individual farmers have been developed for quality seed production. During the year 2009-10, 347.89 Lakh has been received for establishment of 37 nos of hatcheries for Indian Major carp, 3 nos, Magur breeding hatcheries, 3nos. and Chital breeding hatcheries 3 nos.

Aquaculture Development through FFDA

During the year 2008-09, 43 hectares of water area has been developed covering 210 individual fish farmers. During the year 2009-10 ₹483.00 Lakh has been received through which 190 ha of water area have been developed covering 1000 nos. individual fish farmers.

Reclamation of Derelict Water Bodies

Aim of the Scheme is to reclaim the water bodies for enhancement of fish production in the State and also provide employment to the rural unemployed youth. During the year 2008-09 an amount of ₹409.90 lakh has been received for reclamation of 289 hectare of derelict water bodies and an amount of ₹958.00 lakh have been drawn during the year 2009-10 for reclamation of 660 haectare derelict water bodies.

Women Empowerment Programme

Empowerment of women has been a priority issue before the State Government. In response to the said policy of the State Government, the Fishery Department extended the benefit of fish seed raising programme involving the women in this sector. Under this programme house wives are supported by training and inputs for rearing of fish seed in the backyard ponds as part time employment for economic upliftment. During the year 2009-10 an amount of ₹150.00 lakh was received for the purpose and 3000 women has been benefited.

Development Of Beel/ Open Water / Community Fishery

During the year 2008-09, about 22 hectare of water area in Kamrup, Jorhat and Lakhimpur have been developed under SCSP. During the year 2009-10 an amount of ₹190.00 lakh have been received and about 136 hectares of water area has been developed under SCSP.

Employment Generation Scheme through SHG

This scheme is introduced to engage unemployed youth of the locality in fish farming where low-lying areas are available. During the year 2008-09, ₹299.66 lakh has been received through which 224 SHGs covering 2250 beneficiaries for creation of 20 hectares nursery tanks, 24 hectares of rearing tank for the purpose of quality seed production and 30 hectares of stocking tank for fish culture. During the year 2009-10 ₹150.00 lakh has been received through which 300 hectares of water area have been developed benefiting 251 nos. of SHGs by this scheme.

Assam Agricultural Competitiveness Project (AACP)

During the year 2008-09, about 896 hectare of Farmers Pond and Community Tank, about 85 hectares of Integrated Fish Farming and 76 hectare of *Beel* Fisheries were developed with community participation. During the year 2009-10 an amount of ₹444.00 lakh has been received and about 197.39 hectare of Farmers Ponds were developed and 2505 nos. of fish farmers have been benefitted under this Project.

New Initiative

With a view to achieve the goal towards self sufficiency in fish production and to create awareness about the development programmes/ schemes that are implemented in the State, following new initiatives have been undertaken by the Department of Fishery. Some of those are as follows:

Matsya Mitra

To support limited field level officers in extension services Govt. has initiated a new scheme in the name of Matsya Mitra. In the scheme educated unemployed youth are trained in scientific fish farming in a crash course in Raha Fishery College. The trainees are provided with a kit box required for testing of different aspects in fish farming. The trainees are supposed to undergo field exposure under Extension Officer for gaining necessary practical knowledge for imparting to neighbouring fish farmers at Gaon Panchayat Level. Already 290 nos. of youth have been trained in 10 Districts.

Training on Aquarium Maintenance

To exploit new employment avenues among educated unemployed a new innovative training on Aquarium maintenance was started in College of Fisheries, Raha in collaboration with NABARD. Already 44 unemployed boys and girls have undertaken the training and many of them started their own business of ornamental fish and aquarium. During 2008-09, another 20 young boys and girls were trained on aquarium business in collaboration with Micro Small & Medium Entrepreneurship Development Institute, Govt. of India, N.E. Regional Office, Guwahati.

Live Gene Bank

Many local species are threatened due to various man made factors for which extra care is necessary for their conservation. Therefore, a joint venture has been taken up with National Bureau of Fish Genetic Research, Lucknow for conservation of local endangered economically important fish species in the name of Live Gene Bank. The Gene Bank has been started at improved pond of Ulubari Fish Seed Farm, Guwahati. Species like Sol, Pavo, Cheniputhi and Chital has been introduced in the pond for their natural growth and propagation and conservation for future use and research.

Block Level Awareness Campaign

Keeping in tune with the spirit of the State Government to bring the administration to the door steps of the

people, the Fisheries Department has organized fisheries awareness camps in 207 development blocks of the State during December, 2009 and January, 2010. This drive has received enormous response from the fish farmers, fishery entrepreneurs, bankers, PRIs, NGOs etc. As a result, more than one lakh applications were received throughout the State during this campaign from the people taking up fisheries schemes.

Ornamental Fish Culture-Breeding Growing and Export

Ornamental Fish breeding growing and export has gained importance during the last few years for the domestic as well as foreign process. A few young entrepreneurs come forward to take up this activity as income generating opportunity. A few SHG have also come forward for taking up ornamental fish breeding and aquarium keeping business under the assistance of State Government.

Assam Matsya Mahotsav 2010

Assam Matsya Mahotsav 2010 was held during 30th, 31st January & 1st February, 2010 at Silpgram, Guwahati for the third consecutive year to create awareness among the fish farmers and provide a platform to all stake holders for discussion, exchange of ideas and dissemination of fisheries technologies. More than 1000 fish farmers and scientists, researchers from various ICAR institutions, National Fisheries Development Board, Bankers attended the Mahotsav besides academicians from Gauhati University, Dibrugarh University, College of Fisheries, Raha. The activities include exhibition, seminars, workshops and various competitions.

Assam Fisheries Investment Facilitation Centre

A single window system to facilitate institutional credit to farmers and entrepreneurs was established at Panbazar, Guwahati during the year 2008. Officials of the centre are extending support to the farmers to prepare detailed project proposal with the help of experts. Farmers get first hand information from the Bankers and Technical consultants in the Facilitation Centre. A special initiative has been undertaken to enhance credit flow through financial institutions like Assam Gramin Vikash Bank, State Bank of India and United Bank of India. An amount of ₹8.50 Crore has already been sanctioned to the fish farmers by the various financial institutions like SBI, UBI, Assam Gramin Vikash Bank and Indian Overseas Bank.

National Fisheries Development Board (NFDB)

National Fisheries Development Board (NFDB), an autonomous organization under the administrative control of the Department of Animal Husbandry, Dairying and Fisheries, Ministry of Agriculture, Govt. of India was established as a nodal agency to work towards blue revolution with a focused attention basically aimed at fish production in the country. The NFDB was envisaged to serve as a platform for co-ordination of different agencies working in the field of fisheries with an end to end approach. In recent times sustainability of fisheries is being bestowed a lot of importance due to gradual depletion of natural fishery wealth owing to overexploitation with no equivalent replenishment of natural stocks. This trend is paving way for emphasis on substitution of fishery wealth through aquaculture for augmenting fish production. For addressing the issues related to enhancement of production through sustainable approach, NFDB has formulated various activities. Accordingly the Department of Fisheries, Assam implemented the following activities during the year 2009-10 with support from NFDB.

- Training & Demonstration
- Construction of Eco-hatchery
- Construction of Fish feed Mill
- Construction of New Pond
- Renovation of Existing pond

- Block level awareness Camps
- Development of existing Departmental Farm

The Department is also implementing a number of schemes under Rastriya Krishi Vikash Yojana.

Rastriya Krishi Vikash Yojana (RKVY)

The scheme was introduced during 2008-09 in Fishery Department. During the year, an amount of ₹20.00 Crore has been received for development of 295 hectares of existing pond, 96 hectare of low-lying area, 174 hectare for construction of new pond, 221 hectares for creation of nursery and rearing pond, 20 hectare for pig cum fish culture to cover 2270 farmers. Under this scheme farmers are supported by 50% subsidy against the schematic cost. Zila Parishads recommend the list of beneficiaries under RKVY. In addition, one fresh water prawn hatchery has been completed at Guwahati and other two prawn hatcheries will be established shortly. During the year 2009-10 an amount of ₹5.00 Crore has been received for development of 49.90 hectares of existing pond, 40 hectares of low-lying area, 100 hectares for construction of new pond, 10 hectares for creation of nursery and 150 hectares of rearing pond by covering 1477 nos. of fish farmers.

Development Action Plan for 2010-11

An amount ₹2590.00 lakh has been allotted during 2010-11 for taking up some innovative programme as well as for continuation of on going developmental scheme under the fishery sector. In order to achieve self sufficiency in fish production and generating self Employment, the State Fishery Department has given emphasis on the following components.

- Generation of self-employment through popularizing scientific fish farming practice.
- Provide extension service for undertaking breeding and propagation of fish species for enhancing quality fish seed as table Fish.
- Utilization of low-laying area through development and adoption of resource base technology for production.
- Socio-economic development of schedule caste and schedule Tribe people and other vulnerable section of the society.

LIST OF SCHEMES AND FINANCIAL ALLOCATION AND EXPENDITURE, DURING THE YEAR 2008-09 & 2009-10

(Rupees in Lakh)

Sl No	Name of the schemes/Plan Programmes	2008-09		2009-10	
		Annual Plan Outlay	Expenditure incurred	Annual Plan Outlay	Expenditure incurred
1	HQ. Establishment	133.40	100.00	52.00	34.29
2	District. Administration	552.50	386.74	245.80	178.20
3	Grants in aid to Assam Fisheries Development Corporation	10.00	7.00	14.00	14.00
4	Fish seed farming	300.00	211.10	375.00	319.18
5	Reclamation of Derelict water bodies	254.00	243.20	750.00	745.00
6	Fish Farmers Development Agency	150.00	150.00	300.00	300.00

SI No	Name of the schemes/Plan Programmes	2008-09		2009-10	
		Annual Plan Outlay	Expenditure incurred	Annual Plan Outlay	Expenditure incurred
7	Extension and Training (Centrally Sponsored Scheme)	10.00	-	10.00	10.00
8	Development. of water logged areas and derelict bodies (Centrally Sponsored Scheme)	-	-	10.00	-
9	Employment generation scheme through SHG	304.10	299.46	150.00	150.00
10	Survey of Fisheries & collection of Statistics	29.00	29.00	15.00	3.55
11	Fishery Research & Investigation	12.00	4.85	10.00	9.98
12	Marketing and Transport	5.00	-	10.00	3.00
13	Training in Fisheries	40.00	5.00	28.20	25.08
14	Fishery Extension Service	0.00	0.00	50.00	15.74
15	Women empowerment programme in fish farming	1.50	1.50	150.00	150.00
	SUB-TOTAL	1950.00	1586.35	2170.00	1958.00
Tribal Sub-plan					
1	Fish Seed Farming	15.00	6.00	30.00	30.00
2	Reclamation of Derelict water bodies	35.00	35.00	30.00	30.00
3	Fish Farmers Development Agency	35.00	-	20.00	20.00
	SUB-TOTAL	85.00	41.00	80.00	80.00
Schedule Caste Component Plan					
1	Reclamation of Derelict water bodies	130.00	124.59	178.00	178.00
2	National Welfare Fund for Fisherman				
	a) Housing	20.00	-	20.00	20.00
	b) Saving Cum-Relief	12.00	-	12.00	12.00
	c) Fishermen insurance	-	-	2.00	2.00
3	Fish Farmers Development Agency	88.00	88.00	88.00	88.00
4	Development of <i>Beel</i> Fisheries/Open water Fisheries (Grants in Aid)	200.00	22.16	190.00	190.00
	SUB-TOTAL	450.00	234.75	490.00	490.00
	TOTAL STATE PLAN	2485.00	1862.10	3184.00	2972.02
1	Assam Rural Infrastructure & Agriculture Service project (EAP)	1037.00	1037.00	444.00	444.00

SI No	Name of the schemes/Plan Programmes	2008-09		2009-10	
		Annual Plan Outlay	Expenditure incurred	Annual Plan Outlay	Expenditure incurred
	SUB-TOTAL	1037.00	1037.00	444.00	444.00
	TOTAL (State Plan+ AACP)	3522.00	2899.10	3628.00	3416.00
CENTRAL SHARE OF CS/CSS SCHEME					
1	Aquaculture development under FFDA	320.00	-	624.00	75.02
2	National welfare Fund for Fishermen	30.00	-	60.00	14.60
3	Saving cum Relief Scheme	5.00	-	36.00	-
4	Development of waterlogged areas	15.00	-	30.00	-
5	Strengthening of Data base and Information Networking	20.00	3.30	20.00	5.00
6	Training and extension	20.00	-	30.00	15.80
7	Fishermen Insurance	0.00	-	6.00	6.00
	Central share Total: -	410.00	3.30	806.00	116.42
	Total State Plan+ AACP+ Central Share	3932.00	2902.40	3990.00	3088.44
	Rastriya Krishi Vikash Yojana	2000.00	2000.00	1000.00	1000.00
	Grand Total	5932.00	4902.40	4990.00	4088.44

PHYSICAL TARGET & ACHIEVEMENT (2008-09 & 2009-10):

SI No	Item	Unit	2008-09		2009-10	
			Target	Achievement	Target	Achievement
1	Fish production	000' tone	210	206	225.00	218.82
2	Fish seed production	Million Nos.	3000	3429	3500	3326
3	Construction of Dist. Meen Bhawan	Nos.	11	11	-	-
4	Construction of Sub- Divisional Meen Bhawan	Nos.	5	5	-	-
5	a) Fish seed Farm b) Mini Fish Seed Hatcheries	Nos.	10	10	- 48	- 48
6	Development of nursery and rearing tank	Hectare	-	-	105.00	105.00

Sl No	Item	Unit	2008-09		2009-10	
			Target	Achievement	Target	Achievement
7	Women Empowerment programme in fish farming	Nos. Women	2500	2500	3000	3000
8	Reclamation of derelict water bodies	Water area in hectare	289	289	655.00	655.00
9	Fish Farmers Development Agency					
	a) Water area Develop	Ha.	220	43	190.00	190.00
	c) Beneficiaries	Nos.	550	210	1000	700
10	Development of <i>Beel</i> / Open water	Water area in hectare	200	22	193.00	193.00
11	Employment Generation Through SHG	Water area in hectare	174	174	300.00	300.00
		SHG benefited Nos.	224	224	251	251
12	Development of pen culture	Unit No	-	-	12	12
13	Ornamental fish breeding and rearing	Unit No	-	-	12	12
14	Group accident insurance under NWFF	Unit No	-	-	26666	26666
15	AACP (Assam Agricultural Competitiveness Project)					
	a) Development of Farmers pond, community tank	Water area in hectare	900	896	197.39	197.39
		Beneficiaries Nos.	8788	8788	2505	2505
	Improve mini hatchery	Nos.	-	-	6	6
	b) Integrated fish farming	Water area in hectare	85	85	-	-
	c) Development of <i>Beel</i> Fishery	Water area in hectare	76	76	-	-
	d) Capacity building	Farmers & Officers trained	10060	10063		

Sl No	Item	Unit	2008-09		2009-10	
			Target	Achievement	Target	Achievement
16	Rastrya Krishi Bikash Yojana					
	a) Development of existing pond	Water area (hectare)	295	295	49.90	49.90
		Beneficiaries	-	-	163	163
	b) Low-lying area converted to community tank	Water area (hectare)	96	96	40.00	40.00
		Beneficiaries	-	-	38	38
	c) Construction of new pond	Water area (hectare)	174	174	100.80	100.80
		Beneficiaries	-	-	258	258
	d) Creation of nursery and rearing pond	Water area (hectare)	221	221	160.00	160.00
		Beneficiaries			882	882
	e) Pig cum fish culture	Water area (hectare)	20	20	9.85	9.85
		Beneficiaries	-	-	41	41
17	NFDB (National Fishery Development Board)					
	i) Farmers ponds	Water area (hectare)	-	-	268.34	268.34
		Beneficiaries (Nos.)	-	-	395	395
	ii) Eco- Hatchery	Nos.	-	-	6	6
	iii) Construction of fish feed mill	Nos.	-	-	1	1
	iv) Farmers training	Nos.	-	-	150	150
	v) Awareness Camp	Nos.		-	50	50

CHAPTER – X

FORESTRY

Forest Area

In the recent past the importance of environment protection and conservation of natural resources has been given wide attention at state and national level. The State of Assam is enriched with extensive forest area and wealth like valuable forest products and also rich with different species and strains of floras and faunas. People of Assam from time immemorial have also depended upon the forests to meet their daily needs. The forest cover in the State is probably more than what the nation aspires to achieve by the end of 11th Plan. The National Forest Policies (1952 and 1988) aim at having one third of country's land area under forest and tree cover. The concept of extension forestry initiated in the early eighties under State Plan has percolated well in terms of extent of forest cover outside the notified area.

As per Forest profile of the State, the Reserved Forest area and Proposed Forest area is 14206 sq km and 19418 sq km respectively in 2009-10. The total Forest area excluding unclassified State Forest is 19418 sq km and 3436 sq km area is under Protected Area as reported by State Forest Department. Thus, the reserved forest area constitutes around 18 per cent and total forest area excluding unclassified forest constitute around 25 per cent of the total geographical area of the State. However, the scenario within the notified area depicts rather gloomy state in terms of degradation during the last 20 years due to various biotic factors and encroachment. As a result, considerable rich bio-diversity has been lost which need to be re-built again.

The thrust areas identified by the State Forest Department are as below:

- Preservation of the existing biodiversities.
- Arresting the trend of degradation and reverting the process by reforestation.
- Preservation and development of the existing Protected Area Network (PAN) and their expansion in suitable areas.
- Improvement of research and development activities in Forestry and Wildlife.
- Bridging the gaps in infrastructural & Logistical front.

TABLE – 10.1
FOREST PROFILE OF THE STATE

Forest and Tree cover	Unit	2005	2009
Area of Forest cover	Sq km	27645	27692
Area of Tree cover	Sq km	1484	1590
Total areas of Forest and tree cover	Sq km	29129	29282
Forest and Tree cover to the total Geographical area of the State.	% age	37.13%	37.33%

Source : Forest Survey of India (F.S.I) Report, 2005, 2009

Out-Turn of Forest Produce and Revenue

The forest produces of the State mainly comprises of industrial wood, fuel wood, bamboo, stone, sand and gravel, thatch etc. A good amount of revenue is earned by the State Government from its various forest produces. During 2008-09 and 2009-10 the out-turn of Major and Minor forest products are as follows:

TABLE-10.2

PRODUCTION OF FOREST PRODUCT OF THE STATE

Forest Produce	Unit of production	2008-00	2009-10
(A) Major forest produce			
Timber	Cubic Metre	13731	9839
Fuel wood	Stack Cubic Metre	8169	16063
(B) Minor forest produce			
Sand	Cubic Metre	525178	2905333
Gravel/Stone	Do	2182197	34269919
Silt/Clay	Do	2682504	2243569
Others	Do	2974431	4192455

Source: Office of the Principal Chief Conservator of Forest, Assam

The amount of revenue earned from the forest products during the last few years are shown in the following table:

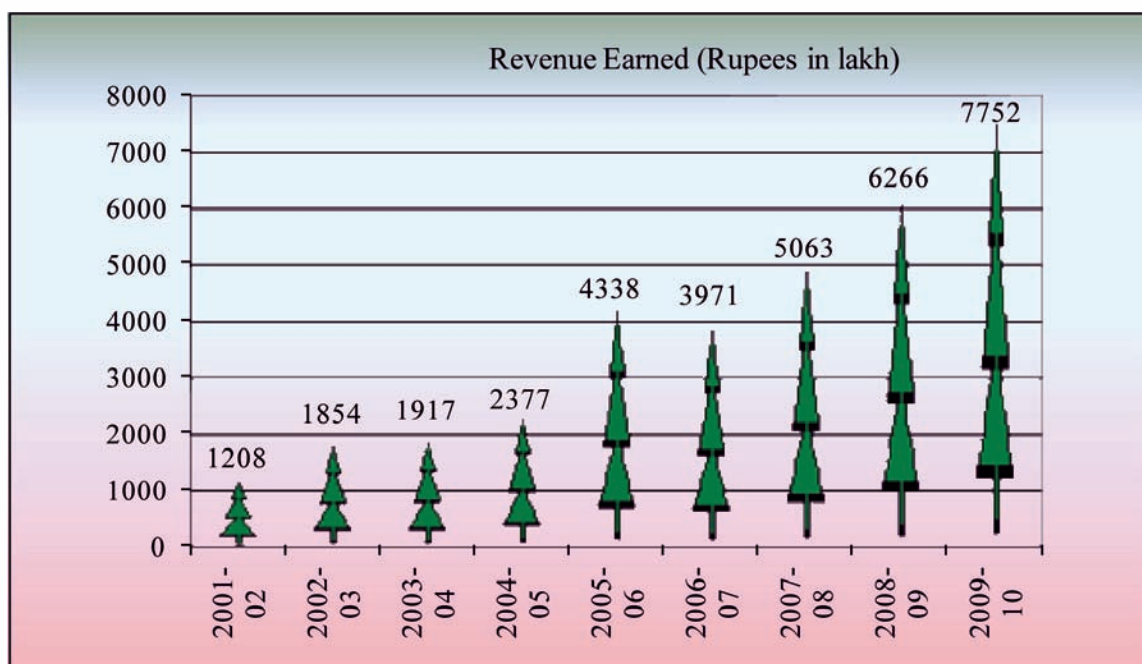
TABLE 10.3

REVENUE EARNED FROM THE FOREST PRODUCT IN THE STATE

(Rupees in lakh)

Year	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10
Revenue Earned	1207.77	1854.00	1916.82	2376.82	4338.26	3971.07	5062.70	6266.00	7751.60

Source: State Forest Department, Assam



Wildlife and National Parks & Sanctuaries

The Wildlife Act provided for setting up national parks and sanctuaries for Wildlife. The total Wildlife Protected Areas in the State of Assam is 3925 Sq. Km. The category wise Wildlife Protected Area is as follows:

TABLE –10.4

AREA OF THE NATIONAL PARK AND WILDLIFE SANCTUARIES IN ASSAM, 2007-08

Sl. No.	Name of the National Park	Location (District)	Area in Sq. Km.
1.	Kaziranga National Park	Golaghat, Nagaon & Sonitpur	858.98
2.	Manas National Park	Chirang and Baksa	500.00
3.	Orang National Park	Udalguri and Sonitpur	78.81
4.	Nameri National Park	Sonitpur	200.00
5.	Dibru-Saikhowa National Park	Dibrugarh and Tinsukia	340.00

WILDLIFE SANCTUARIES (WLS)

Sl. No.	Name of the Wildlife Sanctuaries	Location (District)	Area in Sq. Km.
1.	Bhejan-Borajan-Padumoni WLS	Tinsukia	7.22
2.	Panidehing WLS	Sivasagar	33.93
3.	Gibbon WLS	Jorhat	20.98
4.	Nambor-Doigurung WLS	Golaghat	97.15
5.	Garampani WLS	Karbi Anglong	6.05
6.	Nambor WLS	Karbi Anglong	37.00
7.	East Karbi Anlong WLS	Karbi Anglong	221.81
8.	Marat Longri WLS	Karbi Anglong	451.00
9.	Burhachapori WLS	Sonitpur	44.06
10.	Laokhowa WLS	Nagaon	70.13
11.	Pabitora WLS	Morigaon	38.80
12.	Sonai-Rupai WLS	Sonitpur	220.00
13.	Barnadi WLS	Udalguri	26.22
14.	Chakrasila WLS	Kokrajhar	45.56
15.	Dihing-Patkai WLS	Dibrugarh and Tinsukia	111.19
16.	Barail WLS	Cachar	326.25
17.	Amchang WLS	Kamrup (Metro)	78.64
18.	Deepor Beel Wildlife Sanctuary	Kamrup (Metro)	4.1

PROPOSED WILDLIFE SANCTUARIES

Sl. No.	Name of the Proposed Wildlife Sanctuaries	Location (District)	Area in Sq. Km.
1.	North Karbi Anglong WLS	Karbi Anglong	96.00
3.	Bardoibam Beelmukh WLS	Lakhimpur	11.25

Source: Chief Conservator of Forest (WL), Assam

Project Tiger

The State has a Tiger Project established in the Manas National Park. The objective of the Tiger Project is to preserve Tiger population by providing all round protected measures. The total area of Tiger Reserve is 4211.52 Sq km. and numbers of Tigers in the Reserve is 182 as per 'Tiger Census' of 2008. Kaziranga has 32 tigers per 100sq.km, which is the highest tiger density in the world. To ensure conservation of Tiger, the State Government has constituted Kaziranga, Manas, and Nameri Tiger Conservation Foundation in August

2009. The Government has further notified the Tiger Conservation Rules, 2010 and Government of India has been requested for direct funding to these Tiger Conservation Foundations.

Much emphasis has been given for conservation of one horned Rhinos, the pride of the state. The Rhino population in the State is increasing which is evident from the census report. The elephant population is also increasing in the State according to Elephant Census, 2007. Tables below show the Rhino and Elephant population in the State during different census period.

POPULATION OF RHINO AND ELEPHANT IN THE STATE

Census Year	Rhino	Census Year	Elephant
1999	1672	1997	5321
2006	2006	2002	5246
2009	2201	2007	5281

Source: Assam 2011 Development Report

Developmental Action and Achievement

Forestry is a very important sector and has immense contribution towards poverty alleviation of the rural populace dwelling in and around the forest tract. It only has a vital role in safeguarding ecological balance of the region but has a direct bearing in the growth and development of Agricultural & other allied sectors.

It has total manpower of 7202 Nos. of the personnel at present as per incumbency position.

Considering the importance of Forestry towards Society the Sector has been provided allocation of fund as shown below:-

Year	State Plan		Central Sector		Non- Plan
	Allocation	Released	Allocation	Released	Expenditure
2009-10	7015.00	6974.56	4620.80	113.50 (uptoDec/2010)	16540.00
2010-11	6546.00	1545.00 (uptoDec/2010)	21013.95 (uptoDec/2010)	NA	NA

The achievements made during 2010-11 are given below:

A) The Department has targeted for raising of plantation in 18,000 hectare area during 2010-11 under the different Plantation Schemes. Against which till date the following achievement has been made as below:

1. **Mukhya Mantrir Assam Bikash Yojana:** An amount of ₹300.00 lakh has been spent for creation of 146.14 hectare Plantation during 2010-11 under this scheme.
2. **Rehabilitation Degraded Forest :** Raised Plantation in 789.30 hectare area by spending an amount of ₹200.00 lakh during 2010-11 for rehabilitation of degraded forest area.
3. **Regeneration of Silvi Works:** Under this scheme an amount of ₹50.00 lakh is earmarked during 2010-11 for creation of 411.00 hectare of Plantation and that has been achieved during the year.
4. **Nursery:** For creation of Nurseries an amount of ₹200.00 lakh is earmarked and Nurseries created in 21.30 hectares of land during the year 2010-11.
5. **Rural Fuel Wood Plantation:** To provide Fuel Wood for rural household an amount of ₹30.00 lakh has been spent for creation of 18.00 hectare area under Fuel Wood.
6. **Medicinal & Aromatic Plant Garden :** An amount of ₹100.00 lakh is earmarked during 2010-11 under Non- Plan and for which a detail Scheme for development/ maintenance of Plantation of Medicinal &

Aromatic Plant Garden has already been submitted to government for sanction of the targeted works and that will be expected to complete within March 2011.

7. **Bamboo Mission Plantation (CSS):** Under the said Scheme 2907 hectare of Bamboo Plantation has been created up to December/2010
8. **Medicinal and Aromatic Plant (AYUSH) CSS:** Under the said Schemes 1082 hectare Plantation has already been created up to December/2010
9. **Compensatory Afforestation & Management Programme Authority (CAMPA):**

Under the above Scheme, Plantation has been raised in 165.79 hectare up to December/2010

Under the aforesaid schemes total Plantation and Nurseries created in 5694.39 and 185.44 hectares respectively during 2010-11. In addition to above, the following proposals are under process to create plantation & Nurseries under Social Forestry Scheme.

Name of the Scheme	Nursery (Area in ha.)	Plantation (Area in ha.)	Remarks
1.Social Forestry (General)	17.00		A wait for F.O.C.
2.Forest Development Agency (FDA)		465.00	Since the SFDA has not be constituted, the Schemes submitted by the FDA are not yet sent to Govt. as the same are to be approved by the SFDA.
3.External Aided Project (NaRMIL, EAP)		1000.00	Sanction & F.O.C.awaited.
4.Revolving Fund	10.00	500.00	Is to be submitted shortly.
5.Eco-Task Force Project (Sonitpur West Division-600 ha. Haltugaon Divn-600 ha.)		120.00	Proposals from concerned Division received and being examined.

- B. **Seedlings Distribution:** Out of the total target of 130 lakh seedlings during 2010-11, till date 90 lakh seedlings has been distributed. The balance is expected to be completed by the end of March/2011.
- C. **Raising of 2nd Battalion of Assam Forest Protection Force:** During 2010-11 an amount of ₹200.00 lakh is earmarked for development of Infrastructure works under Assam Forest Protection Force Battalion. However, the sanction of Schemes for 2010-11 is yet to be communicated from Govt.'s end and on receipt of same, the Infrastructure Works are expected to be completed within March/2011. The works for raising of 2nd Battalion of Assam Forest Protection Force at Seconee under Nagaon District is under progress. The process for appointment of 702 nos. of Constables & 20 nos. Cooks out of total sanctioned of 998 nos. posts is almost completed.
- D. **Construction of Roads & Culvert :** An amount of ₹68.00 lakh is earmarked during 2010-11 for construction of 87 Km. of Forest Roads & 7 nos. of Culvert, under various Forest Divisions of the Department and the works are already completed within December/2010.
- E. **Water facilities & Other Forest Protection Infrastructure & Amenities to staff:** An amount of ₹165.00 lakh has been earmarked under the Schemes Amenities to Forest Staff & labourers. The fund is utilised for 10 nos. of Tube Well Pump, 40 nos. Ring Well, 30 nos. Common Toilet, 5 nos. Garage, 2000 RM Boundary Wall, 5 nos. Solar Energy System and 13 nos. Electrification of staff quarter up to December/2010

CHAPTER - XI

INDUSTRY, TRADE AND MINING

Assam is a house of natural and precious mineral resources. During the pre- independence period, the chapter of industrial history of Assam began and Assam finds its place in the industrially developed map of the world. The crude oil was explored and India's first oil well was drilled, established first oil refinery [first in Asia and third in the world] and explored first coal field. Introduction of tea cultivation during the period, beginning of global export of finished tea as well brought the economic boom to Assam. The continuous process of economic and industrial development of the State was almost stopped after independence and at present Assam is amongst the industrially under- developed States in the Country. Industrial scenario of the State is now confined within the growth of employment oriented SSI Sector, which comprises of manufacturing and processing industries. Assam is still making efforts for gearing up industrial activities by harnessing the un-tapped resources available in the State through various growth-inducing factors as well as by removing the infrastructure inadequacies in the power, communication and transport sector.

The Industries and Commerce Department of the State as well as some other agencies like Assam Industrial Development Corporation (AIDC) are closely associated with implementation of various promotional schemes meant for sustainable industrial development of the State. Despite slow growth due to various constraints a favourable industrial climate is gradually being created in the State as discernible from the increasing interest shown by investors both from within the State as well as from outside. However, the contribution of the Manufacturing Sector to the total economy maintains its downward trend and pegged at 7.4 per cent at constant (2004-05 prices) in 2009-10 (Quick Estimates). The Index of Industrial Production in the State also pegged at 155.83 in 2009-10 (Base1999-2000) as against 151.40(Revised) in 2008-09.

Industrial Production of Some Selected Industries in Assam

Although the manufacturing and processing industries have dominated the Industry Sector of the State, the contribution of these industries to the State's economy was not as much impressive as was expected. The estimated contribution of Registered Manufacturing sector to the total economy was 4.8 percent and accounted for @ 23 percent share of the total Industry Sector contribution to the GSDP at constant 2004-05 prices during 2009-10 (Quick Estimates). The Index of Industrial Production for the Manufacturing Sector, however,

recorded positive trend during 2009-10[186.71] against 175.25 in 2008-09 (Base 1999-2000=100). The production of some selected items of the State for the last six years may be seen at Table-11.1.

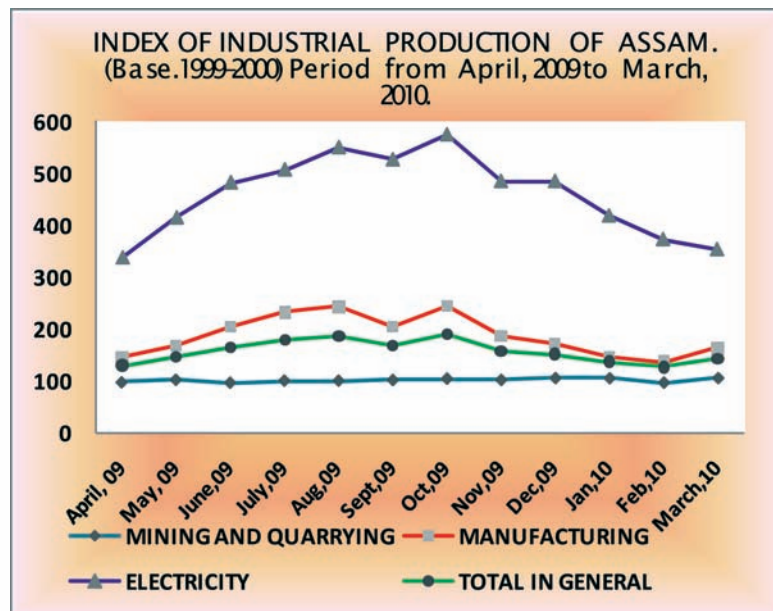


TABLE-11.1

PRODUCTION OF SOME SELECTED INDUSTRIES IN ASSAM

Item	Unit	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10
1. Tea	000 tonnes	443	655	531	486	484	498
2. Wheat Flour	-do-	207	220	202	837	848	1044
3. Coal	-do-	628	956	1058	1101	1147	1203
4. Jute Textiles	Tonnes	7903	5910	7227	9494	11249	12511
5. Crude Oil	000 tonnes	4724	4429	4426	4361	4673	4738
6. Cement	-do-	341	251	175	213	446	644
7. Fertilizer	000 M. T.	203	222	308	346	313	338

Source: Tea: Tea Board of India. Minerals: Indian Bureau of Mines, Nagpur

Others: Individual Industrial Units

Industrial Estate and Industrial Growth Centre

Planning and development of Industrial infrastructure in the perspective of industrial growth and to attract investment by creating an environment of industrialisation is the major function of the Directorate of Industries and Commerce. At present, there are 16 Industrial Estates, 17 Industrial Areas, 11 Growth Centres under the Industries and Commerce Department of Assam spread over an area of 2857 thousand SqM land in different locations of the State. Apart from the aforesaid infrastructures, there are 11 Integrated Infrastructure Development (IID) Projects, 4 Industrial Growth Centres, 6 Mini Industrial Estates, One Export Promotion Industrial Park, One Food Processing Industrial Park spread over an area of 7173 thousand SqM land also provided additional infrastructure facilities to the entrepreneurs of the State. Till the end of March 2010, as many as 625 functioning Industrial units utilised the infrastructure provided by the Industry and Commerce Department. The Growth Centres and IID Centres are facilitated with excellent connectivity, dedicated power lines, adequate water supply, central effluent treatment plants etc.

Some Ongoing Infrastructure Projects

Industrial Growth Centre

The Industries and Commerce Department of Assam has undertaken three centrally sponsored projects known as Industrial growth Centre project at Chariduar, Matia and Chaygaon –Patgaon under Central sponsored scheme.

- Growth Centre, Chariduar:** The Growth Centre, Chariduar is located in the district of Sonitpur. The total project cost of this Growth Centre is ₹2543.40 lakh and both the Central Government and State Government are sharing of cost of the project. Government of India has released ₹1216.00 lakh out of the total central share while the state Government has released ₹202.05 lakh upto 2009-10. AIDC is implementing this Growth Centre project.
- Industrial Growth Centre, Matia:** The Industrial Growth Centre Project located at Matia in the Goalpara district is being implemented by the AIDC Ltd. The total project cost of this project is ₹2200 lakh and the cost of the project is jointly shared by the Central and State Government. Till the end of 2009-10, the Government of India and the State Government has released ₹1170.00 lakh and ₹254.05 lakh respectively. The civil construction works and setting up of power sub-station etc., are in progress.
- Industrial Growth Centre, Chaygaon-Patgaon:** The Industrial Growth Centre project is located at split locations at Chaygaon-Patgaon including HMT campus in Kamrup district. The Assam Industrial Infrastructure Development Corporation (AIIDC) is being implemented the project. The cost of the project in the tune of ₹1615.24 lakh is also jointly shared by both the Central and the State Government.

The Government of India and the State Government has already released ₹1500.00 lakh and ₹115.24 lakh respectively. The first phase of Chaygaon project has already been completed.

Integrated Infrastructure Development Centre

The Government of India has approved setting up of 9 (nine) numbers of Integrated Infrastructure Development Centre (IID) at different locations of Assam. Those are located at Bhomoraguri in Nagaon district, Dahudi in Nalbari district, Rangia in Kamrup district, Bandardewa in Lakhimpur district, Kunderbari (Titabar) in Jorhat district, Dalgaon in Darrang district, Malinibeel in Cachar district, Silapathar in Dhemaji district and Demow in Sivasagar district. The Government of India has released ₹2589.1 lakh and the Government of Assam has released ₹834.91 lakh against all the nine IIDC projects up to the year 2009-10. The projects at Bhomoraguri, Dalgaon and Rangia are already completed.

In addition to the aforesaid projects, 2(two) more IIDCs have been sanctioned -one at Parbatpur in Tinsukia district and the other at Serphangguri in Kokrajhar district and both the projects are now under implementation. During the year 2009-10, Govt. of Assam has released ₹50.00 lakh under the state annual budget against these two IIDCs.

Two more IIDCs one at Nahardanga in Golaghat district and the other at Titlagarh in Sivasagar district are in active consideration for sanction by Govt. of India.

Export Promotion Industrial Park (EPIP)

The Export Promotion Industrial Park located at Amingaon in Kamrup district was approved by the Government of India with a total project cost of ₹1462.0 lakh and both the Central and State Governments jointly share the project costs. The objective of the project is to create high standard infrastructure. The project has already been completed with national standard infrastructure. As many as 38 industrial units are producing wide range export oriented products there.

Assam Gas Cracker Project/Plastic Park

The Assam Gas Cracker Project is a joint venture of GAIL, NRL, OIL and Government of Assam. The total project cost is in the tune of ₹5460.00 crore. The project profile indicates a total polymer production of 280000 tonnes per annum. Government of Assam will provide exemption for entry tax on capital goods; works contract tax and sales tax on feed and products for 15 years. The Central Government will provide excise duty and income tax relief for 10 years. A joint venture company viz., Brahmaputra Cracker and Polymer Limited has been formed and acquisition of land has been completed. The schedule time of completion of the project is 60 months. The project will offer direct employment to 800 persons and indirect employment to 1 lakh persons. The project will open up avenues of opportunities in multi-faceted directions. Besides opening of various socio-economic linkages, scope for setting up of chain of downstream industries is expected to open on completion of the project.

The Assam Gas Cracker Project is in the fast track. Land acquisition process for the project is in progress. The State Government has sanctioned ₹58.17 crore as 1st instalment of land acquisition cost during 2006-07 and also released ₹154.00 lakh during 2007-08. An amount of ₹310.00 was proposed in the Annual Plan 2010-11 for Energy Corridor of Assam Gas Cracker Project.

The Government of Assam has proposed to promote a plastic park around the project site to create opportunities for development of such downstream industries. This value addition will ensure more revenues to the State as well as generate more employment and will result in an overall socio-economic development of the region. A Techno-Economic Feasibility Report has already been prepared to assess the viability of the project.

Jute Park

The Ministry of Textile, Govt. of India has sanctioned a Jute Park under the Scheme of Integrated Textile Park (SITP) to M/S Assam Jute Park Developers, Ltd (a SPV formed to implement the Jute Park consisting M/S Murulidhar Ratanlal Export Ltd as the main promoter having its Registered Office at 15B, Hemanta Basu Sarani, Kolkata). The project cost is ₹56.16 Crore out of which ₹40.00 Crore would be provided by the Govt. of India as grant under SITP. The Revenue Department has allotted 300 bighas of land to AIDC Ltd for the purpose. The Govt. of Assam has approved participation of AIDC in Equity by way of cost of land of the project.

Banana Industrial & Export Development Centre

AIDC Ltd has taken steps for setting up Banana Industrial & Export Development Centre at Industrial Growth Centre, at Matia in the Goalpara District. A plot of land about 17 acres has already earmarked for the purpose within the growth centre. The Techno-Economic Feasibility Report has been prepared by the Suman Project Consultant Pvt. Ltd, New Delhi.

Small Scale Industrial Units (SSI)/Micro, Small & Medium Enterprises and Handicrafts Units

The Small Scale Industries have vital contribution in the process of industrialization, employment generation and in fulfilment of socio-economic objectives in Assam. Presently the small-scale industries have been sub-divided into Micro, Small and Medium Enterprise under the Micro, Small and Medium Enterprises Act 2006. The categorisation of enterprises is made based on their investment in plant and machineries in case of manufacturing sector or in equipments in case of service sector. For speedy growth of this sector, the Government of Assam has already brought some simplification in its procedures in respect of registration as well as declared incentives in its Industrial Policy – 2008.

There are 32984 SSI/MSME units in Assam and provided employment to 167216 persons till the end of 2009-10. The Table – 11.2 shows some annual statistics of setting up of SSI/MSME units' upto 31-03-2010.

TABLE – 11.2

GROWTH OF SSI/MSME UNITS, EMPLOYMENT, INVESTMENT AND PRODUCTION IN ASSAM

Year	No. of SSI units	No. of Employment	Average no of Employment per unit	Investment on Plants & Machinery (Rs. in lakh)	Average investment per Unit (Rs in lakh)	Production value (Rs. in lakh)	Average per unit Production (Rs. in lakh)
Up to 31-03-2001	14453	64623	4.5	22009.00	1.52	115303.00	7.98
2001-02	2528	11538	4.6	4888.95	1.93	16013.81	6.33
2002-03	2246	11115	4.9	4868.94	2.17	16379.60	7.29
2003-04	2364	11795	5.0	7198.82	3.05	18976.90	8.03
2004-05	2067	9396	4.5	7120.18	3.44	19698.20	9.53
2005-06	2082	10780	5.2	23776.88	11.42	22940.86	11.02
2006-07	2172	11852	5.5	9282.72	4.27	25514.67	11.75
2007-08	1692	10471	6.2	26637.42	15.74	44720.97	26.43
2008-09	1711	12914	7.5	26348.26	15.40	49635.10	29.00
2009-10(P)	1667	12732	7.6	30049.26	18.0	58429.86	35.05

P. Provisional

Source: Directorate of Industries & Commerce, Assam.

It is evident from the above table that average employment per unit of manufacturing enterprises in Assam is around 6(six) during the period 2001-02 to 2009-10. The average production per unit is found to be ₹6.33 lakh in 2001-02 which has increased to ₹35.00 lakh in 2009-10.

The table 11.3 below shows the number of new units of various types of industries established in the State during the last six years.

TABLE – 11.3
NUMBER OF NEW UNITS ESTABLISHED BY THE TYPE OF INDUSTRIES

Item	2004	2005	2006	2007	2008	2009(P)
1. Agro Based	327	317	311	279	268	275
2. Forest Based	144	89	102	83	96	50
3. Textile Based	626	671	827	440	378	415
4. Chemical Based	44	64	54	51	50	40
5. Engineering Based	536	529	686	483	445	488
6. Electronic Based	59	63	45	51	58	83
7. Mineral Based	111	111	140	112	125	135
8. Leather	14	15	7	5	15	10
9. Rubber/Plastic	16	18	19	27	25	38
10. Paper Product	-	-	-	-	79	79
11. Miscellaneous	184	256	18	187	213	146
Total :	2061	2137	2350	1719	1752	1759

P: Provisional

Source: Directorate of Industries & Commerce, Assam

Prime Minister Rojgar Yojana (PMRY) / Prime Minister Employment Generation Programme (PMEGP):

The Prime Minister Rojgar Yojana (PMRY) was a Centrally Sponsored Scheme, which has been launched on 2nd October 1993 with the objectives of providing employment to the educated unemployed youth. The scheme facilitates self-employment through setting up of industries / service and business ventures. For these purpose a limited amount of Bank loan with an amount of subsidy are provided to the interested and qualified educated youth on the recommendation of Task Force Committees constituted for the purpose. The programme was effective up to 31st March '08. After 31st March '08, a new scheme namely Prime Minister Employment Generation Program (PMEGP) has been introduced by merging the PMRY and REGP with the same aims and objectives. The KVIC is implementing the PMEGP scheme as the nodal agency at the national level and at the State level the scheme is implemented by the State KVIC Directorate, State KVIB and the District Industries and Commerce Centres and Banks. The Government subsidy under the scheme is being routed by the KVIC through the identified Banks. Table 11.4 shows implementation of PMEGP in Assam during the year 2008-09 and 2009-10.

TABLE- 11.4

TARGET AND ACHIEVEMENTS OF PMEGP DURING THE YEAR 2008-09 & 2009-10 IN ASSAM

Year	Physical Target (in Nos)	Financial Target (Margin money) Rs in Lakh	Total Cases sanctioned (Rs in Lakh)	Physical Achievement (in Nos)	Financial Achievement (Rs in Lakh)	Remarks
2008-09	685	820.22	861	617	676.95	Information represents DICC part only
2009-10	1292	1550.00	2440	2440	1899.71	Information includes KVIC & KVIB

Source: Directorate of Industries & Commerce, Assam

Registered Factory

The number of Registered Factories in the State stood at 3971 at the end of 2009 against 3733 in the previous year. Table-11.5 shows the growth of registered factories and employment of average daily workers in Assam during the period 2001-2009.

TABLE-11.5

NUMBER OF REGISTERED FACTORIES AND EMPLOYMENT

Year	Number of Factories	Average Number of Daily Workers
2001	2512	98862
2002	2695	96031
2003	2760	94473
2004	2923	96677
2005	3070	105452
2006	3182	112794
2007	3319	114233
2008	3733	129435
2009	3971	137164

Source: Office of the Chief Inspector of Factories, Assam

From the available data of District-wise distribution of Registered Factories it reveals that, the undivided Kamrup District recorded 1005 registered factories with 24980 workers during 2009 as against 935 registered factories with 23041 workers during 2008. On the other hand Dhemaji District recorded the lowest 3 number of factories with 71 workers during 2009.

Annual Survey of Industries (ASI)

The Annual Survey of Industries provides some basic characteristics of the industries under manufacturing sector. The ASI results reveal that during the year 2007-08 Assam has 1859 number of functioning Registered Factories with 134284 employees as against 1967 number of functioning Registered Factories with 136568 employees in 2006-07. During the year 2005-06 there were 1864 number of factories with 128662 employees in the State. The results also show that the value of output increased by 1.9 percent or ₹568.00 crore during the year 2007-08 over the level of the previous year. However, the net income of the

factories has fallen by 12.25 percent from ₹3237.95 crore in 2006-07 to ₹2841.21 crore 2007-08. The Table-11.6 shows some basic characteristics of Annual Survey of Industries in Assam for last six years.

TABLE -11.6
SOME PRINCIPAL CHARACTERISTICS OF ANNUAL SURVEY OF INDUSTRIES

Item	Unit	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08*
Factories	Nos.	1533	1593	1710	1864	1967	1859
Fixed Capital	Rs. lakh	596543	670965	702998	752036	801962	891081
Working Capital	-do-	137282	195235	204272	267665	329704	346159
Invested Capital	-do-	790402	934228	1022608	1090977	1179526	1301965
Total Employees	Nos.	111058	115082	119548	128662	136568	134284
Value of Output	Rs. lakh	1204070	1634167	2205002	2560914	3047619	3104360
Net Fixed Capital Formation	-do-	1370	62260	18319	NA	NA	NA
Net Value Added	-do-	253882	373164	372082	357617	364199	327473
Net Income	-do-	221673	343009	347551	329431	323795	284121

*Provisional

Source: Annual Survey of Industries, C.S.O., Government of India

Agro-Based Industries

The agro climatic weather of Assam is ideal for the growth of a variety of food crops as well as plantation of cash crops. Tea produced in Assam has high demand in the west particularly in Europe as a beverage. The abundant forest resources provide timber for industries like plywood, paper. Various kinds of fruits, vegetables as well as medicinal herbs available in the State are yet to be tapped for commercial purpose.

Food Processing Industry

As per available report of Agriculture Department, implementation of the Technology Mission for Integrated Development of Horticulture (TMIDH) in Assam has brought tremendous change in production of fruits, spices and vegetables in the State thereby opening ample scope for setting up of food processing industries in the State.

At present less than 30 per cent of agriculture produce are processed in the State. Among these more than 80 per cent are of the primary food products like packaged milk, milled flour & rice, tea and spices etc. Processing and packaging of perishable fruits and vegetables, although has ample potential to grow with increasing demand, has not got desired importance due to non-availability of sufficient storage facility.

Food Processing Industrial Park

The Government of India has approved for setting up of a Food Processing Industrial Park at Chaygaon in Kamrup district with a project cost (revised) of ₹496.00 lakh and the costs of the project will be borne by both the Central and the State Government. During the year 2008-09, the Government of India and the government of Assam have released ₹119.49 lakh and ₹146.00 lakh respectively against their share. The project is being implemented by the ASIDC Ltd. The progress of the project is about 70 percent at the end of March 2010.

Setting up of small Food Park in rural areas

In Assam a good quantity of fruits & vegetables are produced in the villages of remote areas. To process such produce and to give financial support to the cultivators it is felt that the Food Processing Industrial Park[under construction] at Chaygaon, in Kamrup district and Mega Food Park at Nathkuchi in Nalbari district will not be sufficient as these food parks will provide space to set up a limited number of food processing industries. To cater the needs of fruit producing cultivators, setting up of one more Food Processing Industrial Park in Tinsukia has been proposed. The proposed Food Processing Park will be set up at Ulup Pather in Tinsukia District. This project will also be implemented by AIDC Ltd.

Tea Industry

The Tea industry occupies an important place in Assam and plays a very special role in the State economy in particular and in the national economy in general. The wild tea plants discovered by Robert Bruce in upper Brahmaputra valley in 1823. The first Indian tea was sent to United Kingdom for public sale in the year 1838. Although the tea cultivation was extended to other parts of the country between 50's and 60's of the last century, as of today, Assam Tea has maintained its international reputation and commands significant share in the World Tea Market. The tea industry in Assam also provides average daily employment to more than six lakh persons in the State which is around 50 percent of the total average daily number of labour employed in the country.

The total area under tea cultivation in Assam is accounting for more than half of the country's total area under tea. In addition to existing big & large tea gardens owned by reputed both Indian and multi national Companies, the profession of tea plantation in the State has taken up by common man as business venture at present, especially by unemployed youths. According to the Tea Board of India, "there are more than 43000 small tea growers in Assam producing about nine percent of the State's total annual production." [State focus paper, Assam-2009-10 by NABARD]. As per Tea Board of India information there are 52000 small tea growers in Assam at the end of March 2009 out of which 3767 were registered with the Tea Board of India.

According to the State Government reports, there are about 70000 small tea holdings covering approximately 117,000 acres of land in 14 out of 27 districts in Assam. It is important to note that 87 percent of the cultivation is done in land area measuring less than three acres. [According to the All Assam Small Tea Growers Association, the number of small tea growers has swelled to 65000 in the last two decades. And it is on the rise. At present more than 900,000 people are involved in the small tea growing business in Assam. Almost 250,000 hectares of land is covered for such plantations. The small tea growers accounted for 30 percent of the total tea produced in the State which is 14 percent of the total tea production of India .With this current growth, 50 percent of the total tea produced in Assam is expected to come from the small tea growers by 2020].

Assam alone produces more than half of India's tea production. The estimated production of tea in Assam was 487.5 thousand tonnes in 2008 which was about 5.0 percent less compared to the estimated production of tea in 2007. However, tea production in the State in 2008 constitutes about 50 per cent of the total tea production of the country. During the year 2006, the quantity of production of tea in Assam was 502.0 thousand tonnes. Statistics of area and production of Tea in Assam are shown in the Table 11.7.

TABLE – 11.7
TEA STATISTICS OF ASSAM AND INDIA

Year	No. of Tea Gardens		Area under Tea (in'000 hectare)		Total Tea Production (in 000 kg.)		Average yield (kg/ hectare.)	
	Assam	India	Assam	India	Assam	India	Assam	India
2001	40795	116659	269	510	453587	853923	1685	1675
2002	43272	127801	271	516	433327	838474	1601	1625
2003	43293	129027	272	520	434759	878129	1601	1690
2004	43293	129027	272	521	435649	892965	1603	1713
2005	49102	140712	301	556	487487	945974	1622	1703
2006	NA	NA	312	567	502041	981805	1610	1732
2007	NA	NA	321	578	511885	986427	1593	1705
2008(E)	NA	NA	322	578	487497	980818	1513	1693

(E) Area, Production and Average yield estimated and subject to revision

Source: Tea Board of India

The Guwahati Tea Auction Centre is actively taking part in Tea trading of the Tea produced mainly in the North Eastern States since its establishment. Statistics of quantity and average price of tea sold in the Guwahati Tea Auction Centre is shown in the Table below:

TABLE-11.8
QUANTITY AND AVERAGE PRICE OF TEA SOLD IN THE GUWAHATI TEA AUCTION CENTRE

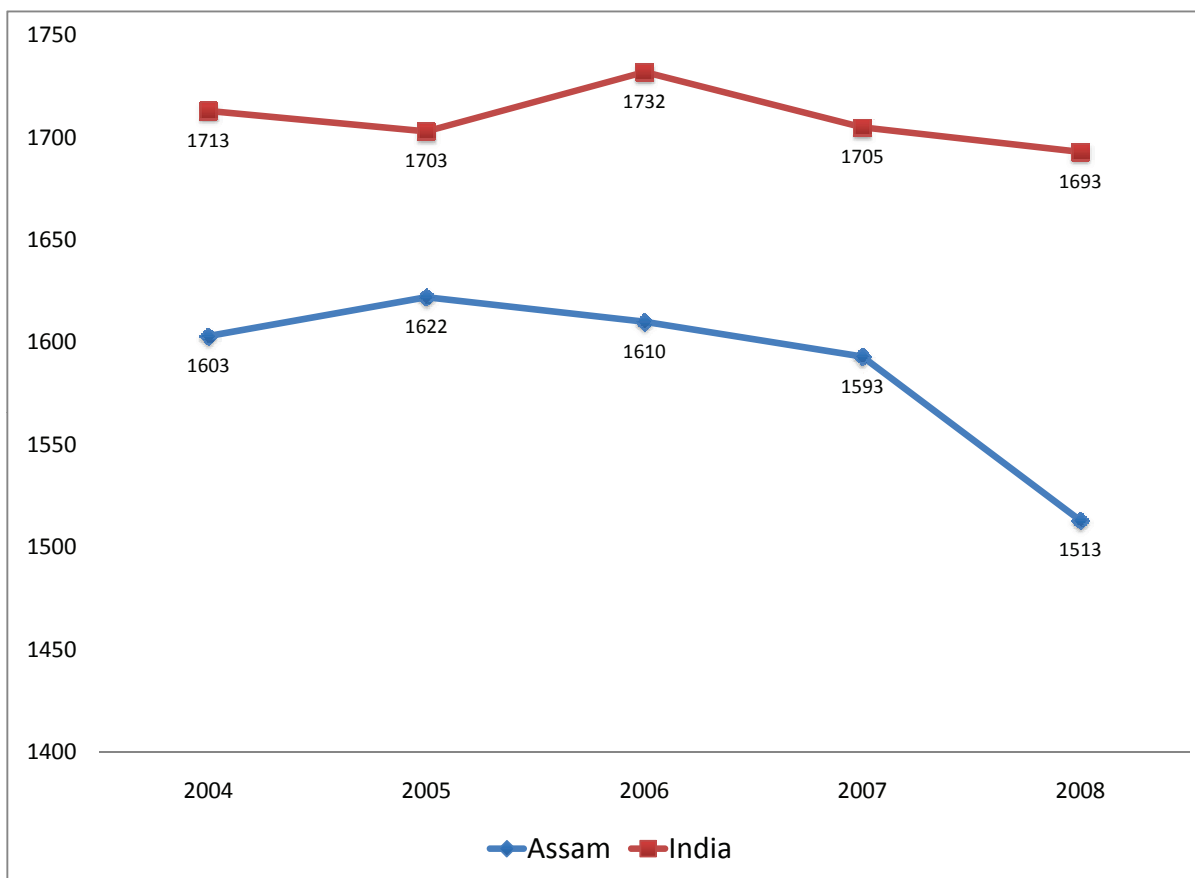
Year	Leaf				Dust			
	CTC		Orthodox		CTC		Orthodox	
	Quantity (million Kg.)	Average Price (Rs. per Kg)	Quantity (million Kg.)	Average Price (Rs. per Kg)	Quantity (million Kg.)	Average Price (Rs. per Kg)	Quantity (million Kg.)	Average Price (Rs. per Kg)
2005	101.94	61.11	0.61	61.62	40.30	59.19	-	-
2006	100.75	67.96	0.72	78.18	40.9	68.27	-	-
2007	106.88	70.09	4.16	73.93	41.51	73.02	0.001	50.00
2008	110.14	90.20	0.56	92.39	41.99	95.73	-	-
2009	98.33	108.52	0.44	111.21	39.74	115.10	-	-
2010 (upto June)	30.66	98.17	0.17	125.89	13.29	96.65	-	-

Source: Guwahati Tea Auction Centre

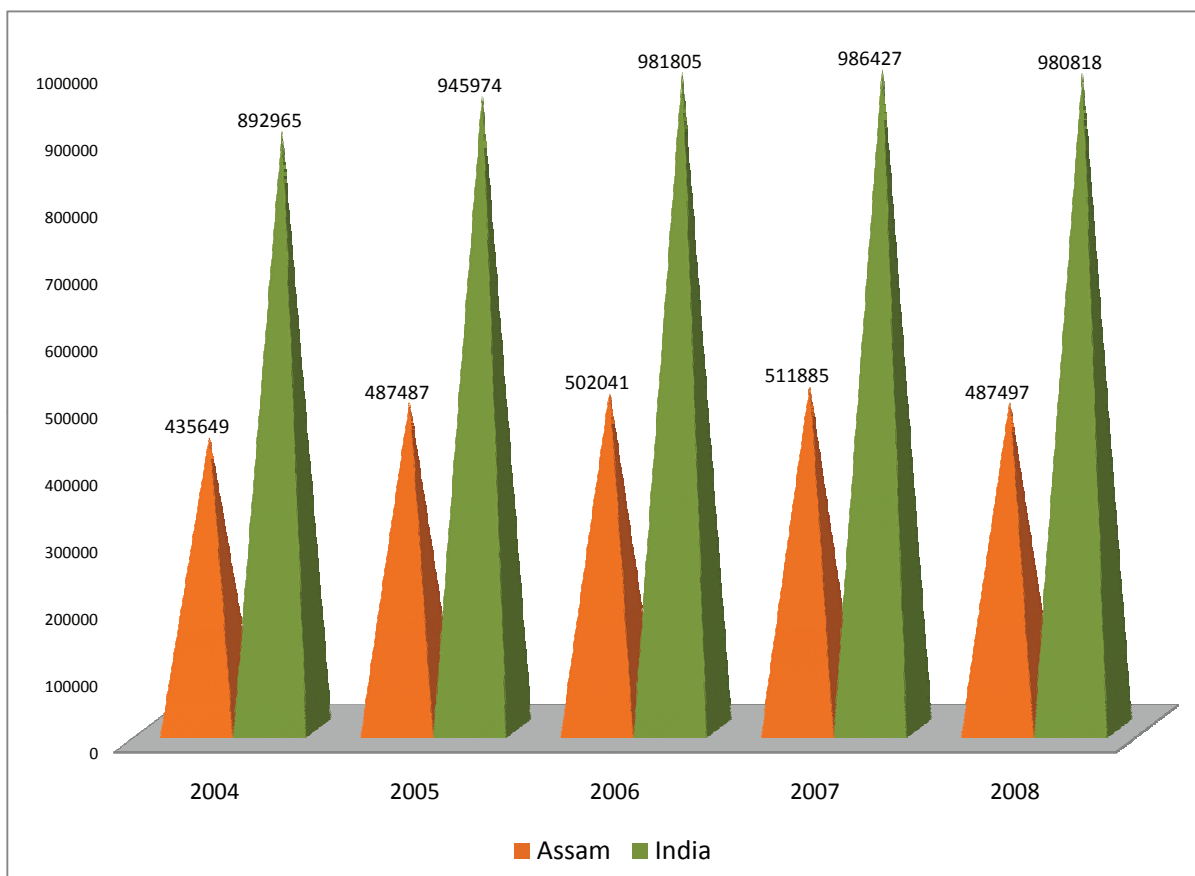
Rubber Industry

The rubber cultivation has gained its popularity in Assam due to congenial agro-climatic condition as well as its eco-friendly environment. As it is substitute to jhum cultivation, therefore the area under cultivation

AVERAGE YIELD OF TEA (KG/HECTARE)



TOTAL PRODUCTION OF TEA (In '000 Kg)



has grown from 13.5 thousand hectares in 2003-04 to 25.8 thousand hectares in 2009-10 which was 90 percent higher than that of the area under rubber cultivation in 2003-04. The production of rubber was also considerably increased during the said period. The growth of coverage of the rubber plantation area as well as production in the State is presented in the Table 11.9. Considering the growth of plantation areas and rubber production trends, there is vast potential for setting up of rubber industries in the State. The Dunlop Tyre Ltd in the meantime is coming forward for setting up industries at Chaygaon Industrial Growth Centre at Chatabari, Kamrup District.

TABLE-11.9
AREA AND PRODUCTION OF RUBBER IN ASSAM

Year	Area* (in hectare)	Production (in MT)
2003-04	13541	2580
2004-05	13692	2700
2005-06	14835	2750
2006-07	16508	3050
2007-08	18271	4750
2008-09	20975	5097
2009-10	25806	9832

**Area includes both mature and Immature plantation.*

Source : The Rubber Board, Zonal Office, Guwahati.

Bamboo and Cane Industry

Assam has the highest concentration of bamboo having high potential for commercialisation. The region has approximately 60 percent of the total bamboo of the country. There are also substantial areas under homestead cultivations and commercial cultivation of bamboo is also taking place. Bamboo can be used as a substitute to timber and it is also a versatile raw material for industrial use. The major industrial use of bamboo in the country is paper manufacturing. As against the current annual requirement of about 6 million tonne of bamboo, the two paper mills of Hindustan Paper Corporation Ltd., located one at Panchgram and the other at Jagiroad, received only one million tonne annually. Due to non-availability of bamboo, both the paper mills are currently operating at only 41 percent of installed capacity.

Following the imposition of restriction on cutting and felling of trees by the Hon'ble Supreme Court of India to stop degradation of natural forest area, 75 units of plywood industries located in the N.E. Region is closed and about 2.5 lakh workers lost their jobs. The Government of Assam has also given thrust to promote and support the integrated development of the bamboo and cane sector in the State. Accordingly, the declaration of "Bamboo and Cane Policy" of the State of Assam is an important step in this direction. Apart from this, the Planning Commission of India has also given importance for revival of ply wood industries of the NE Region taking bamboo as raw material.

The Ministry of Agriculture, Government of India has launched the National Bamboo Mission (NBM) with focus in the North Eastern Region. Under this Mission, it is proposed to plant Bamboo on commercial basis and selected species in an area of 176000 hectare in both Government Forest Land and Non-Government Forest Land in 5 years time starting 2006-07 as base year. In this backdrop, the Govt. of Assam has taken necessary initiative to set up a Bamboo Park at Jagiroad which is 65 km. from Guwahati and adjacent to the NH-37. The objective of the bamboo park is to create an integrated infrastructure for promotion of bamboo based industrial and commercial activities. The Cane and Bamboo Technology Centre (CBTC), Guwahati,

one of the Bamboo Technical Support Group under National Bamboo Mission of the Ministry of Agriculture, Govt. of India is rendering assistance to the eight NE States and the states of Bihar, Jharkhand, Orissa and West Bengal in the implementation of the NBM schemes in their respective state.

Implementation of Some Special Employment Oriented Programme

Chief Minister Self Employment Scheme and Vocational Training Under Assam Bikash Yojana

Government of Assam has launched a unique self-employment scheme called **Chief Minister Self Employment (CMSS) and Vocational Training** from the year 2008-09 in place of the scheme of the same nature called Chief Minister's Saw-Niojan Yojana (CMSY), which had been continuing from the year 2001-02 to 2007-08.

There are two sector of the scheme one is CMSS and other is Vocational training. Under the CMSS sector the educated unemployment youth are sent for 6 month training to reputed industrial unit and commercial houses throughout the country. During the period of the training stipend @ ₹4500/- per month are paid to each trainee by the State Government. While the organization gets the services of the trainees free of cost, the trainees gain practical knowledge and experiences by working for 6 months in the industrial units.

Under the vocational training sector the unemployed youth are provided one month, one and half month, 3months, 6months, 9 months and upto one year industrial training within the state on their interested field. The cost of training is fully borne by the Government of Assam.

An amount of ₹100.00 lakh (for CMSS ₹50 lakh and for vocational training ₹50 lakh) has been sanctioned and released by the Government of Assam for implementation of the Scheme during the year 2008-09. For the year 2009-10, an amount of ₹201.05 lakh (for CMSS ₹50.00 lakh and for vocational training ₹151.05 lakh) was sanctioned and released by the Government of Assam for implementation of the Scheme.

The following table shows some statistics on physical achievement of CMSS and Vocational training under Assam Vikash Yojana for the years 2008-09 and 2009-10.

TABLE-11.10
IMPLEMENTATION OF CHIEF MINISTER SELF EMPLOYMENT SCHEME AND
VOCATIONAL TRAINING UNDER ASSAM VIKASH YOJANA

Year	Name of Scheme	Total Target	No. of Traainees Sponsored	No. of Traainees Completed	No of Trainees absorbed	Remarks
2008-09	CMSS	160	165	130	51	
	Vocational Training	2200	2200	2200	-	Sponsored from district
2009-10	CMSS	160	136	32	21	Undergoing training
	Vocational Training	3200	-	568	-	Sponsored from district

Source: Directorate of Industries and Commerce, Assam

Udyog-Jyoti Scheme

Udyog-Jyoti Scheme has been launched by the Industries and Commerce Department of Government of Assam with the objective to motivate the student community of the State towards entrepreneurship. Under the Scheme, the young Graduate level college students of the State are taken to various industries, institutions, industrial organizations like Guwahati Refinery, CIPET, CTRTC etc, to give educational exposure about industrial activities at the 1st phase so that they can show their interest to start their own venture or get employed in such industries etc. At the 2nd phase some of the selected trainees are sent outside the State for higher exposure in the field of entrepreneurship.

TABLE-11.11
ACHIEVEMENTS OF THE UDYOG-JYOTI SCHEME

Year	Financial Target (Rs. in lakh)	Financial Achievements (Rs in lakh)	Physical Target (Nos)	Physical Achievements (Nos)	Remarks
2005-06	100.00	88.83	2700	2449	-
2006-07	100.00	65.13	2700	2062	-
2007-08	100.00	39.83	Phase 1=1350 Phase 2 =135	Phase-1=118	Implementation for the years 2007-08 and 2008-09 is under progress together on modified provision.
2008-09	100.00		Phase 1=1350 Phase 2 =135	-	
2009-10	100.00	10.60	Phase 1=1350 Phase 2 =135	-	Under process

Source: Directorate of Industries and Commerce, Assam

To make the programme more effective, the implementation procedure has been modified in the year 2008-09. As per the revised provision it will facilitate industrial and technical exposure as well as training program for specific target entrepreneurship segment which have maximum potential for development of entrepreneurship. Participants will be provided margin money against Bank loan sanction letter upto 90% of the promoters' contribution or ₹1.00 lakh per participant, whichever is less. Achievements of implementation of the Scheme are placed in the Table 11.11 above.

Mukhyamantrir Karmajyoti Aachani

This is a Government of Assam sponsored scheme implemented from the year 2005-06. The basic objective of the scheme is for skill development and upliftment of traditional artisans through financial assistance from the Government. The scheme covers all the traditional trade viz., manufacturing of decorative textile, black smithy, pottery, carpentry, toy making etc.

The table below shows the implementation status of the Mukhyamantrir Karmajyoti Aachani during the year 2005-06 to 2009-10.

TABLE-11.12

ACHIEVEMENTS OF THE MUKHYAMANTRIR KARMAJYOTI AACHANI DURING THE YEAR 2005-06 to 2009-10

YEAR	TARGET		ACHIEVEMENTS	
	Physical (In Nos.)	Financial (Rs. in lakh)	No. of Artisans Benefited	Financial Achievement (Rs. in lakh)
2005-06	1,02,500	900.00	1,19,145	895.74
*2006-07& 2007-08	54,000	195.00	54,000	192.52
2008-09	40,000	145.00	40,000	144.61
**2009-10	22,805	275.00	-	-

Note: *Implementation for both the years done together. **Under process (including SCCP)

Source: Directorate of Industries and Commerce, Assam.

Sericulture

Traditionally, sericulture is a major cottage industry in the State. Non mulberry silk in general and Muga silk in particular has been closely associated with the rituals and traditions of Assam and, thus, silk production and its usage has been an important household activity in the State over the years. Rearing of Eri, Muga and Mulberry silk worm are playing an important role in the economic development of a large section of rural population of the State. It is practiced in more than 10532 villages and provides employment to 2.6 lakh family. Assam accounts for the highest production of non mulberry silk, muga and eri in the country - for which it is well known and famed. Further, Assam has the monopoly in the world in the production of Muga, the "Golden Silk" as about 99 per cent of Muga Silk is produced in Assam. Assam has also achieved the right of 'Geographical Indication' for Muga thread.

It is reported that the State has produced 88.73 MT Muga Raw Silk, 819.09 MT Eri Raw Silk and 8.35 MT Mulberry Silk during the year 2009-10 as against 101 MT Muga Raw Silk, 810.00 MT Eri Raw Silk and 10.00 MT Mulberry Silk in 2008-09. During the year 2006-07, the production of Muga Raw Silk, Eri Raw Silk and Mulberry Raw Silk was 99 MT, 665 MT and 9 MT respectively. The Tasar Silk worm rearing has been developed in the State and it is practiced mainly in the two hill districts.

The total area under Silk worm Food Plants has been recorded significant increase to 21229 hectare [+14 percent] during 2009-10 from 18556 hectare in 2008-09. During the year 2006-07 the area under silk worm food plant was 18392.045 hectare. The total production of Silk Yarn, however, recorded marginal fall from 921 MT in 2008-09 to 916.17 MT in 2009-10. The decrease of production of silk yarn during the year 2009-10 was effected due to fall in production of Muga raw silk and Mulberry raw silk by 12.15 percent and 16.5 respectively over 2008-09. The Table 11.13 shows some statistics of Sericulture activities and its production in Assam during the last five years.

TABLE-11.13
SERICULTURE ACTIVITIES IN ASSAM

Item		2005-06	2006-07	2007-08	2008-09	2009-10
1.	Sericulture Villages (Nos.)	9683	9373	9373	9537	10532
2.	No. of Families Engaged	196152	191434	239281	238578	260707
3.	Area under Silk Worm food Plants (In Hect.)	18556	18392	18548	18556	21229
3.1	Eri	7293	7382	7531	7538	7623
3.2	Muga	7255	7299	7305	7305	8902
3.3	Mulberry	4007	3711	3712	3713	4704
4.	Yield of Cocoons					
4.1	Eri cut Cocoons (in MT)	700	887	1046	1080	1089
4.2	Muga Cocoons (in lakh Nos.)	4905	4933	4302	5040	4436
4.3	Mulberry Reeling Cocoons (in MT)	119	92	110	100	84
5.	Production of Silk Yarn (in MT)	634	773	884.81	921	916.17
5.1	Eri Raw Silk	525	665	784.26	810	819.09
5.2	Muga Raw Silk	98	99	91.07	101	88.73
5.3	Mulberry Raw Silk	12	9	9.48	10	8.35

Source: Directorate of Sericulture, Assam

The State Sericulture Department although did not implemented any specific Scheme for the empowerment of women, the Sericulture activities have a significant gender domination as more than 65 percent of the people obtaining livelihood from this activities are women. Under Centrally sponsored schemes (Catalytic Development Programme) the department has given priorities to women beneficiaries for taking up different projects. In such cases, 30 percent of all beneficiaries' oriented schemes are reserved for women beneficiaries. In addition, programmes have been implemented by the department for technology upgradation especially for women SHGs/NGOs/ entrepreneurs engaged in production of yarn and fabric by providing financial assistance.

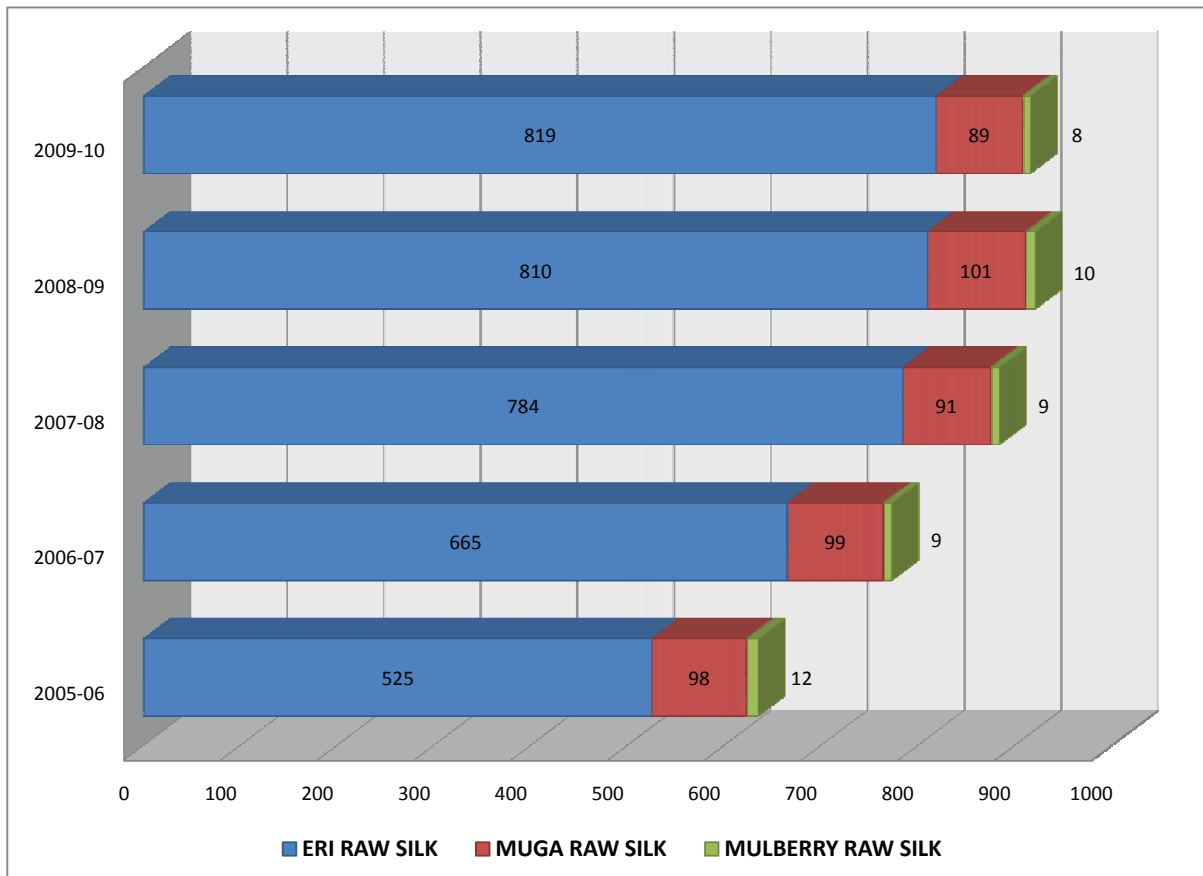
Handloom

Handloom Weaving is a way of life and intensely linked with Assamese Culture and Heritage. Handloom Industry of Assam is known for its rich tradition of making handloom and handicraft products. It also plays a very important role in the socio-economic development of the State. Assam is a proud owner of more than 13.00 lakh looms out of the total 28.00 lakh looms in the country. In spite of being intensely connected with the culture of the State, the Handloom Industry has not flourished in commercial sphere to the required extent. At present about 2.80 lakh looms are being utilised for commercial weaving in the true sense. About 5.70 lakh looms run semi-commercially and earning subsidiary income. Rest are domestic looms and are run to meet the domestic requirements.

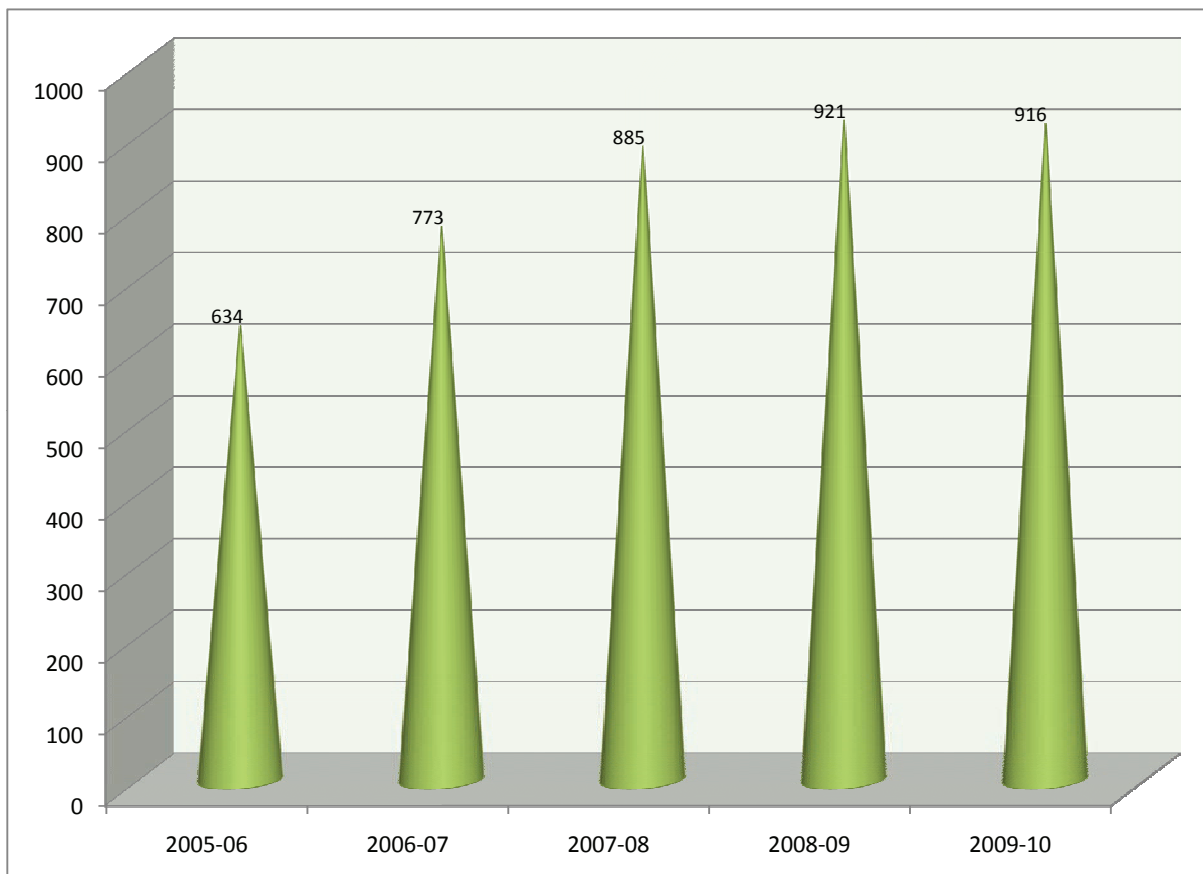
The cooperative coverage is about 33 percent of the State's weaver population which is far below the National coverage. In the Eleventh Five Year Plan period the cooperative coverage has been targeted to increase to 45 percent.

The Department of Handloom & Textiles, at present, directly runs 102 Handloom Training Centres, 4 Handloom Training Institute and 1 power loom Centre under Training Programme, 98 Weavers' Extension Service Units and 20 Handloom Production Centres, one Handloom Research and Designing Centre and one Production Procurement Centre under production programme. The Assam Govt. Marketing Corporation is the State Level organisation to look after the weavers of the State. The three pronged Cooperative (organised)

PRODUCTION OF RAW SILK IN ASSAM (MT)



PRODUCTION OF SILK YARN IN ASSAM (MT)



Sector consists of more than 3634 Primary level, 22 District Level and 2 Apex Cooperative Societies covered about 33 percent weaver population of the State.

At present, 13909 villages of the State with 1403484 weavers are covered by the Directorate of Handloom and Textiles for its Handloom activities. The production of Handloom fabrics was 174.00 million meters during the year 2009-10 as against 170.00 million meters during the year 2008-09. During the year 2007-08 the production of handloom fabrics was as 132.6 million metre.

To strengthen the handloom sector various development schemes have been undertaken by the State Government among which providing weavers with quality fabrics, modernisation of looms, creation of commercial motivation amongst the weavers, extension of training facilities, development of textiles designs etc. During the year 2009-10, the Handloom & Textiles Department trained 1650 artisans in its Handloom Training Centres. Apart from this, the Handloom & Textile Department have been implementing Chief Minister's Assam Bikash Yojana since 2007-08 and completed implementation for the years 2007-08 and 2008-09 with distribution of 32s Cotton Hank Yarn to the poor Handloom weavers and Poly Blankets to elderly women and poor people living below the poverty line. For the empowerment and for creation of self employment potentialities among the women weavers, the Department has taken initiative to give benefit to 1.20 lakh women weavers of the State under the programme Incentive to Handloom weavers. For publicity of the development programme as well as to create awareness about the handloom products of the State, the Department has organised 49 District level Fairs, 22 Special Handloom Expos and 5 National Handloom Expo in the State during the year 2009-10.

Apart from the above, a new programme, with an objective to provide assistance to the artisans of handicraft, has been under taken in Nalbari District under Baba Saheb Ambedkar Hasta Silpa Bikash Yojana with financial assistance from Govt. of India. This programme will cover around 1000 artisans directly and indirectly.

Khadi and Village Industries

With a view to generate rural employment and uplift the rural economy, various khadi and village Industries are being promoted in the state by the Khadi and Village Industries Commission and Assam Khadi and Village Industries Board since their establishment. The performance of khadi and village Industries in the state may be evident from the following table.

TABLE – 11.14
ACHIEVEMENTS OF KHADI AND VILLAGE INDUSTRIES UNDER
KHADI AND VILLAGE INDUSTRIES COMMISSION IN ASSAM 2007-08 AND 2008-09

Sl. No	Particulars	Production (Rs. in lakh)		Sales (Rs. in Lakh)		Employment (Nos)	
		2007-08	2008-09	2007-08	2008-09	2007-08	2008-09
(A) Khadi and Poly-vastra							
1.	Cotton	63.52	43.70	81.12	86.84	2490	2490
2.	Silk	554.48	805.59	370.94	649.34	11500	13000
3.	Woollen	-	-	3.62	3.91	-	-
4.	Poly-vastra	12.36	24.41	12.76	18.23	95	105
	Total	630.36	873.70	468.44	758.32	14085	15595
(B) Village Industries		40008.88	41544.57	65878.13	69452.24	284000	298000
Grand Total		40639.24	42418.27	66346.57	70210.56	298085	313595

Source: Khadi and Village Industries Commission, Assam

Trade and Investment

North-East Industrial Investment Promotion Policy (NEIIPP)

The announcement of the North East Industrial Investment Promotion Policy (NEIIPP), 2007 by the Government of India was another important step towards industrialisation of the State where special emphasis has been given on the word “**INVESTMENT**”. Through this Policy, the Government of India had approved a package of fiscal incentives and other concession for the entire North Eastern Region (NER) and Assam will be the leading State to reap benefit from it. Some of the important features incorporated in the Policy are-

- All new units as well as existing units (which go for substantial expansion) and commence commercial production within the 10 years period (w.e.f. 1-4-2007 to 31-3-2017) set up anywhere in the NER will be eligible for incentives for a period of 10 years.
- 100% Excise Duty Exemption will be continued on Finished Products made in the NER.
- 100% Income Tax exemption will continue as was available under NEIP – 1997.
- Capital Investment Subsidy @ 30% will be available on investment of Plant and Machinery and limit for automatic approval at rate will be ₹1.5 crore etc.
- Interest Subsidy will be available @ 3% on working capital loan.

Further, special provisions like providing comprehensive insurance subsidy, incentives for setting up of Bio-Technology Industry, Power Generating Plants (both from conventional and non-conventional sources) up to 10MW, Transport Subsidy Scheme etc are incorporated into the Policy to attract more and more investors to the region.

To achieve the objective, beside effective implementation of the policy, priority should be given on building up of a unified and integrated common market for the region as NE States are economically interdependent.

Assam intends to attract maximum Foreign Direct Investment (FDI) and will put in sustained efforts for the purpose. The State Government has constituted a separate cell – The Industrial Investment Secretariat Cell (IISC) to facilitate investment and a High Level Committee to accord fast track clearance for investment proposals. The Cell will function as a single point of contact for all inquiries for investors including supplying of information pertaining to permissions/procedures/ guidelines.

Industrial Policy of Assam-2008

To generate economic development by accelerating the process of industrialisation and to generate employment and increase income, the Government of Assam has declared Industrial Policy 2008 with high expectations to attract more investment from other parts of the Country as well as to provide more support to the local entrepreneurs. The policy also aimed at revival of sick industries as well as gives more focus to Micro and Small Sector. The highlights of the policy are -

- Interest Subsidy on term loan provided to Micro industrial units @ 30% of the amount of interest paid to Bank/Financial institutions for a period of 5 years from the date of commercial production subject to a ceiling of ₹1.00 lakh per unit/year.
- Power Subsidy-30% subsidy on power traffic on actual unit consumed for 5 years upto connected load of 1.00MW subject to ceiling of ₹10.00 lakh per annum and 25% for connected load above 1.00MW subject of ₹25.00 lakh from the date of commercial production.

- Special incentive for mega projects with large investment with a minimum of ₹100 crore or generating a minimum of 1000 regular employment and having potential for development of ancillary industries and will receive all incentives including priority on land allotment, Tax concessions etc on case to case basis.
- Special incentive like exemption of VAT and Central Sales Tax for a period of 3 years for revival of sick industries.
- To encourage Micro and Small Scale Sector and to facilitate market linkage, Government will actively encourage trade with neighbouring countries and Countries in South-East Asia.
- 25 percent subsidy on Drawl of Power Line to the premises of the unit including the cost of transformer to Micro and Small industrial units.
- Special Incentives for Food processing /Electric/Agro based/Biotech Industries.
- Special Incentives to Women/Physically Challenged Entrepreneurs.
- VAT Exemption to all eligible units which manufacture goods in Assam under the Assam Value Added Tax Act, 2003 and the Central Sales Tax Act, 1956.
- Exemption of Stamp Duty and Registration Fee for setting up of Industrial Park/Estate.

Border Trade

Assam is sharing international border with Bangladesh, Bhutan and Myanmar and thus has ample scope to enhance trade with these countries. To facilitate bilateral border trade with Bangladesh there are 8 Land Custom Stations (LCS) of India/Assam viz. Dhubri Steamerghat, Mancachar, Golokganj, Silchar RMS, Karimganj Ferryghat, Sutarkandi, Mahisasan Railway Station and Guwahati Steamerghat.

For bilateral trade with Bhutan there are 3 (three) Land Custom Stations- Darranga, Hatisar and Ultapani.

Border Trade Centre-Infrastructure Development: To facilitate the export-import business with various neighbouring Countries bordering North-East India, Government of India has taken initiative to create infrastructure facilities for the exporters of the region. The Government of India has approved setting up of two border trade centres- one at Sutarkandi in Karimganj district and the other at Mankachar in Dhuburi district with an objective to facilitate the border trade with Bangladesh as well as to provide high standard infrastructure, information and service facilities to the exporters and importers of the region.

Sutarkandi Border Trade Centre: The Border Trade Centre project at Sutarkandi in the Karimganj district was approved by Government of India in the year 2000 under Critical Infrastructure Balance (CIB) scheme at a project cost of ₹816.00 lakh, sharing between central and state as ₹653.00 lakh and ₹163.00 lakh respectively. Till 2009-10 Government of India has released ₹653.00 lakh and the State Government has released ₹163.00 lakh against their respective share. The first phase of the project has already been completed and the second phase of this project is on progress with a project cost of ₹588.00 lakh.

Mankachar Border Trade Centre: The Government of India has approved for setting up of border trade centre at Mankachar town in Dhuburi district. It is located at only 100 meters away from the border gate with Bangladesh. The centre also has a linkage with Tura of Maghalaya. The approved project cost of this project is ₹426 lakh and the project will be shared by the Centre and State jointly. Upto the end of 2009-10, Government of India has released ₹340.83 lakh and State Government has released ₹85.00 lakh for the project out of their respective share. The progress of work of the project is about 60%.

Border Trade with Bangladesh and Bhutan

During the year 2006-07, the total volume of export and import through the border trading points of Indo-Bangladesh and Indo-Bhutan border fall within Assam State was around ₹115.00 crore. The volume of export and import was declining to some extent during the years 2007-08 and 2008-09 compared to 2006-07 with ₹71.5 crore and ₹106.24 crore respectively. During 2009-10, the value of export and import was more than ₹130.00 crore. The main items of exports to Bangladesh includes Coal, Ginger, Commercial Plywood, Dry Fish, Onion, Fresh Fruits (Citrus), Fresh Orange, Quick lime etc. while the import items were Readymade Garments, Cotton Waste, Religious Books, Cement, Synthetic Fruit Drinks, Vanaspati, Hilsha Fish, Soya bean Oil, Knitted or Crocheted Fabrics of synthetic fibre, Woven Fabrics, Soap, Miscellaneous food items, etc., On the other hand, main exported items to Bhutan includes Rectified spirit, S.K.oil, High Speed Diesel oil, Motor Spirit, Bricks, Empty Bottles, LPG, Fresh Orange etc. while the import items were Boulder stone, Plywood, Bhutan Liquor etc.

Table 11.15 shows the value of commodities exported and imported through various border trading point of Assam during the period 2006-07 to 2009-10.

TABLE-11.15
VALUE OF COMMODITIES EXPORTED AND IMPORTED THROUGH
VARIOUS BORDER TRADING POINT OF ASSAM

Indo-Bangladesh Border:

(Rupees in lakh)

Border Trading Points	2006-07		2007-08		2008-09		2009-10	
	Export	Import	Export	Import	Export	Import	Export	Import
Mankachar	26.36	7.03	12.73	11.86	37.81	20.35	11.42	182.02
Karimganj Steamer Ghat	344.41	14.83	477.81	56.78	383.88	56.01	531.45	114.16
Sutarkandi	5103.55	3041.78	2465.80	1422.34	2939.91	2865.13	2856.96	4110.60
Total	5474.32	3063.64	2956.34	1490.98	3361.60	2941.49	3399.83	4406.78

Indo-Bhutan Border:

Border Trading Points	2006-07		2007-08		2008-09		2009-10	
	Export	Import	Export	Import	Export	Import	Export	Import
Hatisar	2884.54	53.99	2590.27	112.85	4190.57	130.76	5095.43	171.44

Source: Commissioner of Customs, North Eastern Region, Shillong, Meghalaya

Tourism

Tourism is a fastest growing industry in the world. Tourism in Assam is based on wildlife, natural beauty, unique flora & fauna, holy shrines, lush green tea gardens, turbulent rivers, vibrant and colourful cultural festivals. Assam has immense tourism potentials, which are to be explored as commercial resources. Eco-tourism is one of the fastest growing tourism segments and therefore the State Government of Assam has given tremendous thrust with relevant to natural beauty and bounty.

The State Tourism Department has witnessed a considerable success and all round development both in respect of infrastructure development and creation of other facilities over the years with the financial assistance from Government of India as well as the State Government. For the growth of tourism sector, special emphasis has been given on public and private partnership to tap the unexplored potential opportunities.

Eco-tourism is aimed at the appreciation of both natural world and traditional cultures existent in natural areas and to protect natural and cultural assets. Assam has several ethnic groups residing in harmony in spite of the differences in rites and rituals, festivals and attires. One may discover the fascinating legacy of art and crafts in Assam, also the proud producer of three unique varieties of Silk, the Golden Muga, the White Pat and Warm Eri. In Assam, one can hear the rhythms of the shuttles of looms in the craft village, which get momentum with the advent of spring.

The Table 11.16 shows the volume of tourist traffic and magnitude of revenue earning by the State over the last eight years.

TABLE –11.16
NUMBER OF INDIAN AND FOREIGN TOURIST TO ASSAM
AND REVENUE EARNED FROM THE TOURISTS

Year	Tourist staying in Tourist Lodges of the Directorate		Tourist Staying in other accommodation like Hotel etc.		Total Revenue earned from Tourist Lodges only (Rupees in lakh)
	Indian	Foreign	Indian	Foreign	
2002-03	18427	520	1222135	5466	41.03
2003-04	19894	508	2010213	6337	60.44
2004-05	20820	804	2165430	8561	69.01
2005-06	24280	755	2562148	7554	87.11
2006-07	20279	649	3459591	13008	81.30
2007-08	24057	960	3465757	12839	94.99
2008-09	26439	674	3672267	13859	103.92
2009-10	25665	664	3869860	14030	131.63

Source: Directorate of Tourism, Assam

Employment Generation Scheme for Educated Unemployed youths

The “Assam Bikash Yojana” is an ambitious employment generation schemes undertaken by the Government of Assam. Under the Scheme the tourism department has taken up programmes like providing financial assistance to local educated unemployed youths so that the youths could engage themselves in tourism promotional activities like transport, wayside amenities, food kiosk, restaurants, dhabas, and cottages for accommodation etc. For capacity building, youths studying in the institute of hotel management are provided with stipend and also incentive to the institutions. As many as 357 unemployed youths have been provided with subsidy for purchase of tourist vehicles under the Scheme of “Assam Bikash Yojana”. It is contemplated that 1000 youths would be benefited within the span of 2008-2011. The department also introduced training facilities for the drivers conducting jeep safaris within the National Parks.

Efforts to unveil Assam to foreign tourist

The Assam Tourism Department has participated in different tourism fairs to showcase the tourism product

in the national and international market so as to attract domestic and foreign tourists to the region like IITM-Mumbai, Festival of India (Craft Mela)- Mumbai, West Bengal Tourism & Food Festival- Kolkata, TTF- Kolkata, CHALO JAAI TTE- Kolkata, ITAO-Bhubaneswar, India International Fair-New Delhi, 96th National Science Congress-Shillong, Ambubasi Mela at Kamakhya. As a part of publicity campaign and to draw tourists, the Department organized Rongali Utsav, Elephant festival at Kaziranga. The electronic and print media were also extensively utilized for publicity campaign. The Assam Tourism Department has also participated in tourism fairs in London, Berlin, Singapore, Dubai, and Dhaka etc., to attract foreign tourists to Assam.

A documentary has been made through internationally reputed film maker Mr. Richard Bangs, USA with an aim to launch a campaign in the foreign market to sell Assam Tourism Products as well as increase the flow of foreign tourists to the State.

Tourism Policy, Assam 2008

Assam Tourism Policy was launched in 2008. The policy envisages measures to encourage private investment in Tourism sector providing financial and logistic support. Meanwhile, the State Govt. has made all basic arrangements for construction of a 5 Star Hotel in collaboration with Tatas.

Promotion of Cultural Tourism

The State Government has taken following steps for promotion of Cultural Tourism in the State:

- A Heritage and Eco-tourism resort has been constructed in Majuli at a cost of ₹4.32 crore to promote tourism in the river island.
- Development of a Buddhist tourist circuit comprising of eleven Buddhist temples has been undertaken at an estimated cost of ₹6.52 crore.
- A tourist lodge has been constructed in the precincts of Kamakhya Mandir and the complex has been illuminated at a cost of ₹3.90 crore.
- Light and Sound project for Talatal Ghar at Sivasagar has been taken up.
- Beautification and refurbishment schemes have been done in Poa Mecca and other temples of Hajo besides providing tourist amenities there.
- A project has been taken up at Kharghulli hills, Guwahati at a cost of ₹1.12 crore at the Tai Ahom Samaj tourist complex.

Development of new tourist sites/attractions

Following new tourist sites have been developed and facilities for tourists have been created by the State Govt. for attraction of both domestic and foreign tourists:

- During the last few years tourist centres have been developed/created at Koyakujia at North Salmara, Kaliabhomora and Kolong River in Nagaon and Khatara Satra in Darrang District.
- New tourist lodges and amenity centres have been constructed at Dhubri, Bongaigaon, North Salmara, Nalbari, Rangia, Hailakandi, Karimganj and Silchar etc.
- A four storied luxury cruise vessel with ultra modern five star category facilities will be launched in the Brahmaputra. The vessel is under construction at Kolkata dock.

Mining

Assam is richly endowed with mineral resources. However, optimum exploitation could not be possible primarily due to existence of deposits in disadvantageous locations. At present, the exploitation of minerals in the State comprises of mainly Petroleum (Crude), Natural Gas (Utilised), Coal and Limestone. During the year 2009-10, the volume production of Coal in the State was 1203 thousand MT, Crude oil 4738 thousand MT, Natural Gas (Utilised) 2476 MCM and Lime stone 402 thousand MT as against the volume production of 1147 thousand MT Coal, 4673 thousand MT Crude oil, 2603 MCM Natural Gas (Utilised) and 363 thousand MT Lime stone in 2008-09. During the year 2007-08 the volume of production of Coal was 1101 thousand MT, Crude Oil 4361 thousand MT, Natural Gas (Utilised) 2397 MCM and Limestone 381 thousand MT. It reveals from the data that while the production of three major minerals, i. e. Coal, Crude oil and Limestone recorded increase by 4.9 per cent, 1.4 percent and 10.7 per cent respectively during the year 2009-10 over 2008-09, the production of Natural Gas (utilised) decreased by 5.1 percent during the said period. The Table -11.17 exhibited some statistics of minerals exploited in the State during the last seven years.

TABLE - 11.17
MINERAL PRODUCTION IN ASSAM

Year	Coal ('000MT)	Crude Oil ('000MT)	Natural Gas Utilised (MCM)	Limestone ('000MT)
2003-04	738	4571	1999	460
2004-05	581	4702	2037	419
2005-06	956	4429	2195	410
2006-07	1058	4426	2238	296
2007-08	1101	4361	2397	381
2008-09	1147	4673	2603	363
2009-10	1203	4738	2476	402

Source: Indian Bureau of Mines

The index of mineral production in Assam (Base 1999-2000) was 100.99 in 2009-10 as against 100.39 in the previous year. The Table 11.18 shows the index of mineral production in Assam during the period 2002-03 to 2009-10.

TABLE-11.18
INDEX OF MINERAL PRODUCTION IN ASSAM

MINERALS	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10*
	Base:1993-94					Base:1999-2000		
1	2	3	4	5	6	7	8	9
Coal	52.37	61.45	48.39	82.10	88.09	184.27	200.52	210.31
Petroleum (Crude)	94.92	91.42	94.00	88.58	88.52	78.56	92.94	94.23
Natural Gas (Utilised)	153.58	160.82	163.91	176.59	180.05	139.77	137.65	130.88
Limestone	187.11	155.93	141.79	138.98	100.34	91.29	90.30	100.00
All Minerals	97.47	95.31	97.19	94.91	95.33	87.90	100.39	100.99

*Provisional

Source: Directorate of Economics and Statistics, Assam

Some recent development in the Mining Sector

The Mines and Mineral Department of Assam has made some important achievements for exploration of minerals both within and outside the State as well as setting up of certain mineral based industries for development of the mine and mineral sector of the State.

- Assam Hydrocarbon & Energy Company Ltd., a Govt. of Assam undertaking, was incorporated on 5th September, 2006 with the objective of searching for crude oil & natural gas; carry on exploration & development activities, business of producing hydro-carbons etc., primarily in the State.
- The Mine and Minerals Department has made significant achievement in bringing private investors for setting up large cement plants in the State based on limestone deposits of Dima Hasao District through Public Private Partnership policy.
- Two nationally reputed cement manufacturing companies viz; Jai Prakash Associates Ltd and Birla Corporation Ltd was selected for setting up cement plants having capacity of 2 million tonnes and 1 million tonne respectively in partnership with Assam Mineral Development Corporation Ltd (AMDC). AMDC has already entered into MOU with J.P. Associates Ltd. The matter of signing of MOU with Birla Corporation Ltd is under process.
- The AMDC got allotment of a coal block, named “Mandakini-B” in Orissa, during the year 2007-08 jointly with three other State Govt. agencies, namely – Tamilnadu Electricity Board, Orissa Mining Corporation Ltd and Meghalaya Mineral Development Corporation Ltd. for extraction of coal for thermal power generation. A joint venture company in the name and style of “Mandakini-B Coal Corporation Ltd.” was formed at Bhubaneswar, Orissa by the four agencies. The work on the project is in progress.

CHAPTER - XII

POWER

In pursuance of the Indian Electricity Act 2003 and as a part of the Assam Power Sector Development Programme, the Government of Assam has set in motion the process of unbundling the Assam State Electric Board (ASEB) into five Government Companies in 2004. The five companies are – the Assam Power Generation Corporation Limited (APGCL), the Assam Electricity Grid Corporation Limited (AEGCL), Upper Assam Electricity Distribution Company Limited (UAEDCL) for the areas of supply in the Upper Assam Region, the Central Assam Electricity Distribution Company Limited (CAEDCL) for the central areas and the Lower Assam Electricity Distribution Company Limited (LAEDCL) for the areas of supply under the lower Assam Areas. These initiatives are in the interest of all the stakeholders in the electricity sector in the State, i.e. consumers, shareholders, suppliers, creditors, infrastructure builders and the Government of Assam. In the recent past the UAEDCL, CAEDCL, LAEDCL have been merged and renamed as Assam Power Distribution Company Ltd (APDCL). Thus, ASEB has three successor companies at present namely-(1) Assam Power Generation Corporation Limited (APGCL), (2) Assam Electricity Grid Corporation Limited (AEGCL) and (3) Assam Power Distribution Company Ltd (APDCL). However, the schemes like - Externally Aided Project, Rural Electrification, Accelerated Power Development and Reform Programme (APDRP) which are yet being executed under Assam State Electricity Board.

Installed capacity and Generation of Power

The installed capacity of generating plants at present in the State is 401.50 MW which include Hydel and Gas Plants of the State. The installed capacity for generating power has come down due to de-commissioning of Bongaigaon Thermal Power Station (BTSP) and Mobile Gas Turbine sets and de-rating of age-old units of Namrup (NTPS.)

Although the Chandrapur TPS was shut down due to exorbitant cost of fuel since June 1999[however the revival process of the Chandrapur TPS through PPP is on by using alternative fuel], the functioning of Hydel Power Project since 2006-07 has brought some changes to the power generation scenario in the State. In 2009-10, the power generation in the state increased to 1712.21 MU from 1682.82 MU in 2008-09 which was only 867.539 MU in 2006-07. The installed capacity of various generating plants and the generation of power in the State during the last three years have shown in the table – 12.1.

TABLE – 12.1
INSTALLED CAPACITY AND POWR GENERATION BY ASEB

Particulars	2007-08	2008-09	2009-10
A. Installed Capacity of Generating Plants (MW)			
1. Thermal (Coal/Oil)	60.00	60.00	60.00
2. Hydel	102.00	102.00	102.0
3. Gas	239.50	239.50	239.50
Total	401.50	401.50	401.50
B. Gross Unit Generated (MU)			
1. Thermal (Coal/Oil)	0.00	0.00	0.00
2. Hydel	510.18	434.40	401.91
3. Gas	1031.14	1248.20	1310.30
Total	1541.317	1682.820	1712.21

Particulars	2007-08	2008-09	2009-10
C. Auxiliary Consumption (MU)			
1. Thermal (Coal/Oil)	0.00	0.00	0.00
2. Hydel	0.98	0.79	2.01
3. Gas	42.20	52.16	86.01
Total	43.18	52.95	88.02
D. Net Unit Generated (MU)			
1. Thermal (Coal/Oil)	0.00	0.00	0.00
2. Hydel	509.20	433.61	399.90
3. Gas	988.94	1196.26	1224.29
Total	1498.13	1629.87	1624.19

Source: Assam Power Distribution Company Limited

Power supply position

The energy requirement in the State has been worked out at 5049 Million Units during the year 2009-10 as against 5039 Million Units in the previous year. But the availability of energy during the periods was 4590 Million Units and 4270 Million units respectively. To meet the demand of the requirement of power, the ASEB is purchasing power from other public and private sources. The following table shows the deficit in power supply in term of peak availability and of total energy availability in the State.

TABLE – 12.2
REQUIREMENT AND SHORTAGE OF ELECTRICITY IN ASSAM

ITEM	2007-08	2008-09	2009-10
A. Energy Requirement (MU)	4621	5039	5049
Availability (MU)	4018	4270	4590
Shortage (Percentage)	15.00	18.00	10.00
B. Peak Demand (MW)	891	972	974
Peak Demand Met (MW)	775	824	885
Shortage (Percentage)	13.04	15.25	9.09

Source: Assam Power Distribution Company Limited

The overall power supply position has not been satisfactory during the past several years. But since 2007-08, the power supply position has been improving slightly as compared to past years. The per capita availability for the last few years is shown in the following table.

TABLE – 12.3
PER CAPITA AVAILABILITY STATUS

(Million Unit Kwh)

Year	Gross electrical energy availability (MU)	Projected Population (in'000)	*Per capita availability status (Kwh)
2005-06	3267.87	28506	115.00
2006-07	3344.30	28896	116.00
2007-08	4013.62	29282	137.00
2008-09	4270.00	29660	144.00
2009-10	4590.00	30037	153.00

*Per capita availability estimated on projected population

Source: Commercial Wing of ASEB

Power Consumption

As a result of improvement in the power generation, the Assam Power Generation Corporation Limited (APGCL) could able to sale more power to the consumers during the recent years. During the year 2008-09, the sale of power has increased to 3012551 MWH as against 2711547 MWH sold during 2007-08 which is further increased to 3258786 MWH in 2009-10 thereby registered more than 8.17 per cent increase in the sale of electricity over the year. The statistics of the pattern of consumption during the last three years reveal that the Domestic Sector has been consuming highest amount of power since long back, followed by the Industrial Sector and Commercial Sector in the State. The type of consumption of power in the State during the last three years can be seen in the following table.

TABLE – 12.4
SALES OF ELECTRICITY BY TYPE OF CONSUMPTION (in MWH)

Sl. No.	Type of consumption	Consumption			% of consumption to total		
		2007-08	2008-09	2009-10	2007-08	2008-09	2009-10
1.	Jeeban Dhara (Upto 0.5 KW)	29612	32860	32860	1.09	1.09	1.01
2.	Domestic	964840	1071106	1191746	35.58	35.55	36.57
	a. Dom A LT (0.5 to 5 KW)	863850	960570	1070951	31.81	31.88	32.86
	b. Dom B LT (5 KW to 20 KW)	73570	79810	85331	2.71	2.65	2.62
	c. Dom HT (20KW to Above)	27420	30726	35464	1.01	1.02	1.09
3.	Commercial	345450	411190	449517	12.74	13.65	13.79
	A.Com. LT (Upto 20 KW)	226230	262810	272597	8.34	8.72	8.36
	b. Com. HT (20 KW & Above)	119220	148380	176920	4.40	4.92	5.46
4.	General Purpose	53457	57170	59480	1.97	1.90	1.82
5.	Public Lighting	6404	5210	5588	0.24	0.17	0.17
6.	Public Works	45250	47209	50531	1.67	1.57	1.55
7.	Irrigation	20680	20730	25100	0.76	0.69	0.77
8.	Industries	507960	595230	640903	18.73	19.76	19.67
	a. Small Ind LT (Rural upto 20 KW)	34920	40600	42466	1.29	1.35	1.30
	b. Small Ind LT (Urban)	24080	24470	24878	0.88	0.81	0.74
	c. Small Ind HT (upto 50 KW)	17650	21370	22890	0.65	0.71	0.70
	d. Ind -I HT (50 to 150 KW)	44010	46760	49587	1.62	1.55	1.52
	e. Ind -II HT (Above 150 KW)	387300	462030	501082	14.28	15.33	15.38
9.	Bulk (Govt.. Education)	37720	41859	47858	1.37	1.39	1.47
10.	Agriculture	2174	3727	6998	0.08	0.12	0.21
11.	Tea, Coffee and Rubber	333910	357810	360537	12.31	11.88	11.06
12.	Oil and Coal	80410	68640	69069	2.97	2.28	2.12
13.	Others	268680	272810	288597	9.91	9.05	8.86
14.	Temporary for all use & Misc. consumptions	15000	27000	30000	0.55	0.90	0.92
	Total	2711547	3012551	3258786	100	100	100

Source: Commercial Wing of ASEB

During the year 2009-10 the ASEB earned revenue to the tune of ₹1566.00 crore by selling power to the various consumers. It reveals from the table below that the total revenue earned by the ASEB was 9.64 percent less than the previous year.

TABLE 12.5
INTERNAL AND TOTAL REVENUE

(Rupees in crore)

Year	Internal Revenue	Total Revenue
2005-06	923.00	993.00
2006-07	1047.00	1130.00
2007-08	1176.00	1517.00
2008-09	1330.00	1733.00
2009-10	1483.00	1566.00

Source: Assam 2011- A Development perspective

Transmission and Distribution Losses

Power, which is supplied to various categories of consumers passes through various stages -from transformation to higher voltage level to final distribution in the premises of the consumers, involves energy losses is known as Transmission and Distribution losses. The Transmission and Distribution loss in the State was calculated as 31 percent during the year 2010-11(upto January 2011), which includes commercial losses as well. However, power loss through transmission is an area of concern for the power deficit State like Assam.

The trend of transmission and distribution losses in Assam during the period 2008-09 to 2010-11 (upto January 2011) is presented in the Table 12.6 below-

TABLE-12.6

TRANSMISSION & DISTRIBUTION LOSSES AND TRANSMISSION & COMMERCIAL (AT&C) LOSSES

Sl.No.	Item	2008-09	2009-10	2010-11*
1	Energy Input(MUs)	3877.72	4391.90	3902.99
2	Energy Billed(MUs)	2797.60	3247.00	2803.17
3	T&D Losses(MUs)	1080.12	1144.90	1099.82
4	% of T&D Losses(MUs)	28	20	28
5	Amount Billed(Rs. in lac)	133100.84	146319.43	139951.30
6	Amount realized(Rs. in lac)	128990.55	142174.08	133985.49
7	Collection Efficiency(%age)	97	97	96
8	Overall Efficiency(%age)	70	72	69
9	AT&C Losses(%age)	30	28	31

*Up to January, 2011. AT&C losses: Aggregate Transmission and Commercial Losses. Source: Additional Chief Engineer, Commercial, ASEB.

Rural Electrification

Like most of the states of the country, Assam is also lagging behind in respect of rural household's electrification. In Assam, out of the total 25,124 numbers of inhabited villages (as per 2001 Population Census) 16814 villages [67.0 percent] have been electrified till the end of March, 2010.

On Going Schemes

For improvement of the power supply position, several projects have been undertaken in the State of Assam.

Thermal

A. Lakwa waste Heat Project (1 X 37.2 MW):

Construction work of one 37.2 MW Waste Heat Recovery unit has been going on since April' 2006 at Lakwa Thermal Power Station.

EPC contract for the main plant was awarded to M/s BHEL.

Total Project Cost: ₹236.4 crore.

Funding: 30% equity from Govt. of Assam and 0% loan from Power Finance Corporation Ltd.

Additional Central Assistance (ACA) accorded by the Govt. of ₹50,00.00 Lakh in 2005-06 and ₹18,33.00 Lakh in 2006-07. The balance fund ₹16548.00 crore procured from Power Finance Corporation Ltd (PFCL) as Loan.

So far 95% of equipment supply and 60% of overall project work is completed.

B. Namrup Replacement Power Project (Ph.-I & II, 2X100 MW):

M/s NTPC was entrusted to prepare the detailed Project Report (DPR) for 1st phase of the project. M/s DCPL of Kolkata was appointed as consultant. Finally, tender for 1st phase, i.e, 1X100 MW project was invited in Sept'07. Meanwhile, all statutory clearances like Environmental clearance, Aviation clearances etc were obtained. The gas fuel linkage of 0.66 MMSCMD for existing plant shall be utilized for the new project. M/s BHEL was awarded the EPC contract for ₹564.6 crore on 31st Dec'94 and initial advance of ₹17.795 crore Paid to BHEL on 09-02-09.

The preliminary project activities are currently in progress. Schedule date of commissioning of the project: Jan'2012 (35 months from Zero date).

Funding

Total Project cost is 693.92 crore. Out of the total project cost, the GOA is committed to provide 30% of the project cost i.e. ₹208.00 crore as equity fund and 70% (₹486.00 crore) as loan from PFCL 30% Govt. Equity (ACA) is 208.00 crore. & 70% (486.00 crore.) loan from PFCL.

An amount of ₹30.00 crore has been received under ACA/SPA- 2007-08. An amount of 12.25 crore was sanctioned for the project under ACA-2008-09 and the State Government was further requested to release balance amount of ₹17.75 cr. under ACA/SPA-2008-09.

HYDEL

As per the Govt. of Assam's Policy for development of Small hydro Project in the State APGCL has taken up implementation of the following SHP's:

i) Lungnit SHEP (2 x 2 x 1.5 MW):

The proposed Lungnit Small Hydroelectric Project, is in the Karbi Anglong district of Assam, envisages utilization of 355 sq. km. of catchments area of Lungnit River in two stages.

Financial Status:

Total Project cost with (IDC): ₹55.81crore.

Funding Pattern:

MNRES: ₹18.00 crore.

PFCL: ₹30.00 crore.

GoA: ₹2.81 crore.

NEC: ₹5.00 crore.

Fund Sanctioned

From MNRES:

Stage I & Stage-II = ₹1800 lakh.

From PFCL:

Stage-I & Stage-II = ₹3000 lakh.

From G. O. A. /NEC

Stage-I & Stage-II = ₹781 lakh.

Present Status:

The preliminary project work was started. The acquisition of 25.775 hector of forest land for project was completed. Pre-construction work like construction of Road, Buildings etc has been taken up.

EPC contractor for the project (Stage-I & II) has completed the Preliminary survey. Preliminary Project activities are going on.

The project is scheduled to be commissioned by 2011-12.

ii) Myntriang SHEP (2 x 3 + 2 x 1.5 MW):

The Myntriang Small Hydro Electric Project is located in Karbi-Anglong District of Assam. It envisages utilization of 432 sq. Km. of catchments area of Myntriang River in two stages.

Financial Status:

Total Project cost with (IDC) : ₹78.17 crore.

Funding Pattern:

MNRES: ₹15.75 crore.

NABARD: ₹46.14 crore.

GOA: ₹6.03 crore.

Matching fund required. : ₹10.25 crore.

Present Status:

EPC contract awarded to M/s Sarda Eco- Power Ltd. The draft EIA study report has been submitted by M/s National Productivity Council. Preliminary Project activities are going on.

The project is scheduled to be commissioned by 2011-12.

iii) Dhansiri H.E. Project (5x3x1.33 MW):

BTC has expressed willingness through GOA to execute the Project. APGCL has furnished its comment to the GOA. Decision from GOA is awaited.

New Schemes

Status and Target of New Schemes undertaken by the Assam Power Generation Corporation Ltd.

(A) Thermal						
Fuel - Gas						
Sl No	Name of the Project	Location	Capacity (in MW)	Estimated Cost (Rs. in Crore)	Target of Completion	Brief Status
1	Amguri CCGT	Amguri District Sivasagar (Upper Assam)	100	700.0	12 th Plan	<p>Pre-feasibility Report (PFR) has been prepared in house and forwarded to GOA for necessary approval.</p> <p>Requested MOP & NG, GOI for fresh allocation of 0.65 mm scmd gas, beside this; Govt. of Assam has also been requested to move MOP & NG for early allocation of the required gas.</p> <p>The required gas is expected to be made available by private developer, M/S Canoro Resources Ltd from nearby Amguri field. M/S Canoro Resources Ltd (CRL) has been requested to submit the detailed terms & conditions for supply of natural gas at least for thirty years including proven reserve of gas certified by the Director General of Hydro Carbon (DGHC). The reply is awaited.</p>
Fuel - Coal						

Sl No	Name of the Project	Location	Capacity (in MW)	Estimated Cost (Rs. in Crore)	Target of Completion	Brief Status
2	Margherita Thermal Power Project	Borgolai District Tinsukia (Upper Assam)	500	3750.0	12 th plan	<p>The Draft Joint Venture (JV) Agreement between NEEPCO & APGCL for 500 MW Thermal Power Project was drawn up and forwarded to Govt. of Assam towards implementation. Although Govt. of Assam accorded in principle approval for execution of the Project through JV between APGCL & NEEPCO, in the formal approval put an option for JVA with NPTC and APGCL under the same terms and conditions.</p> <p>A team of officials of NTPC along with APGCL officials visited the project site. NTPC proposed for acquisition of about 1000 acres of land so that a 2x250 MW project may be taken up. Government of Assam is being moved for additional land requirement.</p> <p>Ministry of Coal, Government of India is being approached for establishment of Coal Linkage.</p> <p>Land proposed for Margherita Thermal Power Project at SALIKI N.C. covering an area of 1500 bighas (200 Hectare, approximate) surrounded by TIKOK N.C. on west, SINGORI N.C. North and Lekhapani on eastern and southern side is being acquired from Government of Assam.</p>

B) Hydro

Sl No.	Name of the Project	Location	Capacity (MW)	Estimated Cost (Rs. in Crore)	Target of Completion	Remarks
Identified by CEA						
1	Karbi Langpi (Upper Stage) HE Project	Karbi Anglong District	60	360.0	12 th plan	<p>The proposed project envisaged for construction of a concrete gravity dam on the river Borapani at Mawrap together with the water conductor system. The proposed installation in the power house is 60 MW (2x30 MW).</p> <p>The DPR has been revised at an estimated cost ₹637.00 Crore. The DPR is forwarded to CEA for techno economic clearance. Detail joint survey for land with Karbi Anglong Autonomous Council is being fixed by the MOEF, New Delhi. APGCL appointed consultant for carrying out the Environmental Impact Assessment study for the project.</p>
2	Lower Kopili HE Project	Karbi Anglong & NC Hills District	150	900.0	12 th plan	<p>The Detailed project report was prepared and submitted to the Central Electricity Authority for Techno Economic clearance. The CEA returned the DPR with observations which are being complied.</p> <p>Meanwhile APGCL has taken possession of 10 Bigha of land allotted by the N C Hills district authority out of the total 1577 Ha (1386.12 ha fall in N C Hills and rest 190.88 ha fall in is in Karbi Anglong district) required for the project. Zirat survey has been conducted in the land which falls under NC Hills which is nearly completed. APGCL appointed consultant for carrying out the Environmental Impact Assessment study for the project. TOR for EIA study is being fixed by the MOEF, New Delhi.</p>

Implementation of Other Schemes

Development of other SHEP

As per the Govt. of Assam's Policy for development of SHEP, following projects are also taken up by the APGCL.

Reconnaissance Survey & Pre-feasibility report and DPR for Sunani (2MW), Killing SHP (MW), Umat (2MW), Amring (20MW) are going on. Detailed survey and investigation of Basistha (120MW) has been completed.

Further, APGCL has undertaken an exercise to augment its capacity to generate power through new SHPs. APGCL has identified 37 nos. different locations in Assam as a first phase. Process has been initiated for engaging reputed consultancy to prepare Economic Studies including preparation of DPRs.

Revival of Chandrapur TPS

APGCL has decided to revive Chandrapur TPS (60MW) with new FBC boiler by using the existing steam turbine in Joint Venture (JV) mode with a potential private developer. Accordingly a consortium of M/s Imperial Energy & Construction Pvt. Ltd as a lead partner has been selected through Expression of Interest (EOI) bid along with M/s Intellimine and M/s Imperial Fastners Pvt. Ltd for revival of the TPS in a joint venture with APGCL in Build, Operate and Transfer (BOT) basis.

Cabinet approval on the Draft MOA/AOA has been accorded. APGCL has taken follow up action for execution of the scheme.

Externally Aided Project (EAP)

Assam Power Sector Development Project:

ADB provided 250 m US\$ loan (Programme Loan 150 m US\$ and Project Loan 100m US\$). Programme Loan of 150m US\$ had been utilised to liquidate liabilities of ASEB. Project Loan of 100m US\$ utilised for construction of 220KV/132/KV transmission line, 132/33 KV new Sub station, Augmentation and extension of existing Sub station, replacement of breakers, CT/PT, 33 KV Bus capacitors, SCADA, Replacement of meters, Installation of meter testing benches etc. ADB loan disbursement of 100 m US\$ completed in June 2009.

Assam Power Sector Enhancement Programme

ADB will provide loan of 200 m US\$ under MFF Multi-tranche Financing Facility (MFF) to ASEB for strengthening and loss reduction of Transmission and Distribution companies by construction of new lines, new sub station, up-gradation of ground wire to OPGW, HVDS, ABC in the period from 2009 to 2014.

World Bank Project

For development of Power sector in the State ₹1871 crore has been invested under World Bank Project. The Project includes improvement of:

Transformation Capacity addition	:	1320	MVA
Transmission Lines	:	830	Ckt KM

CHAPTER- XIII

TRANSPORT AND COMMUNICATION

Transport and Communication is the vital infrastructure of a modern economy. An efficient transport system integrates remote, backward and urban areas and plays a vital role in increasing productivity and improving quality of life. Moreover, development of this sector generated large employment opportunities.

Assam being the gateway of the North East India, the need for development of transport and communication sector in the State is of vital importance for speedy economic development of the region. Due to its geographical isolation, transport has been a major bottleneck in the process of economic progress of the State. The State although served by all the modern means of transport viz., roads, railways, waterways and airways, there is enough scope for further improvement of the facilities. The position of the State with regard to the existing means of transport and communications is described briefly in the following paragraph.

Roads

The principal function of the Public Works Department (PWD) is to develop the infrastructure for transport & Communication of the State and Residential & Non-residential accommodation facility in the State. The Assam PWD (Roads wing) is chiefly responsible for improvement of road communication through construction and maintenance of roads, bridges and culverts for speedy development of the State.

TABLE-13.1
ROAD NETWORK IN ASSAM

(in Km)

Sl. No.	Item	2007-08	2008-09	2009-10
1.	Surfaced Road*	10488	13734	13163
2.	Un-surfaced Road	24458	23187	24338
3.	National Highway	2754	2755	2841
4.	State Highway	3134	3134	3134
5.	Major District Road	4414	4413	4413
6.	Rural Road	26221	27283	28753
7.	Urban Road	1177	1173	1202

*Excluding National Highways

Source: Office of the Chief Engineer PWD (Roads), Assam

At present more than 37000 Km road network including 1635Km National Highways is maintained by the State PWD details of which are shown in the Table 13.1 below. Excluding the National Highways, the 36003 Km road length of State Highways, major district roads, urban roads and rural roads consists of 10979 Km is blacktopped roads out of which 558 Km are intermediate lane and 132 Km are double lane or above. The rest, i.e. about 94 percent of the blacktopped road length are single lane. Presence of large number of submersible stretches and nearly 4000 semi-permanent timber bridges have hampered all weather road communication on many of the roads in the State. Moreover, a considerable portion of the maintenance fund has to be spent on maintenance of these bridges and thus hinder the interest of speedy development. However, at present, about 11000 km of road length is under improvement and 1300 nos. bridges are under different projects. Therefore, the State PWD has projected following development activities under the 11TH Five Year Plan period:

- Up-gradation of 2795 km State Highways to double lane.
- Up-gradation of 3669 km Major District Roads to intermediate Lane.
- Improvement of 21000 km rural roads.
- Improvement of 1000 km Urban Roads with adequate drainage, paved shoulder etc.,
- Construction of 5000 RCC bridges.
- Construction of 20 over bridges.

The surfaced road kilometer [excluding NH Way] constitutes 35.1 percent of the total road length in the State during the year 2009-10. This indicates that as against about 48 km per 100 sq.km and about 125 km per lakh of population [projected] of total road length availability during the year 2009-10, about 17 km per 100 sq.km of geographical area and about 44 km per lakh of population [projected] of surfaced roads are available in the State during the same period.

National Highway Development Project

The National Highway Authority of India (NHAI) is mandated to implement National Highways Development Project (NHDP) in the country.

Out of the total 66754 km length of NH in the Country, Assam's share is only 4.25 percent. Compared to 20.3 km NH length per thousand sq.km geographical areas and 6.5 km NH length per lakh of population (2001 Census) of the country as a whole, Assam has 36.2 km per thousand sq.km geographical areas and 10.6 km NH per lakh of population in the State.

A length of 678 km connecting Silchar to Srirampur via Lumding-Daboka-Nagaon-Guwahati in Assam has been entrusted to NHAI as part of East-West corridor under NHDP Phase II. Entire length of East-West corridor in Assam has been awarded except 31 km between Udaband and Harangajo for which Detailed Project Report (DPR) for realignment is in progress and four laning works are in different stages of progress. 18 km Guwahati bypass has been completed. For 31 km stretch between Udaband and Harangajo, an estimate amounting to ₹43.79 crore for improvement to 2-lane has been approved by the Ministry under NH (O).

The Government has given approval for implementation of four laning of NH-37 from Numaligarh to Dibrugarh (201km). This includes construction of 4-lane bridge over the river Brahmaputra connecting Numaligarh and Gohpur on NH-52 on Built Operated and Transfer[BOT (Annuity)] basis and 2-laning with paved shoulders of single lane stretches of NHs of 1179 km in the State of Assam under Phase 'A' of SARDP-NE (Special Accelerated Road Development Programme for NE). The details of some important Roads under Phase 'A' of SARDP-NE given in the Table below:

TABLE-13.2
DETAILS OF ROADS UNDER PHASE 'A' of SARDP-NE

Sl. No	State	Roadwork	Category of Road	Road Length (in Km)
1	Assam	Improvement of existing 2-lane NH -37 from Nagaon –Dibrugarh to 4-lane	NH	301
2	Assam	Improvement of existing single lane road stretches on NH-36,51,52, 53,54,61,152, 153 & 154 to double lane shoulder including Silchar bypass	NH	576
3	Assam and Arunachal Pradesh	Re-alignment and improvement to 2-lane with paved shoulders of NH-37 from Dibrugarh to Rupai and improvement of Stillwell road and NH-38 to 2 lane with paved shoulders	NH	161
4	Assam and Arunachal Pradesh	4-lane connectivity to Itanagar NH 37A,52 & 52A	NH	150
5	Manipur, Mizoram Meghalaya, & Assam	2-laning of NH-44,53,54 &154 including Jowai bypass in Meghalaya	NH	180

Source: Annual Report NHAI-2009-10

Development under the Plan and other Schemes

Besides State's own resources, the Assam PWD is implementing various Road, Bridge and Building projects funded from the Govt. of India, World Bank, NABARD and NEC. Some developmental activities as undertaken by the Public Works Department and as reported are briefly discussed below:

i) PMGSY (Pradhan Mantri Gram Sadak Yojana):

Under this programme, prioritized rural roads of the core network are funded with the objective of providing connectivity to the unconnected habitations. The programme was launched during the year 2000-01. Under this scheme, 15908 Km of road work and 1685 Nos of RCC bridges have been sanctioned for a total cost of ₹8801.79 Crore. Out of this, 6834 Km roadwork and 414 bridges have been completed. Achievements attained in implementation of the programme are detailed in Table 13.3.

TABLE-13.3
ACHIEVEMENTS UNDER PMGSY

Year	Sanctioned length (Km) Yearly	Sanctioned amount (Rs Crore/Yearly)	Amount released by GOI (Rs in Crore/ Yearly)	Expenditure (Rs in Crore/ yearly)
1	2	3	4	5
2000-01	180	75.00	75.00	0.00
2001-02	594	154.92	154.92	44.28
2002-03	0	0.00	0.00	94.51
2003-04	800	199.72	170.02	88.46
2004-05	750	244.45	162.07	129.03
2005-06	2069	930.59	156.83	226.30
2006-07	2853	1548.62	431.06	461.72
2007-08	5007	3176.64	555.00	608.75
2008-09	3665	2471.87	967.31	1007.06
2009-10	-	-	1179.00	1412.90
2010-11	-	-	1170.00	795.77
Total	15909	8801.81	5021.21	4629.64

Source: Chief Engineer, PWD (Roads), Assam

Road length completed: 8507 km

Road length in progress: 7401 km

1000+ habitations covered: 6102 nos. (Already connected -4053)

No of bridges sanctioned: 1685

No of bridges completed: 615

No of bridges in progress: 1070

ii) MPNA (Mukhyamantrir Pakipath Nirman Achan):

This programme has been launched by the Govt. of Assam with the objective of providing connectivity with all weather roads to unconnected habitations as in PMGSY. Under this scheme, 1039 Km of roadwork have been sanctioned. Progress of the scheme is detailed as under:

Phase-I: 2004-05

Sanctioned length	...	615 Km.
Work completed	...	607 Km.
Work not feasible	...	8 Km.
Bridge sanctioned	...	2 nos
Bridge Completed	...	2 nos

Phase-II: 2007-08

Sanctioned length	...	424 Km.
Work completed	...	308 Km.
Work in progress	...	116 Km.

iii) Assam Vikash Yojana:

Four road projects [improvement/up-gradation of existing roads] have been taken up under the Assam Vikash Yojana (details given below). This project covers 13 RCC bridges and 93.20 Km road length. The State Government has already sanctioned the cost of the project amounting to ₹157.4155 crore.

a) Improvement / Up-gradation of Mangaldoi- Bhutia chang Road under Assam Border (Phase-I)

Road length sanctioned	–	10.10 Km.
Amount sanctioned	–	₹13.40 crore.
Work progress	–	95%

b) Improvement /Up-gradation of Barpeta to Lengtichinga Road

RCC Bridge sanctioned	–	1 No. [Over River Beki with E/W in approaches]
Amount sanctioned	–	₹41.62 crore.
Work progress	–	39%

c) Improvement /Up-gradation of Barpeta to Lengtichinga Road

RCC Bridge sanctioned	–	2 no. [One over River Mora Beki and the other over River Manas with E/W in approaches]
Amount sanctioned	–	₹31.95 crore
Work progress	–	Bridge over river Mora beki-56% Bridge over river Manas-39%

d) Improvement/ Up-gradation of Dhodar Ali.

Road length sanctioned	–	83.10 Km.
RCC Bridges Sanctioned	–	10 No.
Amount sanctioned	–	₹70.44 crore
Work progress	–	28%

iv) Non-Lapsable Central Pool of Resources (NLCPR):

The status of achievements in implementation of the scheme presented below.

Work sanctioned	...	Road length 207 Km., RCC Bridge 194 Nos.
Work completed	...	Roadwork 115 Km., RCC Bridge 106 Nos.
Work in progress	...	Road length 92 Km., RCC Bridge 88 Nos.

v) Central Road Fund (CRF) and Centrally Sponsored Schemes for State Road of Inter-State Connectivity and Economic Importance Projects:

The status of achievements in implementation of the programme under the Schemes as follows:

Work Sanctioned	...	Roadwork 974 Km., RCC Bridge 28Nos.
Amount sanctioned	...	₹370.98 Crore.
Amount released/Utilised	...	₹267.05 Crore
Work completed	...	Roadwork 697 Km., RCC Bridge 27 Nos.
Work in progress	...	Roadwork 177 Km (more than 50 %) Roadwork 110Km (less than 50%), RCC Bridge 1 No (40%).

vi) RIDF [Loan assistance from NABARD] Projects:

Road length sanctioned	...	755 Km.
Completed	...	379 Km.
RCC Bridges sanctioned	...	390 Nos.
Completed	...	266 Nos.
Work in progress	...	Roadwork 62 Km (above 50%) Roadwork 314 Km (less than 50%), Bridge 124 Nos.

vii) State Annual Plan

As per the priority list of 2007-08 under Normal State Plan:

2007-08:

Road works sanctioned	...	75 Nos.
Amount sanctioned	...	₹23.11 Crore
Road works completed	...	64 Nos.
Road works in progress	...	11 Nos.

2008-09:

Road works sanctioned	...	34 Nos.
Amount sanctioned	...	₹9.95 Crore
Road works completed	...	29 Nos.
Road works in progress	...	5 Nos.

As per the priority list of 2008-09, construction of blacktopped roads at a cost of ₹50.00 lakh in each Legislative Assembly Constituency (excluding the 6th Schedule Area) has been sanctioned.

Road works sanctioned	...	231 Nos.
Amount Sanctioned	...	₹58.50 Crore
Road works completed	...	175 Nos.

Target for 2009-10 (excluding Assam Bikash Yojana & MPDNA):

Roadwork	...	250Km – already completed = 69 Km
Bridge	...	2 Nos (already completed 1No)
Amount	...	₹60.00 Crore – already utilised = ₹60.00 Crore

viii) Assam Agricultural Competitiveness Project (AAP) funded by World Bank:

Sanctioned road length	...	716 Km.
Completed	...	624 Km.
Sanctioned bridges	...	181 Nos.
Completed	...	170 Nos.
Amount sanctioned	...	₹502.44 Crore
Amount released/Utilized	...	₹431.35 Crore
Road length in progress	...	60 Km. [32 Kms not started due to various reasons]
Bridgework in progress	...	4 Nos.[7 Nos. not started due to various reasons]

ix) NEC Scheme:

Sanctioned road length	...	2040 Km.
Completed	...	1953 Km.
RCC bridges sanctioned	...	338 Nos.
Completed	...	327 Nos.
Amount Sanctioned	...	₹1160.00 Crore
Amount released/Utilised	...	₹971.00 Crore
Road length in progress	...	110 Km.
Bridges in progress	...	27 Nos.

Assam State Road Project (ASRP)

Public Works Department, Government of Assam is planning to undertake a road improvement Project in the state with an aim to improve the condition of the State highways (SH) and Major District Roads (MDR).

Government of Assam approached the planning Commission for consideration of a proposal amounting to ₹1000 crore for up-gradation of 2000 Km of SH and MDRs and another proposal amounting to ₹1091 crore for conversion of 1051 nos. of SPT Bridges to RCC Bridges. The Government of India accepted the proposal in principle and suggested for a suitably phased proposal starting with a US\$200 million at first phase and following with a US\$300 million at second phase.

The project preparatory works involving specialized consultancy services which were pre-requisites are in progress.

Road Transport

Motor Vehicles

The rapid increase of numbers of motor vehicles on road in Assam has been observed over the past few years. The vehicle population in the State has reached 1432997 as on March 2010 as against 1236257 as on March 2009. During the year 2009-10, as many as 241247 vehicles were registered in the State as against 119126 vehicles registered during the year 2008-09. The registration of Motor vehicles recorded 102 per cent increase during the year 2009-10 over the previous year. Total number of Motor vehicle on road in the State, while recorded about 12 percent increase as on March 2010 [1320867] over the previous year.

The density of motor vehicles in Assam was 17.0 per sq. km. during 2009-10 as against 6.8 per sq. Km. during 2000-01.

The increase in the number of Motor vehicles registered as well as Motor vehicles on road in the State over the years may be seen from the Table 13.4.

TABLE-13.4
NUMBER OF MOTOR VEHICLE REGISTERED AND MOTOR VEHICLE ON-ROAD

Year	No. of Motor Vehicle Registered	No. of Registered Motor Vehicle per		No. of Motor Vehicle on road	No. of Motor Vehicle on road per	
		100 Sq.Km.	Lakh of Population		100 Sq. Km.	Lakh of Population
2000-01	52518	67	198	534885	682	2017
2003-04	67265	86	243	670580	855	2419
2004-05	88470	113	315	777328	991	2765
2005-06	98897	126	347	898926	1146	3153
2006-07	106666	136	369	983488	1254	3404
2007-08	96796	123	331	1074763	1370	3670
2008-09	119126	152	402	1180177	1504	3979
2009-10	241247	308	803	1320867	1684	4397

Source: Office of the Commissioner of Transport, Assam and Directorate of Economics and Statistics, Assam

Like other States, the project of issuance of smart card Driving Licence and Registration has been implemented in the State since 2005 under the nomenclature “VAHAN” and “SARATHI” .Issuance of smart card registration certificate and Driving licence has so far been started in four District Transport Offices. The Transport Department has also made an arrangement to computerize all check gates and District Offices to maintain proper records of revenue collection, registration of vehicles, issue of driving licences etc.

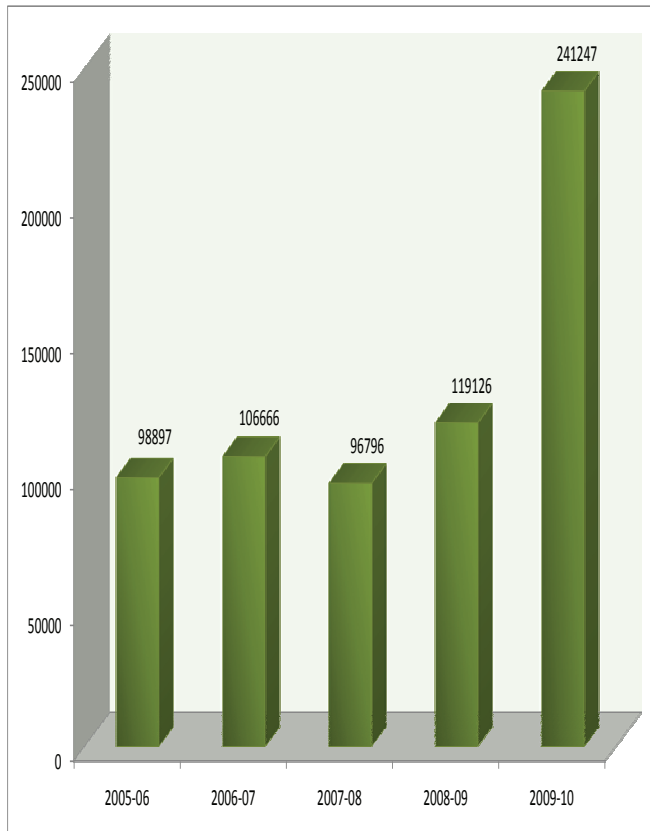
Apart from providing fast and comfortable services to the commuters and to create self-employment avenues among the unemployed youths, Trekkers services have been very popular not only in the greater Guwahati and adjoining areas but also in various parts of the State.

The collection of transport revenue by the Department of Transport during the year 2009-10 was 213.79 crore as against ₹171.88 crore in 2008-09. The collection of transport revenue during the year 2009-10 was 24 per cent more than that of 2008-09.

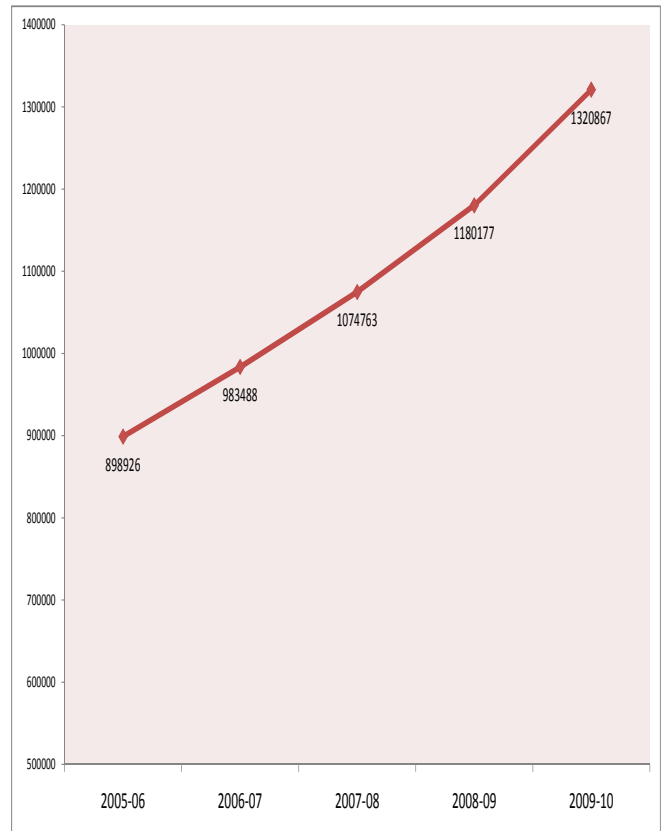
Assam State Transport Corporation

The Road Transport is the most important means of communication for the movement of goods as well as passengers traffic in the State. In the road transport system of the State both public and private sector operators are playing equally important role. The Assam State Transport Corporation (ASTC), a State Government undertaking, is mainly concerned with the movement of passenger traffic on the nationalized routes of the State, while the private sector road transport operators are involved in the Intra-State movement of both goods and passenger traffic throughout the State. The ASTC has been providing smooth and dedicated services to the people especially in the rural and other backward areas since its inception. As a step towards improvement of passenger amenities the State Government has already constructed two Inter-State Bus Terminus (ISBT) one at Guwahati and the other at Silchar to facilitate Inter-State transportation of passengers. At present, both the Inter-State Bus Terminuses are fully functional. Inter-State Bus Terminuses have been constructed at Jorhat, Dibrugarh and Sivasagar by the ASTC with all modern facilities for passengers and bus operators. The ASTC has also proposed to reconstruct all the major stations.

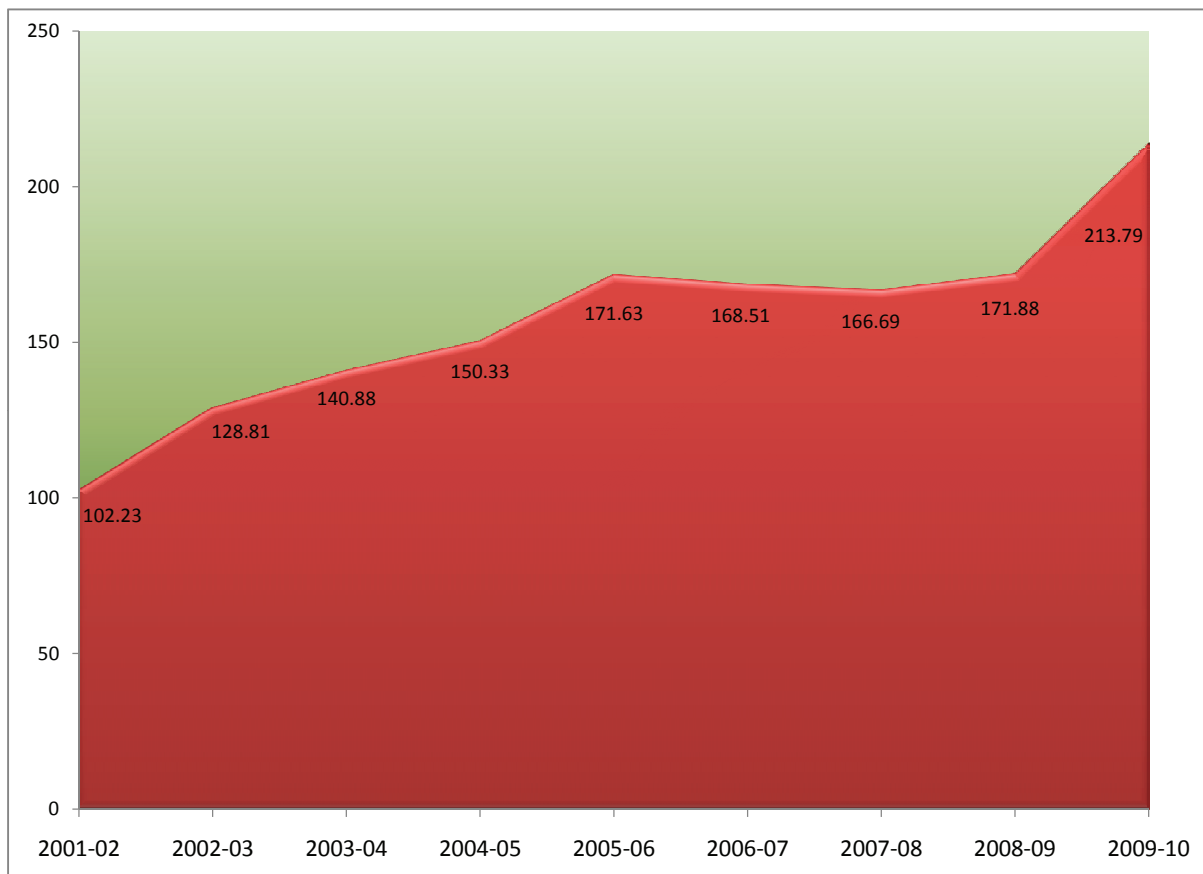
TREND OF VEHICLES REGISTERED IN ASSAM



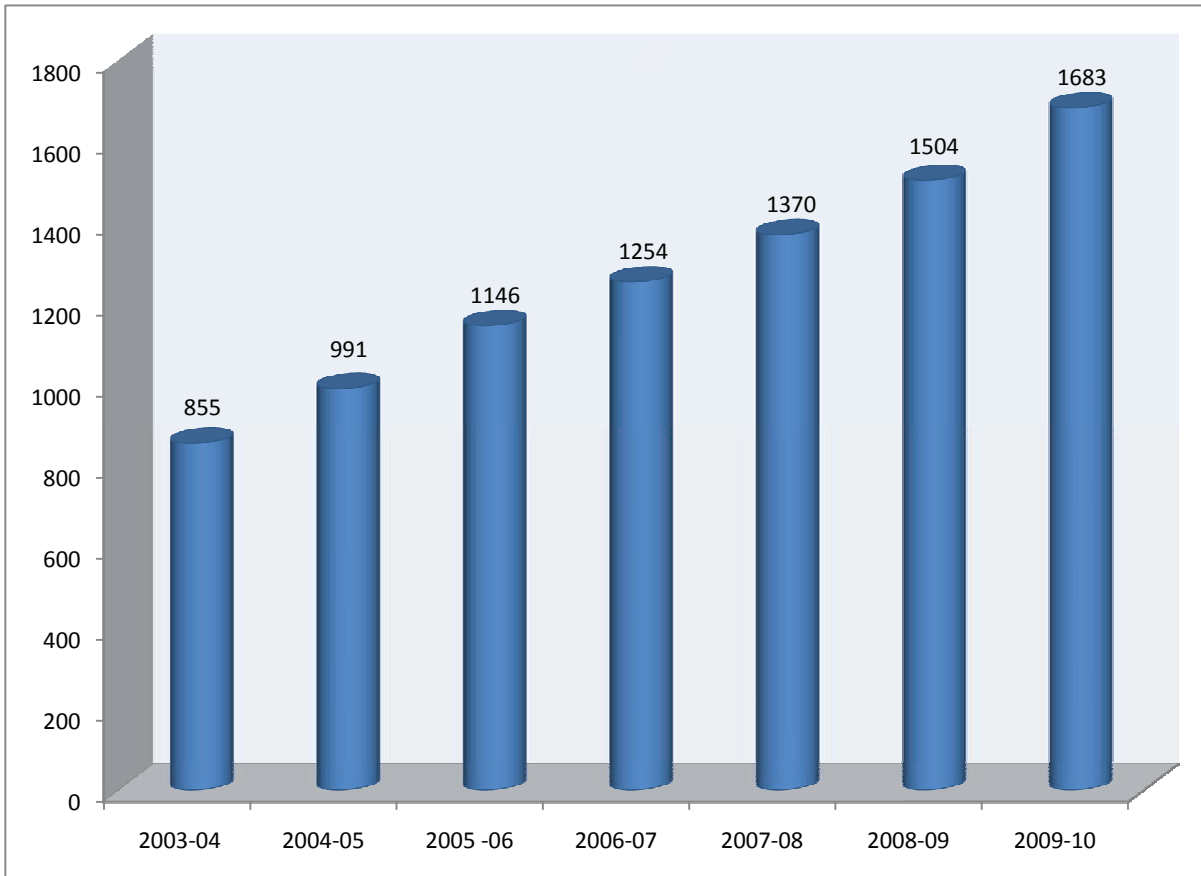
MOTOR VEHICLES ON ROAD IN ASSAM



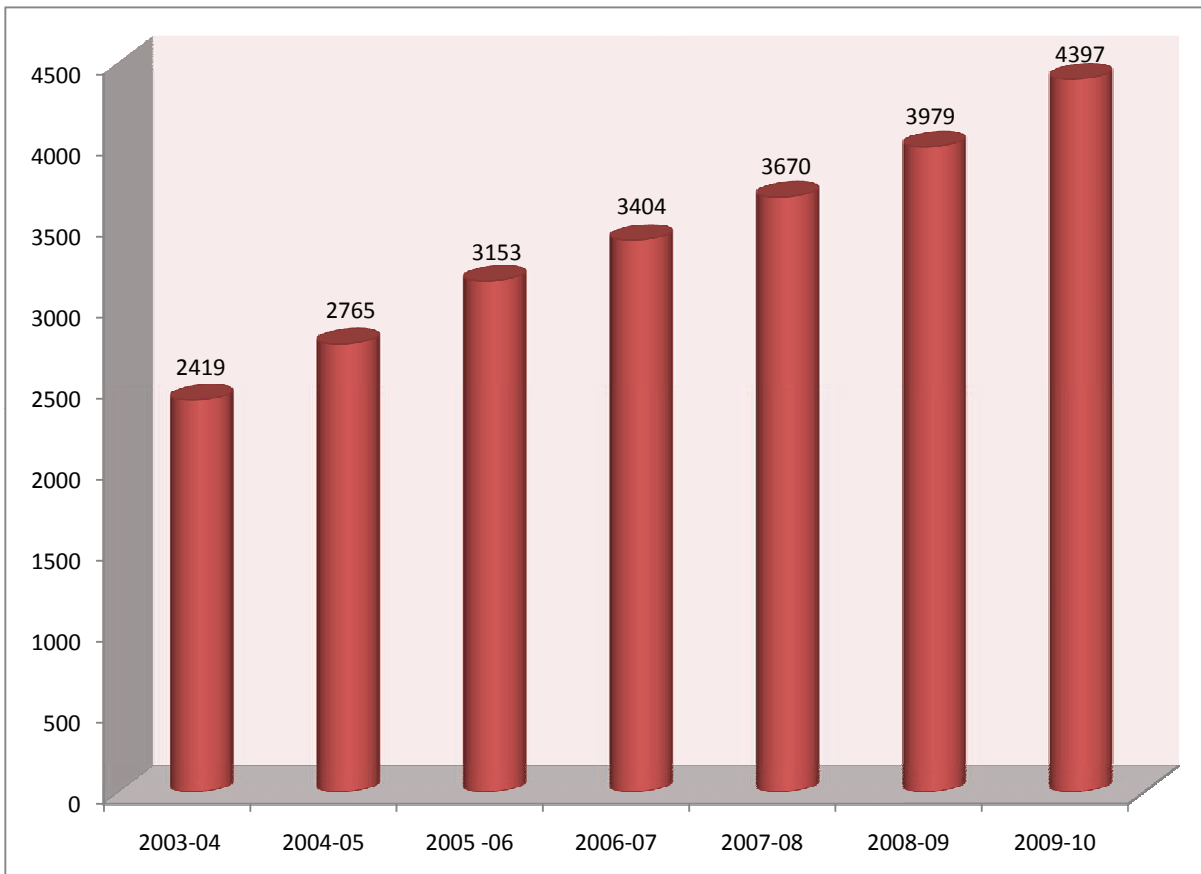
REVENUE EARNED BY TRANSPORT DEPARTMENT IN ASSAM (Rs. in Crore)



DENSITY OF MOTOR VEHICLES PER 100 SQ. KM IN ASSAM



NO. OF VEHICLES PER LAKH OF POPULATION IN ASSAM



At present the Corporation operates 340 buses of its own and as many as 1297 private buses are plying under ASTC banner. The revenue earning of ASTC has increased from ₹997.49 lakh in 2000-01 to ₹3886.60 lakh in 2009-10.

In order to offer better connectivity to rural and backward area including non-profit routes, ASTC has been provided with assistance of ₹256.66 crore by the State Govt. during the period 2001-02 to 2009-10.

The ASTC has taken up projects for construction of Yatri-Nivas cum Guest House for ensuring convenience to travellers. One of such yatri nivas cum guest house was constructed at Guwahati in 2006-07. Construction of Commercial complexes also have been started at vacant spaces of the Stations from 2007 and outsourced to unemployed youths.

Railways

As per information available from the N.F. Railway, Headquarters, Maligaon, Guwahati, the railway route length in Assam at the end of 2009-10 was 2433.34 kms comprising of 1376.22 kms under Broad Gauge and 1057.12 kms under Metre gauge. During the year 2008-09, the railway route length in the State was 2283.71 kms comprising of 1126.59 kms under Broad Gauge and 1057.12 kms under Metre Gauge. The proportion of Board Gauge railway route length in the State, although, is 56.56 per cent, it shares only 2.62 percent of the country's total broad gauge railway route length. Taking into account of the total railway route length of 63974 kms for the country as on March 2010, Assam's share in the country's railway route length turns out to be around 3.8 per cent at the end of the March 2010.

The Ministry of Railways has undertaken various developmental activities in the Railway Sector in the State including extension of railways line to link the other States of North-Eastern States Meghalaya, Arunachal Pradesh, and Mizoram through Assam. Among the ongoing railway projects, Bogibeel rail cum road bridge and gauge conversion of Lumding-Silchar-Jiribum-Badarpur & Badarpur to Baraigram-Kumarghat, Rangia-Murkongselek projects are declared as national projects and the works are on progress. While the survey work of proposed construction of new line connecting Azara-Byrnihat has got suspended due to obstruction of local people, the construction of Dudhnoi (Assam) – Mendipathar (Meghalaya) is under progress. The Bogibeel rail-cum-road bridge, which will perhaps be the longest railway bridge in the country and the fourth bridge across the Brahmaputra River is under construction and set the target of completion in the first part of the 11th five year plan. The Union Railway Minister has proposed in the Railway Budget 2009-10 for early creation of **"North East Region Rail Development Fund"** for timely completion of national projects in the region. The Minister also proposed to upgrade the Guwahati Railway Station to international standard under PPP scheme.

During the last couple of years a good number of new passenger trains were introduced to connect different places within the State viz., inter-city trains linking Guwahati and Dibrugarh, Dimapur, Jorhat, Nagaon, Bongaigaon and Fakiragram, apart from daily trains between Lumding and Badarpur. The Railways run a number of inter-State trains linking Guwahati and Dibrugarh with other important places of the country, such as Delhi, Kolkata, Mumbai, Chennai, Tiruvantapuram, Bangalore, Cochin, and Jammu etc.

Air Transport

Assam is well connected with the rest of the country through Air Transport. The State has the highest numbers of operational civil airports and these are located at Guwahati, Tezpur, Jorhat, Dibrugarh, North Lakhimpur and Silchar. All major airlines including private commercial airlines viz., Indian Airlines, JetLite, Kingfisher, Go-air etc. operate regular flights to and from Guwahati. There are regular intra-state air services also connecting aforementioned airports of the State. In addition to these civil airports, small private airstrips in the interior areas are present in large numbers. Some small and remote airstrips are being operated under private operators like tea gardens and PSUs.

In the Guwahati sector movement of air traffic as well as passenger traffic [both domestic and international] has been rapidly increasing during the last six years. This increase was 79 percent per cent and 129 percent respectively during the year 2008-09 over 2003-04. However, the freight of cargo has declined in this sector by 44 percent (approx) during the year 2008-09 over 2004-05.

TABLE-13.5
AIR TRANSPORT STATISTICS OF ASSAM

Item/Year	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09
Air Traffic Movement (No.)	19492	20334	21218	26699	32903	34855
Passenger Handled (No.)	739507	828640	947798	1371105	1664404	1693319
Freight loaded /Unloaded (Tonne)	5137	5199	5349	4520	2810	2404
Mail loaded/ unloaded (Tonne)	863	1320	820	555	433	453
Average number of flight per day	55	57	57	73	90	196
Average number of passenger handled per day	2026	2270	2597	3756	4563	11921
Average Cargo Handled per day (Tonne)	16	18	17	14	8	9

Source: Directorate General of Civil Aviation Statistical Division, New Delhi

The Lokapriya Gopinath Bordoloi International Airport, Guwahati is the only International Airport in the North East India. While the number of aircraft movement during the year 2008-09 has increased by 14 percent (approx) and passenger handled increased by 153 percent compared to 2006-07, the loads of cargo handled in the airport recorded decline of 96 percent during the same period. The number of aircraft movement, passengers as well as freight handled in the airport during the period from 2003-04 to 2008-09 detailed in the Table13.6.

TABLE-13.6
AIRPORT STATISTICS OF GUWAHATI INTERNATIONAL AIRPORT

Year	Aircraft Movement	Passenger handle (No)		Freight loaded/ unloaded (Tonne)
		Embark/ Disembark	Transit	
2003-04	36	2832	1538	113
2004-05	50	361	895	2
2005-06	288	4956	4909	140
2006-07	88	2876	1358	50
2007-08	98	2044	1393	6
2008-09	100	7282	0	2

Source: Directorate General of Civil Aviation Statistical Division, New Delhi

Inland Water Transport

Assam is a riverine State. As much as 32 percent of the water resource of the country flow down through the river Brahmaputra, Barak and their myriad tributaries weave a vast network of waterways in the State. The

Brahmaputra has 891 Km navigable length of water ways from Sadiya to Dhubri while the Barak has 94 Km length of navigable waterways. The Sadiya – Dhubri stretch of the Brahmaputra River has been declared as the 2nd National waterways of the country. The waterways being the cheapest mode of transport, effective exploitation of these waterways in order to cater to the growing need for goods and passenger movement is the need of the hour.

The Government owned organisations – Central Inland Waterways Corporation and Directorate of Inland Water Transport (IWT), Assam, are operating water transport services on the river Brahmaputra and Barak on commercial basis. These services are used for the transportation of passengers and goods alike. Currently, the Directorate of Inland Water Transport is operating 74 ferry services, out of which 54 ferries are plying in the Brahmaputra valley and 24 in the Barak valley. The IWT Department has introduced 61 nos. of cargo cum passenger service in Assam for transportation of commuters throughout the nook and corner of the State where no road communications are available. At present the IWT department has 240 nos of passenger ferry vessels and 17 nos of commercial vessels of its own. Besides these Government owned organisations, large number of private owners conducted ferry services [commonly known as Bhoot-bhooty services] to transport goods and passengers to the remotest hinterlands under un-organised sector.

Other Activities

The IWT department has introduced Air-conditioned long distance river cruise service for the development for river tourism. The department has leased out a vessel M.K.Charaidew to private entrepreneur on hire basis. The department has also introduced two luxurious A/C cruise vessels on the river Brahmaputra and they are being operated by the department itself at Guwahati.

The IWT department has also constructed a RCC jetty on the 11 nos. of floating restaurants (A/C & Non A/C) on board of IWT vessels and three river cruise services on the river Brahmaputra. The department has also constructed 7 nos. of 25m long single Decker floating terminal at north bank and 2 nos. of 28m long double Decker floating terminal at the south bank of the Brahmaputra at Guwahati under centrally Sponsored scheme.

New Initiatives

The IWT has taken following initiatives for improvement of ferry services including development of tourism facilities as well as handling of cargoes.

- Construction of 20 nos. of 17 m. long terminal facilities for major ghats on the Brahmaputra.
- Introduction of air conditioned luxury river service between Guwahati and Kaziranga as a joint venture with ATDC on DLB. Saraighat.
- Construction of 5 nos. of floating Bops for BSF.
- Introduction of high speed catamaran vessels in between Guwahati and Dibrugarh.
- Introduction of 8 nos. of Hoover Crafts at important and major ferry points on the river Brahmaputra and Barak.
- Construction of Slipway project of Pandu for up keeping of Passenger and Cargo vessels.
- Installation of night navigation aid on Brahmaputra and Barak
- Improvement of road connectivity to all Ghats.
- Install proper cargo handling system at important terminals.

Communication

Postal Communication

The Assam Postal Circle was created in the year 1988 with its Headquarter at Guwahati serves the entire State of Assam. To streamline the Postal Services, Assam Postal Circle was reorganised into Assam Circle and Dibrugarh Circle from April 1990 with Headquarters at Guwahati. The Dibrugarh Regional Headquarter was started functioning from Dibrugarh wef 7-6-1995. The Assam Circle is headed by the Chief Postmaster General whereas the Dibrugarh Region is placed under a Postmaster General.

The Assam Postal Circle has a network of 4006 Post Offices out of which 3707 post offices are located in rural areas. On an average, each Post Office serves a population of 6648 persons and covers 19.58 sq.km areas. There are 3 Night Post Offices also functioning in the State located at Guwahati GPO, Dibrugarh HO and Silchar HO for convenience of the people. Apart from the above, there are 4 National Speed Post Centre and 16 Speed Post Centre in the State and Postal Mail Conveyance covers 4428 railway kilo metre.

The Circle is utilising services of Indian Airlines & Jet Airways for transmitting outward airmails from all the Air Centres of the region. From Guwahati, outward airmails are transmitted in direct flight for Kolkata by Indian Airlines and for Delhi Sector by Jet Airways. For mail transmission in the North East Region freighter air craft service has been used which is running in the Kolkata- Guwahati-Imphal- Agartala Sector. In respect of transmission of local mails to all District Headquarters except Morigaon and Dhemaji, service of ASTC and Private Night Super Buses are utilised. The Department of Posts has introduced a facility for opening of "0" balance Savings Account for the MNREGA beneficiaries. The traditional Money Order service has been upgraded and re-introduced as e-MO for speedy delivery with the same tariff.

To create awareness among the public, the Department of Post is organising Stamp Designing, Letter Writing Competitions and Philatelic Exhibitions from time to time.

Telecommunication

Assam Telecom Circle, Bharat Sanchar Nigam Limited (BSNL) is the largest telecom operator in Assam which was formed in 1987, providing comprehensive range of telecom services in the State. BSNL, Assam Circle is the only service provider, making focused efforts and planned initiative to bridge the rural-urban Digital Divider ICT sector. BSNL is reaching the nook and corner of Assam with focused development thrust. At present 605 telephone exchanges functioning in the State.

It is evident from status of telecom facilities in Assam shown in the Table 13.7 that the overall tele-density (Telephone per 100 of population) of the State as on March 2010 was 29.99 as against the national average of 52.74. Disaggregated figures however show that the telecom penetration has been uneven across the urban and rural segments. While the urban tele-density of Assam stood at 96.54, the rural tele-density was only 18.49. However, the tele-density of urban and rural segments of Assam was marginally below the national average (urban-119.45 and rural-24.31).

TABLE-13.7
TELECOM FACILITIES IN ASSAM

Sl. No	Item	2007-08	2008-09	2009-10
1.	Direct Exchange Lines	1348990	1324128	1449647
2.	Rural Telephone Connections	443150	436504	481092
3.	Village Public Telephones (VPTs)	22407 (89.2%)	23369 (93.0%)	23992 (95.49%)
4.	Total Telephones	4343409	6161988	9064392
	A)Wire line Phones=Fixed DELs	430310	351030	308339
	Ai)PSU Operators	430310	351022	307725
	Aii)Private Operators	0	8	614
	B)Wireless Phones (GSM+CDMA)	3913099	5810958	8756053
	Bi) PSUs Operators	918680	973106	1141922
	Bii)Private Operators	2994419	4837852	7614131
5.	Tele-density (Phones Per 100 of Persons)	14.74 Urban-76.30 Rural-4.44	20.65 Urban-86.98 Rural-9.36	29.99 Urban-96.54 Rural-18.49
6.	Public Call Offices	34518	33862	33862

Source: Annual Report-2008-09& 2009-10, Department of Telecommunication, Govt. of India

The subscriber base basic services provided by the BSNL in the State was 1449647 as on March 2010 which included fixed line subscribers, WLL subscribers and CMTS subscribers. Out of the total BSNL subscribers, 481092 (33.19 percent) were rural. The number of telephone connections as on March 2010 was more than 9.0 percent above than that of March 2009. As on March 2009, the number of telephone subscriber was 1324128.

In the mobile segment there has been a boom in the State, as in the rest of the country. The mobile subscriber figures reached above 87 lakh as on March 2010 which was 50 percent above the figure of March 2009. While BSNL alone provides 13 percent of the total mobile connections in the State the private mobile service operators' share 87 percent or more than 76 lakh mobile connections during the same period. Bharati Televentures (Airtel), Disnet Wireless (Aircel), Reliance, Tata Indicom and Vodafone are the main private mobile service providers in Assam.

BSNL has covered 23992 villages or above 95 percent of the total inhabited villages of Assam by providing Village Public Telephones (VPTs) as on March 2010.

CHAPTER - XIV

INSTITUTIONAL FINANCE

Banking

The growing network of Scheduled Commercial Banks has been playing a crucial role in mobilization of saving and investments. The contribution of the “Banking and Insurance” has been growing from 3.0 percent in 2004-05 [GSDP at constant (2004-05 prices)] to 5.0 percent during the year 2009-10(Q) and thus help to boost up the state economy. As per the “Quarterly Statistics of deposits and credit of Scheduled Commercial Banks of Reserve Bank of India, March, 2010”, the number of reporting Bank Offices of all Scheduled Commercial Banks in Assam stood at 1434. The average population covered per Bank branch office (based on the projected mid-year population) in the State was around 21000 which is however quite unsatisfactory in comparison to the all India average of 14,000 population during the same period. The table 14.1 shows the number of Scheduled Commercial Bank Offices in Assam as well as in India and the trend of deposits and credit over the past few years.

TABLE-14.1
GROWTH OF SCHEDULED COMMERCIAL BANKS IN ASSAM AND INDIA

(As on March)

Year	Number of Offices*		Deposits (Rupees in crore)		Credit (Rupees in crore)	
	Assam	India	Assam	India	Assam	India
2004	1256	68645	14507	1511273	4612	880312
2005	1272	69969	17782	1746814	6271	1152468
2006	1234	68681	20872	2093042	8763	1517497
2007	1262	70711	25757	2598823	11154	1949567
2008	1317	74326	31666	3228817	13057	2394566
2009	1369	79058	39427	3937336	15115	168977
2010	1434	83997	49545	4601926	18311	3345619

*Reporting Offices only

Source : (1) 2004–2006, Basic Statistical Return of Scheduled Commercial Banks in India, Reserve Bank of India (Various issues).

(2) Quarterly Statistics on Deposits and Credit of Scheduled Commercial Banks, March 2007 to March, 2010 Reserve Bank of India.

The Bank-network operating in the Country as well as in the State have been grouped under (i) State Bank of India and its Associates, (ii) Nationalized Banks, (iii) Foreign Banks, (iv) Regional Rural Banks and (v) Other Scheduled Commercial Banks. These Groups of Bank have a distinctive role to play in the economic scenario of the State. The position of the Bank Groups in Assam and India is shown in Table 14.2.

Majority of the Bank Branch Offices in the State are located in rural areas. Out of the total 1434 reporting offices (as on March-2010), 791 bank branch offices (55 percent of the total bank branch offices) are located in the rural areas of Assam and share 17 percent of the total bank deposit in the State. On the other hand, the bank branch offices in semi-urban and urban areas with 357 and 286 branch offices shared 31 percent and 58 percent of the total bank deposits respectively. The credit –deposit ratio of rural bank branch offices was 48 percent compared to semi-urban branches with 36 percent and urban branches with 34 percent during the said period.

TABLE – 14.2

BANK GROUP-WISE SCHEDULED COMMERCIAL BANKS IN ASSAM AND INDIA [As on March, 2010]

Bank Group	Assam/ India	No. of offices*	Deposits (Rupees in crore)	Credit (Rupees in crore)
State Bank of India and its Associates	Assam	259	21113	8102
	India	17112	1035859	773817
Nationalised Banks	Assam	707	22327	7394
	India	41421	2388904	1739301
Foreign Banks	Assam	1	188	32
	India	288	227915	165596
Regional Rural Banks	Assam	399	3678	1746
	India	15303	142422	83503
Other Scheduled Commercial Banks	Assam	68	2240	1039
	India	9873	806825	583403
All Scheduled Commercial Banks	Assam	1434	49545	18311
	India	83997	4601926	3345619

*Reporting Offices only

Source: Quarterly Statistics on Deposits and Credit of Scheduled Commercial Banks March, 2010, Reserve Bank of India.

Growth of Deposits and Credit

With the expansion of banking facilities over the years there has also been some augmentation not only in respect of volume of deposits but also in respect of disbursement of credit by these banks. The aggregate deposit with Scheduled Commercial Banks in Assam, which was ₹31,666 crore in March 2008, has increased to ₹49,545 crore in March 2010. The volume of deposits has been increased above 56 percent in March 2010 over March 2008. The per capita deposit in the State was ₹16515 in March, 2010.

The disbursement of credit by Scheduled Commercial Banks in Assam also maintained more or less same trend like deposits. The total volume of credit disbursed by these banks was increased to ₹18311 crore from ₹15115 crore in March 2009 thereby recorded a growth of 21.0 percent over the previous year. During March, 2009 disbursement of credit by banks in Assam shared only 0.55 per cent of the total credit disbursement in the country as a whole. The per capita credit has been increased to ₹6104 in March 2010 compared to ₹5106 in March, 2009.

Credit- Deposit Ratio

14.3.0. The Credit-Deposit ratio of all Scheduled Commercial Banks in Assam has been worked out at 37.0 per cent as on March, 2010 as against All India Ratio of 72.6 per cent. The following table shows Credit - Deposit ratio of all scheduled commercial banks in Assam and India for some few years.

TABLE – 14.3

CREDIT DEPOSIT RATIO OF ALL SCHEDULES COMMERCIAL BANKS IN ASSAM AND INDIA (as on March)

Year	Assam	India
2001	32.0	56.7
2002	31.7	58.4
2003	29.3	59.2
2004	31.8	58.2
2005	35.2	65.9
2006	41.9	72.5
2007	43.3	75.0
2008	41.2	74.2
2009	38.3	72.6
2010	37.0	72.7

Source: (i) Basic Statistical Return of Scheduled Commercial Banks (2001-2006) and (ii) Quarterly Statistics on Deposits and Credit of Scheduled Commercial Banks, March 2007 to March 2010, Reserve Bank of India.

Priority Sector Advances

The volume of aggregate advances under priority sector, according to the State Level Bankers Committee reports, have increased from ₹6148.70 crore in 2006-07 to ₹11314.92 crore in 2009-10. Thus, the volume of aggregate advances recorded 84.0 percent growth during the last four years. This growth was 262.7 percent when compared with the credit extended to the priority sector during the year 2004-05. During the period from 2004-05 to 2009-10, the priority sector advances have been above the bench-mark of 40 per cent of net bank credit.

The percentage share of priority sector loans extended to agriculture & allied activities achieved all India bench mark of 18 percent during the year 2009-10 in the State. The disbursement advances to agriculture & allied activities has steadily increased from ₹616.15 crore [9.48%] in 2004-05 to ₹2345.86 crore [13.22%] in 2008-09 and further to ₹3868.37 crore [18.50%] in 2009-10.

The per capita priority sector advances has significantly increased from ₹1170.00 to ₹5917.00 during the period from 2004 to 2010.

TABLE-14.4

ADVANCES OUTSTANDING UNDER PRIORITY SECTOR

(Rupees in Crore)

Sectors	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10
Aggregate Advances	6497.59	9811.15	12989.44	16081.43	17750.99	20910.97
Total Priority Sector Advance	3119.99 [48.02%]	4248.21 [43.30%]	6148.70 [47.34%]	8322.25 [51.75%]	10705.50 [60.31]	11314.92 [54.11]
Agriculture and Allied Activities.	616.15 [9.48%]	1212.84 [12.36%]	1596.74 [12.29%]	2158.80 [13.42%]	2345.86 [13.22]	3868.37 [18.50]
Industries	515.87 [7.94%]	685.52 [6.99%]	1018.13 [7.84%]	1281.63 [7.97%]	1460.25 [8.23]	2054.15 [9.82]
❖ Per capita Priority Sector Advances [Figure in Rs.]	1170	1594	2307	3122	4016	5917

* Figure within bracket indicates percentage share to Aggregate Advances.

❖ Per Capita Priority Sector Advances calculation based on the Population Census 2001.

Source: Various Reports of State Level Bankers Committee, Assam.

Regional Rural Banks

Regional Rural Banks [RRBs] were established under the Regional Rural Banks Act, 1976 with a view to give a boost to rural economy by providing rural credit to farmers, agricultural labourers, artisans and small entrepreneurs etc.

At present, the State has presence of two **RRBs** - Assam Gramin Vikash Bank and Langpi Dehangi Rural Bank. While the Assam Gramin Bank is operating both in the Brahmaputra Valley and Barak Valley covering 25 districts with 356 bank branches, the service area of the Langpi Dehangi Rural Bank is confined within the two hill districts of Assam with 42 bank branches as on March 2010.

The aggregate deposit of RRB was ₹3691.39 crore at the end of March 2010 as against ₹3044.07 crore at the end of March 2009 thereby registering a growth of 21.26 percent. The aggregate deposit of RRBs was ₹2496.00 crore at the end of March 2008. The volume of credit disbursed by these banks was also increased to ₹1753.55 crore as on March 2010 from ₹1510.43 crore as on March 2009 indicating an increase of 16.1 percent. Credit-Deposit ratio of these banks, on the other hand, marginally fall to 47.50 as on March 2010 from 49.60 as on March 2009. The credit-deposit ratio of RRBs was 53.60 as on March 2007.

Performance of Regional Rural Banks may be evident from the Table below:

TABLE-14.5
ACHIEVEMENTS OF REGIONAL RURAL BANKS IN ASSAM

Period (as on)	Achievements under Annual Credit Plan (Rupees in lakh)			Credit - Deposit Ratio	
	Annual Target for All Banks	Achievement of All Banks	Achievement of RRBs	All Banks	RRBs
31.3.2006	92903.27	117699.69	22665.38 (19.25%)	45.51	50.49
31.3.2007	114100.11	144984.66	26362.38 (18.18%)	48.03*	53.60
31.3.2008	175518.40	155511.33	32211.73 (20.71%)	50.48*	52.64
31.3.2009	221924.24	150226.67	37082.91 (24.68)	45.85*	49.62
31.3.2010	257892.21	250725.49	52181.55 (20.81)	42.05*	47.50

Figure in bracket shows the percentage share of achievements of RRBs to All Banks.

*Lending by NEDFi and under RIDF has been incorporated as priority sector advances.

Hence C.D ratio figure is different from the figure shown in the Table-14.3.

Source: State Level Bankers Committee reports

Agricultural Credit

Credit is an essential requirement for revitalizing agriculture sector. Although within the priority sector, share of agriculture advances in the State had been the highest with 21.9 percent as on March 2009 and 34.19 percent as on March 2010, the agricultural credit constitutes 18.5 percent of the total bank credit as per the figures published by the State Level Bankers' Committee, Assam i.e., the agricultural credit has marginally surpass the All India Bench Mark of 18.0 percent as on March 2010. According to the State Level Bankers' Committee Report, banks operating in the State have disbursed ₹814.69 crore during the year 2009-10 in the Agriculture sector against the annual target of ₹956.66 crore which was 85.0 percent of the targeted amount.

While the annual growth rate of advances to agriculture & allied activities during the year 2009-10 was 55.7 percent over the previous year, the growth of crop loans recorded more than 67 percent during the said period.

TABLE-14.6
CREDIT FLOW TO AGRICULTURE AND ALLIED ACTIVITIES UNDER ANNUAL CREDIT PLAN

Year	Advance to Agriculture & Allied Activities (Rs. in crore)	Crop Loans (Rupees in crore)	% Share of crop Loan to Total Agricultural Advances	Per Capita Crop Loan (Rupees)	Crop Loan per farmer family# (Rupees)
2003-04	100.81	43.82	43	16.44	161
2004-05	243.76	79.46	33	29.81	293
2005-06	331.89	84.31	25	31.63	311
2006-07	468.91	79.44	17	29.80	293
2007-08	566.71	121.61	21	45.62	448
2008-09	523.38	203.12	39	76.20	749
2009-10	814.69	359.39	44	134.82	*1307
CAGR (%) 2004-2010@	41.66	42.00	-	42.00	41.77
(%) Growth 2009-10 over 2008-09	55.7	67.02	-	76.9	74.5

@CAGR: Compound Annual Growth Rate.

Total Farmer Family = 27.12 lakh as per Agriculture Census 2000-01.

* Total Farmer Family = 27.50 lakh as per Agriculture Census 2005-06.

Source: Reports of State Level Bankers Committee, Assam

Agricultural Credit and Government Initiative

Agricultural Debt Waiver & Debt Relief Scheme -2008

The Union Finance Minister, while presenting Budget for the financial year 2008-09, announced a debt waiver for three crore **marginal and small farmers** and debt relief by means of 'One Time Settlement' for one crore **other farmers** of India. The Scheme covered direct agricultural loans extended to "marginal and small farmers" and "other farmers" by Scheduled Commercial Banks, Regional Rural Banks and Cooperative Credit Institutions (including Urban Cooperative Banks) and Local Area Banks. This scheme benefited around 2.40 lakh farmers of Assam.

TABLE-14.7
NUMBER OF FARMERS BENEFITED UNDER AGRICULTURAL DEBT WAIVER & DEBT RELIEF SCHEME -2008

Banks	NUMBER OF BENEFICIARIES			TOTAL AMOUNT [Rupees in crore]		
	Marginal/ Small Farmers	Other Farmers	Total	Waived	Relief given	Total
Commercial Banks	147452	8198	155650	237.95	12.77	250.72
Regional Rural Banks	69041	1673	70714	81.50	1.64	83.14
Cooperative Banks	13578	17	13595	9.93	0.05	9.98
Total	230071	9888	239959	329.38	14.46	343.84

Source: State Level Bankers Committee, Assam

Government of Assam's 2% Interest Subvention Scheme

In view of severe drought like situation experienced in the State during the year 2006-07, Govt. of Assam in consultation with NABARD prepared a scheme to provide 2 percent interest relief to the farmers availing crop loans from the banks. NABARD was designated as implementing agency. The Scheme was continued for the last three years [2006-07, 2007-08 and 2008-09]. During the period, 173772 borrowers were provided with the interest relief. The State Government extended the scheme for the year 2009-10 also with enhanced interest relief at 3 percent for farmers.

The achievements under the Government of Assam's interest relief scheme during the period 2006-07 to 2008-09 shown in table 14.8 below-

TABLE: 14.8
SETTLEMENT OF CLAIMS UNDER INTEREST RELIEF SCHEME

Year	Total Loan Disbursement		Total Relief Settled	
	Account (Nos)	Amount (Rupees in lakh)	Account (Nos)	Amount (in Rupees)
2006-07	39832	7267.85	39832	6504829.00
2007-08	53448	10466.70	52986	10792470.00
2008-09	82225	16269.03	80954	14419765.00

Source: Finance (Institutional Finance) Department, Assam

Financing under Kisan Credit Card Scheme

The Kisan Credit Card [KCC] Scheme was introduced in 1998-99 to cater adequate, timely, cost effective and hassle free credit support to the farmers from the formal banking system.

During the year 2009-10, 1498822 numbers of KCCs were issued and ₹430.56 crore was sanctioned by the banks as against 103361 numbers of KCCs and ₹375.89 crore during the year 2008-09. During 2007-08, the number of KCCs issued by the banks was 62132 and the amount sanctioned was ₹163.66 crore. Since inception of the scheme, cumulatively about 6.30 lakh KCCs have been issued in the State up to March 2010. The Scheme, thus, covered around 23.0 percent of the total farmer family (there are 27.50 lakh farmer families as per Agriculture Census 2005-06) of the State.

TABLE-14.9
ADVANCES UNDER KISAN CREDIT CARD SCHEME

(Rupees in lakh)

Year	Annual Achievement		Cumulative Achievement	
	Card Issued (No.)	Amount	Card Issued (No.)	Amount
2003-04	94377	9728.64	-	-
2004-05	86822	9382.86	172965	22202.28
2005-06	70238	9677.79	339750	38839.94
2006-07	50067	7862.03	359395	40580.52
2007-08	62132	16365.83	329932	67908.97
2008-09	103361	37589.23	480393	104682.06
2009-10	149822	43055.94	630070	158372.04

Source: Reports of State Level Bankers Committee, Assam

Micro Finance

Micro finance is widely regarded as an effective programme for reducing poverty as well empowerment of the poor. The micro-finance programme of NABARD, which began in 1992 with formation of 500 Self Help Groups (SHGs), has emerged as the largest micro-finance programme in the world. The Self Help Group – Bank linkage programme, the main micro-finance model and institutional finance mechanism to provide financial credit support to the micro-entrepreneurs (including farmers) in the country as a whole, has been proved to be the most cost effective credit delivery system in India. The programme has also helped in providing banking services to the uncovered rural poor.

The focus of SHG-Bank linkage programme is seen to be picking up its importance a little late in the State of Assam. However, the programme has gathered momentum from the year 2001-02 onwards. Till the end of March 2010, total 374745 SHGs have been bank linked in the State out of which 163855 SHGs were credit linked.

Cumulative position of bank linked SHGs shown in the Table –14.10

TABLE-14.10
SELF-HELP GROUPS FINANCED BY BANKS

(Rupees in lakh)

Year	Total bank linked SHGs		Deposit linked		Credit Linked	
	No	Amount	No	Amount	No	Amount
2004-05	122304	20975.75	79592	3409.05	42712	17566.70
2005-06	269917	48239.13	175565	9846.77	94352	38392.36
2006-07	230902	58040.52	121474	5261.61	109428	52778.91
2007-08	257863	57417.70	142147	6044.72	115716	51372.98
2008-09	305132	77365.49	166740	7485.51	138392	69879.98
2009-10	374745	92724.79	210890	9123.46	163855	83601.33

Source: Reports of State Level Bankers Committee, Assam

Microfinance Promotion by NABARD

The NABARD, Assam Regional Office has played a vital role by extending grant assistance of ₹358.06 lakh to 119 NGOs for promotion of 14259 SHGs in the State upto 31ST October 2010. With a view to facilitate the established and socially committed NGOs to access higher quantum of credit from the banking system for meeting the demand for credit, two Micro Finance Institutions(MFIs) viz., ASOMI and RGVN have been sanctioned a amount of ₹100.00 lakh each towards capital support by NABARD.

In areas where the NGOs and Bank network is weak, a scheme for associating individual Rural Volunteers (IRVs) in promotion and linkage of SHGs was introduced. The scheme is currently implemented through the RRBs and SBI in the State. NABARD has sanctioned a grant assistance of Rs.135.18 lakh to promote and credit link 7510 SHGs with banks with the help of 751 IRVs in all the 27 districts of the State.

With a view to increase the flow of credit, particularly to the small borrowers having limited or no collateral to offer, a new concept of Joint Liability Group (JLG) lending has been evolved wherein social collateral substitutes the physical collateral. This JLG lending was introduced on a pilot basis in the State of Assam involving RRBs to promote the concept. After completion of the pilot project, the RRBs started financing JLGs on a regular basis. As on 31ST October, 2010, 7291 JLGs have been financed by these RRBs with an aggregate credit of Rs.3170.49 lakh. Of late, the commercial banks like Indian Bank, ICICI Bank, SBI, UCO Bank and Assam State Co-Operative Apex Bank have also adopted the JLG mode for financing the tenant farmers/oral leasee/ share croppers and other activity groups.

SHG-Bank linkage under SGSY

Swarnajayanti Gram Swarojgar Yojana is the mother programme of all poverty alleviation programmes. Its objective is to uplift economic status of the rural people living below the poverty line by providing sustainable economic activities with bank loan and Government subsidy.

Up to the end of March 2010, 1.64 lakh SHGs have been formed out of which only 84678 SHGs were given loans by banks. Cumulative progress of SHG-Bank linkage programme under SGSY shown in the Table -14.11 below:

TABLE -14.11
SHG-BANK LINKAGE UNDER SGSY

(Rupees in lakh)

Year	Total Credit Linked SHGs		Credit linked SHGs under SGSY	
	No.	Amount	No.	Amount
2004-05	42712	17566.70	20388	11273.74
2005-06	94352	38392.36	48235	25024.66
2006-07	109428	52778.91	54735	36549.70
2007-08	115716	51372.98	54790	31006.57
2008-09	138392	69879.98	69144	45898.88
2009-10	163855	83601.33	84678	55161.36

Source: Reports of State Level Bankers Committee, Assam

National Bank for Agriculture and Rural Development (NABARD)

During 2008-09, the NABARD has disbursed refinance to banks in the State to the tune of ₹66.84 crore, less than 30.0 percent over the previous year. Agency wise, purpose wise and activity wise refinance disbursed by the NABARD shown in the Table below-

TABLE-14.12
AGENCY WISE, PURPOSE WISE AND ACTIVITY WISE REFINANCE DISBURSED BY NABARD

(Rupees in lakh)

Sl No.	Purpose	2008-09			2009-10		
		Commercial Banks	RRBs	Total	Commercial Banks	RRBs	Total
1.	Minor Irrigation	0.288	0.900	1.188	0.000	9.220	9.220
2.	Land Development	6.210	0.000	6.210	0.000	0.000	0.000
3.	Farm Mechanisation	199.721	148.288	348.009	0.000	92.309	92.309
4.	Plantation & Horticulture	281.700	114.093	395.793	11.000	40.670	51.670
5.	Animal Husbandry (Dairy, Poultry, Sheep, Goat & Piggery)	7.020	503.966	510.986	4.705	329.620	334.325
6.	Fisheries	3.384	57.767	61.151	2.990	1.760	4.750
7.	SGSY	1092.285	361.167	1453.452	9.309	585.347	594.656
8.	NFS(i/c Rural Housing)	996.597	1827.570	2824.167	5.796	1520.000	1525.796
9.	SC/ST Action Plan	126.000	0.000	126.000	0.000	0.000	0.000
10.	PMRY	710.635	0.000	710.635	0.000	0.000	0.000
11.	Others (i/c SHG, SRTO-Truck)	2522.875	604.100	3126.975	3225.975	845.151	4071.126
Total		5946.715	3617.851	9564.566	3259.775	3424.077	6683.852

Source: National Bank for Agriculture and Rural Development

Rural Infrastructure Development Fund (RIDF)

The Government of Assam has taken initiative for development of infrastructure in rural areas with the financial assistance from NABARD under RIDF (II to XVI). Since the inception of RIDF during 1995-96, NABARD has sanctioned 1109 projects involving RIDF loan of ₹1846.95 crore. Of the total sanctioned ₹1846.95 crore loans sanctioned, ₹1170.97 crore has been disbursed to State Government as on 30.9.2010. As against 1109 projects sanctioned, 606 projects have been completed and remaining 503 projects are under various stages of implementation.

The sector wise sanctions and releases as on 30.9.2010 were as follows:

TABLE-14.13
PROJECT WISE INFRASTRUCTURE DEVELOPMENT LOANS SANCTIONED
AND DISBURSEED TO GOVERNMENT OF ASSAM UNDER RIDF (II to XVI).

(Rupees in crore)

Sl. No	Activity	No. of Projects	Amount of Loan	Disbursement (as on 30.09.2010)
1.	Rural Bridges	780	1040.3268	690.0475
2.	Rural Roads	155	242.9701	168.4585
3.	Irrigation	71	185.0629	120.7838
4.	Flood Control	52	217.1137	159.9211
5.	MA &AH Project	6	8.5889	3.9099
6.	Small Hydrel Project	2	46.1447	27.8442
7.	Marketing Infrastructure	14	90.8610	0.000
8.	Beel Fisheries Projects	8	7.5840	0.000
9.	Pay & use toilets (50 units)	21	8.2985	0.000
Total		1109	1846.9506	1170.9650

Source: NABARD's State Focus Paper, 2011-12(Assam)

North Eastern Development Finance Corporation Ltd [NEDFi]

NEDFi, since its inception has been playing a crucial role in catalyzing the development of economy of the Northeast India. NEDFi has been instrumental for identifying, financing and nurturing eco-friendly and commercially viable industries, infrastructure and agro-horticultural projects in the region. NEDFi is also giving special emphasis to cover small enterprises and micro finance to the needy at the grassroots in the region.

SME Sector

To promote the SME Sector as well as for larger capital formation in the State economy and create more employment opportunities NEDFi has adopted several innovative strategies in the state:

- Lending to SMEs; through innovative loan products like quasi-equity by designing products like NEEDS, WEDS, JEDS, SNEHH, IDEA etc.

- Innovative loan securitizing means through concepts of joint risk sharing mechanism with the community Institutions and backed by equity fund.
- Handholding entrepreneurs to prepare DPR, assistance in legal compliance, providing need based consultancy.
- Creating environment for SMEs by providing information about technology sourcing, imparting design & product development inputs, equipment supply & facilitation of negotiations with suppliers.
- Facilitating market linkages by organizing fairs, exposures & participation in National and International Trade fairs.

Apart from the above, NEDFi has conducted a special programme called **Business Facilitation Programme** in all the state of the NE region including Assam to boost the SME sector by targeting the first generation entrepreneurs including women entrepreneurs and provided counselling, guidance and financial assistance to potential entrepreneurs in formulating viable projects and technical guidance in setting up their SSI units.

Rural and Agri-allied Sectors

Since its inception, NEDFi has tried to maintain a participatory and bottoms up approach towards framing its policies and strategies. NEDFi has focused its activity towards rural areas since 1999 and re-aligned its policy and strategies to cater to the demand of the unlettered, unregistered and unorganized sector in rural region. To achieve its re-aligned vision and mission, NEDFi has undertaken the various activities -

Initiative for Development of Entrepreneurs in Agriculture (IDEA) is a recent initiative undertaken to encourage entrepreneurs engaged in the agri-business sector with timely and adequate finance.

Under Aggressive International Marketing Programme (AIMP), a new initiative on Water Hyacinth has been initiated. Twenty Days” Integrated Design and Skill Development Programme on Water Hyacinth” was organized at R&D Centre, Khetri with Designers from Industree Craft Foundation, Bangalore, where 21 artisans participated. Another four training programmes on Water Hyacinth were organized in association with DRDA in various parts of Assam where 95 artisans participated.

To give a boost to the local industries and products of the region, the Corporation has set up NEDFi Haat in Guwahati in the year 2002. NEDFi Haat mostly provides support to the unorganised sector of the industry. It is a permanent exhibition cum selling platform to display, sell and develop marketing network of the traditional and indigenous products of rural artisans as well as the products of cottage and small scale industries from Assam and other states. During the year 2009-10, twenty six fairs were organised at the NEDFi Haat at Ambari and facilitated sale of products worth of ₹2.50 crore.

NEDFi has set up R & D centre at Khetri, Sonapur in the district of Kamrup considering the enormous potential for cultivation of medicinal and aromatic plants (MAP) like patchouli, geranium, etc in the region. It provides research backed developmental activities on commercial cultivation & processing of MAPs as well as also helping the MAP farmers to get linkage for marketing their products.

The **Micro Finance Scheme** was launched to meet the needs of smaller entrepreneurs, especially in the villages and small towns of the region. Through this scheme, NEDFi supports Non-Government Organizations (NGO) for on lending to the “needy” (preferably Self-Help Group or individual) for taking up productive

activities in the field of agriculture, micro industries and service sectors including transportation, etc. Through its **Micro Finance Schemes** NEDFi has succeeded to reach out to 108169 beneficiaries in the NE Region out of which **76%** are women. **In Assam, total cumulative sanctions and disbursements figure are over ₹50 crore and around ₹43 crore.** Table 14.14 shows the trend of achievements under micro-finance by the NEDFi.

TABLE-14.14
SUMMARY OF YEAR WISE AMOUNT SANCTIONED AND AMOUNT DISBURSEMENTS
(As on March, 2010)

(Amount in Rupees Lakh)

Item	99-00	00-01	01-02	02-03	03-04	04-05	05-06	06-07	07-08	08-09	09-10	Total
Amount Sanctioned	3	40	119	154	243	93	150	501	1170	1344	1196	5012
Amount Disbursed	3	26	82	145	204	140	140	499	515	1120	1490	4364

Apart from these, the NEDFi also introduced following special need based schemes-

- Women Entrepreneur Development Scheme (WEDS): To assist women entrepreneurs for taking up business ventures.
- Jute Enterprise Development Scheme (JEDS): To provide financial assistance to new/existing tiny units engaged in the jute sector.
- Scheme for North East Handloom & Handicrafts (SNEHH): To help the manufacturers, designers/exporters engaged in handloom & handicraft products.

Alternative Livelihood Initiative

Special Initiative: Empowering women through value addition to a natural skill.

NEDFi has set up Common Facility Centre (CFC) at Chatra Village, Nalbari for 30 Bodo women who were imparted training on design development in weaving through the Centre for practical livelihood training. This Community development approach was based on – enhancing capacity and need based skill for alternative sustainable livelihood; providing support to establish infrastructure for alternative source of livelihood and organizing women in a common platform to raise their voices, sharing experience and fulfil their dreams.

One Village One Product Model to improve income level of marginal and small farmers.

NEDFi has also taken up “One Village One Product” to encourage farmers to concentrate on a single product. Gramya Vikash Mancha (GVM), a NEDFi assisted NGO took the initiative to organize the farmers in to the “**Rangman Farmers Club**” and introduced them to lemon cultivation in their surplus land. NEDFi provided 10000 saplings to the 425 farmers along with accessories like pruning knife and sprayers and also facilitated a one-time funding for the initial requirement of manure & insecticide. The NEDFi R&D Centre has been entrusted to take up capacity building programmes for the farmers to update the latest technique of cultivation practices. The “**Rangman Farmers Club**” now proposes to set up their own nursery for lemon saplings, so that they can meet their own demand for expansion and also can supply to nearby villages.

NEDFi's Performance in Assam and NER:

Year-wise amount sanctioned, disbursed and no. of project sanctioned (as on March 31, 2010)

Year-wise Number of Project Sanctioned															
States	96-97	97-98	98-99	99-00	00-01	01-02	02-03	03-04	04-05	05-06	06-07	07-08	08-09	09-10	Grand Total
Assam	2	12	13	25	37	49	69	91	129	110	98	66	73	72	846
NER	2	19	28	60	101	86	131	204	238	285	300	169	173	211	2007

Year-wise Amount Sanctioned (Rupees in lakh)															
States	96-97	97-98	98-99	99-00	00-01	01-02	02-03	03-04	04-05	05-06	06-07	07-08	08-09	09-10	Grand Total
Assam	682	1164	2198	1725	3945	3166	3401	2639	4084	7053	8545	16588	21351	22370	98911
NER	682	1923	2798	3495	8324	6304	6364	8970	8932	13132	13872	27945	26689	33341	162771

Year-wise Disbursement (Rupees in lakh)															
States	96-97	97-98	98-99	99-00	00-01	01-02	02-03	03-04	04-05	05-06	06-07	07-08	08-09	09-10	Grand Total
Assam	615	227	1062	932	3360	2472	2170	2964	2285	5342	6680	8872	13071	13512	63564
NER	615	355	1217	1463	5046	5079	5110	5209	5235	10431	9424	11643	18409	20808	100045

Assam Financial Corporation

The Assam Financial Corporation is considered to be the torch bearer of the industrial development of the region. The Corporation has been striving to boost up its performance and persistently working for it. On the sanction and disbursement front, in spite of various constraints, the Corporation is continuing its lending operations. During the Financial year 2009-10 the total sanction of loan was ₹728.19 lakh and disbursement was ₹377.70 lakh corresponding to ₹318.24 lakh and ₹350.51 lakh during the financial year 2008-09. The economic slow down due to global financial crisis resulted in uncertainty and decline in credit requirement during the last financial year for which the Corporation was not able to enlarge its loan portfolio.

Micro finance, which has added a new dimension in the economy recording exponential growth in credit delivery through SHG (Self Help Group) and JLG (Joint Liability Group), has been recognized as an effective means of empowering the rural and economically backward section of the society. The Corporation is implementing the Chief Minister's Micro Finance Scheme (CMMF) for which the Govt. of Assam has provided a low cost loan of ₹1000.00 lakh. The Corporation sanctioned loan to 5(five) eligible NBFC/NGO/MFI for on lending to deserving SHGs and JLGs etc. On Micro Finance front the Corporation sanctioned ₹411.00 lakh and disbursed ₹235.00 lakh respectively during the Financial Year 2009-10.

A new 'Venture Capital Fund' with a corpus of ₹400.00 lakh has been introduced to encourage the new and first generation entrepreneurs with innovative activities. The fund was provided by the Govt. of Assam for the purpose. The Corporation has already entered into an MOU with SIDBI and Govt. of Assam for revival of refinance from SIDBI and it is expected that this development will give a major boost to the operation of the Corporation in coming years.

CHAPTER-XV

CO-OPERATION

The Cooperative Movement begins dates back to the year 1904 when the first Cooperative Act was promulgated. After independence cooperative has been earmarked as state subject. The main task of the Co-operation Sector is to facilitate the formation and working of Co-operative Societies in the State for the purpose of promoting self-help and mutual aid among agriculturalists, artisans and other persons with common economic needs so as to bring about a higher standard of living, better business, better method of production and equitable distribution. . Since the economy of Assam is predominantly rural in character, an extensive network of sound and viable co-operatives can help tremendously in giving shape to the socio-economic structure of Rural Assam in particular and in achieving the much needed economic growth and social transformation as well. In Assam, the co-operative sector failed to achieve its desired objective due to its limited impact and existence of uneconomic and dormant cooperatives as well.

The Cooperative Department of Assam has given special thrust in certain areas at present for revival of the cooperative structure in the State so as to attain the objective of upliftment of the economic conditions of the poor people of the society by providing low cost credit to the farmers and employment generation programmes. To achieve the goal the State Cooperation Department has taken various schematic programmes during the 11TH Five-Year Plan-

- Revival of short term and long term Cooperative credit structure in the State.
- Rejuvenation of Consumer Cooperatives.
- Involving women in the economic activities.
- Providing housing facilities to economically backward classes.
- Revival of potentially viable Cooperative enterprises and closure of sick units.
- Enlargement of farming activities through Dairy, Fishery, Agricultural farming and other allied activities.
- Strengthening of Cooperative movement through spread of Cooperative Education, Training and leadership development.

Credit Flow to various Cooperative Societies

As per policy of Government of Assam, Cooperative Agriculture Credit is to flow through Commercial Banks, Rural Banks and Assam Cooperative Apex Bank to the Primary Agricultural Cooperative Societies (PACS). For the purpose, the PACS were ceded to Commercial Banks, Regional Rural Banks (RRBs) and Apex Bank by the Government. At present 318 nos. PACS are ceded to various Commercial Banks & RRBs and 585 nos. PACS are ceded to Assam Cooperative Apex Bank Ltd. In view of revival of Short Term Cooperative Credit Structure in the state an amount of ₹20.00 Crore (approx) has been paid to Apex Bank towards liquidation of overdue loans of PACS and making them eligible for fresh finance to farmers. The agricultural credit issued to the farmers by the Apex Bank during the period 2006-07 to 2008-09 is placed in the table 15.1.

TABLE-15.1
ISSUE OF AGRICULTURAL CREDIT BY APEX BANK

Year	Rupees in lakh
2006-07	701.66
2007-08	1557.04
2008-09	2981.16

Source: Draft Annual Plan, Assam 2010-11

Revival of various cooperative societies

The Cooperation Department has taken various schematic programmes for revival of various sick cooperatives in the State during the last three years by allocating fund to those cooperatives.

Multipurpose Rural Co-operatives (Strengthening of Primary Agricultural Credit Co-operatives) G.P.S.S.:

There are 709 nos. of Gaon Panchayat level Samabai Samitees (GPSS) in the State that deals in Agricultural produces, distribution of essential commodities etc. Financial assistance of ₹15.00 lakh was provided to 90 nos. of G. P. S. S. in the year 2008-09. An amount of ₹5.00 lakh has been provided as financial assistance to 8 nos. of G. P. S. S. in the year 2009-10.

Credit Co-operatives- Revival of ASCARD Bank

There are three types of Cooperative Bank in the State viz.:1) ASCARD Bank, 2) Apex Bank and 3) Urban cooperative Banks with their branches spread all over the State. ASCARD Bank is the only pioneer organisation to provide long-term credit in the cooperative sector in the State. The State Govt. has taken several steps to revive the bank by implementing the revival package formulated by the Govt. of India. The State Govt. has provided ₹10.00 lakh and ₹135.00 lakh to the ASCARD Bank during the year 2007-08 and 2008-09 respectively. During the year 2009-10, an amount of ₹1022.38 lakh has been provided to the Bank out of which ₹822.38 lakh has been released for payment of back wages as per Supreme Court's direction and ₹200.0 lakh has been proposed for revival.

Processing Co-operatives

A large number of processing units have been set up in the State under Co-operative Sector comprising of Rice and Oil Mill, Mustard Oil Mill, Spinning Mill, Jute Mill etc. The Assam Polyster Cooperative Society Ltd. (APOL), a downstream spinning industry, is one of the prestigious organisations under the Cooperative sector in the state. This organisation remained non-functional for sometime. To revive the organisation, the state Govt. has provided an amount of ₹15.00 lakh and ₹110.00 lakh to APOL during the year 2007-08 and 2008-09 respectively. An amount of ₹60.00 lakh was also provided to APOL During the year 2009-10. Similarly; financial assistance has been provided to two another Spinning Mills of Assam Viz., the Swahid Kushal Konwar Sutakal Samabai Samitee Ltd located at Golaghat District and Assam co-operative Spinning Mill, located at Boitamati under Bongaigaon District by the Govt. of Assam.

Consumer Co-operatives

There are 36 Urban Wholesale Consumer Stores with 474 affiliated Primary Consumer Stores and 640 Tea Garden Consumer Stores in the state. During the financial year 2008-09 an amount of Rs.40.00 lakh was released @Rs.1.00 lakh each to 40 nos. of Cooperative Consumers Societies. It is proposed to provide financial assistance to six nos. of such Consumer Cooperative Societies during the year 2009-10.

Co-operative Sugar Mill

Out of two Co-operative Sugar Mills in Assam, only Nagaon Co-operative Sugar Mill was functioning prior to 2003-04. Due to financial constraint and other various reasons, it had to stop its production for last couple of years. To revive the Sugar Mill, the State Govt. provided ₹39.98 lakh and ₹10.00 lakh during the years 2007-08 and 2008-09 respectively. Another amount of ₹5.00 lakh has also been provided to the Nagaon Cooperative Sugar Mill in the year 2009-10.

Housing Co-operative

There are more than 381 numbers of Primary Housing Co-operatives with one Apex Level Society, HOUSEFED, Assam is rendering service to its members. This Federation has also provided housing facilities to the Govt. departments and loan for dwelling houses to the low and middle-income people in the urban and rural areas. During the year 2008-09 an amount of ₹210.00 lakh was provided to HOUSEFED for providing houses to the poor members of housing cooperatives including TSP and SCSP areas. Another amount of ₹304.40 lakh has been provided to the Society during the year 2009-10.

Revival of Dairy Co-operatives

There are three Regional Level Milk Co-operative Union, viz.(1) the West Assam Milk Producers Cooperative Union Ltd. (WAMUL); (2) the East Assam Milk Producers Cooperative Union Ltd. (EAMUL) and (3) the Central Assam Milk Producers Cooperative Union Ltd. (CAMUL) and 320 Primary Milk Unions in the State. The State Govt. has decided to revive the WAMUL by handing over its management to NDDDB. During the year 2007-08, the State Govt. to WAMUL has released an amount of ₹164.00 for refurbishment of its liquid milk plant and the cattle feed plant and payment of liabilities like employees' salaries and other dues. During the year 2008-09 an amount of ₹54.00 lakh and during the year 2009-10 ₹40.00 lakh have been released to the WAMUL for the purpose of liquidation of past losses under revival scheme of Govt. of India assistance to cooperatives.

Similarly, the State Govt. has also taken steps for revival of the EAMUL and released financial assistance of ₹70.00 lakh provided to the EAMUL in the year 2008-09. An amount of ₹50.00 lakh has also been provided during the year 2009-10 to EAMUL.

Women Cooperatives

There is 2486 Gaon Panchayat Level Women Multipurpose Women Cooperatives in Assam. During the year 2007-08, 240 numbers of such cooperative societies were provided financial assistance @ ₹50,000.00 each under the Assam Bikash Yojana. During the year 2008-09, financial assistance of Rs.100.00 lakh was given to 200 nos. of Women Cooperative Societies @₹50, 000/- each. In the year 2009-10, financial assistance of ₹130.00 lakh to 229 nos. of such cooperative societies for taking up women oriented schemes suitable for their local situation.

Other Cooperatives

In addition to the above mentioned Co-operative Societies, there is large number of functional Co-operative like Poultry, Piggery, Duckery, Pisci-culture, Cane and Bamboo Industries, Brick Industries, Transport and Communication, Rickshaw puller, Bee-keeping, Blacksmith, Carpentry etc in the State and these are mostly confined to economically weaker section of the Society. In the year 2008-09, an amount of ₹16.00 lakh was given to 32 nos. of such type of Societies. In this financial year i.e.2009-10, it is proposed to provide assistance of ₹20.00 lakh to Fishfed and ₹10.00 lakh to Assam Bell Metal Utensil Manufacturing Co-operative Society and ₹10.00 lakh to 12 nos. of other types of Cooperative Societies.

Performance of State Level Cooperative Societies

The performance of some of the State Level Credit and Non-Credit co-operative institutions elaborated below:

A. Assam State Co-Operative Apex Bank Limited

The Assam State Co-operative Apex Bank Limited is a pioneer Co-operative institution in channelizing credit

for agricultural operation to boost up the development process of the rural economy as well as financing other urban business and industrial activities through co-operative channel in the State. The bank, which has been functioning since 1948, has 68 branches in the State at present. The bank has failed to provide desired service to the rural sector through its adopted PACS due to its ill health. The Government of Assam has decided to implement the Government of India's Scheme of revival of Short Term Co-operative Credit Structure including the Assam State Cooperative Apex Bank Limited. Accordingly, a Memorandum of Understanding (MOU) was signed between the Government of Assam, NABARD and representative of Government of India.

As per available information, the membership of the bank has increased from 59 thousand in 2005-06 to 76 thousand in 2009-10. The share capital has increased to ₹7.80 crore in 2009-10 from ₹7.20 crore in 2008-09. The working capital is also increased to ₹1225.06 crore in 2009-10 from ₹846.78 crore in 2008-09.

The performance of the Assam State Co-operative Apex Bank during the last five years may be evident from the table below.

TABLE-15.2
THE PERFORMANCE OF ASSAM STATE CO-OPERATIVE APEX BANK LTD

Particulars	Unit	2005-06	2006-07	2007-08	2008-09	2009-10
Bank Branches	No	68	68	68	68	68
Members	'000 No	59	64	68	72	76
Paid up Share Capital	Rs. crore	5.94	6.32	6.69	7.20	7.80
Reserve	-do-	23.19	22.55	22.76	23.54	23.82
Deposits	-do-	552.38	587.21	641.67	823.57	118.88
Working Capital	-do-	812.20	586.68	643.93	846.78	1225.06
Borrowing outstanding	-do-	2.62	1.85	1.26	2.13	Nil
Investments	-do-	211.92	251.02	284.97	230.85	781.12
Loans Advances	-do-	146.44	163.13	142.44	186.21	150.23
Loan Outstanding	-do-	283.62	266.93	288.94	311.75	322.82
Loan Overdue	-do-	142.57	-	95.16	24.39	101.22
Profit (+) / Loss(-)	-do-	+5.18	+2.78	-11.85	-1.40	+6.44

Source: Register of Cooperative Societies, Assam

B. Assam Cooperative Agricultural and Rural Development Bank Limited (ASCARD):

The Assam Cooperative Agricultural and Rural Development Bank, which was formerly known as Assam Coop. Central Land Mortgage Bank Ltd was established in the year 1955. The functioning of the bank was hampered due to ill financial health for several years. The Government of Assam has decided to revive the bank by correcting all deficiencies and to implement the revival package rules formulated by the Government of India for revival of the Rural Cooperative Credit Structure [Long Term] based on Report of the Task force headed by Prof. A. Vaidyanathan.

As on 31st March 2010, the bank has 28 branches throughout Assam with more than 37 thousand members. The paid up share capital of the bank has decreased to ₹641.67 lakh in 2009-10 from ₹647.28 lakh in 2008-09. The working capital, on the other hand, increased to ₹4993.18 lakh in 2009-10 from ₹4913.83 lakh in 2008-09. The deposit also decreased to ₹37.81 lakh in 2009-10 from ₹48.67 lakh in 2008-09. Although the bank after two years suspension [i.e., 2006-08] resumed its loaning business and issued loan of ₹11.53 lakh

during the year 2008-09, the amount of loans & advances decreased to ₹7.65 lakh in the year 2009-10. The loan outstanding with the bank recorded continuous fall from ₹1196.77 lakh in 2005-06 to ₹965.42 lakh in 2009-10.

The data containing important indicators of bank performance are presented in the Table below.

TABLE-15.3
PERFORMANCE OF ASSAM STATE COOPERATIVE AGRICULTURAL AND RURAL DEVELOPMENT BANK (ASCARD)

Particulars	Unit	2005-06	2006-07	2007-08	2008-09	2009-10
Bank branches	No	33	33	32	30	28
Membership	No	34286	34286	34340	34390	37372
Paid up Share Capital	Rs. Lakh	660.40	656.18	652.53	647.28	641.67
Working Capital	-do-	2711.57	2605.92	4596.12	4913.83	4993.18
Deposits	-do-	59.95	97.45	72.02	48.67	37.81
Loans and Advances	-do-	26.09	Nil	Nil	11.53	7.65
Loan Outstanding	-do-	1196.77	1192.57	1124.23	1028.44	965.42

Source: Registrar of Cooperative Societies, Assam

C. Urban Cooperative Banks

The State has a presence of 13 Urban Cooperative Banks (UCBs) as on March 2009. Out of the 13 UCBs, only 9 banks are functioning with 15 branches. Till recent past, multiplicity of command, absence of clear-cut demarcation between the functions of State Government and RBI, led to operational difficulties in implementing regulatory and supervisory measures pertaining to UCBs. To sort out the difficulty, an MOU between RBI and Government of Assam was signed in connection with regulatory control of RBI over UCBs during the year 2008 so that functioning of such banks can be improved and confidence of depositors can be restored.

As per available report, total membership of the functioning UCBs were 23 thousand in 2008-09 as against 37 thousand in 2005-06. The paid up share capital of UCBs has been increased from ₹3.93 crore in 2005-06 to ₹6.72 crore in 2008-09. The working capital of the banks, on the other hand, decreased to ₹253.83 crore from ₹289.46 crore in the previous year. The loans and advances increased from ₹94.49 crore in 2007-08 to ₹101.00 crore in 2008-09.

TABLE-15.4
STATISTICS RELATED TO PERFORMANCE OF URBAN COOPERATIVE BANKS

Particulars	Unit	2005-06	2006-07	2007-08	2008-09
Bank Branches	No	21	15	15	15
Membership	'000' No	37	24	25	23
Paid up Capital	Rs.Crore	3.93	3.40	3.76	6.72
Working Capital	-do-	244.82	240.80	289.46	253.83
Deposits	-do-	197.80	202.56	231.28	280.50
Loans/Advances	-do-	299.36	155.67	94.49	101.00
Loan Outstanding	-do-	111.40	112.03	130.29	98.50
Loan Overdue	-do-	16.44	6.40	6.58	7.25

Source: Registrar of Cooperative Societies, Assam

D. State Level Non-Credit Co-Operative Societies

There are a few State Level Non-Credit Co-operative Societies functioning in the State. The performance of these societies is presented in the Table below.

TABLE-15.5

STATISTICS RELATED TO STATE LEVEL NON-CREDIT CO-OPERATIVE SOCIETIES IN ASSAM

Name of Societies	Year	No. of Societies	No. of Members	[Rupees in Lakh]		
				Paid up Capital	Working Capital	Value of Sales
Assam Co-operative Jute Mill Ltd.	2008-09	1	8263	1207.80	1207.06	2085.08
	2009-10	1	8262	1309.27	1143.44	2660.29
FISHFED	2008-09	1	217	218.35	180.66	16.78
	2009-10	1	241	253.35	369.81	16.27
HOUSEFED	2008-09	1	417 Member Societies	1337.10	7364.00	186 Houses
	2009-10	1	418 Member Societies	1560.13	8167.00	237 Houses
Eastern Agro Processing & Tea Warehousing Co-op. Society Ltd.	2008-09	1	493	95.12	1267.05	1799.07
	2009-10	1	493	97.08	1455.21	1474.45
Assam Polyester Co-operative Society Ltd	2008-09	1	12759	1608.07	1176.02	990.01
	2009-10	1	13129	1608.07	1152.32	1149.68

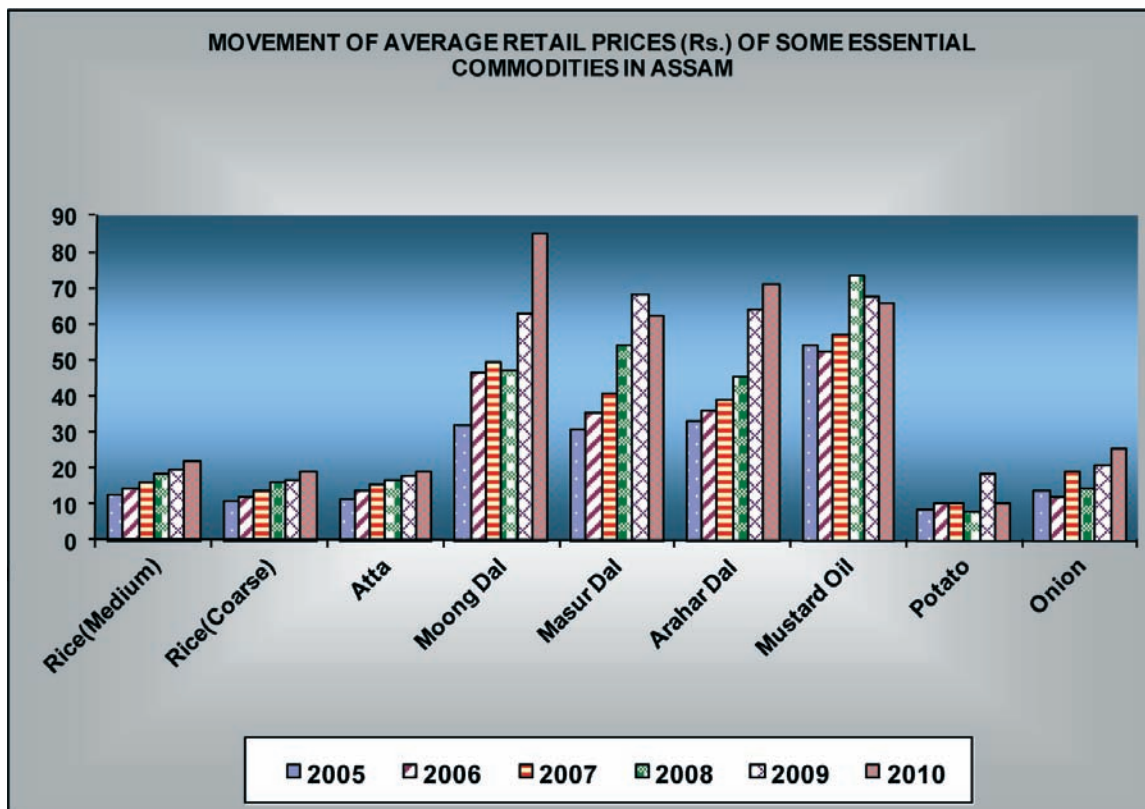
Source: Registrar of Cooperative Societies, Assam

CHAPTER XVI

PRICES AND PUBLIC DISTRIBUTION SYSTEM

The stability in price level has a direct impact on the economic development of the economy of a state. Rising prices lead to increase in the inequalities of incomes. It also affects the fixed income groups of the society. For the last couple of years the state in particular and the country as a whole is experiencing high price rise. The upward movement of the price level in Assam as evident in different price indices as well as from retail price movement is briefly analysed in the following paragraphs.

Average retail prices of some essential commodities recorded a more or less rise of prices during the year 2010. Prices of Rice, Atta, Masur and Aarahar fluctuated around 2 percent and price of Moong oscillated in the range around seven percent. During the later part of the year, a high price rise was noticed in case of Potato and Onion. While the price of Potato recorded more than 20 percent increase during the month of June 2010, the price of Onion increased more than 40 percent in the month of November 2010. The movement of average retail prices of some essential commodities from 2005 to 2010 is depicted in the graph below.



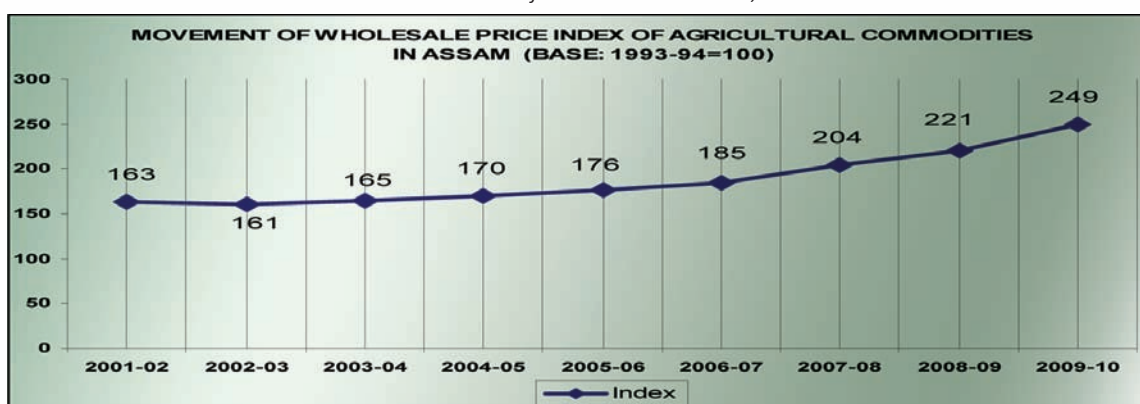
Wholesale Price Index Number for Agricultural Commodities

The annual average of Wholesale Price Index of Agricultural Commodities in Assam (Base 1993-94=100) stood at 249 in 2009-10 as against 221 in 2008-09 and 204 in 2007-08. The Index thus displayed the increase of prices of 12.67 per cent in 2009-10 over 2008-09 as against 8.33 percent increase in 2008-09 over the previous year. As per available information, the Wholesale Price Index of Agricultural Commodities in Assam increased by 5.34 percent during the period April 2010 to December 2010. Table at 16.1 shows the movement of Wholesale Price Index of Agricultural Commodities in Assam for last few years.

TABLE-16.1
INDEX NUMBER OF WHOLESALE PRICES OF AGRICULTURAL COMMODITIES IN ASSAM
(Base 1993-94=100)

Year	Index	Price Change over the year (in percentage)
2001-02	163	-
2002-03	161	(-)1.23
2003-04	165	2.48
2004-05	170	3.03
2005-06	176	3.53
2006-07	185	5.11
2007-08	204	10.27
2008-09	221	8.33
2009-10	249	12.67

Source: Directorate of Economics and Statistics, Assam



Consumer Price Index for Working Class Population

The average Consumer Price Index for Working Class Population for the State is compiled by the Directorate of Economics and Statistics, Assam taking into account the weighted average of the indices of the three centre viz., Guwahati, Silchar, and Tinsukia. The annual average of Consumer Price Index for Working Class Population (Base 2001=100) in Assam increased by 10.81 percent in 2010 and 10.45 percent in 2009 over the previous year. The centre-wise increase is comparatively high in Silchar (14.84%) followed by Guwahati (9.09%) and Tinsukia (8.84%).

TABLE-16.2
CONSUMER PRICE INDEX NUMBER FOR WORKING CLASS POPULATION IN ASSAM

(Base 2001=100)

Year	Guwahati	Silchar	Tinsukia	Assam
2006	115	121	116	117
2007	120 (4.35)	130 (7.44)	125 (7.76)	125 (6.84)
2008	128 (6.67)	143 (10.00)	133 (6.40)	134 (7.20)
2009	143 (11.72)	155 (8.39)	147 (10.53)	148 (10.45)
2010	156 (9.09)	178 (14.84)	160 (8.84)	164 (10.81)

(Figures in bracket indicate the percentage change over the previous year.)

Consumer Price Index for Industrial Workers

The Consumer Price Index for Industrial Workers with base 2001=100 is constructed and compiled by taking weighted average of the indices for the five centres, the weights being Guwahati (23.86), Doomdooma (Tinsukia) (18.98), Labac (Silchar) (19.51), Morioni (Jorhat) (18.70) and Rangapara (Tezpur) (18.95). During the year 2010 the CPI for Industrial Workers in Assam increased 9.52 percent as against 12.10 percent at all India level over 2009. The rate of increase of the Index in different centres in 2010 is higher by 14.84 percent in Labac, followed by 9.09 percent in Guwahati, 8.84 percent in Doomdooma 7.48 percent in Morioni and 6.94 percent in Rangapara over the previous year.

TABLE-16.3

CONSUMER PRICE INDEX NUMBER FOR INDUSTRIAL WORKERS IN ASSAM AND INDIA

(Base 2001=100)

Year	Guwahati	Morioni	Doomdooma	Labac	Rangapara	Assam	All India
2006	115	116	116	121	114	116	123
2007	120	127	125	130	126	125	131
2008	128	133	133	143	131	133	142
2009	143	147	147	155	144	147	157
2010	156	158	160	178	154	161	176

Source: Directorate of Economics and Statistics, Assam

Consumer Price Index for Agricultural Labourers (CPI-AL)

The Labour Bureau, Simla compiles the CPI-AL with base year 1986-87. During the period April 2010 to January 2011 the CPI-AL (Base 1986-87=100) of Assam increased by 12.05 percent as against 8.0 percent increase at All India level. CPI-AL for last few years is given in Table-16.4.

TABLE-16.4

CONSUMER PRICE INDEX FOR AGRICULTURAL LABOURERS

(Base 1986-87=100)

Year	Assam	India
2005-06	362	358
2006-07	388	388
2007-08	417	417
2008-09	450	462
2009-10	507	517
Percentage Change in 2009-10 over 2008-09	12.67	11.90

Public Distribution System

The Food, Civil Supplies and Consumer Affairs Department of the State was constituted to give solace to price rise by increasing supply of goods and a transparent public distribution system of essential commodities so that the vulnerable sections of the population and the society as a whole are benefited. Presently the following schemes are being implemented by the department for welfare of the masses.

Fair Price Shops: The State has a network of 34,536 Fair price shops as on March, 2010 out of which 30,506 are located in rural areas and 4,030 in urban areas. On an average, each shop covers 898 persons.

The present monthly requirement, allocation and off-take of commodities for Public Distribution System for the State are shown in Table-16.5.

TABLE-16.5
REQUIREMENT, ALLOCATION AND OFF-TAKE OF PDS ITEMS IN ASSAM

(In metric tons)

Items	Monthly Requirement		Monthly Allocation (average)		Monthly Off-take (average)	
	2008-09	2009-10	2008-09	2009-10	2008-09	2009-10
1	2	3	4	5	6	7
RICE	174363	174363	98491	98490	97937	98226
WHEAT	46137	46137	18697	18697	18460	18116
L/SUGAR	22050	22050	18451	18463	12412	18235
S.K. OIL	44125	44125	21489	21475	21488	21472

Source: Directorate of Food & Civil Supplies, Assam

The Above Poverty Line (APL) Schemes: At present there are 43.94 lakh APL families in the State out of which 39 lakh families are provided with APL rice, S.K. Oil, L/Sugar and Iodized salt as per quantum of allocation in each month.

The Below Poverty Line (BPL) Schemes: The State has achieved the given target of selecting 19.06 lakh beneficiaries from BPL families by providing distinct ration cards and also providing BPL PDS items at subsidized rates. Out of 19.06 lakh selected beneficiaries 12.02 lakh of beneficiaries take benefits as BPL families and the rest 7.04 lakh of beneficiaries are included under AAY category families as per directions and guidelines of the Central Government.

The Antyodaya Anna Yojana (AAY): The Scheme is in implementation in the State since November 2001 as per guidelines of the Govt. of India. At present there are 7.04 lakh families under AAY category. Under this scheme, the selected beneficiaries are provided with 35 Kg. of Rice per family per month at a highly subsidized rate of Rs.3.00 per Kg. The transportation charge @ Rs.30.00 per quintal for carrying AAY Rice from the FSD of FCI to the various outlets for distributing the Rice amongst the selected beneficiaries is provided by the State Government under Non-plan head to the PDS nominees.

Village Grain Banks Scheme: To provide food security to the BPL families, the State Government has implemented the Village Grain Banks Scheme by setting up 100 nos. of Grain Banks in chronically flood and natural calamities effected areas. Every VGB were allotted 40 Qtls. of rice. The scheme is being implemented by the Deputy Commissioners in their respective districts. The necessary fund for the Village Grain Banks is shared by both the Central and State Govt. under Non-plan head.

Consumer Protection Affairs: Under the provisions of Consumer Protection Act 1986, the Food and Civil Supplies Department being the State Nodal Centre has one State Commission with Head Quarter at Guwahati and eight numbers of regular District Forum and another fifteen numbers of part time District Fora in rest of the Districts to dispose off the cases and complaints lodged before the Commission/Fora as per the provisions of the aforesaid Act.

At present, the complaints value at per Rupees Twenty lakhs may be filed in District Fora, the State Commission undertakes the complaints valuing Rupees Twenty lakh to Rupees One crore and National Commission is taking care of the complaints valuing Rupees One crore and above for necessary redressal.

Several Consumer Clubs are proposed to be set up at various schools of the State with an intention to

provide knowledge to the student community to safeguard them from the exploitation from scrupulous businessmen.

Randhan Jyoti Scheme: The scheme is in implementation in the State since August 2003. The State has already implemented 1st, 2nd, 3rd, and 4th phase of the scheme by providing LPG connection at free of cost to 1,68,221 numbers of person selected from BPL families in order of preference of widow, women members of the Self-Help groups and any other female members of the BPL families of lower income groups. This scheme is sponsored by the State Government. The 4th phase of the scheme with a financial grant of Rupees One hundred fifty lakh is already completed covering a target of 8,726 nos. of selected beneficiary families in the State.

The 5th and 6th phase of Randhan Jyoti Scheme is in the process of implementation. For the 5th phase of the scheme, a sum of Rupees Two hundred lakh has already been drawn by the Department for giving benefit to 11,514 numbers of new beneficiary families.

Jana Kerosene Pariyojana: The Ministry of Petroleum and Natural Gas has launched a pilot project viz. Jana Kerosene Pariyojana in the country to ensure timely supply of required S.K. oil to the rural consumer at fair price. The project was launched in Assam on 2nd of October 2005 covering 34 blocks in 35 S.K. oil agents of the State. The wholesalers have been provided 150 to 250 numbers of specially painted Jana Kerosene logo bearing barrels to ensure supply of the commodity to the consumers.

The State Level co-ordinator of Oil Marketing Companies of Assam monitors the entire progress of the scheme.

Mukhya Mantrir Anna Suraksha Yojana: Under the Targeted Public Distribution System (TPDS), a total of 19.06 lakh numbers of families are covered as per target fixed by the Planning Commission of Govt. of India based on the population as well as family status of 1993-94 and no extra target for inclusion of more deserved families is taken into consideration by the Central Govt. Hence, to bring the deserved poor families i.e. lowest strata of APL families under the ambit of food security, the Anna Suraksha Yojana is launched under the leadership of Hon'ble Chief Minister of Assam.

At present the scheme is envisaged to cover 13,00,000 families amongst the poorest and most economically backward of the APL families. Such identified families will be provided Ten kgs of subsidized rice at the rate of Rupees Six per kg to each beneficiaries upon production of distinctive Ration card to be issued by the concern department. In rural areas, the beneficiaries are selected by the selection committee comprising of Block Development Officer as Chairman and another five members including one PRI member and two social workers and in urban areas the committee is headed by the local Revenue Circle Officer and another five members to select the beneficiaries for the scheme.

CHAPTER-XVII

LABOUR, EMPLOYMENT AND WAGES

The present unemployment scenario in the state is very grim. The data available from the Employment Exchanges does not give a clear picture on unemployment as a large number of un-employed persons either did not register their names with Employment Exchanges or those who secure employment through other channels do not delete their names from the records of Employment Exchanges. The State Govt. has initiated various programmes to lessen the burden of unemployment. To study the unemployment problems in the State, a study on the potential employment avenues available in the state is necessary.

Employment Scenario

A comparison of the workers data in the census reports of 1991 and 2001 show that the percentage of main workers to total workers has declined from 86 in 1991 to 75 in 2001. The census reports from 1961 to 2001 indicate a decline in percentage of cultivators from 65 in 1961 to 28 in 2001 which may be due to shift of employment to other sectors. The percentage distribution of workers in the State as per census reports is shown in the Table-17.1.

TABLE -17.1
PERCENTAGE DISTRIBUTION OF WORKERS

Sl No.	Classification of workers	1961	1971	1991	2001
I	Main Workers	100.0	100.0	86.4	74.6
	(a) Cultivators	64.7	55.9	44.0	28.1
	(b) Agricultural Activities	3.6	9.9	10.4	6.7
	(c) Other Activities	31.7	34.2	32.0	39.8
II	Marginal Workers	-	-	13.6	25.4

The employment-unemployment surveys conducted by the National Sample Survey Organisation (NSSO) in various rounds gives a glimpse on various characteristics of employment and unemployment situation in the country as well as in the states. As per the 64th round of survey conducted during the year 2007-08, the number of unemployed males and females per thousand persons according to broad usual activity status in Assam were 26 and 10 respectively, in rural areas as against 11males and 3 females at all-India level. Similarly, in urban areas the unemployment per thousand persons in the State was 44 males and 25 females against 22 males and 8 females at all-India level. The findings of the survey conducted by NSSO in respect of sex-wise working persons, unemployed and not in labour force in Urban and Rural areas per thousand person in Assam and at All India level during 2007-08 is shown in the Table-17.2.

TABLE-17.2
DISTRIBUTION OF PERSONS (PER 1000) BY BROAD USUAL ACTIVITY STATUS 2007-08

	Working				Unemployed				Not in Labour Force			
	Rural		Urban		Rural		Urban		Rural		Urban	
	M	F	M	F	M	F	M	F	M	F	M	F
Assam	564	153	541	87	26	10	44	25	410	837	416	888
India	548	289	554	138	11	3	22	8	441	708	424	854

Source: Employment and Unemployment Situation in India, 2007-08, NSSO, Govt. of India

Census of Assam Government Employees

As per the Assam Government Employees Census, the total number of employees stood at 3.24 lakh as on 31st March, 2004 as against 3.26 lakh as on 31st March, 1999. Thus, the number of employees has recorded a decrease of (-) 0.61 per cent during the period from 01.04.99 to 31.03.04. The Table 18.3 shows the distribution of Government Employees according to the status/caste/tribes and sex as per Employees Census, 2004.

TABLE-17.3
DISTRIBUTION OF ASSAM GOVERNMENT EMPLOYEES ACCORDING TO THE STATUS/ CASTE/ TRIBES AND SEX AS PER EMPLOYEES CENSUS, 2004

STATUS	S.C.		S.T.(H)		S.T.(P)		OBC		OTHERS		TOTAL	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
CLASS-1	453	70	94	30	690	99	1545	245	5296	733	8078	1177
CLASS-II	437	46	79	17	515	46	1759	211	4523	548	7313	868
CLASS-III	11712	2234	3144	1423	19955	4915	56858	16180	103369	23490	195038	48242
CLASS-IV	5007	672	1369	132	4929	371	13741	895	22033	1464	47079	3534
Fixed/Conso - lidated Pay	555	333	307	228	700	851	1981	1220	3873	2801	7416	5433
Total	18164	3355	4993	1830	26789	6282	75884	18751	139094	29036	264924	59254

Source: Directorate of Economics and Statistics, Assam

As per the Census, the proportion of different categories of employees by status to the total State Government employees as on 31st March, 2004 were, Grade I-2.9 percent, Grade II-2.5 percent, Grade III-75.1 percent, Grade IV-15.6 percent and Fixed/Consolidated Pay-4.0 percent. The female employees accounted for about 18.3 percent of the total employees, as on the said date. Out of the total State Government employees, the percentage of employees belonging to Scheduled Caste, Scheduled Tribe (Plains), Scheduled Tribe (Hills) and Other Backward Classes were of the order of 6.6 percent, 10.2 percent, 2.1 percent and 29.2 percent respectively.

Economic Census

As per findings of the 5th Economic Census, out of the 2208169 persons engaged in the unorganized sector, 1442854 persons were in rural establishment and 765315 persons were in urban establishments. Out of the total workers, 44.9 percent workers were found to be working in the establishments operating in rural areas and 57.1 percent in the urban areas. While Adult Female workers account for 11.64 percent of the total persons employed, Rural Adult Female workers constitute 73.5 percent of the total adult female working force. The adult female participation rate is 8.89 percent compared to male worker. The census report also indicated that 36952(1.67 percent of the total worker) child workers were also engaged in various establishments out of which 4048 were female.

It is evident from the 5th Economic Census results that 49.1 percent of the total workers were engaged as hired workers of which rural/urban divide was 44.9 percent and 57.1 percent respectively. In respect of hired worker pertaining to total adult female and children, this percentage was 73.9 percent and 68.5 percent respectively.

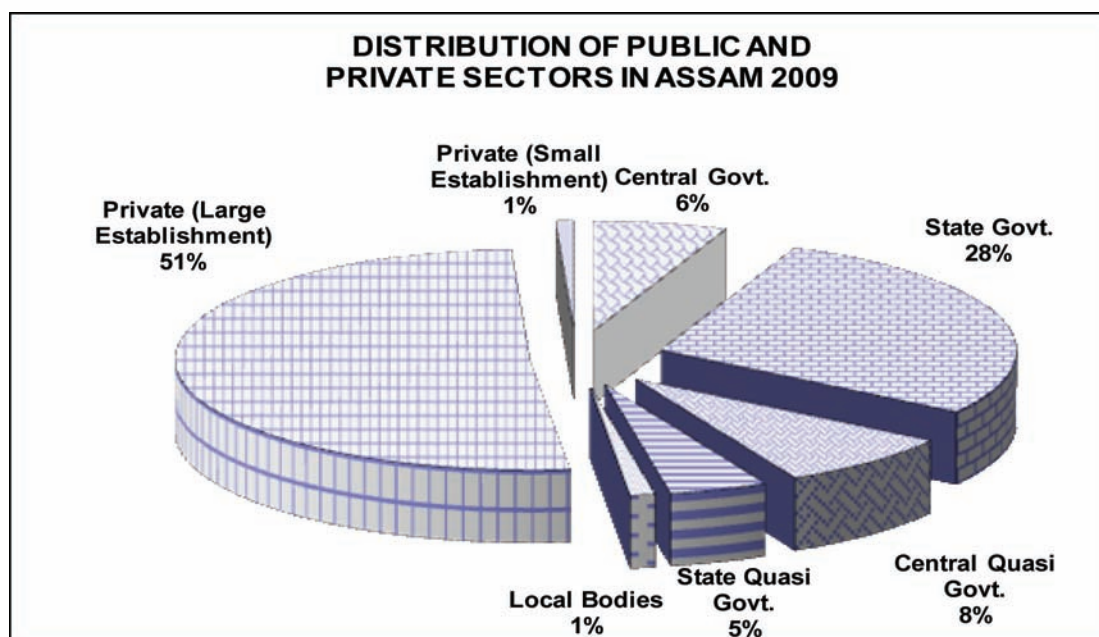
TABLE-17.4
NUMBER OF EMPLOYMENT IN ESTABLISHMENTS

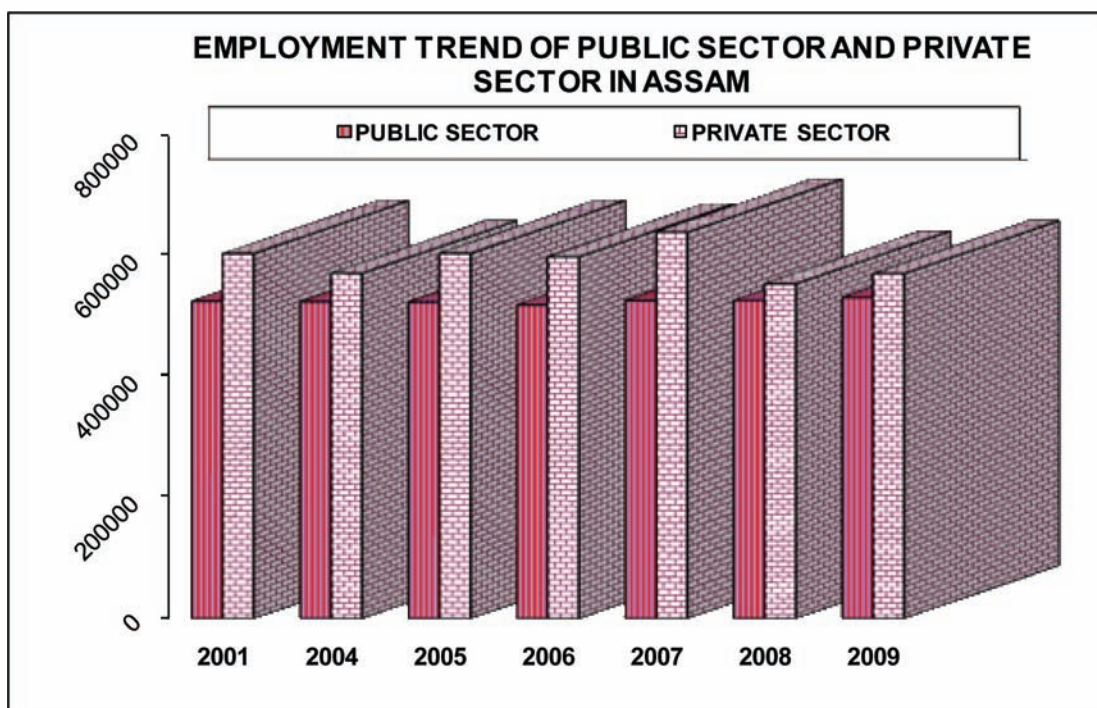
SI No.	Item	Rural	Urban	Combined
1	ALL ESTABLISHMENTS:			
1.1	Total Employment	1442854 (44.9)	765315 (57.1)	2208169 (49.1)
1.1.1	Female	189006 (70.8)	68019 (82.3)	257025 (73.9)
1.1.2	Children(Male)	24752 (62.4)	8152 (90.8)	32904 (69.4)
1.1.3	Children(Female)	3388 (57.5)	660 (81.1)	4048 (61.3)
1.2	Agricultural Activity	80017	6131	86148
1.2.1	Female	14168	959	15127
1.2.2	Children(Male)	3524	236	3760
1.2.3	Children(Female)	350	8	358
1.3	Non-Agricultural Activity	1362837	759184	2122021
1.3.1	Female	174838	67060	241898
1.3.2	Children(Male)	21228	7916	29144
1.3.3	Children(Female)	3038	652	3960

Source: Fifth Economic Census, Assam, 2005

Employment Market Information (EMI) Programme

The EMI programme gives information on the level of employment in the organised sector of the economy, which comprises all establishments in the public sector and non-agricultural establishments employing 10 or more persons in the private sector. Collection of data under the EMI programme is reported through an 'Establishment Reporting System'.





The total employment in the public and private sector establishments reported under EMI programme in 2009 was 11.03 lakh (in public sector 5.32 lakh and in private sector 5.71 lakh) which was 2.13 percent more than that of 10.8 lakh in 2008. In these sectors female employment was 32.7 percent of the total employment. Of the 5.32 lakh employment in public sector, share of local bodies was 2.37 percent and share of State Quasi Government was 9.27 percent during the year.

Employment of Women In Organised Sector

The employment of women in organised sector of the State was 360.3 thousand during 2009 accounting for 32.7 percent of the total employment. In the year 2008 the number of women employee was 352.1 thousand showing a share of around 32.5 percent to total employment.

TABLE-17.5
EMPLOYMENT OF WOMEN IN ORGANISED SECTOR

(In thousand nos.)

Year	Public Sector		Private Sector		Public and Private Sector		Percentage Share in Organised sector
	Women	Total	Women	Total	Women	Total	
2003	77.4	528.0	241.1	551.1	318.5	1079.2	30.0
2004	77.3	525.1	255.6	572.0	332.9	1097.2	30.0
2005	81.5	524.5	268.4	605.2	350.0	1140.0	30.7
2006	81.8	519.7	299.0	599.7	380.7	1119.4	34.0
2007	84.9	527.0	310.8	640.5	395.7	1167.5	33.9
2008	85.6	527.3	266.5	554.6	352.1	1081.9	32.5
2009	87.3	531.7	273.0	571.7	360.3	1103.4	32.7

Source: Directorate of Employment and Craftsmen Training, Assam

Un-Employment Scenario in The State

The number of unemployed as per Live Register is increasing alarmingly and at the same time percentage of placement is not encouraging against the number of notified vacancies. As per data available from the Employment Exchanges of Assam the total job seekers in the Live Register increased to 2079558 during the year 2009 from 2006389 during the year 2008.

TABLE-17.6
EMPLOYMENT THROUGH EMPLOYMENT EXCHANGES

YEAR	No. in Live Register	Percentage increase in Live register	No. of Vacancies Notified	No. of Placement Against Vacancies
2004	1631216	4.02	703	253
2005	1763430	8.01	2380	148
2006	1827149	3.61	3170	551
2007	1921563	5.17	2023	540
2008	2006389	4.41	2383	628
2009	2079558	3.65	2506	501

Source: Directorate of Employment and Craftsmen training, Assam

The size of the educated job seekers is considerable and is increasing day by day. From the record of the Live Register of Employment Exchanges, the registered educated job seekers stood at 1520310 during 2009, recorded an increase of 13 per cent over 2008. The percentage of educated job seekers to total job seekers was 73 percent approximately, and out of the educated job seekers 46 percent was H.S.L.C. passed, 30 percent was H.S.S.L.C. passed, 2 percent was Graduate and the rest consist of Technical Graduate (Engineering, Medical, Agriculture and Veterinary etc.) and Post-Graduate job seekers. The registration of job seekers in the Live Register of Employment Exchanges in 2008 has increased by 11.61 per cent over the previous year which is a matter of concern in the context of socio-economic profile of the state. The detail distribution of the educated job seekers is shown in Table-17.7.

TABLE-17.7
DISTRIBUTION OF EDUCATED JOB-SEEKERS

Level of Education		Registration		Percentage Increase in Registration	Placement		Numbers in live register	
		2008	2009		2008	2009	2008	2009
1	Engineering Graduate	237	271	14.35	27	18	2978	3007
2	Medical Graduate	159	165	3.77	19	6	617	721
3	Agriculture Graduate	175	186	6.29	17	10	1127	1231
4	Veterinary Graduate	63	69	9.52	10	7	492	543
5	Passed out ITI Trainees	-	-	-	-	-	-	-
	a) Engineering Trade	1011	1319	30.46	35	60	17132	17233
	b) Non- Engineering Trade	623	751	20.55	21	10	4015	4090
6	Post Graduates	4287	4780	11.50	43	29	23293	24946
7	Graduates	22493	28598	27.14	52	148	231529	299402
8	H.S.S.L.C.	38121	39999	4.93	45	109	392558	452537
9	H.S.L.C.	66157	78005	17.91	82	64	667329	700518
10	Diploma Holders(Eng.)	283	293	3.53	23	25	6012	11609
11	Others	492	563	14.43	59	15	4429	4473
	Total	134101	154999	15.58	433	501	1351511	1520310

Source: Directorate of Employment and Craftsmen Training, Assam

Average Daily Wage Rate in Rural Areas

As per data collected by the Directorate of Economics and Statistics, Assam, the Average Daily Wage Rate of Workers (Carpenters, black-smith, field-labour, herdsman and other agricultural labour) shows a more or less steady upward trend.

TABLE -17.8
AVERAGE DAILY WAGE RATE IN RURAL AREAS IN ASSAM (in Rupees)

Year	Skilled Labour Wage		Un-skilled Labour Wage				Other Agricultural Labour	
	Carpenter	Blacksmith	Field Labour Ploughman	Herdsman	Reaper and Harvester		Man	Women
	Man	Man	Man	Man	Man	Women		
2001-02	87.01	62.17	52.01	37.56	50.71	40.73	47.02	42.16
2002-03	92.93	68.02	52.32	48.53	52.05	46.50	49.21	47.47
2003-04	102.4	85.11	57.53	52.05	60.13	42.18	55.40	49.32
2004-05	108.77	88.25	62.05	54.85	63.90	49.18	59.27	48.52
2005-06	113.91	94.45	64.19	63.01	65.02	49.02	61.44	47.69
2006-07	120.80	100.69	71.02	63.07	68.09	52.61	65.46	53.88
2007-08	123.53	97.29	76.44	72.19	74.27	59.53	72.11	58.04
2008-09	133.89	104.64	84.65	82.72	82.55	66.76	83.47	66.60
2009-10	147.08	121.33	92.91	92.08	93.25	74.05	102.83	87.00

Employment Generation Programme

Our economy is developing at a fast pace but still a major part of the population who are poverty ridden, illiterate and lack skill needs support to earn. Keeping this in mind the Central Government and the State Government has initiated many programmes for self and wage employment and also for creation of production of assets through ITS various departments like, the Panchayat and Rural Development Department, Directorate of Industries and Commerce, Agriculture Department, etc. The achievements of some of these programmes are briefly discussed as follows:

Swarnajayanti Gram Swarozgar Yojana (SGSY)

Till the end of the year 2009-10 a total of 208212 SHGs were formed in the state of which 135123 were women SHGs and 65360 numbers of eligible SHGs has taken up Economic activities with bank loan and subsidy. During the year 2009-10, 13673 numbers of SHGs covering 153268 members received bank loan with subsidy. Apart from this, 11455 individual swarozgaries received bank loan and subsidy for taking up sustainable income generating activities for their livelihood. During the year 2009-10 number of SHG's receiving Bank loan and subsidy is 10 percent more over the achievement of 2008-09.

Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA)

MGNREGA is being implemented from 2008-09 in all the 27 districts of the state. The objective of this programme is to provide 100 days employment to the job card holders in a financial year. During the period 2006-07 to 2009-10, total job cards holders in the State were 36.12 lakh (cumulative total) out of which SC/ST job holders were 9.82 lakh. Total 21.52 lakh job card holders demanded employment during the year of which 18.74 lakh were provided with employment. As the programme is a demand driven one, hence no physical target is fixed for the year. However, 1.77 lakh job card holders were provided 100 days employment during the year. Out of the total 748.78 lakh person-days generated during the year, person-

days generated by women was 203.71 lakh. Average days of employment provided to job card holders during the period was 34.

Prime Minister Employment Generation Programme (PMEGP)

The PMEGP has been effective after 31st March, 2008 with the objective of providing employment to the educated unemployed youth. The scheme facilitates self employment through setting up of industries/ service and business ventures. The KVIC is implementing the PMEGP schemes as the nodal agency at the national level and at the State level the scheme is implemented by the State KVIC Directorate, State KVIB and District Industries and Commerce Centers and Banks. The total physical target set by the agencies for the year 2009-10 was 1292 nos. with a margin money target of ₹1550.00 lakh against which physical achievement was 2440 number with a financial involvement of ₹1899.71 lakh. The Government subsidy under the scheme is being routed by the KVIC through the identified banks.

Assam Bikash Yojana

The Government of Assam has launched a unique self-employment scheme called “Chief Minister Self Employment and Vocational Training” under Assam Bikash Yojana in place of CMSY from 2008-09. There are two sectors of the scheme one is CMSS and the other is Vocational Training.

Under the CMSS the educated unemployed youth of the State are sent for 6 months training in reputed Industrial Units and Commercial houses throughout the Country. During the period of training, stipend @ ₹4500.00 only per month is paid to the trainees by the Government of Assam. While the accepting organizations get the service of the trainees free of cost, the trainees gain practical experience by working for 6 months in the said Industrial venture. Under the Vocational training sector the unemployed youths are provided one month industrial training within the State on their interested field. The Assam Government fully bears the cost of the training. The following table shows the physical achievement of CMSS and Vocational training under Assam Bikash Yojana for the year 2008-09 and 2009-10.

TABLE-17.9

STATEMENT SHOWING ACHIEVEMENT UNDER ASSAM BIKASH YOJANA

Year	Name of Scheme	Total Target	No. of Trainees Sponsored	No. of Trainees Completed	No of Trainees absorbed	Remarks
2008-09	CMSS	160	165	130	51	
	Vocational Training	2200	2200	2200	-	Sponsored from district
2009-10	CMSS	160	136	32	21	Undergoing training
	Vocational Training	3200	-	568	-	Sponsored from district

Source: Directorate of Industries and Commerce, Assam

Udyogyoti Scheme

This scheme was launched by the Directorate of Industries and Commerce, Govt. of Assam with the objective to motivate the student community of the State towards entrepreneurship as well as unemployed youth of the post Higher Secondary levels. The idea behind the scheme was to give exposure to variety of industrial activities at industrial centers like EPIP, CIPET, CTRTC, Guwahati Refinery, Industrial Estates etc. along with other training institutes available in the State. The scheme will be implemented in four

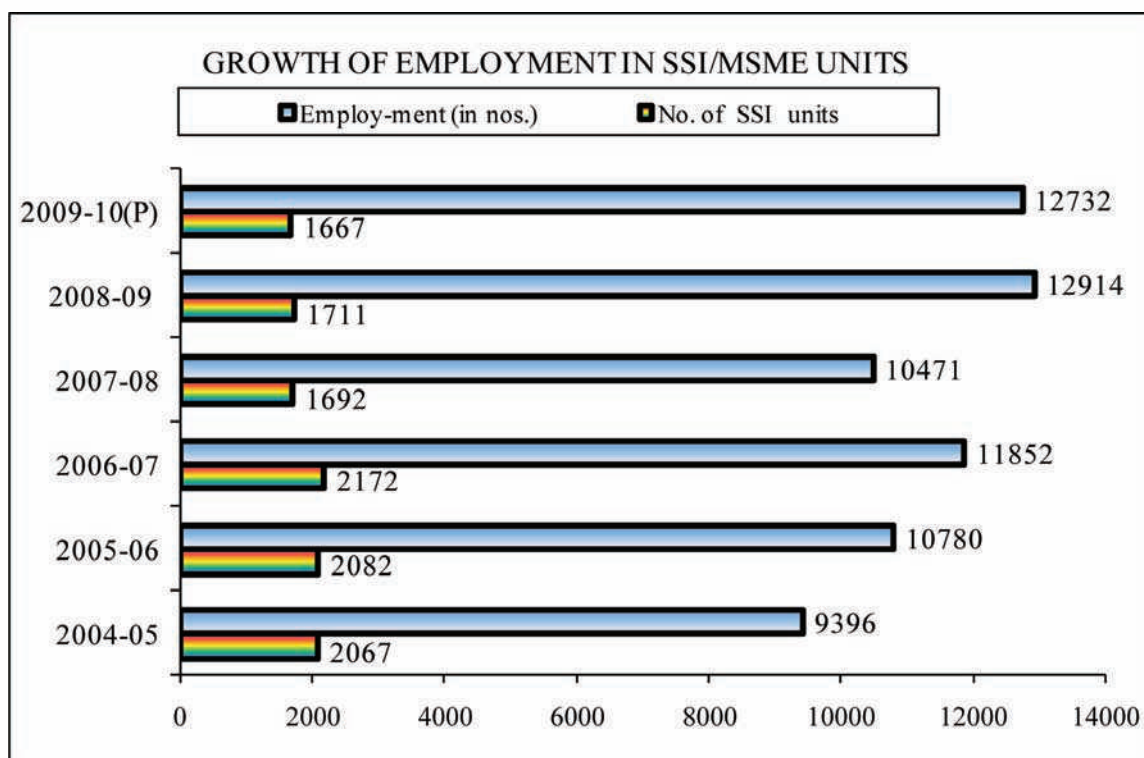
phases under the sponsorship of the Govt. of Assam to facilitate industrial and technical exposure as well as training programme for specific target entrepreneurship segment which have maximum potential for development of entrepreneurship. To make the programme more effective, the implementation procedure has been modified in the year 2008-09. As per the revised provision it will facilitate industrial and technical exposure as well as training programme for specific target entrepreneurship segment which have maximum potential for development of entrepreneurship. Participants will be provided margin money against Bank loan sanction letter up to 90% of the promoters' contribution or ₹1.00 lakh per participant, whichever is less.

Factory Employment

During 2009, there were 3971 factories (registered under Factory Act, 1948) in the State providing employment to 137164 persons. The maximum workers were engaged in manufacturing of food and beverage (48.4%) followed by manufacturing of other non-metallic mineral products (18.8%), manufacturing of wood and products of wood and cork (except furniture), articles of straw and plaiting materials (5.6%) and manufacturing of chemicals and chemical products (4.2%). The percentage increase of employment in 2009 was 6.0 as against 6.4 percent increase in factories over 2008.

Employment Generation Under SSI Units

There are 32984 numbers of Small Scale Industries (SSI) and Micro, Small and Medium Enterprise (MSME) units in Assam providing employment to 167216 persons till the end of 2009-10. The graph below shows the trend of employment in the SSI units from 2004-05 to 2009-10(P).



CHAPTER-XVIII

RURAL DEVELOPMENT

Rural Development is the prioritised objective of development planning for every state in India. In Assam 87 per cent of the total population live in rural areas of the state and most of them are found poverty ridden and economically backward. The State Government has been giving special thrust for elimination of rural poverty as well as for upliftment of economic condition of people in rural areas. To achieve the objectives, State Government has been implementing various poverty alleviation programmes/schemes undertaken by the Government of India and the responsibilities of implementation of these programmes/schemes have been entrusted on the Panchayat and Rural Development Department of the State.

The Directorate of Panchayat and Rural Development, Assam has been upgraded to Commissionerate of Panchayat & Rural Development wef 1.2.2009. The Commissionerate of Panchayat and Rural Development, Assam, has two wings-Panchayat Wing and Rural Development Wing. Both the wings have been implementing various State and Centrally sponsored programmes through the network of 27 DRDAs, 21 Zilla Parishads, 219 Community Development Blocks, 188 Anchalik Panchayats and 2202 Gaon Panchayat (after delimitation). There is no Panchayati Raj System in the 6th Scheduled districts of Assam. All the programmes under the Rural Development sector are covered under Centrally Sponsored Scheme besides some State specific schemes.

The present objectives of the schemes under Rural Development sector is poverty alleviation by providing self employment to the people living below poverty line as defined by the Planning Commission from time to time and providing dwelling houses for the houseless BPL families. Rural development also provides guaranteed 100 days wage employment and creating durable assets.

Panchayati Raj Institutions (PRI)

As per provision of Assam Panchayat Act'1994, there are three tier system of Panchayats viz., Zilla Parishad at the District level, Anchalik Panchayat at the intermediate level and Gaon Panchayat at the village level. 29 State subjects have already been transferred to the PRIs and activity mapping has been notified in respect of 23 subjects of 17 departments for empowering the PRIs. However, the execution of work has not yet started as per activity mapping other than the schemes executed through Panchayat and Rural Development Department.

Implementation of Schemes under Panchayat Sector During 2009-10

The Panchayat wing basically implementing the following programmes/schemes-

- National Social Assistance Programme (NSAP)
- Construction of office building
- District Development Plan
- Backward Region Grant Fund (BRGF).

National Social Assistance Programme (NSAP)

The National Social Assistance Programme has got the following three components.

- a) Indira Gandhi National Old Age Pension Scheme (IGNOAPS).
- b) National Family Benefit Scheme (NFBS).
- c) Annapurna.

As per decision of the Govt. of India, steps have been taken for providing pension to the widows of BPL families of the age group 40 to 64 years and for BPL persons with severe or multiple disabilities between 18-64 age group from the year 2009-10. These schemes are in addition to the existing IGNOAPS for BPL persons of 65 years and above. All the above schemes are covered under NSAP and funded by Govt. of India under Additional Central Assistance (ACA) of Govt. of India.

The Govt. of India under IGNOAPS provides @ ₹200 per pensioner per month and Govt. of Assam provides ₹50 per pensioner per month as Minimum Mandatory Provision (MMP).

During the year 2007-08 the total allocation was ₹15466.42 lakh out of which ₹15466.42lakh was released by the State Govt. under ACA and ₹4000.00 lakh was released by the State Govt. as MMP for NOAPS. The numbers of beneficiaries were 6.29 lakh numbers, 9636 numbers and 26440 numbers under IGNOAPS (Indira Gandhi National Old Age Pension Scheme), NFBS and Annapurna scheme respectively after utilisation of the fund. In the year 2008-09, total fund utilised was ₹16504.78 lakh and the number of beneficiaries were-

629994 numbers under IGNOAPS (Indira Gandhi National Old Age Pension Scheme)

9636 numbers under NFBS (National Family Benefit Scheme) and

26440 numbers under Annapurna.

For the year 2009-10, the total allocation was ₹18366.00. The target for newly introduced pension scheme named as Indira Gandhi National Widow Pension Scheme (IGWPS) has been fixed at 2.02 lakh numbers and target for Indira Gandhi National Disable Pension Scheme (IGNDPS) has been fixed at 86896 numbers for the year 2009-10 but no achievement could be made due to non release of fund. Under IGNOAPS 598965 pensioners were benefited @ ₹200.00 per month and 17983 beneficiaries received a one time assistance of ₹10,000.00 under NFBS. From the year 2009-10 the fund for the two hill districts was directly released by the Hill Area Development Department.

District Development Plan

The District Development Plans are implemented through the Zilla Parishad since 2007-08. During the year 2007-08, an amount of ₹1000.00 lakh was allocated for the State including the urban and rural areas. But, actual expenditure by 21 Zilla Parishads was ₹9650.00 lakh.

During the year 2008-09 the total allocation was ₹10010.00 lakh of which the entire fund was released. But due to a case sub-judiced in the Hon'ble Gauhati High Court an amount of ₹1360.00 lakh could not be utilised by the district of Barpeta and Karimganj. The remaining fund has been utilised by the respective Zilla Parishads. For the year 2009-10, an amount of ₹12500.00 lakh has been allocated under the District Development Plan.

Backward Region Grant Fund (BRGF)

Eleven districts of Assam viz. Kokrajhar, Bongaigaon, Goalpara, Lakhimpur, Dhemaji, Cachar, Hailakandi, Morigaon, Barpeta, Karbi Anglong and Dima Hasao have been selected by the Government of India (GOI) for implementation of Backward Region Grant Fund (BRGF) for infrastructural development of the critical gap areas. For this purpose an amount of ₹7027.27 lakh was released by the GOI during the year 2007-08 and the fund has been utilised upto 2008-09. For the year 2008-09 the allocation was ₹16500.00 lakh. But no fund has been released during the year.

Chief Minister's Assam Bikash Yojana

Under this scheme the interested BPL families of the rural area are provided with Rickshaw or Goods Carrier. The fund was released to meet the target to provide Rickshaws of 2566 numbers and 3534 number of Goods carrier designed by IIT Guwahati. The work could not be completed during 2009-10 and has been continued upto 2010-11.

Achievement of SIRD

During the year 2009-10, as many as 83,000 PRI members and officials connected with different Rural Development schemes were trained by the State Institute of Rural Development under the Study Tour and Exposure visit scheme. Apart from this, 10,000 beneficiaries were also trained under Skill Development and Employment Generation Scheme for their self employment and 20,000 beneficiaries received training under Chief Minister's Jeevan Jyoti Swa-Niyojan Yojana.

Rural Development Wing

The Rural Development Wing of the Commissionerate implements all the poverty alleviation programmes sponsored by the Government of India and other state rural development programmes relating to upliftment of quality of life of the rural people. While implementing the schemes under Rural Development, special attention has been given for upliftment of the socially backward communities like Scheduled Caste (SCs) and Scheduled Tribes (STs). Hence, 50 percent of the total target under SGSY is meant for SC and ST and 60 percent of the allocation under IAY is recommended to SCs and STs.

Moreover, as per recommendation of the Sachar Committee for minorities, special provision of 15 percent in rural development programmes has been made for the welfare of the religious minority communities since 2006-07.

In addition to the above, three (3) percent of the total target is kept reserved for the disables in all the developmental programmes.

Implementation of Schemes under Rural Development Sector During 2009-10:

Swarnajayanti Gram Swarozgar Yojana (SGSY)

Till the end of the year 2009-10 a total of 208212 SHGs were formed in the state of which 135123 were women SHGs. Since inception to till the end of the year 2009-10, 65360 numbers of eligible SHGs has taken up Economic activities with bank loan and subsidy. During the year 2009-10, 13673 numbers of SHGs covering 153268 members received bank loan with subsidy. Apart from this, 11455 individual swarozgaries received bank loan and subsidy for taking up sustainable income generating activities for their livelihood. It is proposed to modify this programme as National Rural Livelihood Mission to cover at least one member of each BPL family and necessary work for this purpose is in progress. The achievement under this programme during the year 2009-10 was 10 percent more than that of 2008-09.

Indira Awas Yojana (IAY)

Indira Awas Yojana has been implemented for providing dwelling houses to the houseless and shelter less people living below poverty line in rural areas. A permanent wait list has been prepared in 2007 from which all the IAY beneficiaries are selected. During the year 2009-10, 181162 houses were constructed against the target of 240446 houses. This achievement is 64 percent more than that of previous year. Of the total houses 60 percent were allotted to the SC and ST beneficiaries and 15 percent is allotted to the minority communities as per direction of the Central Government. During 2009-10, as many as, 102880

numbers of houses were allotted to SC and ST beneficiaries and 29807 houses were allotted to the minority communities. The poor achievement of the target during the year was due to delay in receipt of additional fund with additional target from the Govt. of India.

Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA)

MGNREGA has been implemented since February 2006 in 7 districts of Assam as the first phase districts. During the year 2008-09 all the 27 districts of Assam were covered under the programme. The objective of this programme is to provide 100 days employment to the job card holders in a financial year. During the period 2006-07 to 2009-10, total job cards holders in the State were 36.12 lakh (cumulative total) out of which SC/ST job card holders were 9.82 lakh (27 percent). As many as 21.52 lakh job card holders demanded employment during the year of which 18.74 lakh (87 percent) were provided with employment. As the programme is a demand driven one, hence no physical target is fixed for the year. However, 1.77 lakh job card holders were provided 100 days employment during the year. Out of the total 748.78 lakh person-days generated during the year, person-days worked generated by women were 203.71 lakh. Average days of employment provided to job card holders was 34. Out of the 17097 different categories of works 7135 number of works has been completed during the year and 9962 number of works was in progress at the end of the year.

Integrated Wasteland Development Programme (IWDP)/HARIYALI:

The objective of this programme is to develop the top soil of the degraded and wasteland for making feasible for agricultural production. Till the end of the year 2008-09, 135 number of projects out of the total 149 sanctioned projects were completed and on implementation throughout the State. At present implementation of this programme is entrusted with the Soil Conservation Department.

On-Line Monitoring System

To bring more transparency in implementation of the programmes/schemes and proper utilization of Govt. fund, on-line monitoring system at all levels of Administration like Block, District, State and Central Govt. level has been introduced. Moreover, the Centrally Sponsored Schemes are monitored through on-line reporting system. The MIS software has also been introduced for monitoring the MGNREGA and IAY schemes. Over and above, Block level, District level and State level Vigilance and Monitoring Committees have been constituted for monitoring and reviewing the performance.

Provision for Women

To boost women participation in self employment 40 percent of the total target is fixed for women beneficiaries under SGSY. Provision has also been made for women to get the benefit of wage equivalent to men. Under MGNREGA there is provision for providing facilities for keeping the children of working women at the work sites. Target of mandays has been fixed for women at 30 percent under MGNREGA. Under IAY also provision has been made for allocating the houses to the females on priority basis and joint preference for male and female is giving 40 percent.

Physical and Financial Achievements During 2009-10

Physical and financial achievements during the financial year 2009-10 may be evident from the Tables below:

TABLE-18.1
FINANCIAL ACHIEVEMENT DURING 2009-10

(Rupees in lakh)

Sector	Total Budget allocation	Total amount sanctioned	Total amount released	Total amount utilised
R.D. Sector				
Plan Budget	35677.00	32603.03	32603.03	32603.03
Non-Plan Budget	5993.24	4886.97	4886.97	4886.97
Panchayat Sector				
Plan Budget	49205.00	38483.00	38483.00	38483.00
Non-Plan Budget	5245.34	4419.83	4419.83	4419.83

Source: Commissionerate of Panchayat & Rural Development, Assam

TABLE-18.2
STATEMENT SHOWING THE STATE PLAN ALLOCATION AND EXPENDITURE WITH PHYSICAL TARGET AND ACHIEVEMENT 2009-10

Sl. No.	Name of the Scheme/ Programme	Financial Achievements		Physical Achievements	
		Annual Plan Outlay (2009-10) (Rs. in lakh)	Expenditure incurred upto 31.3.2010 (Rs. in lakh)	Target	Achievement
1.	SGSY	3234.81	2476.11	a. 9465 SHGs covering 94654 beneficiaries b. 16433 no. of individual beneficiaries	a. 13673 SHGs covering 153268 beneficiaries b. 11455 no. of individual beneficiaries
2.	IAY	8103.51	8103.51	240446 houses	181162 houses
3.	SGRY	7912.72	7912.72	Utilised in MGNREGA	
4.	MGNREGA	8823.96	8823.96	No target	Generated 735.17 lakh mandays
5.	DRDA Admn.	425	166.99	--	--
6.	IWDP/Hariyali	877.00	619.74	--	--
7.	SIRD	900.00	900.00	--	--
8.	Assam Bikash Yojana	1000.00	1000.00	Rickshaw - 2566 Goods Carrier- 3534	Work under progress
9.	Development of infrastructure for training at Jorhat and Guwahati.	300.00	300.00	No. of centre-2	2 (Two)
10.	Interest subsidy for women SHG	200.00	200.00	No. of SHG-10,000	10,000 nos.
11.	CMs Jeevan Jyoti Swaniyajan Yojana (SIRD)	2000.00	2000.00	--	--
12.	Study tour-exposer visit of farmer	100.00	100.00	--	--

Sl. No.	Name of the Scheme/ Programme	Financial Achievements		Physical Achievements	
		Annual Plan Outlay (2009-10) (Rs. in lakh)	Expenditure incurred upto 31.3.2010 (Rs. in lakh)	Target	Achievement
13.	NSAP (ACA)	18366.00	15825.00	--	--
14.	NSAP (MMP)	1500.00	1500.00	--	--
	(a) IGNOAPS	--	--	5,98,965 (no. of beneficiaries)	5,98,965 (no.of beneficiaries)
	(b) NFBS	--	--	20,000 (no. of beneficiaries)	17,983 (no.of beneficiaries)
	(c) Annapurna			26,640	Rice allotted
	(d) IGNWPS	--	--	2,01,557 nos.	Nil
	(e) IGNDPS	--	--	86,889 nos.	Nil
15.	District Development Plan (DDP)	12500.00	12500.00	--	--
16.	BRGF	16819.00	8658.00	--	--

Note: The plan outlays as shown above are inclusive of Supplementary demand.

TABLE-18.3

FUND RECEIVED FROM GOVT. OF INDIA DURING 2009-10 AS CENTRAL SHARE AGAINST THE CENTRALLY SPONSORED PROGRAMMES

(Rupees in lakh)

Sl. No.	Programme	Central allocation	Fund received	Remarks
1.	SGSY	14740.00	17734.34	Additional fund received
2.	IAY	64914.87	66650.97	Additional fund received
3.	MGNREGA	-	77888.50	--
4.	DRDA Admn.	-	1984.52	--
5.	IWDP/Hariyali	-	2151.52	--
6.	NSAP (ACA)	20202.00	15825.00	It is earmarked scheme of Govt. of India funded under ACA and drawn against state budget already shown in the previous statement.

Model Village Scheme

The Hon'ble Chief Minister of Assam in his budget speech for 2009-10 announced to convert one village in each district to a model village. The proposed Model village will have the following amenities-

- Drinking water facilities with tape water.
- At least one primary school with playground.
- Road connectivity with main road from the village and internal roads.
- Extension of electricity to all villagers with strengthening the transformer.
- One community hall with sitting arrangement and public addressing system.
- Sports facilities for the children and the youth of the village.
- Other amenities if required will be fulfilled from other funds of the Department.

A sum of rupees one crore has been estimated for each model village. Thus, a sum of ₹27.00 crore has been proposed under model village scheme during the year 2010-11.

CHAPTER-XIX

SOCIAL SECTOR

Education

Education is the key input for the development of individual as well as the society. Education is accepted as one of the crucial inputs for nation building. The vision 2020, concerned with the sector of Elementary Education, is focussed on the accomplishing of the constitutional obligation of providing free and compulsory education for every child within the age group of 6-14 years and achieving the goal of universalisation of Elementary Education both in letter and spirit. The State Government equally put emphasis on to providing qualitative technical education to build technical skills to cater the needs of the economy.. Keeping in view the importance of education in the socio-economic development the State Government has been implementing various educational programmes.

Educational Progress

Literacy rate of Assam is 63.25 percent, as per Census 2001, which is behind the national average of 64.8 percent. For achieving the objective Universal Elementary Education (UEE), Sarva Siksha Abhijan (SSA) is being pursued. To give more thrust on the issue, some other schemes under the State Plan, such as Cash awards to teachers for dedicated services, Incentive to institution for continuous good academic performance, Introduction of Mobile Education, Incentive to Girl children in the age group of 6-14 years to encourage the girl students, Financial grant to provide school uniform to BPL families, MIS known as District Information System on Education (DISE) has been operationalized, etc.

Elementary Education

The Sarvasiksha Abhijan (SSA) is responsible to provide education upto the age of 14 years, a fundamental right of every child. The framework of Sarva Siksha Abhijan has been designed as a peoples' movement for education for all, which will provide useful and relevant elementary education of satisfactory quality for all by 2020 AD bridging all social and gender gaps of the society.

TABLE-19.1
SCHOOL FACILITATED UNDER SARVA SIKSHSA ABHIJAN (SSA), 2009-10

Category	Govt/ Provincialised				Recognised			Tea Garden		
	School	Teacher	Enrolment	PTR	School	Teacher	Enrolment	School	Teacher	Enrolment
Primary	30054	82929	2232283	26.9	...	...	...	449	1145	60895
Primary with Upper Primary	944	8807	171252	19.4	...	...	...	...	...	...
Upper Primary	4919	34605	771048	22.3	5175	33756	544003	...	...	...
Primary with High	09	120	3281	27.3	...	...	...	...	...	...
Upper Primary with High	1443	18160	435713	25.0	260	3096	43872	...	...	...

Source: Sarva Siksha Abhijan

During 2009-10 the number of children in the School has increased as compared to the previous year. The total children in the age group of 6-14 years in school during 2009-10, as per District Information System for Education (DISE) of SSA was 6635131 numbers. Thus, percentage of children out of the school was 4.0 percent.

There has been an impressive growth of the elementary education system in Assam in the last few decades. This significant increase in the number of Primary schools and Upper Primary Schools, the number of teachers at Primary & Upper Primary and enrolments at both the levels of elementary education is reflected in the Table 19.2.

TABLE-19.2

STATISTICS OF ELEMENTARY EDUCATION IN GOVT / PROVINCIALISED SCHOOL IN THE STATE

Year	Primary				Upper Primary			
	No. of School	Student	Teacher	PTR	No. of School	Student	Teacher	PTR
1951-52	11172	626282	16554	38	1012	107649	3714	32
2001-02	30068	3906000	83573	47	6730	2716000	58791	46
2009-10	30054	2298928	82929	28	5863	1739082	34605	N.A.

PTR: Pupil Teacher Ratio

Source: State Education Department, Assam

Pupil Teacher Ratio (PTR)

The Pupil-Teacher ratio at Primary and Upper Primary school in the State has been found satisfactory but statistics reveals that during 2009-10, as many as 7474 numbers of Primary school [i.e around 25 percent of total Primary school] are identified as Single Teacher school and 11.2 percent schools under Elementary sector school, in the State are identified as Single Teacher school having students.

TABLE: 19.3

PUPIL TEACHER RATIO, ASSAM

Year	Primary		Upper Primary	
	Rural	Urban	Rural	Urban
2008-09	27.8	18.1	22.4	19.2
2009-10	28.0	17.9	22.0	18.2

Source: Sarva Siksha Abhijan

Gross Enrolment Ratio (GER):

The Gross Enrolment Ratio of Primary School has been increased from 85 percent in 2003-04 to 100 percent in 2007-08 and is expected to increase to 110 percent in 2015 by covering underage and overage of 6-14 years of age. In case of Upper Primary School the Gross Enrolment Ratio has increased to 97 percent in 2007-08 from 60 percent in 2003-04 and it is expected to increase to 105 percent in 2015. The dropout in primary and upper primary is expected to be nil in 2015.

TABLE-19.4

GROSS ENROLMENT RATIO, NET ENROLMENT RATIO AND DROPOUT RATIO IN PRIMARY AND UPPER PRIMARY LEVEL

(Figure in percentage)

ITEM	2003-04	2008-09	2009-10	2015
GER Primary	85	103	109	110
GER Upper Primary	60	93	99	105
NER Primary	73	94	97	100
NER Upper Primary	42	88	82.0	100
Dropout Primary	10	8.77	5.74	0
Dropout Upper Primary	NA	15.54	14.74	0

Source: Sarva Siksha Abhijan (SSA).

Budget for Elementary Education

The State Govt is gradually increasing the allocation of budget in respect of Elementary Education so as to fulfil the aim and objective of universalisation of elementary education for the State. A good amount of money has also been spent by the State Government under elementary education. An amount of ₹11543.00 lakh has been received in the Annual Plan 2010-11 for implementation of the development schemes under elementary education, Assam. An amount of ₹6600.00 lakh is proposed for Annual Plan 2010-11 as State share 10 percent (90:10) to Sarva Siksha Abhijan. The table below shows the pattern of budget allocation, amount received and utilised from 2001-02 to 2009-10 under elementary education.

TABLE – 19.5
BUDGET PROVISION AND EXPENDITURE OF ELEMENTARY EDUCATION

(Rupees in lakh)

Year	Plan		
	Budget allocation	Amount received	Amount utilised
2001-2002	20867.50	22553.66	22553.66
2002-2003	22586.55	22417.74	22417.74
2003-2004	13071.80	12587.93	12587.93
2004-2005	11115.00	13484.95	13484.95
2005-2006	21595.00	21595.00	21595.00
2006-2007	4484.10	4044.09	4044.09
2007-2008	3850.00	4151.48	3850.00
2008-2009	9380.00	9315.00	9315.00
2009-2010	11590.00	11590	11590

Source: Assam 2011 A Development Perspective

Mid Day Meal Scheme

The Government of India has launched a countrywide Programme of Nutritional support to Primary education commonly known as Mid-Day- Meal Scheme on 15th August, 1995 through the State Governments in order to give boost to universalization of Primary Education by increasing enrolment, attendance and retention in Primary Education and to improve the standard of education. In Assam this scheme has been started on January/ 2005.

Total requirement of cooking cost for the year 2009-10	₹14677.48 lakh
State share (10%)	₹146.75 lakh

Source: P&D Department, Dispur, Assam

The programme covered all Government and Provincialised Primary schools and Primary Section of MV School receiving financial assistance, EGS and AIE centres. During 2009-10, it has been proposed to cover all the aforementioned schools/centres as well as their enrolment from class I to V. The State Govt provides 10 percent of total fund as State share for cooking cost @ ₹0.20 per student per teaching day for implementation of cooked Mid-Day-Scheme For this scheme, the Government of India provides cost free food grains (rice) and the cost of cooking. The Government of India also reimburses the transport charges under the scheme.

Adult Education

Adult Education programme was started on National Basis in the year 1978-79. Subsequently after constitution of National Literacy Mission (NLM) in 1988, the total literacy campaign came into being. During the year 2009 the **Sakshar Bharat Mission 2012** has been launched by the Govt. of India.

In Assam, the tasks of implementation of adult literacy programmes have been entrusted upon Zila Saksharata Samitees (ZSS) of different districts. The Programme is funded on sharing basis between the State Government and Government of India. The State Government bears one third costs as State share. So far 22 Districts have been covered under Total Literacy Campaign (TLC) and out of the total 22 Districts, 7 Districts have been covered under Post Literacy Programme (PLP). During the Annual Plan 2009-10, it is proposed to provide educational facility to 4000 illiterate child labour.

Madrassa Education

A separate Directorate of Madrassa Education has been created in 2005, earlier it was a part of Directorate of Secondary Education. At present there are as many as 524 pre-senior Madrassas, 164 Senior Madrassas, 5 Arabic Colleges, 14 Title Madrassas, and 500 Voluntary Moktab Madrassas continuing Madrassa education in the State.. There are more than 1.20 lakh students enrolled in 707 Madrassa Institution in the State as on 1.1.2010. During the 11th Five Year Plan (2007-2012) 325 Madrassas are proposed for provincialisation with 3888 posts under State Plan.

There is a budget provision of ₹3510.00 lakhs during 2009-10 under Language Development including Financial Assistance to Non-Govt. Madrassas (plan).

An outlay of ₹7662.00 lakhs has been proposed for the annual plan (2010-2011) under the State Plan.

Technical Education

Engineering Colleges

There are two State Engineering Colleges, namely, Assam Engineering College, Guwahati and Jorhat Engineering College, Jorhat imparting Bachelor of Engineering Degree Courses in the discipline of Civil, Electrical, Chemical, Mechanical, Electronics & Telecommunication, Instrumentation Engineering, Industrial & Production Engineering and Computer Science & Engineering. Masters of Engineering Courses in Civil Engineering and Research works in the Degree & Ph.D is being carried out in civil, chemical, mechanical Engineering in Assam Engineering, Guwahati.. Already 5 scholars were awarded Ph D degree by Gauhati University for the Research in the Department of Civil Engineering. Although the Bachelor of Engineering courses in Instrumentation Engineering, Industrial & Production Engineering and Computer Sc. & Engineering were introduced by the Govt in 1998, for which there was no adequate laboratory facility and that facility has been set up in both the Engineering College. For development and upliftment of the two Engineering Colleges, the following schemes are proposed for implementation during the 11th Five year Plan period.

- Creating laboratory facilities for three new Bachelor Engineering Degree Courses.
- Modernization of all the existing laboratories & Workshop.
- Two separate buildings for the College library of two colleges as recommended by AICTE.
- Increase the intake capacity of Bachelor Engineering Degree Courses.
- Introduction of Bachelor Engineering Degree Course in Information Technology at Assam Engineering College with 30 intake.
- To establish the Training & Placement Cell at each College, since training is a part of the curriculum and placement of students after graduation is absolutely necessary. For this one office assistant for each

cell is proposed to be provided. A vehicle is to be provided to each cell for mobility of the training and placement officer and to receive and to provide transport to the visibly recruiting personnel from the organization.

To achieve the above mentioned goals during the Annual Plan 2010-11 an amount of ₹409.00 lakh is proposed.

Centrally Sponsored Schemes

- P G Course in Watershed Management and Flood control at Assam Engineering College with 100% Central Share;
- P G Course in Soil Mechanics at Assam Engineering College, Guwahati with 100% Central Share;
- Removal of Abst. & Modernisation of Laboratories in Computer in Engineering Colleges with 100% Central Share;
- MCA at Assam Engineering College, Guwahati and Jorhat Engineering College, Jorhat with 100% Central Share;
- Community Polytechnic Scheme with 100% Central Share;
- 50% Central Share as grant in aid to Regional Engineering College, Silchar;
- Post Diploma Course in Computer Application with 100% Central Share;
- NEC Scholarship & Book-grant to the meritorious students with 90% central share

An outlay of ₹263.00 lakh is proposed to provide during the Annual Plan 2010-11 under Centrally Sponsored Scheme.

Steps taken for Expansion and Development of Technical Education in the State

For the expansion of Technical Education in the State, steps have been taken for establishing new Engineering College, polytechnics and technical University. The intake capacity of Jorhat Engineering College, at Jorhat and Assam Engineering College, at Guwahati, has increased from 590 to 753 during 2009-10. Engineering Course has already been started in Guwahati University, Dibrugarh University and Jorhat Institute of science and Technology from the academic year 2009-10 with intake capacity of 165, 240 and 120 respectively. Engineering courses is going to be started in B.B. Engineering college, Kokrajhar with intake capacity of 120 during 2010-11 Besides these Four (4) Engineering college under private sector has the intake capacity of 1060. Hence the intake capacity of Engineering courses has been increased to 2458.

Following projects are proposed to be implemented during 2010-11–

- Government has issued NOC to start two new Engineering Diploma course in Garment Technology & Fashion Design at Assam Textile Institute Guwahati.
- To upgrade the Jorhat Science College to the Jorhat Institute of Science and Technology, an amount of ₹150.00 lakh has been released, for the purpose.
- An amount of ₹50.00 lakh has been provided for establishment of 11 nos. Of training cum placement cell in the existing. 9 polytechnics, Assam Engineering collage and Jorhat Engineering collage.
- The Government has proposed to set up two new Engineering colleges at Dhemaji and Goalpara under Chief Minister's special scheme.
- Set up of Technical University at Nagaon under public private partnership under Chief Minister's Special scheme.
- Infrastructural development of Assam Engineering College under Assam Bikash Yojana.
- Establishment of University of Science and Technology.

Junior Technical Schools (JTS)

At present there are two Junior Technical Schools (JTS) running in the State of which one is at Sivasagar and the other one is at Goalpara.

Polytechnics

At present there are (9) nine polytechnics in General area offering various Diploma courses:-

The intake capacity of these institutions is 3810.

- In view of the unemployment of diploma engineers in traditional branches such as civil, electrical etc it is proposed to reduce the intake in some courses like civil Engineering. etc and increase the intake in presently relevant courses such as computer Engg. electronics Engg. etc and introduce these courses in institutions where it does not exist.
- It is proposed to introduce Diploma courses of IT/Computer Applications in all Polytechnics.
- To enhance the facilities for Technical Degree Courses it is proposed to upgrade some branches of existing Polytechnic to Degree level.

An amount of ₹189.00 lakh is proposed to achieve these goals in the Annual Plan 2010-2011.

Medical Education

The Directorate of Medical Education, Assam is entrusted with the task of generating human resources like Doctors, Nurses, Technicians, Physiotherapist, Pharmacist and other Health personnel to meet the growing needs of not only of the state but the entire North Eastern Region.

In MBBS course in the three Medical Colleges of the State the numbers of seats have been augmented from 391 to 426. To augment the capacity further, 3 new Medical Colleges at Jorhat, Tezpur and Barpeta with 100 MBBS seats in each Medical Colleges are being set up, while Jorhat Medical College has been started functioning from the current year. Two more Medical Colleges viz. at Diphu and Nagaon are also going to be established. The PG seats in the Medical Colleges have been increased from 246 to 347. In addition to this, 16 seats in super speciality subjects have been created in the Gauhati Medical College.

Srimanta Sankardeva University of Health Sciences has been established to monitor and to suitably strengthen the Medical Education in the State.

The Government has been extremely concerned about the poor availability of doctors in the rural areas and to remedy the situation an Institute has been set up at Jorhat to impart training and grant Diploma in Medical and Rural Health Care. The Institute has been started functioning and the 1st batch of 92 Diploma holders which passed out in 2009, have been appointed in the rural health institutions.

Three Institutes of Paramedical Sciences at Guwahati Medical College at Guwahati, Assam Medical College at Dibrugarh and Silchar Medical College at Silchar with 12 different courses having intake capacity of 400 has been started from 2008-09.

The intake capacity for GNM course has increased to 912 in 15 nos. of GNM schools. With establishment of 8 new GNM Schools, out of which 5 have been already been completed with creation of manpower, the intake capacity of GNM trainees will stand at 1287.

Besides there are one Regional Dental College, three Homeopathy College, one Nursing College, and one Ayurved College in the State under medical education.

Higher Education

Status of Institutions under Higher Education in 2009-2010

1. Gauwahati University (1948)
2. Dibrugarh University (1965)
3. Assam Agriculture University (1965)
4. Cental University, Tezpur (1994)
5. Assam University (1994)
6. KK Handique State Open University (2007)
7. Donbosco University (2007)
8. Downtown University (2007)
9. Bodoland University (2008)
10. Women University (2009)
11. Kumar Bhaskar Barman University, Nalbari (Proposed 2010)
12. Assam Science and Technical University (Proposed 2010)
13. Institution of national importance-
 - (a) Indian Institute of Technology
 - (b) National Institute of Technology

New projects/ Initiatives of Infrastructure development etc.

Kokrajhar college was taken over as Govt. college (2007)

- ₹ 93.371 lakh released to KK Handique Govt. Sanskrit college under NLCPR project in 2007-2008.
- ₹ 55.33 lakh released to Kharupetia College under NLCPR project in 2008-2009.
- ₹ 1500 lakh sanctioned to G.U.,D.U. & 102 rural colleges in Assam under ACA scheme in 2009-10
- Cotton College is proposed to be upgraded as International College (2010-2011)
- ₹300 lakh provided for administrative, academic, science building etc.for Bodoland University in 2010-2011.
- ₹400 lakh provided for infrastructure development of Gauhati.University & Dibrugarh University under ACA Schemes.
- ₹1000 lakh provided for infrastructure development of rural colleges in Assam under ACA schemes.

New academic related

- 5- year LLB degree course introduced in B.R.M. Govt. Law College (2008-2009)
- 4- year BE/ B.Tech, M.Tech. in campus courses introduced in Gauhati University (2009)

Teacher related

- Service of teaching and non teaching staff of 189 provincialised colleges made pension able.
- Teacher Training & Placement cell set up in 7 Govt. and 189 Provincialised colleges (2009)
- Grant-in- Aid @ ₹5 lakh to 100 Sanskrit Tols announced.
- Payment @ ₹8000/- w.e.f. 2010-2011 to teachers in 142 non Govt. College/ streams announced.

Health And Family Welfare

The United Nation Organizations programme “Health for all by 2020 AD” contemplates to expand the

infrastructure for public health and medical care in order to ensure quality medical services to common men. To achieve this goal, the State Government has been undertaking various programmes and continuously increasing allocation of fund to the health sector in State Plans.

TABLE – 19.6
HEALTH INFRASTRUCTURE IN THE STATE

(Figures in number)

SL No	Public Health Facility	Number	Private Health Facility	Number
1	Medical Colleges Hospitals	6	Private Sector Hospital (Nursing Home)	191
2	State Level Hospital	1 (MMC Hospital in Guwahati)	B.Sc. Nursing colleges	01
3	District Hospital (DH)	22	GNM Training Centre	12
4	Sub Divisional civil Hospital	13	ANM Training Centre	04
5	Primary Health Center	844		
5	Community Health Center	103		
6	Block PHC	149		
7	State Dispensary (SD)	261		
8	Subsidiary Health Centr (SHC)	71		
9	Mini PHC	453		
10	Sub-Centre	4592		
11	B.Sc. Nursing College	1		
12	GNM Training Centre	15		
13	ANM Training Centre	18		

Source: Department of Health Services, Assam

The main objectives of Eleventh Five Year Plan (2007-12) with respect to enhance and strengthen health services at various stages, to remove regional & intra-regional disparities by improving health services in rural, hilly & tribal areas, to decentralize & strengthen regional referral services and to reduce Infant Mortality Rate (IMR), Maternal Mortality Rate (MMR), and Crude Birth Rate (CBR). Status of selected health indicators is shown in Table -19.7.

TABLE -19.7
STATUS OF SELECTED HEALTH INDICATORS

Health Indicators	Target under XI Five Year Plan	2007	2008	2009
Crude Birth Rate	18	24.3	23.9	23.6
Crude Death Rate	6.4	8.6	8.6	8.4
Total Fertility Rate	2.1	2.7	2.6	N.A
Infant Mortality Rate	25	66	64	61

Source: Sample Registration Bulletin, R.G.I. New Delhi

To achieve the goal of healthy society the State Government has been undertaking various programmes and continuously increasing allocation of fund to the health sector in the State Plan. The allocation and expenditure for the health sector during the last 10 years, i.e. period from 2001 to 2010 is shown in the following table.

TABLE – 19.8

ALLOCATION AND EXPENDITURE OF FUND UNDER HEALTH SECTOR IN ASSAM

Sl. No.	Item	Year 2001-02 to 2010-11 (Rs. in lakh)	
		Fund Received	Expenditure Incurred
1	Health Services	576816.85	405662.43
2	Medical Education	273799.13	174355.55
3	IPPI - IX		
4	State Health Society (National Rural Health Mission, Assam)	207790.09	178519.53
5	Assam State AIDS Control Society	11369.4	9911.96
Total		1069775.47	768449.47

Source: Assam 2011, A Development Perspective Report

Some Achievements

- Construction of five District Civil Hospitals at Amingaon-Kamrup, Bongaigaon, Baska, Udalguri and Dhubri are nearing completion and the Kamrup Civil Hospital at Amingaon has already been made functional. Two such Hospitals one at Sonapur and another at Naharkatia are also taken up for construction and the construction work at Sonapur Hospital has already been started.
- Sick New Borne Care Units (SNCUs) have been set up at MMCH, Guwahati and the Civil Hospitals at Lakhimpur, Tezpur and Nagaon. SNCUs are under construction at Civil Hospitals, Sivasagar, Golaghat, Mangoldoi and Nalbari. This has improved the Health Care facilities for the patients in the State.
- 103 CHCs were targeted for its upgradation to Indian Public Health Standard (IPHS) and out of which 101 already completed.
- To increase the number of supporting paramedical staff, 8 new GNM Schools at Mangaldoi, Morigaon, Goalpara, Hailakandi, Karimganj, Kokrajhar, Haflong and Diphu have been taken up for construction and the works completed except Kokrajhar, Haflong and Diphu.
- The three new Medical Colleges at Jorhat, Tezpur and Barpeta are under construction and the Jorhat Medical Collage Hospital has already been made functional in October 2009 and the admission in 1st year MBBS course with 100 seats is awaited only for permission from MCI. 2 (two) other new Medical Colleges at Diphu and Nagaon is in the process of establishment.
- To provide better facilities to the cancer patients in the State, a new 200 bedded Cancer Hospital with modern sophisticated wquipments worth ₹50.00 (fifty) crores at GMCH is under construction.
- Substantial investments have also been made for development of Govt. Ayurvedic College, Guwahati, Regional Dental College, Guwahati and the 3 Homoeopathic Medical Colleges of the State.

Special Initiatives

State Government took several initiatives for patient welfare some of which are listed below:

- To encourage the doctors to work in the interior areas, financial incentive ranging from ₹3000.00 to ₹5000.00 per month provided to doctors.
- Implantation of Pacemaker and Heart Valves to the heart patients involve cost of more than a lakh and resulted inability of a large number of heart patient to undergo such treatment. With a view to overcome such financial constraints for the heart patients, The Government has already started implementation of providing cost free implantation of Pacemakers and Heart Valves to the heart patients. 1165 patients

have been provided with Pacemakers and 231 patients have been provided with Heart Valves so far.

- The scheme called '**Mamoni**' has ensured the compulsory three Ante Natal Checkups (ANCs) besides Institutional Delivery and cash assistance of ₹1000/- for the nutrition of the pregnant women during their pregnancy. So far 3,67,051 pregnant women have been benefited under this scheme.
- The scheme called '**Majoni**' has been launched for new born girl child to safeguard the educational help, nutritional right and to empower them equal to male counterpart. Under this scheme, an amount of ₹5000/- is given in the form of Fixed Deposit every girl child born in health institutions. Till date 51,323 girl child have been benefited under this scheme.
- The wage earners when hospitalized lose their wages during the period of their hospitalization and as such immediately after release from the hospital they use to go to their work without having food resulting further deterioration of their health. In appreciation of the said hard reality faced by the wage earner folk of the State, Govt. have launched the scheme '**Morom**' from April, 2010 so as to provide cash assistance @ ₹75/- for seven days, in Medical College Hospitals and @ ₹50/- for Civil Hospitals and ₹30/- for the CHC/FRU for five days.
- To improve the manpower in rural areas a Diploma course in Medical and Rural Health Care has been introduced and first batch of 92 Rural Health Practitioners have already been posted. Similarly 988 Multi Purpose Workers (Male) have been posted while another 1012 MPW (M) are being recruited for posting in Sub-Centres.
- The **Janani Suraksha Yojana** aims at institutional delivery of pregnant women with regular ante-natal and post-natal check-up through active participation of the ASHAs. The mother is provided with cash assistance of ₹1400/- in rural areas and ₹1000/- in urban areas. So far 12,48,406 no. of women have been benefited.
- The Mobile Medical Unit (MMU) services has been started to provide Health Services to the people residing in remote and far flung areas. Each MMU consists of 3 vehicles, 1 vehicle carries the doctors and supporting staff, the 2nd vehicle is equipped with x-ray, ultrasound machine and the 3rd vehicle has provision of examination and treatment of the patient. All diagnosis and treatment are provided at the site through the MMUs. All the 27 districts have been covered with MMU services. 6861 MMU camps with around eleven lakhs patients have so far been treated through this service till May, 2010.

Involvement of Private Sector

The Govt. of Assam have also welcome the Private investors willing to join hands with Govt. of Assam in the difficult health sectors for its improvement with their capital investment as well as providing highly technical skilled manpower services.

Operation Smile – Free Surgery for children cleft palate and cleft lip

Children having cleft palate and cleft lip have been suffering for malnutrition as they cannot take their food normally for this deformity and so also they cannot speak normally like the other normal children. Such children remain to have left unattended for want of facilities of surgery of cleft palate and cleft lip in the state of Assam. Such treatment available in limited hospitals outside Assam and is a costly affair hence it was a dream for most of the children as their guardians cannot afford to bear such cost.

Realizing the pathetic condition of these children, Govt. of Assam joined hand with the internationally reputed NGO the OPERATION SMILE having their required Experts of international fame with sophisticated equipments for the purpose to undertake treatment for those children in the state of Assam. Accordingly they agreed to provide their services at MMC hospital Guwahati by holding periodical camp treatment. Out of 4003 children screened so far, 2030 children have already been cured from such deformity free of cost

including transportation, food and lodging of the children along with their guardians with surgery at MMCH, Guwahati. It is proposed to set up a Comprehensive Cleft & Child Care Centre at MMCH in this year.

School Health Programme

Under this Programme students studying in standard I to IV from urban Schools and I to X from rural schools are examined every year and provides free of cost medical services. NRHM with the help of Sarva Siksha Abhijan covers the students from all rural schools. Schools health services are being carried out by 23 schools in the state.

AYUSH

Scheme under Ayurvedic and Homoeopathic sections will be continued during the period of 11th Five Year Plan. The sections under AYUSH which will be implemented in Assam are :

1. Ayurvedic, 2. Yoga & Naturopathy, 3. Homoeopathy.

The Continuing Schemes under AYUSH are:

- Reorientation training of AYUSH personnel.
- Short-term Continuing Medical Education (CME) Programme for general AYUSH practitioners.
- Schemes under I.E.C.
- Centrally Sponsored Scheme (CSS) for control of Ayurvedic and Homoeopathic drugs.

Proposals have been taken up to introduce treatment through Yoga & Naturopathy in the District Civil Hospitals/CHCs/PHCs in phased manner.

One New Directorate of AYUSH is under process for establishment.

Family Welfare

The Family Welfare Programme, now a centrally sponsored programme under National Rural Health Mission (NRHM) is being implemented in the State since 1956 to reduce the birth rate to stabilize the population, and to improve the health of mothers and child. However, socio-economic factors such as female literacy, age at marriage of girls, status of women and discouragement of strong preference for son influence the main objective of the programme. Though the sterilization was the mainstay of family welfare programme in the past, spacing between births of two children is also an equally important aspect under the programme.

The Government is giving more stress on propagations of spacing methods like Coppee-T, Intra Uterine Device (IUD), Conventional contraceptives (CC) etc. Expenditure incurred under this Family welfare Programme for the period for 2008-09 & 2009-10 was ₹156.60 crore. Performance of Family Welfare programme is shown in Table.19.9.

TABLE-19.9
PERFORMANCE OF FAMILY WELFARE PROGRAMME

Sl. No	Name of Schemes	Year			
		2008-2009		2009-2010	
		Target	Achievement (%)	Target	Achievement
1	Sterilization	13800	35.55	150000	54.15
2	I.U.D. Insection	69000	45.15	90000	44.52
3	C.C. users	50000	67.15	90000	55.84
4	O.P. users	50000	94.84	90000	72.07

Source: Directorate of Health Service (FW), Assam.

Universal Immunization Programme

Universal Immunization Programme is implemented to achieve 100 percent immunization and to reduce mortality and morbidity among infants and young children due to vaccine 6 (Six) preventable disease such as tuberculosis, diphtheria, whooping cough, tetanus, polio and measles. Expenditure incurred during 2009-10 was about ₹17.85 crore to carried out Universal Immunization Programme in the State. Number of beneficiaries under Universal Immunization Programme is given in the following Table.

TABLE- 19.10
NUMBER OF BENEFICIARIES UNDER UNIVERSAL IMMUNIZATION PROGRAMME 2009-10

Vaccine Name	Beneficiaries
1. BCG	657562
2. DPT-3	613229
3. OPV-3	611267
4. MLS	581680
5. TT(PW) 2+B	595546

Source: Directorate of Health Service (FW), Assam

Incidence of Cancers

Considering the rise of the incidence of Cancers, Cancer Control Programme has been launched in the State as per Govt. of India's guideline. In the 1st phase, early Cancer Detection Centres have been set up in Jorhat, Dhubri and Cachar. Two more Centres will be started in Darrang and Barpeta. There is Proposal for construction of Office building of Public Analyst, Drugs Inspector/Food Inspector in each district Head Quarter.

Water Supply and Sanitation

Providing safe drinking water and safe sanitation facilities to the uncovered and under served rural population is the major and prime task to cater the needs for health and improve the quality of life. Rural water supply and sanitation facilities are essential ingredients in the total programme for rural development. Although most of the habitations (more than 90%) are covered by goods number of water supply schemes due to quality problem and sustainability of sources as well as lack of peoples participations, increase in population some habitations slipped back from full coverage. To eliminate these drawbacks, a new approach has formulated under National Rural Drinking Water Programme (NRDWP)

Annual Plan- 2009-10

A physical target is set to render water supply benefit to 6765 nos. of un covered habitation and tackling of water quality problem of 6087 nos. of quality affected habitations during 2009-10 under Rural Water Supply Sector. With the allocated amount of ₹15400.00 lakh under State Plan in general areas and ₹51891.72 Lakh under Central Sector including Sixth scheduled areas is proposed.

Again, under Rural Sanitation Sector it is targeted to construct 510000 nos. of Individual Household Latrine, 24442 nos. of School Sanitary Block, 13650 nos. of Anganwadi Toilets and 113 nos. of community Sanitary Complex at a projected cost of ₹4000.00 Lakh under State Plan.

Annual Plan- 2010-11

A Physical target is set to render water supply benefit to 7690 nos. of uncovered habitations and 9400 nos. of quality affected habitations during 2010-11 under rural water supply sector and for achieving this target ₹20390.00 lakh under State plan in general areas and ₹121689.00 lakh under central sector is proposed.

Again, under Rural Sanitation Sector it is targeted to construct 713000 nos. of Individual Household Latrine and 113 nos. of community sanitary complex at a projected cost of ₹5616.00 lakh under State sector.

Physical and Financial target under State Sector during Eleventh Plan

It is proposed to cover 3433 nos. NC and 2554 nos. of PC habitations and 25203 nos. of quality affected habitations under general areas of plain districts with safe drinking water facilities from state sector during the Eleventh Five Year Plan with a total proposed amount of ₹73185.00 lakh under rural water supply sector and ₹11000.00 lakh under rural sanitation sector for total sanitation campaign for all the district.

Physical and Financial target under Central Sector during Eleventh Plan

It is proposed to cover, 10300 nos. of NC, 8361 nos. of PC habitations and 25203 nos. of quality affected habitations under General areas of Plain districts with safe drinking water facilities.

Bharat Nirman

Uncovered habitations 33909 numbers are targeted to cover during the Eleventh Five Year Plan. Further, quality affected habitations 29066 numbers are targeted to cover within the period. Besides, all the remaining primary and upper primary schools are also targeted to cover during eleventh five year plan. To achieve the entire target ₹354750.00 under Central sector and ₹73185.00 lakh under State sector is proposed during eleventh five year plan.



ECONOMIC SURVEY ASSAM 2010-11



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APPENDIX - I
KEY RESULTS
AS PER ECONOMIC CENSUS, 1998 & 2005, ASSAM

Sl. No.	Indicators		EC-1998	EC-2005	CAGR* during 1998-2005
1. Establishments					
1.1	Number of establishments	a) Rural	404279	681670	7.75
		b) Urban	188890	302023	6.93
		c) Combined	593169	983693	7.49
1.2	Number of Agricultural establishments	a) Rural	16960	39797	12.96
		b) Urban	2529	2669	0.77
		c) Combined	19489	42466	11.77
1.3	Number of Non- Agricultural establishments	a) Rural	387319	641873	7.48
		b) Urban	186361	299354	7.01
		c) Combined	573680	941227	7.33
2. Employment					
2.1	Number of persons employed	a) Rural	1550985	1442854	-1.03
		b) Urban	643604	765315	2.51
		c) Combined	2194589	2208169	0.09
2.2	Persons engaged in Agricultural establishments	a) Rural	48383	80017	7.45
		b) Urban	6158	6131	-0.06
		c) Combined	54541	86148	6.75
2.3	Persons engaged in Non-Agricultural establishments	a) Rural	1502602	1362837	-1.39
		b) Urban	637446	759184	2.53
		c) Combined	2140048	2122021	-0.12

*Compounded Annual Growth Rate.

Source : Directorate of Economics & Statistics, Assam.

APPENDIX - II
KEY RESULTS AS PER ECONOMIC CENSUS, 1998 & 2005, INDIA

Sl. No.	Indicators		EC-1998	EC-2005	CAGR* during 1998-2005
1. Establishments					
1.1	Number of establishments		30348900	41826989	4.69
1.2	Number of Agricultural establishments		3474800	6079983	8.32
1.3	Number of Non- Agricultural establishments		26874100	35747006	4.16
2. Employment					
2.1	Number of persons employed		83299500	100904121	2.78
2.2	Persons engaged in Agricultural establishments		6748900	10913601	7.11
2.3	Persons engaged in Non-Agricultural establishments		76550600	89990520	2.34

*Compounded Annual Growth Rate.

Source : Central Statistical Office, Govt. of India.

APPENDIX - III

DISTRICTWISE DEMOGRAPHIC PROFILE OF ASSAM, 2001 CENSUS

Sl. No.	District	Area in Sq. Km. (2001 Census)	Population	Rural Population	Urban Population	Population Density per Sq. Km.
1	Dhubri	2114	1532383	1339940	192443	725
2	Bongaigaon	1725	621136	523922	97214	360
3	Kokrajhar *	3165	842805	791304	51501	266
4	Chirang *	1975	411058	386050	25008	208
5	Baksa *	2008	849352	849352	-	423
6	Goalpara	1824	822035	755133	66902	451
7	Barpeta	2677	1408749	1281881	126868	526
8	Nalbari	1010	701133	673647	27486	694
9	Kamrup (M)	1273	1062771	206554	856217	834
10	Kamrup (R)	2772	1308505	1256505	52000	472
11	Darrang	1427	792614	750911	41703	555
12	Udalguri *	1674	752621	719496	33125	450
13	Sonitpur	5320	1668998	1493204	175794	314
14	Lakhimpur	2277	889010	823857	65153	390
15	Dhemaji	3237	571944	533112	38832	177
16	Morigaon	1551	776256	738268	37988	500
17	Nagaon	3973	2314629	2036342	278287	583
18	Golaghat	3502	946279	865141	81138	270
19	Jorhat	2851	999221	827901	171320	350
20	Sivasagar	2668	1051736	954557	97179	394
21	Dibrugarh	3381	1185072	956634	228438	351
22	Tinsukia	3790	1150062	926105	223957	303
23	Karbi-Anglong	10434	813311	721381	91930	78
24	N.C.Hills	4888	188079	128644	59435	38
25	Karimganj	1809	1007976	934126	73850	557
26	Hailakandi	1327	542872	498787	44085	409
27	Cachar	3786	1444921	1243534	201387	382
	ASSAM	78438	26655528	23216288	3439240	340

Source : i) Census of India, 2001

* ii) Estimated Population by Deptt. of Economics & Statistics, Bodoland as per Census of India, 2001.

APPENDIX – IV

DECADAL PERCENTAGE VARIATION IN POPULATION OF ASSAM

District	1901-1911	1931-1941	1941-1951	1951-1961	1961-1971	1971-1991	1991-2001
Dhubri	29.97	14.83	9.25	27.62	40.51	56.57	23.68
Kokrajhar	29.97	14.83	9.25	46.18	54.30	76.78	12.00
Bongaigaon	29.94	14.97	9.31	60.81	40.29	64.64	12.05
Goalpara	29.97	14.83	9.25	37.10	45.88	54.12	23.03
Barpeta	20.02	44.06	18.77	32.62	35.81	43.02	18.87
Nalbari	13.33	29.43	17.89	49.62	42.02	49.27	13.03
Kamrup	11.10	19.21	17.17	37.73	38.80	65.72	26.11
Darrang	(-) 0.25	35.30	24.13	44.75	43.24	55.63	15.82
Sonitpur	24.33	19.73	24.26	35.82	27.62	57.14	18.06
Lakhimpur	26.29	22.70	17.94	50.46	43.39	56.29	18.30
Dhemaji	26.29	22.69	17.94	75.21	103.42	107.50	19.45
Morigaon	15.84	15.37	36.63	37.89	37.51	50.90	21.35
Nagaon	15.84	15.37	36.65	35.91	38.99	51.26	22.26
Golaghat	16.55	1.27	19.76	26.04	30.85	58.12	14.27
Jorhat	16.90	15.27	14.87	24.17	17.47	33.10	14.69
Sivasagar	13.41	15.64	15.98	23.36	19.47	38.76	15.83
Dibrugarh	26.29	22.70	17.94	30.64	22.93	37.78	13.68
Tinsukia	26.29	22.70	17.94	35.92	31.02	47.03	19.51
Karbi-Anglong	-	-	30.96	79.21	68.28	74.72	22.72
N.C.Hills	(-)33.12	13.75	6.16	36.95	40.00	98.30	24.72
Karimganj	12.94	9.52	29.87	22.96	25.13	42.08	21.87
Hailakandi	16.09	10.29	17.48	27.23	23.61	45.94	20.89
Cachar	12.33	13.08	23.92	22.60	23.96	47.59	18.89
ASSAM	16.99	20.40	19.93	34.98	34.95	53.26	18.92

Source : Census of India, 2001.

APPENDIX - V

DISTRICT WISE NUMBER OF MAIN WORKERS, MARGINAL WORKERS AND NON-WORKERS IN ASSAM, AS PER 2001 CENSUS

Sl. No.	District	Total Workers	Main Workers	Marginal Workers	Non- Workers
1.	Dhubri	470360	399201	71159	1166984
2.	Kokrajhar	334849	234771	100078	570915
3.	Bongaigaon	293243	233087	60156	611592
4.	Goalpara	273925	209928	63997	548110
5.	Barpeta	517088	408537	108551	1130113
6.	Nalbari	383932	291665	92267	764892
7.	Kamrup	842253	697810	144443	1680071
8.	Darrang	527993	404428	123565	976327
9.	Sonitpur	634723	465283	169440	1046790
10.	Lakhimpur	497745	288052	209693	391265
11.	Dhemaji	250146	155431	94715	321798
12.	Morigaon	262824	200132	62692	513432
13.	Nagaon	727641	566195	161446	1586988
14.	Golaghat	388640	269896	118744	557639
15.	Jorhat	414348	285092	129256	584873
16.	Sivasagar	430523	287319	143204	621213
17.	Dibrugarh	472419	342708	129711	712653
18.	Tinsukia	466351	349847	116504	683711
19.	Karbi Anglong	330480	231638	98842	482831
20.	N.C.Hills	70199	35031	15168	117880
21.	Karimganj	303294	235016	68278	704682
22.	Hailakandi	179881	138216	41665	362991
23.	Cachar	465734	364814	100920	979187
TOTAL:		9538591	7114097	2424494	17116937

Source : Census of India, 2001.

APPENDIX – VI
STATEWISE POPULATION, SEX RATIO, POPULATION DENSITY,
LITERACY RATE AND PERCENTAGE DECADEAL GROWTH IN INDIA.

Sl. No.	India, States, Union Territories	Population 2001	Sex Ratio 2001	Population Density per sq. km. 2001	Literacy rate 2001	Percentage decadal growth	
						1981-1991	1991-2001
	India	1028737436	933	325	64.8	23.87	21.54
1.	Jammu & Kashmir	10143700	892	100	55.5	30.89	29.43
2.	Himachal Pradesh	6077900	968	109	76.5	20.79	17.54
3.	Punjab	24358999	876	484	69.7	20.81	20.10
4.	Chandigarh	900635	777	7900	81.9	42.16	40.28
5.	Uttaranchal	8489349	962	159	71.6	23.13	20.41
6.	Haryana	21144564	861	478	67.9	27.41	28.43
7.	Delhi	13850507	821	9340	81.7	51.45	47.02
8.	Rajasthan	56507188	921	165	60.4	28.44	28.41
9.	Uttar Pradesh	166197921	898	690	56.3	25.61	25.85
10.	Bihar	82998509	919	881	47.0	23.38	28.62
11.	Sikkim	540851	875	76	68.8	28.47	33.06
12.	Arunachal Pradesh	1097968	893	13	54.3	36.83	27.00
13.	Nagaland	1990036	900	120	66.6	56.08	64.53
14.	Manipur	2293896	978	103	70.5	29.29	24.86
15.	Mizoram	888573	935	42	88.8	39.70	28.82
16.	Tripura	3199203	948	305	73.2	34.30	16.03
17.	Meghalaya	2318822	972	103	62.6	32.86	30.65
18.	Assam	26655528	935	340	63.3	24.24	18.92
19.	West Bengal	80176197	934	903	68.6	24.73	17.77
20.	Jharkhand	26945829	941	338	53.6	24.03	23.36
21.	Orissa	36804660	972	236	63.1	20.06	16.25
22.	Chhatisgarh	20833803	989	154	64.7	25.73	18.27
23.	Madhya Pradesh	60348023	919	196	63.7	27.24	24.25
24.	Gujarat	50671017	920	258	69.1	21.19	22.66
25.	Daman & Diu	158204	710	1413	78.2	28.62	55.73
26.	Dadra & Nagar Haveli	220490	812	449	57.6	33.57	59.22
27.	Maharastra	96878627	922	315	76.9	25.73	22.73
28.	Andhra Pradesh	76210007	978	277	60.5	24.20	14.59
29.	Karnataka	52850562	965	276	66.6	21.12	17.51
30.	Goa	1347668	961	364	82.0	16.08	15.21
31.	Lakshadweep	60650	948	1895	86.7	28.47	17.30
32.	Kerala	31841374	1058	819	90.9	14.32	9.43
33.	Tamil Nadu	62405679	987	480	73.5	15.39	11.72
34.	Puducherry	974345	1001	2030	81.2	33.64	20.62
35.	Andaman & Nicobar Islands	356152	846	43	81.3	48.70	26.90

Source : Census of India, 2001.

APPENDIX – VII
BIRTH AND DEATH RATES IN ASSAM

YEAR	BIRTH RATE			DEATH RATE		
	Combined	Rural	Urban	Combined	Rural	Urban
1991	30.9	31.7	21.3	11.5	11.8	6.9
1995	29.3	30.2	21.8	9.6	10.0	6.7
1996	27.6	28.9	20.7	9.6	10.2	5.8
1997	28.2	29.0	20.7	9.9	10.3	5.9
1998	27.9	28.7	20.2	10.0	10.5	6.0
1999	27.0	28.0	18.9	9.7	10.1	6.2
2000	26.9	27.9	18.6	9.6	10.0	6.1
2001	26.8	27.8	15.5	9.5	9.8	6.6
2002	26.6	27.5	18.3	9.2	9.6	6.0
2003	26.3	27.2	18.0	9.1	9.5	5.9
2004	25.1	27.0	14.3	8.8	9.3	5.5
2005	25.0	26.6	15.3	8.7	9.2	5.6
2006	24.6	26.1	15.4	8.7	9.2	5.8
2007	24.3	25.7	15.5	8.6	9.1	5.7
2008	23.9	25.3	15.7	8.6	9.0	5.6
2009	23.6	24.9	15.9	8.4	8.8	5.9

Source : Registrar General of India.

APPENDIX – VIII
INFANT MORTALITY RATE IN ASSAM AND INDIA

SECTOR	ASSAM/ INDIA	YEARS								
		2001	2002	2003	2004	2005	2006	2007	2008	2009
Rural	Assam	77	73	70	69	71	70	68	66	64
	India	72	69	66	64	64	62	61	58	55
Urban	Assam	34	38	35	38	39	42	41	39	37
	India	42	40	38	40	40	39	37	36	34
Total	Assam	74	70	67	66	68	67	66	64	61
	India	66	64	60	58	58	57	55	53	50

Source : Registrar General of India.

APPENDIX - IX
DISTRICT-WISE NUMBER OF VILLAGES, GAON PANCHAYAT,
COMMUNITY DEVELOPMENT BLOCK, ANCHALIK PANCHAYAT
AND ZILA PARISHADS IN ASSAM

Sl No.	District	Number of Villages (As per 2001 Census)	Number of Gaon Panchayat as on 20-03-07	Number of Community Development Block as on 31-3-07	Number of Anchalik Panchayat as on 20-03-07	Number of Zila Parishad as on 20-03-07
1.	Dhubri	1057	168	15	15	1
2.	Kokrajhar	1082	-	4	-	-
3.	Bongaigaon	560	65	5	5	1
4.	Goalpara	837	81	8	8	1
5.	Barpeta	842	129	11	11	1
6.	Nalbari	460	65	7	7	1
7.	Kamrup	1063	146	16	16	1
8.	Darrang	533	76	6	6	1
9.	Sonitpur	1851	158	14	14	1
10.	Lakhimpur	1170	81	9	9	1
11.	Dhemaji	1315	65	5	5	1
12.	Morigaon	636	85	5	7	1
13.	Nagaon	1420	239	18	20	1
14.	Golaghat	1089	102	8	8	1
15.	Jorhat	853	110	8	8	1
16.	Sivasagar	878	118	9	9	1
17.	Dibrugarh	1345	93	7	7	1
18.	Tinsukia	1146	86	7	7	1
19.	Karbi Anglong	2931	-	11	-	-
20.	N. C. Hills	645	-	5	-	-
21.	Karimganj	940	96	7	7	1
22.	Hailakandi	331	62	5	5	1
23.	Cachar	1047	163	15	15	1
24.	Chirang *	500	-	2	-	-
25.	Baksa *	827	-	7	-	-
26.	Kamrup (M)*	230	14	-	-	-
27.	Udalguri *	827	-	5	-	-
	A s s a m	26312	2202	219	189	20

*N. B * Indicates newly created Districts.*

APPENDIX - X

COMPARATIVE STATEMENT ON PERCENTAGE OF POPULATION BELOW POVERTY LINE OF SOME STATES

State	1993-94			2004-05		
	Rural	Urban	Combined	Rural	Urban	Combined
Assam	45.01	7.73	40.86	22.3	3.3	19.1
Andhra Pradesh	15.92	38.33	22.19	11.2	28.0	15.8
Bihar	58.21	34.5	54.96	42.1	34.6	41.4
Gujarat	22.18	27.89	24.21	19.1	13.0	16.8
Himachal Pradesh	30.34	9.18	28.44	10.7	3.4	10.0
Jammu & Kashmir	30.34	9.18	25.17	4.6	7.9	6.1
Karnataka	29.88	40.14	33.16	20.8	32.6	25.6
Kerala	25.76	24.55	25.43	13.2	20.2	15.0
Madhya Pradesh	40.64	48.38	42.52	36.9	42.1	38.3
Maharastra	37.93	35.15	36.86	29.6	32.2	30.7
Orissa	49.72	41.64	48.56	46.8	44.3	46.4
Punjab	11.95	11.35	11.77	9.1	7.1	8.4
Tamil Nadu	32.48	39.77	35.03	22.8	22.2	22.5
Uttar Pradesh	42.28	35.39	40.85	33.4	30.6	32.8
West Bengal	40.80	22.41	35.66	28.6	14.8	24.7
India	37.27	32.36	35.97	28.3	25.7	27.5

*Based on URP consumption
(consumer expenditure data for all the items are collected from 30 day recall period)*

Source : Planning Commission estimates.

APPENDIX-XI
GROSS STATE DOMESTIC PRODUCT AT FACTOR COST BY INDUSTRY
OF ORIGIN AT CURRENT PRICES IN ASSAM
(New Series)

(Rupees in lakh)

Sl. No	Sector	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10(Q)
1.	Agriculture	1158871	1427998	1434835	1557501	1946101	2333919
2.	Forestry and logging	127332	142226	140971	147797	153873	166935
3.	Fishing	79363	115528	146975	146761	159180	169854
	Agriculture and Allied	1365566	1685752	1722781	1852059	2259154	2670708
4.	Mining and Quarrying	467925	494435	499749	522027	573542	620022
	(a) Primary Sector (Sub-Total)	1833491	2180187	2222530	2374086	2832695	3290730
5.	Manufacturing (Total)	562146	565728	616757	609499	668636	748082
	5.1 Registered	434687	425730	449266	411747	462290	510937
	5.2 Unregistered	127459	139997	167492	197752	206345	237145
6.	Construction	342026	334175	379149	408050	450817	475597
7.	Electricity, Gas and Water Supply	98412	104656	99146	123242	127556	137808
	(b) Secondary Sector (Sub-Total)	1002584	1004559	1095052	1140791	1247009	1361487
	(c) Industry [4+(b)]	1470509	1498994	1594801	1662818	1820550	1981509
8.	Transport, Storage and Communication(Total)	329700	362655	432914	514691	575991	661189
	8.1 Railways	89783	93723	126065	166511	183728	224559
	8.2 Transport by other means	2509	2630	3403	3767	3984	4488
	8.3 Storage	157887	173405	198617	225078	246881	269470
	8.4 Communication	79521	92897	104828	119335	141398	162672
9.	Trade, Hotel and Restaurant	752981	901881	1031747	1132387	1210828	1264194
10.	Banking and Insurance	162017	168184	199596	225772	281755	324132
11.	Real Estate, Ownership of Real Estate, Dwelling and Business services	146463	161876	180473	195625	221705	257491
12.	Public Administration	342066	348435	380963	448692	495252	726184
13.	Other services	770469	810682	925946	1075575	1256865	1361838
	(d) Tertiary Sector (Sub -Total)	2503697	2753713	3151638	3592743	4042397	4595028
14.	State Domestic Product	5339772	5938459	6469220	7107620	8122101	9247245
15.	State Per Capita Income in Rupees	18993	20832	22388	24273	27384	30786

APPENDIX-XII
GROSS STATE DOMESTIC PRODUCT AT FACTOR COST BY INDUSTRY
OF ORIGIN AT CONSTANT (2004-05) PRICES IN ASSAM (New Series)

(Rupees in lakh)

Sl. No	Sector	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10(Q)
1.	Agriculture	1158871	1181144	1200941	1237322	1316782	1371361
2.	Forestry and logging	127332	134868	143152	149075	155758	163520
3.	Fishing	79363	84579	83276	81205	87918	91259
	Agriculture and Allied	1365566	1400591	1427369	1467602	1560458	1626140
4.	Mining and Quarrying	467925	476607	483032	502212	512309	521111
	(a) Primary Sector (Sub-Total)	1833491	1877198	1910400	1969814	2072767	2147252
5.	Manufacturing (Total)	562146	524114	514547	480985	509556	522856
	5.1 Registered	434687	391168	364362	308857	333699	337437
	5.2 Unregistered	127459	132946	150186	172128	175857	185420
6.	Construction	342026	316673	330107	339953	348503	358879
7.	Electricity, Gas and Water Supply	98412	101177	90097	104274	103770	107649
	(b) Secondary Sector (Sub-Total)	1002584	941964	934751	925212	961829	989384
	(c) Industry [4+(b)]	1470509	1418570	1417783	1427423	1474138	1510495
8.	Transport, Storage and Communication(Total)	329700	367906	427651	489983	536397	616391
	8.1 Railways	89783	95310	117140	145777	158248	184936
	8.2 Transport by other means	2509	2475	2720	2733	2774	2831
	8.3 Storage	157887	169795	180183	186730	194218	205581
	8.4 Communication	79521	100326	127608	154742	181157	223043
9.	Trade, Hotel and Restaurant	752981	871911	937566	958059	985031	1026227
10.	Banking and Insurance	162017	181159	220648	252141	300409	351319
11.	Real Estate, Ownership of Real Estate, Dwelling and Business services	146463	152044	156546	169383	182363	201178
12.	Public Administration	342066	343773	349582	382963	409655	598587
13.	Other services	770469	785401	841108	909197	1021238	1062027
	(d) Tertiary Sector (Sub -Total)	2503697	2702195	2933101	3161725	3435093	3855729
14.	State Domestic Product	5339772	5521356	5778253	6056750	6469688	6992365
15.	State Per Capita Income in Rupees	18993	19369	19997	20684	21813	23279

APPENDIX-XIII
NET STATE DOMESTIC PRODUCT AT FACTOR COST BY INDUSTRY
OF ORIGIN AT CURRENT PRICES IN ASSAM
(New Series)

(Rupees in lakh)

Sl. No	Sector	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10(Q)
1.	Agriculture	1068008	1321638	1316962	1437907	1812744	2190636
2.	Forestry and logging	125651	140464	139229	145899	151945	164943
3.	Fishing	69139	101172	128583	128814	137149	145103
	Agriculture and Allied	1262798	1563274	1584774	1712620	2101837	2500682
4.	Mining and Quarrying	390230	406133	408723	426036	470885	511605
	(a) Primary Sector (Sub-Total)	1653028	1969407	1993497	2138656	2572722	3012287
5.	Manufacturing (Total)	432430	428634	471757	448216	499711	568896
	5.1 Registered	321900	307914	326147	274195	319572	360259
	5.2 Unregistered	110530	120719	145611	174021	180138	208637
6.	Construction	328743	320960	363276	390094	431566	454678
7.	Electricity, Gas and Water Supply	44408	45167	38589	36739	37777	38172
	(b) Secondary Sector (Sub-Total)	805581	794761	873622	875049	969053	1061746
	(c) Industry [4+(b)]	1195811	1200894	1282345	1301085	1439938	1573351
8.	Transport, Storage and Communication(Total)	264518	290373	349791	422181	474511	550426
	8.1 Railways	54980	56279	83035	118167	131271	167481
	8.2 Transport by other means	2371	2458	3168	3471	3640	4090
	8.3 Storage	140400	154259	176750	200279	219892	240015
	8.4 Communication	66767	77377	86837	100264	119709	138840
9.	Trade, Hotel and Restaurant	730861	873459	999053	1094187	1167341	1215456
10.	Banking and Insurance	158850	164841	195919	221819	277547	319655
11.	Real Estate, Ownership of Real Estate, Dwelling and Business services	103593	112249	123579	128462	147530	175301
12.	Public Administration	275000	279429	304750	355084	397071	569799
13.	Other services	726643	759450	863136	998724	1170522	1264430
	(d) Tertiary Sector (Sub -Total)	2259466	2479801	2836227	3220458	3634522	495067
14.	State Domestic Product	4718075	5243969	5703346	6234163	7176298	8169100
15.	State Per Capita Income in Rupees	16782	18396	19737	21290	24195	27197

APPENDIX-XIV
NET STATE DOMESTIC PRODUCT AT FACTOR COST BY INDUSTRY
OF ORIGIN AT CONSTANT (2004-05) PRICES IN ASSAM
(New Series)

(Rupees in lakh)

Sl. No	Sector	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10(Q)
1.	Agriculture	1068008	1079329	1095104	1136129	1208102	1259180
2.	Forestry and logging	125651	133178	141587	147473	154214	162012
3.	Fishing	69139	70634	65438	63561	66467	67193
	Agriculture and Allied	1262798	1283141	1302129	1347163	1428783	1488385
4.	Mining and Quarrying	390230	392992	400532	418736	426430	433610
	(a) Primary Sector (Sub-Total)	1653028	1676133	1702660	1765899	1855213	1921995
5.	Manufacturing (Total)	432430	393414	380354	336438	362770	371272
	5.1 Registered	321900	278523	249832	184817	208788	208961
	5.2 Unregistered	110530	114891	130523	151621	153983	162311
6.	Construction	328743	304000	315305	323734	331525	340807
7.	Electricity, Gas and Water Supply	44408	44700	35621	30815	30075	28317
	(b) Secondary Sector (Sub-Total)	805581	742114	731280	690987	724370	740396
	(c) Industry [4+(b)]	1195811	1135105	1131812	1109722	1150801	1174006
8.	Transport, Storage and Communication(Total)	264518	299497	351070	409005	432492	496594
	8.1 Railways	54980	60137	77550	104206	97056	110935
	8.2 Transport by other means	2371	2311	2509	2481	2486	2504
	8.3 Storage	140400	151371	159581	164076	170007	179602
	8.4 Communication	66767	85678	111430	138241	162944	203553
9.	Trade, Hotel and Restaurant	730861	844806	907696	924983	948080	985712
10.	Banking and Insurance	158850	177975	217255	248612	296767	347548
11.	Real Estate, Ownership of Real Estate, Dwelling and Business services	103593	105142	105816	113782	122832	137445
12.	Public Administration	275000	277943	280368	301905	327523	511919
13.	Other services	726643	736552	783507	841627	946780	949573
	(d) Tertiary Sector (Sub -Total)	2259466	2441916	2645712	2839913	3074474	3428791
14.	State Domestic Product	4718075	4860162	5079653	5296798	5654057	6091182
15.	State Per Capita Income in Rupees	16782	17050	17579	18089	19063	20279

APPENDIX-XV

MOVEMENT OF GROSS STATE DOMESTIC PRODUCT (GSDP) OF ASSAM AT CURRENT AND CONSTANT (2004-2005) PRICES (New Series)

YEAR	Gross State Domestic Product (Rupees in lakh)		Per capita Gross State Domestic Product (in Rupees)	
	At current Prices	At constant (2004-05) Prices	At current Prices	At constant (2004-05) Prices
2004-05	5339772	5339772	18993	18993
2005-06	5938459	5521356	20832	19369
2006-07	6469220	5778253	22388	19997
2007-08	7107620	6056750	24273	20684
2008-09	8122101	6469688	27384	21813
2009-10(Q)	9247245	6992365	30786	23279

APPENDIX-XVI

MOVEMENT OF NET STATE DOMESTIC PRODUCT (NSDP) OF ASSAM AT CURRENT AND CONSTANT (2004-2005) PRICES (New Series)

YEAR	Net State Domestic Product (Rupees in lakh)		Per capita Net State Domestic Product (in Rupees)	
	At current Prices	At constant (2004-05) Prices	At current Prices	At constant (2004-05) Prices
2004-05	4718075	4718075	16782	16782
2005-06	5243969	4860162	18396	17050
2006-07	5703346	5079653	19737	17579
2007-08	6234163	5296798	21290	18089
2008-09	7176298	5654057	24195	19063
2009-10(Q)	8169100	6091182	27197	20279

APPENDIX- XVII
ALL INDIA PER CAPITA NET STATE DOMESTIC PRODUCT
AT CURRENT (2004-05) PRICES
As on 08-03-2011

(In Rupees)

Sl. No.	State/UT	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10
1	Andhra Pradesh	25321	28539	33135	39727	45007	51025
2	Arunachal Pradesh	27271	28999	30811	34518	40055	51644
3	Assam	16782	18396	19737	21290	24195	27197
4	Bihar	7759	8151	10055	11514	13980	16119
5	Jharkhand	18512	18314	19744	25069	27700	30719
6	Goa	76426	85299	94512	107311	119273	132719
7	Gujarat	32021	37780	43395	50016	55140	63961
8	Haryana	37842	42133	49892	58090	67757	78781
9	Himachal Pradesh	32564	35850	38931	42076	46019	50365
10	Jammu & Kashmir	21314	22813	24443	26285	28332	30582
11	Karnataka	26745	31086	35954	42347	46386	50676
12	Kerala	31871	36276	40419	45700	52012	59179
13	Madhya Pradesh	15442	16631	19028	20935	23757	27250
14	Chattisgarh	18559	20117	24800	29385	32566	38059
15	Maharashtra	35915	41624	49568	57218	64238	74027
16	Manipur	18527	20323	21380	23237	25658	28531
17	Meghalaya	23793	25863	30373	33576	37376	42601
18	Mizoram	24662	26698	28764	32488	38888	45982
19	Nagaland	20234	21087	21730	22418	N.A	N.A
20	Orissa	17380	18618	21980	27560	30121	33226
21	Punjab	32948	35865	41651	49422	55504	62153
22	Rajasthan	18565	20275	24055	26882	30647	34189
23	Sikkim	26693	30256	32203	36452	41868	48937
24	Tamil Nadu	30105	35183	42330	47654	54514	62499
25	Tripura	24394	26668	29081	31111	33350	35799
26	Uttar Pradesh	12840	14115	15865	17602	20004	23132
27	Uttarakhand	24740	29319	35172	42681	48543	55877
28	West Bengal	22654	24710	27822	31407	35403	41469
29	A & N Islands	40921	44754	53778	61430	69417	74340
30	Chandigarh	74442	85180	97908	106804	112850	120912
31	Delhi	61560	68933	78741	89212	101381	116886
32	Pondicherry	48573	67390	68892	74994	78869	82767
	All India Per Capita NNI	24143	27123	31198	35820	40605	46492

Source: For Sl. No. 1-32 – Directorates of Economics & Statistics of respective State Government and for all-India – Central Statistics Office, Govt. of India.

APPENDIX- XVIII
ALL INDIA PER CAPITA NET STATE DOMESTIC PRODUCT
AT CONSTANT (2004-05) PRICES

(in Rupees)

Sl. No.	State/UT	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10
1	Andhra Pradesh	25321	27486	30114	33239	34716	36345
2	Arunachal Pradesh	27271	27651	28667	31780	33624	39679
3	Assam	16782	17050	17579	18089	19063	20279
4	Bihar	7759	7659	9005	9617	10702	11558
5	Jharkhand	18512	17408	17430	21000	21720	22780
6	Goa	76426	80531	85592	86487	90801	98807
7	Gujarat	32021	36102	38568	42498	44861	49030
8	Haryana	37842	40313	44222	47520	51016	55214
9	Himachal Pradesh	32564	34741	36813	38418	39242	40690
10	Jammu & Kashmir	21314	22198	23197	24261	25421	26739
11	Karnataka	26745	29265	31917	35586	36207	37464
12	Kerala	31871	34837	37284	40287	42646	46511
13	Madhya Pradesh	15442	15927	17073	17572	18540	19736
14	Chattisgarh	18559	18530	21580	22929	23373	25835
15	Maharashtra	35915	40947	46158	50532	53640	57458
16	Manipur	N.A	N.A	N.A	N.A	N.A	N.A
17	Meghalaya	23793	25182	26787	27154	27956	29656
18	Mizoram	24662	25826	26308	28467	31706	35323
19	Nagaland	20234	20659	20821	20971	N.A	N.A
20	Orissa	17380	17964	20009	21554	22465	24098
21	Punjab	32948	33741	36759	39296	41108	43539
22	Rajasthan	18565	19445	21342	21922	23125	23669
23	Sikkim	26693	29011	30296	31725	33424	36075
24	Tamil Nadu	30105	33968	38851	40969	43269	46823
25	Tripura	24394	25688	27558	29022	31156	33503
26	Uttar Pradesh	12840	13302	14109	14764	15381	16182
27	Uttarakhand	24740	27560	30743	35634	37803	41126
28	West Bengal	22654	23799	25274	27043	28196	30504
29	A & N Islands	40921	41645	47522	50629	54382	54830
30	Chandigarh	74442	78998	84769	88134	88044	90051
31	Delhi	61560	65993	72091	77973	82777	89037
32	Pondicherry	48573	60168	61157	64151	67092	69704
	All India Per Capita NNI	24143	26025	28083	30354	31801	33731

Source: For Sl. No. 1-32 – Directorates of Economics & Statistics of respective State Government and for all-India – Central Statistics Office, Govt. of India.

APPENDIX- XIX
GROSS STATE DOMESTIC PRODUCT AT FACTOR COST BY INDUSTRY
OF ORIGIN AT CURRENT PRICES IN ASSAM
(Base- 1999-2000)

(Rupees in lakh)

Sl. No.	Sector	1999-2000	2004-05 (R)	2005-06	2006-07	2007-08 (P)	2008-09 (Q)
1.	Agriculture	1122886	1289925	1450347	1553842	1762393	1974794
2.	Forestry and Logging	46532	53015	59688	62895	71045	80475
3.	Fishing	57135	84494	107834	138434	143687	159337
	Agriculture and Allied	1226553	1427434	1617869	1755171	1977125	2214606
4.	Mining and Quarrying	192474	408164	486293	483265	507906	513956
	a. Primary Sector (Sub-Total)	1419027	1835598	2104162	2238435	2485031	2728563
5.	Manufacturing (Total)	266812	548318	616959	646119	709942	754734
	5.1 Registered	201735	455937	503401	521176	573444	610817
	5.2 Unregistered	65077	92381	113558	124943	136499	143917
6.	Construction	143621	282367	314707	347709	376316	410193
7.	Electricity, Gas and Water Supply	34272	104024	105193	100133	122778	127208
	b. Secondary Sector (Sub-Total)	444705	934709	1036859	1093962	1209037	1292135
	c. Industry [4 + (b)]	637179	1342873	1523152	1577226	1716942	1806091
8.	Transport, Storage and Communication (Total)	226619	322169	369314	417795	467489	516894
	8.1 Railways	61144	92482	107196	126003	147347	167165
	1.2 Transport by other means	106296	160742	172203	3376	3642	3928
	1.3 Storage	2057	2775	3200	190457	207534	223075
	8.4 Communication	57122	66170	86715	97959	108966	122725
9.	Trade, Hotel and Restaurant	401296	729533	788149	1023868	1077074	1166621
10.	Banking and Insurance	113799	159092	157986	193462	222234	240275
11.	Real Estate, Ownership of Real Estate, Dwelling and Business Services	117503	177067	200122	214173	238324	265879
12.	Public Administration	223228	319195	324163	362488	442428	504732
13.	Other Services	537142	775939	800932	898749	1020924	1212568
	d. Tertiary Sector (Sub-Total)	1619587	2482995	2640666	310536	3468473	3906969
14.	State Domestic Product	3483319	5253302	5781687	6442932	7162540	7927666
15.	State Per Capita Income (in Rupees)	13365	18686	20282	22297	24461	26728

APPENDIX- XX

GROSS STATE DOMESTIC PRODUCT AT FACTOR COST BY INDUSTRY OF ORIGIN AT CONSTANT (1999-2000) PRICES IN ASSAM

(Rupees in lakh)

Sl. No.	Sector	At constant (1999-2000) prices					
		1999-2000	2004-05 (R)	2005-06	2006-07	2007-08 (P)	2008-09 (Q)
1.	Agriculture	1122886	1106497	1137603	1130976	1135516	1217755
2.	Forestry and Logging	46532	45538	46063	46751	46276	46713
3.	Fishing	57135	66760	68793	62354	66652	64237
	Agriculture and Allied	1226553	1218795	1252459	1240081	1248444	1328705
4.	Mining and Quarrying	192474	200190	209168	210611	190906	199362
	a. Primary Sector (Sub-Total)	1419027	1418985	1461627	1450692	1439350	1528068
5.	Manufacturing (Total)	266812	442943	449698	457315	500185	526542
	5.1 Registered	201735	363015	365890	372074	408142	430353
	5.2 Unregistered	65077	79928	83808	85241	92043	96190
6.	Construction	143621	240202	249798	248216	251551	254921
7.	Electricity, Gas and Water Supply	34272	84525	85961	77072	84070	85313
	b. Secondary Sector (Sub-Total)	444705	767670	785457	782603	835805	866777
	c. Industry [4 + (b)]	637179	767860	994625	993215	1026711	1066139
8.	Transport, Storage and Communication (Total)	226619	315093	345761	409442	474296	519491
	8.1 Railways	61144	88152	98470	113826	124403	134980
	1.4 Transport by other means	106296	138410	144639	2653	2715	2798
	1.5 Storage	2057	2228	2083	154466	166235	170983
	8.4 Communication	57122	86303	100569	138497	180943	210730
9.	Trade, Hotel and Restaurant	401296	585545	644779	797918	838024	888875
10.	Banking and Insurance	113799	132653	139924	174405	204285	229631
11.	Real Estate, Ownership of Real Estate, Dwelling and Business Services	117503	136214	157273	140755	146428	150071
12.	Public Administration	223228	260305	262441	264852	326781	345136
13.	Other Services	537142	698502	730980	729483	757266	803802
	d. Tertiary Sector (Sub-Total)	1619587	2128312	2281158	2516855	2747081	2937006
14.	State Domestic Product	3483319	4314967	4528242	4750151	5022236	5331851
15.	State Per Capita Income (in Rupees)	13365	15348	15885	16439	17151	17977

APPENDIX- XXI
NET STATE DOMESTIC PRODUCT AT FACTOR COST BY INDUSTRY
OF ORIGIN AT CURRENT PRICES IN ASSAM
(Base-1999-2000)

(Rupees in lakh)

Sl. No.	Sector	At current prices					
		1999-2000	2004-05 (R)	2005-06	2006-07	2007-08 (P)	2008-09 (Q)
1.	Agriculture	1099809	1216349	1373326	1470920	1663729	1864086
2.	Forestry and Logging	45756	50812	57593	60602	68316	77413
3.	Fishing	51530	67569	91479	112810	113199	125127
	Agriculture and Allied	1197095	1334730	1522398	1644332	1845245	2066626
4.	Mining and Quarrying	145044	337523	410201	412363	423544	419296
	a. Primary Sector (Sub-Total)	1342139	1672253	1932599	2056694	2268788	2485922
5.	Manufacturing (Total)	227525	484865	542705	557449	604439	636351
	5.1 Registered	174622	408340	448378	454968	494667	522423
	5.2 Unregistered	52903	76525	94327	102481	109772	113929
6.	Construction	139149	273331	307088	338227	365034	397533
7.	Electricity, Gas and Water Supply	17148	57268	52534	46047	58424	54998
	b. Secondary Sector (Sub-Total)	383822	815464	902327	941724	1027898	1088883
	c. Industry [4 + (b)]	528866	1152987	1312528	1354086	1451442	1508179
8.	Transport, Storage and Communication (Total)	163190	228351	269301	303890	331960	364820
	8.1 Railways	36075	56473	68417	83111	96312	109901
	1.6 Transport by other means	79060	118081	128685	3313	3567	3844
	1.7 Storage	2057	2725	3140	147565	156500	165810
	8.4 Communication	45998	51072	69059	69901	75581	85265
9.	Trade, Hotel and Restaurant	388178	724901	783107	1013427	1065651	1152681
10.	Banking and Insurance	111737	154323	153118	187890	215604	232836
11.	Real Estate, Ownership of Real Estate, Dwelling and Business Services	98634	127395	141617	147741	159281	177186
12.	Public Administration	192840	261368	267342	297161	364699	417515
13.	Other Services	520526	767214	789553	886766	1006666	1196570
	d. Tertiary Sector (Sub-Total)	1475105	2263552	2404038	2836876	3142862	3541608
14.	State Domestic Product	3201066	4751269	5238964	5835293	6439548	7116413
15.	State Per Capita Income (in Rupees)	12282	16900	18378	20194	21991	23993

APPENDIX- XXII

NET STATE DOMESTIC PRODUCT AT FACTOR COST BY INDUSTRY OF ORIGIN AT CONSTANT (1999-2000) PRICES IN ASSAM

(Rupees in lakh)

Sl. No.	Sector	At constant (1999-2000) prices					
		1999-2000	2004-05 (R)	2005-06	2006-07	2007-08 (P)	2008-09 (Q)
1.	Agriculture	1099809	1081808	1111397	1098533	1101560	1181413
2.	Forestry and Logging	45756	44618	45086	45050	44493	44804
3.	Fishing	51530	58523	60049	54934	58778	55910
	Agriculture and Allied	1197095	1184949	1216532	1198517	1204831	1282127
4.	Mining and Quarrying	145044	141576	146952	159615	137432	142130
	a. Primary Sector (Sub-Total)	1342139	1326525	1363484	1358132	1342263	1424257
5.	Manufacturing (Total)	227525	384111	349040	356379	391416	420832
	5.1 Registered	174622	284029	282051	286366	315342	341734
	5.2 Unregistered	52903	64082	66989	70012	76074	79098
6.	Construction	139149	235494	244801	241076	244064	246908
7.	Electricity, Gas and Water Supply	17148	51685	51103	38179	43287	41664
	b. Secondary Sector (Sub-Total)	383822	635290	644944	635634	678767	709404
	c. Industry [4 + (b)]	528866	776866	791896	795249	816199	851534
8.	Transport, Storage and Communication (Total)	163190	246469	274158	312518	367663	398363
	8.1 Railways	36075	63865	73860	87143	96424	105034
	1.8 Transport by other means	79060	102834	106947	2609	2669	2748
	1.9 Storage	2057	2229	2082	108938	118495	119888
	8.4 Communication	45998	77541	91269	113828	150075	170693
9.	Trade, Hotel and Restaurant	388178	568937	627150	783367	822766	872545
10.	Banking and Insurance	111737	129776	136205	170346	200029	225076
11.	Real Estate, Ownership of Real Estate, Dwelling and Business Services	98634	110979	130487	115631	120083	121875
12.	Public Administration	192840	226961	227048	227142	287239	302815
13.	Other Services	520526	675757	706838	701031	727432	771871
	d. Tertiary Sector (Sub-Total)	1475105	1958879	2101886	2310035	2525212	2692543
14.	State Domestic Product	3201066	3920694	4110314	4303802	4546242	4826205
15.	State Per Capita Income (in Rupees)	12282	13946	14419	14894	15526	16272

APPENDIX – XXIII

COLLECTION OF TAX UNDER DIFFERENT TAXATION ACTS IN ASSAM

(Rupees in lakh)

ACT	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10
1	2	3	4	5	6	7
AGST/AVAT	155355	178138	201536	223856	269477	322944
CST	43856	49034	55049	44315	41581	30582
AET	10649	29669	21643	913	26884	52664
APTC & E	9433	9962	10880	12454	13761	15006
AED *	6148	1329	1589	462	2236	2707
A & B	380	231	270	293	241	350
LUX (H & L)	215	249	270	311	575	517
LUX ' 97 **	2032	6	3	-	-	-
SP.LAND	4529	6146	6392	6855	8000	7887
AAIT	624	702	252	314	1818	7834
TOTAL	233257	275466	297884	289773	364573	440491
Growth Rate (in P.C.)	34.00	18.09	8.14	(-) 2.72	25.81	21.00

AGST/AVAT	=	Assam General Sales Tax Act. 1993; Assam Value Added Tax Act, 2003 (w.e.f. 1-5-2005).
CST	=	Central Sales Tax Act. 1956.
AET	=	Assam Entry Tax Act. 2001. This act came into force w.e.f. 1-10-2001.
APTC & E	=	Assam Professions. Trades. Callings and Employments Taxation Act.1947.
A & B	=	Assam Amusement and Betting Tax Act. 1939.
AED	=	Assam Electricity Duty Act. 1964.
LUX (H & L)	=	Assam Tax on Luxuries (Hotel and Lodging Houses) Act. 1989.
LUX ' 97	=	Assam Taxation (On Luxuries) Act. 1997.
SP. LAND	=	Assam Taxation (On Specified Lands) Act. 1990.
AAIT	=	Assam Agricultural Income Tax Act. 1939.

Source : Commissionerate of Taxes, Assam.

NB :: * During the year 2006-07, the department received ₹12.55 crores as Grants in aid against the arrear of Electricity Duty payable by the ASEB and during the year 2007-08 no such Grants in aid was received from the Government.

** The Assam Taxation (on Luxuries) Act 1997 was nullified by the Hon'ble Supreme Court in December, 2004. The figures shown under the Act during 2006-07 is arrear collection only.

APPENDIX-XXIV
COMPOSITION OF TOTAL EXPENDITURE OF ASSAM

(Rupees in crore)

Year	Revenue Expenditure	Capital Outlay	Net Lending	Total Expenditure	Share in Total Expenditure		
					Revenue Expenditure (in %)	Capital Outlay (in %)	Net Lending (in %)
1997-98	4038.55	329.31	99.88	4467.74	90.39	7.37	2.24
1998-99	4416.34	363.78	64.60	4844.72	91.16	7.51	1.33
1999-2000	5845.67	482.49	118.60	6446.76	90.68	7.48	1.84
2000-2001	6417.12	561.48	199.00	7177.60	89.41	7.82	2.77
2001-2002	6846.24	513.15	53.61	7413.00	92.36	6.92	0.72
2002-2003	7112.50	505.52	103.02	7721.04	92.12	6.55	1.33
2003-2004	8449.79	621.99	87.30	9159.08	92.26	6.79	0.95
2004-2005	10229.15	2180.53	(-) 414.95	11994.73	85.28	18.18	(-) 3.46
2005-2006	10536.31	1085.32	68.05	11689.68	91.20	9.39	(-) 0.59
2006-2007(R)	11456.53	1453.00	46.07	12955.60	84.96	10.77	4.27
2007-2008	12744.16	1688.11	102.56	14534.83	84.12	11.14	4.74
2008-2009	14243.33	2373.01	53.91	16670.25	85.45	14.23	0.32
2009-2010 (Pre-Actual)	21232.20	2629.35	99.23	23960.78	88.61	10.97	0.41

Source : Finance Department, Assam.

APPENDIX - XXV
FISCAL DEFICIT AND INTEREST PAYMENT OF ASSAM

(Rupees in crore)

Year	Total Expenditure	Interest Payment	Fiscal deficit
1997-98	4467.74	638.96	142
1998-99	4844.72	520.69	339
1999-2000	6446.76	955.56	1606
2000-2001	7177.60	865.11	1540
2001-2002	7413.00	1061.99	1448
2002-2003	7721.04	1244.74	928
2003-2004	9159.08	1446.10	1394
2004-2005	11994.72	1403.53	2057
2005-2006	11689.68	1510.12	(+) 356
2006-2007	12955.60	1515.67	712
2007-2008	14534.89	1512.24	(+) 790
2008-2009	16670.25	1593.33	(+) 1407
2009-2010 (Pre -Actual)	23960.78	1832.58	(-) 4043

Source : Finance Department, Assam.

APPENDIX-XXVI
COMPOSITION OF TOTAL DEBT

(Rupees in crore)

Year	Market loans	Institutional loan including NSSF loans	Ways & Means advance from RBI	Central loans	State Provident Fund	Total	Debt stock as % of GSDP
2000-2001	2281.18	311.73	676.59	5328.79	1468.73	10067.02	27.39
2001-2002	2792.20	436.79	1203.33	5529.26	1738.66	11700.24	30.59
2002-2003	3678.54	394.12	435.31	6482.36	1957.89	12948.22	29.88
2003-2004	4339.29	386.65	297.56	6734.45	2497.94	14255.89	30.21
2004-2005	5987.66	328.56	317.49	6904.25	2879.76	16417.72	31.25
2005-2006	6704.51	4977.33	0.00	2875.02	3265.39	17822.25	30.82
2006-2007	7296.53	5106.01	0.00	2775.31	3614.78	18792.63	29.17
2007-2008	7841.08	5191.47	0.00	2708.44	3932.74	19673.73	27.47
2008-2009	9855.85	5342.30	0.00	2639.56	4322.97	22160.68	27.95
2009-10 (Pre-Actual)	11261.30	5412.74	0.00	2346.38	4812.52	23832.94	27.08

Source : Finance Department, Assam.

APPENDIX –XXVII
TOTAL AREA AND CLASSIFICATION OF AREA OF ASSAM

(Area in hectare)

A.	Total Geographical Area : (according to)	2002-03	2003-04	2004-05	2007-08
	a) Professional Survey	7843800	7843800	7843800	7843800
	b) Village papers (Reported area)	7850005	7850005	7850005	7850005
B.	Forest Area	1932718	1954012	1954012	1853260
C.	Not available for cultivation :				
	a) Area put to non-Agricultural uses	1080570	1064700	1064700	1026536
	b) Barren & Unculturable land	1452812	1447039	1447277	1408042
	c) Total	2533382	2511739	2511977	2434578
D.	Other Uncultivated land excluding fallow land :				
	a) Permanent Pastures & other Grazing land	159968	159968	159968	156436
	b) Land under Miscellaneous Trees Grove etc. (not included in net area sown)	208656	208656	208656	173016
	c) Culturable waste land	76631	76631	76631	74319
	d) Total	445255	445255	445255	403771
E.	Fallow land :				
	a) Fallow land other than current Fallow	62293	59881	59394	52191
	b) Current Fallow	123363	126517	126388	117406
	c) Total :	185656	186398	185782	169597
F.	Net Area shown	2752994	2752601	2752979	2752979
G.	Total Cropped Area	3958065	3956842	3896351	3838732
H.	Area sown more than once	1205071	1204241	1143372	1085753
I.	Water Logged land				39235
J.	Social Forestry				12816
K.	Land under still water				138916

NB : Separate classification of area for hill districts are not available.
All included under barren & unculturable land.

APPENDIX – XXVIII
NUMBER AND AREA OF OPERATIONAL
HOLDINGS BY SIZE CLASS IN ASSAM, 2005-06

Sl. No.	Size Class	Nos. of operational holdings				Area Operated (in hectare)			
		All social group	Scheduled Caste	Scheduled Tribe	Others	All social group	Scheduled Caste	Scheduled Tribe	Others
1.	Below 0.5	1152348	63975	149703	938051	353051.83	20849	45664	286374
2.	0.5 - 1.0	600591	38117	100524	461641	407092	26113	71285	309481
3.	1.0 - 2.0	591431	45178	118821	427121	718383	53057	145803	519078
4.	2.0 - 3.0	213427	12394	35646	165216	496982	28754	83295	384516
5.	3.0 - 4.0	104432	5623	17581	81071	349023	18751	59291	270428
6.	4.0 - 5.0	47117	1978	8335	36712	203932	8647	36265	158602
7.	5.0 - 7.5	30482	1318	5893	23151	177267	7664	34346	134515
8.	7.5 - 10.0	5334	185	1017	3956	44203	1540	8442	32730
9.	10.0 - 20.0	2607	79	352	1580	34251	985	4344	19462
10.	20.0 & above	2295	8	40	315	264354	241	1310	12601
	All Size	2750114	168855	437912	2138814	3048542	166606	490050	2127792

Source : Agricultural Census, Assam, 2005-06

APPENDIX – XXIX
AREA, PRODUCTION AND AVERAGE YIELD OF SOME IMPORTANT CROPS IN ASSAM

(Area in thousand hectares, Production in thousand tones and Average yield in Kg/hectares)

Sl. No.	Crops	2008-09			2009-10		
		Area	Pro-duction	Average yield	Area	Pro-duction	Average yield
1.	Autumn Rice	351	374	1084	346	335	982
2.	Winter Rice	1773	2866	1641	1789	3214	1824
3.	Summer Rice	360	768	2133	4	6	1554
4.	Total Rice	2484	4008	1635	2530	4408	1765
5.	Wheat	50	55	1090	60	65	1087
6.	Maize	17	13	726	19	14	718
7.	Total Cereals	2557	3	1616	2616	4491	1738
8.	Total Pulses	114	62	545	119	66	558
9.	Total food grains	2671	4140	1570	2735	4557	1686
10.	Rape & Mustard	226	125	551	249	131	529
11.	Total Oil Seeds (excluding coconut)	247	136	550	269	142	530
12.	Potato	78	516	6586	83	600	7263
13.	Sugarcane	29	1100	38387	27	1062	39110
14.	Jute *	60	647	1939	65	713	1967

* Production in '000' bales of 180 Kg. per bale.

Source : Directorate of Economics and Statistics, Assam

APPENDIX- XXX
AREA PRODUCTION AND AVERAGE YIELD OF SOME MAJOR
HORTICULTURAL CROPS IN ASSAM DURING THE YEAR 2009-10 (estimated)

Sl. No.	Name of Crop	Area in '000' km hectare	Production in '000 MT	Average Yield in kg/hect.
A. FRUITS				
1.	Banana	1	7	13263
2.	Pineapple	14	210	15463
3.	Orange	1	7	10510
4.	Papaya	8	122	15315
5.	Guava	5	88	18474
6.	Litchi	5	39	7692
7.	Mango	5	47	9949
8.	Jackfruit	22	178	8105
B. SPICES				
1.	Chilly	1	1	620
2.	Turmeric	14	10	700
3.	Onion	7	16	2329
C. TUBER CROPS				
1.	Potato	83	600	7263
2.	Sweet Potato	7	24	3521
3.	Topeoca	3	24	7524
D. NUT CROPS				
1.	Coconut *	19	180	76
2.	Areca nut **	66	64	152

Note : * Average yield in nuts per bearing tree production in '000 nuts.

** Average yield in nuts per bearing tree production in tonnes in terms of dry cured nuts.

Source : (i) Directorate of Economics and Statistics, Assam & (ii) Directorate of Horticulture, Assam.

APPENDIX – XXXI
PROVISIONAL ESTIMATES OF INDEX NUMBERS ON AREA, PRODUCTION
AND PRODUCTIVITY OF SOME CROPS IN ASSAM, 2009-10
(BASE TRIENNIUM ENDING 1981-82=100)

Sl. No.	Commodities	Area Index	Production Index	Productivity Index
1.	Autumn Rice	60.35	85.35	141.43
2.	Winter Rice	115.78	179.6	155.12
3.	Summer Rice	1092.52	2114.32	193.53
4.	TOTAL RICE	112.35	197.36	159.89
5.	Maize	85.39	144.3	168.99
6.	Wheat	67.24	64.2	95.48
7.	Other cereals & small millets	32.12	34.75	108.19
8.	TOTAL CEREALS	109.76	193.66	158.97
9.	Gram	48.11	52.13	108.36
10.	Tur	94.01	94.53	100.55
11.	Rabi pulses	111.5	153.67	137.82
12.	TOTAL PULSES	100.79	142.19	133.05
13.	Total Food Grains	109.67	192.2	158.3
14.	Linseed	126.29	95.61	75.71
15.	Castor	54.62	55.91	102.36
16.	Sesamum	92.82	108.91	117.33
17.	Rape & Mustard	123.64	137.9	111.53
18.	Coconut	116.56	292.4	92.37
19.	TOTAL OIL SEEDS	124.21	236.53	95.51
20.	Jute	61.5	70.62	114.83
21.	Cotton	39.68	40.58	102.27
22.	Mesta	38.87	48.39	124.49
23.	TOTAL FIBRES	58.11	68.79	115.07
24.	Plantation Crop (Tea)	143.13	168.45	117.69
25.	Chillies	158.38	186.51	117.76
26.	Turmeric	178.38	205.97	115.49
27.	Areca nut	140.45	200.65	142.86
28.	TOTAL CONDIMENTS & SPICES	148.28	199.41	138.47
29.	Potato	221.22	333.02	150.52
30.	Banana	182.66	200.57	109.81
31.	TOTAL FRUITS & VEGETABLES	208.46	257.56	128.91
32.	Sugarcane	55.99	58.7	104.84
33.	Tobacco	10.51	8.17	77.74
34.	TOTAL MISC CROPS	51.25	53.78	104.28
35.	TOTAL NON FOOD CROPS	122.13	179.66	111.96
36.	ALL COMMODITIES	118.55	185.7	136.55

Source : Directorate of Economics and Statistics, Assam.

APPENDIX – XXXII
AREA UNDER FOREST IN ASSAM (As on 31-3-2010)

(Area in hectare)

Sl. No.	Forest Division	Reserved Forest	Proposed Reserved Forest	Protected Area	Total Forest (Excluding Unclassed State Forest)
	ASSAM	1386923.857	297261	390979	2075163.857
1.	Goalpara	23655.800	11597	-	35252.800
2.	Kamrup East	35243.955	559	7864	43666.955
3.	Kamrup West	68241.150	6095	-	74336.150
4.	North Kamrup	5388.900	1711	-	7099.900
5.	Dibrugarh	18223.230	6155	11119	35497.230
6.	Digboi	49239.678	4697	-	53936.678
7.	Doomdooma	29669.230	133	10320	40122.230
8.	Golaghat	98521.479	-	2098	100619.479
9.	Jorhat	26104.420	-	3393	29497.420
10.	Sivasagar	21950.477	-	-	21950.477
11.	Hamren	10268.000	-	3700	13968.000
12.	Karbi Anglong East	43737.000	-	-	43737.000
13.	Karbi Anglong West	89371.660	-	-	89371.660
14.	North Cachar Hills	63777.410	-	-	63777.410
15.	Darrang	804.000	-	-	804.000
16.	Lakhimpur	31101.430	1125	-	32226.430
17.	Dhemaji	42010.520	9400	-	51410.520
18.	Nagaon	33591.293	4029	-	37620.293
19.	Nagaon South	50283.335	2059	-	52342.335
20.	Sonitpur East	52674.770	-	-	52674.770
21.	Sonitpur West	46164.690	910	-	47074.690
22.	Cachar	76497.790	-	42000	118497.790
23.	Hailakandi	63661.070	170	32625	96456.070
24.	Karimganj	59454.240	6075	-	65529.240
25.	Aie Valley	5753.090	-	-	5753.090
26.	Dhubri	631.580	-	-	631.580
27.	Haltugaon	61173.650	3258	-	64431.650
28.	Kachugaon	82240.910	210357	-	292597.910
29.	Dhanshree	29751.470	2698	-	32449.470
30.	Parbotjhora	27283.750	18588	-	45871.750
31.	Chirang	73234.040	7645	-	80879.040
32.	West Assam Wild life	2155.000	-	4406	6561.000
33.	Tinsukia Wild life	-	-	34722	34722.000
34.	Nagaon Wild life	-	-	10893	10893.000
35.	Mangaldoi Wild life	-	-	10503	10503.000
36.	Assam State Zoo	130.000	-	-	130.000
37.	Kokrajhar Wild life	-	-	4557	4557.000
38.	Manas National park	-	-	50000	50000.000
39.	East Assam Wild life	765.840	-	85898	86663.840
40.	District Council Reserved Forest	64169.000	-	76881	141050.000

Source : Office of the Principal Chief Conservator of Forest, Assam.

APPENDIX – XXXIII

TOTAL NUMBER OF SMALL SCALE INDUSTRIES REGISTERED UNDER THE DIRECTORATE OF INDUSTRIES AND COMMERCE, ASSAM

Sl. No.	District	Unit Registration during the year			Total Registered Unit as on		Total Workers		
		2007	2008	2009	31-12-07	31-12-08	2007	2008	2009
1.	Kokrajhar	47	29	1	1018	1047	445	252	215
2.	Dhubri	24	37	0	1183	1220	155	230	259
3.	Goalpara	55	41	0	1626	1667	200	164	286
4.	Bongaigaon	49	35	2	1022	1057	334	142	129
5.	Barpeta	109	129	0	1767	1896	606	541	297
6.	Kamrup (M)	N.A.	N.A.	0	N.A.	N.A.	N.A.	N.A.	0
7.	Kamrup (R)	420	261	86	15537	15798	2862	2906	4812
8.	Nalbari	69	91	7	2102	2193	371	379	281
9.	Darrang	49	75	1	1749	1824	220	373	134
10.	Morigaon	52	37	0	520	557	265	182	159
11.	Nagaon	85	91	9	3671	3762	421	419	604
12.	Sonitpur	63	71	2	2758	2829	480	362	295
13.	Lakhimpur	64	70	0	2791	2861	365	525	442
14.	Dhemaji	48	50	1	792	842	287	279	220
15.	Tinsukia	72	99	26	2025	2124	543	739	852
16.	Dibrugarh	91	122	6	5307	5429	552	903	607
17.	Sivasagar	52	70	6	3305	3375	321	362	789
18.	Jorhat	61	66	4	1805	1871	309	451	212
19.	Golghat	65	84	6	1122	1206	595	296	518
20.	K. Anglong	39	25	1	558	581	231	117	300
21.	N.C.Hills	16	5	0	570	575	63	22	17
22.	Cachar	85	77	5	2140	2217	551	433	329
23.	Karimganj	37	43	1	881	924	149	152	220
24.	Hailakandi	29	25	1	516	541	143	96	224
25.	Chirang	N.A.	N.A.	0	N.A.	N.A.	N.A.	N.A.	86
26.	Baksa	N.A.	N.A.	0	N.A.	N.A.	N.A.	N.A.	449
27.	Udalguri	N.A.	N.A.	0	N.A.	N.A.	N.A.	N.A.	161
	Total	1681	1633	165	54763	56396	10468	10325	12897

Source : Directorate of Industries and Commerce, Assam.

*N.B: The Number of units for Chirang, Baksa and Udalguri Districts merged with Kokrajhar District.
The Units for Kamrup (M) is shown with Kamrup (R)*

APPENDIX – XXXIV
INDEX NUMBER OF INDUSTRIAL PRODUCTION OF ASSAM
(Base : 1999- 2000 = 100)

Sl. No.	NIC – 1998	Industry Division	Index Number		
			2007-08	2008-09	2009-10(P)
1.	15	Manufacturing of food products and beverages	123.92	120.95	127.16
2.	17	Manufacturing of Textiles	98.43	113.23	129.23
3.	21	Manufacturing of paper & paper products	148.62	141.15	143.02
4.	22	Publishing, Printing & reproduction of recorded media	88.52	129.74	158.60
5.	23	Manufacturing of Cake, refined petroleum products & nuclear fuel	218.66	226.77	228.82
6.	24	Manufacturing of Chemical & Chemical Products	863.00	841.38	894.50
7.	25	Manufacturing of rubber & Plastic Products	141.91	161.43	173.86
8.	26	Manufacturing of other non-matelllic mineral products	141.95	125.86	177.98
9.	27	Manufacturing of basic metals	572.53	458.40	490.83
10.	28	Manufacturing of fabricated metal products, except machinery & equipments	246.43	330.05	1054.21
11.	29	Manufacturing of machinery & equipments n.e.c.	477.75	375.81	411.88
12.	31	Manufacturing of electrical machinery and apparatus n.e.c.	539.54	626.15	922.46
13.	34	Manufacturing of motor vehicles, trailers and Semi trailers.	169.31	176.24	211.88
14.	36	Manufacturing of furniture, Manufacturing n.e.c.	134.57	139.24	205.45
	15-36	Total Manufacturing	175.43	175.25	186.71
1.	10-14	Mining and Quarrying	87.90	100.39	100.99
2.	15-36	Manufacturing	175.43	175.25	186.71
3.	40	Electricity	451.68	489.79	460.04
Total in General			143.78	151.40	155.83

Source : Directorate of Economics & Statistics, Assam.

APPENDIX –XXXV
DISTRICT-WISE DISTRIBUTION OF REGISTERED FACTORIES AND
AVERAGE DAILY NUMBER OF WORKERS IN ASSAM, 2008 & 2009

Sl. No.	District	Number of Factories (Regd.)		Number of Workers	
		2008	2009	2008	2009
1.	Dhubri	66	69	1341	1389
2.	Kokrajhar	24	26	617	658
3.	Bongaigaon	50	55	4150	4532
4.	Goalpara	11	12	148	175
5.	Barpeta	43	45	391	401
6.	Nalbari	13	15	216	267
7.	Kamrup	935	1005	23041	24980
8.	Darrang	53	54	1113	1161
9.	Sonitpur	298	334	12809	14352
10.	Lakhimpur	29	33	1713	1825
11.	Dhemaji	3	3	71	71
12.	Morigaon	39	40	1620	1665
13.	Nagaon	230	247	9008	10232
14.	Golaghat	229	240	6065	6420
15.	Jorhat	244	251	5871	5961
16.	Sivasagar	177	184	8100	8515
17.	Dibrugarh	378	386	17299	17688
18.	Tinsukia	501	537	21125	21612
19.	Karbi Anglong	27	30	935	946
20.	N.C.Hills	22	22	552	587
21.	Karimganj	65	66	1458	1476
22.	Hailakandi	26	27	1957	2062
23.	Cachar	191	205	5379	5555
24.	Baksa	6	6	433	429
25.	Chirang	15	17	1324	1388
26.	Udalguri	58	62	2699	2817
	ASSAM	3733	3971	129435	137164

Source : Office of the Chief Inspector of Factories, Assam.

NB :: Bifurcation of data relating to Kamrup(M) are not worked out at source.

APPENDIX- XXXVI
COLLECTION OF REVENUE AND TARGET OF THE DEPARTMENT OF
TRANSPORT, ASSAM FOR THE YEAR 2006-07, 2007-08, 2008-09 AND 2009-10.

(Rupees in crore)

SL. No.	Name of D.T.O & Check Gate	2006-07		2007-08	2008-09		2009-10	
		Target	Revenue Realised	Revenue Realised	Target	Revenue Realised	Target	Revenue Realised
1.	Kamrup (R & L)	45.11	46.62	46.62	48.30	45.02	49.52	58.24
2.	Kamrup (R.T.A)	1.10	0.56	0.47	0.48	0.41	0.45	0.81
3.	Kamrup(Enforcement)	1.01	0.71	1.00	1.05	1.26	1.39	1.49
4.	Barpeta	2.29	2.41	2.51	2.56	2.69	2.87	3.68
5.	Nalbari	1.68	1.93	2.18	2.22	2.93	3.13	3.05
6.	Goalpara	2.21	2.65	2.76	2.14	2.45	3.13	3.58
7.	Dhubri	1.92	1.96	2.09	2.82	2.92	2.62	3.49
8.	Sonitpur	4.99	4.87	4.86	5.09	5.93	6.52	7.48
9.	Mangaldoi	1.42	1.46	1.35	1.38	1.61	1.70	2.35
10.	Lakhimpur	2.60	2.89	2.61	2.66	2.94	3.24	3.87
11.	Dibrugarh	8.23	8.04	7.96	8.36	8.46	9.28	11.11
12.	Tinsukia	7.98	8.15	7.79	7.54	8.47	9.30	11.37
13.	Dhemaji	1.17	1.27	1.19	1.22	1.55	1.63	1.88
14.	Sivasagar	7.98	8.20	7.81	8.20	8.06	8.85	9.34
15.	Jorhat	6.65	6.68	7.28	7.64	7.76	8.52	8.96
16.	Golaghat	3.19	2.32	2.75	2.88	2.94	3.23	3.44
17.	Nagaon	5.09	5.30	5.41	5.66	5.81	6.40	7.64
18.	Morigaon	1.49	1.67	1.73	1.76	1.58	1.66	2.50
19.	N.C.Hills	0.52	0.57	0.46	0.51	0.42	0.44	0.35
20.	Karbi-Anglong	1.50	1.58	1.66	1.66	2.05	2.16	2.83
21.	Karimganj	1.50	1.54	1.52	1.55	1.58	1.66	1.95
22.	Hailakandi	0.99	1.20	1.34	1.36	1.56	1.65	2.08
23.	Silchar	5.14	5.28	5.30	5.57	5.60	6.17	6.96
24.	Srirampur M.V. Check gate	28.77	19.35	15.01	15.30	6.07	6.68	6.33
25.	Boxirhat M.V. Check gate	17.00	9.18	12.98	13.62	16.08	17.69	16.84
26.	Kokrajhar	1.89	1.98	2.03	2.01	2.47	2.72	2.90
27.	Bongaigaon	2.55	2.90	2.77	2.82	3.40	3.63	4.25
28.	S.T.A.	14.03	13.54	11.35	11.58	14.33	15.76	18.59
29.	Digharkhal M.V. Check gate	4.00	3.49	3.31	3.48	3.84	4.22	3.85
30.	Udalguri			0.19	0.36	0.71	0.75	1.11
31.	Chirang			0.38	0.45	0.77	0.81	0.99
32.	Baksa			0.02	0.15	0.21	0.22	0.48
	A s s a m	184.00	168.51	166.69	172.38	171.88	188.00	213.79

Source : Office of the Commissioner of Transport, Assam.

APPENDIX- XXXVII

DISTRICT-WISE NUMBER OF MOTOR VEHICLE REGISTERED IN ASSAM

Sl. No	District	Total Number of Vehicles Registered					
		2004-05	2005-06	2006-07	2007-08	2008-09	2009-10
1.	Dhubri	1013	972	1125	1292	1681	3428
2.	Kokrajhar	988	1601	1764	1574	1857	2599
3.	Bongaigaon	2815	2523	3070	2822	21755	21879
4.	Goalpara	1203	1105	1186	980	1306	2238
5.	Barpeta	2700	3056	3556	3628	4096	5490
6.	Nalbari	1810	1786	2133	2229	1852	2230
7.	Kamrup	29664	33755	35599	28224	29291	43457
8.	Darrang	2447(P)	926	1187	1309	2139	31430
9.	Sonitpur	4538	6837	5669	4851	5889	55514
10.	Lakhimpur	2698	3235	4042	2953	3157	4808
11.	Dhemaji	1032	1427	1211	1329(P)	2915	1958
12.	Morigaon	1140	1434	1445	1088	1286	1470
13.	Nagaon	4008	5008	5544	5017	5552	7948
14.	Golaghat	3284	2699	2924	8738	2144	4603
15.	Jorhat	5814	7335	8168	7575	6909	8568
16.	Sivasagar	5650	5723	6188	4604	4806	13080
17.	Dibrugarh	5704	6771	8007	7383	7780	9945
18.	Tinsukia	6144	6160	7020	4978	5428	5925
19.	Karbi-Anglong	966	1404	1449	1251	1788	2342
20.	N.C Hills	486	463	586	408	505	136
21.	Karimganj	1016	859	929	951	1048	1332
22.	Hailakandi	840	845	1047	1097	1363	1555
23.	Cachar	2512	2973	2817	2515	3214	5952
24.	Baksa	-	-	-	-	324	362
25.	Chirang	-	-	-	-	1041	1373
26.	Udalguri	-	-	-	-	1625	1625
A S S A M		88472	98897	106666	96796	119126	241247

Source : Office of the Commissioner of Transport, Assam.

APPENDIX - XXXVIII
DISTRICT-WISE NUMBERS OF MOTOR VEHICLE ON ROAD IN ASSAM

Sl. No.	District	Total No. of Vehicles on Road					
		2004-05	2005-06	2006-07	2007-08	2008-09	2009-10
1.	Dhubri	7543	8464	9587	10816	12233	22437
2.	Kokrajhar	8873	9127	9885	11723	8917	9573
3.	Bongaigaon	15916	19109	24783	2665	19338	40816
4.	Goalpara	10245	11300	12548	13447	14729	17606
5.	Barpeta	16280	19163	22630	26250	30289	30669
6.	Nalbari	22398	23404	5152	5382(P)	22079	23664
7.	Kamrup	268556	298540	333828	392769	421332	423943
8.	Darrang	38585(P)	22532	25143	28183	29951	35393
9.	Sonitpur	28447(P)	49974	55754	60605	65505	121019
10.	Lakhimpur	24007	19153	29113	34019	37409	42360
11.	Dhemaji	8070	9332	8440	8702(P)	3920	4403
12.	Morigaon	6748	8039	9275	9968	11055	2304
13.	Nagaon	44158	49267	54771	59821	63391	64538
14.	Golaghat	11010	11980	14687	15278	12359	16842
15.	Jorhat	72385	79730	87337	99716	104252	116677
16.	Sivasagar	47774(P)	102722	108663	113209	118554	120348
17.	Dibrugarh	52582(P)	48379	55843	59657	70526	80952
18.	Tinsukia	39967	45212	47202	50009	53514	55034
19.	Karbi-Anglong	11433(P)	13407	14278	14464	14371	15716
20.	N C Hills	N.A	4028	4887	5082	5434	5165
21.	Karimganj	9025	10054	10807	11529	12725	14006
22.	Hailakandi	3924	6053	7060	8208	9496	9880
23.	Cachar	29402	29957	31815	33261	35299	40905
24.	Baksa	-	-	-	-	978	1059
25.	Chirang	-	-	-	-	2521	3882
26.	Udalguri	-	-	-	-	1676	1676
A S S A M		777328	898926	983488	1074763	1180177	1320867

Source : Office of the Commissioner of Transport, Assam.

APPENDIX – XXXIX

DISTRICT-WISE LENGTH OF PWD ROADS BY TYPE IN ASSAM 2009-10

(in Km.)

Sl. No.	District	Black Topped	Earthen/ Gravelled	Total
1.	Barpeta	441	795	1236
2.	Bongaigaon	370	406	776
3.	Cachar	330	690	1020
4.	Darrang	412	618	1030
5.	Dhemaji	143	1107	1250
6.	Dhubri	267	710	977
7.	Dibrugarh	602	984	1586
8.	Goalpara	415	509	924
9.	Golaghat	625	1051	1676
10.	Hailakandi	210	190	400
11.	Jorhat	554	1256	1810
12.	Kamrup	1078	1715	2793
13.	Karbi-Anglong	1318	2291	4309
14.	Karimganj	416	520	936
15.	Kokrajhar	465	492	957
16.	Lakhimpur	321	739	1060
17.	Morigaon	339	811	1150
18.	Nagaon	966	1440	2406
19.	Nalbari	477	488	965
20.	N.C.Hills	815	993	1808
21.	Sivasagar	859	1041	1900
22.	Sonitpur	645	1840	2485
23.	Tinsukia	475	767	1242
24.	Udalguri	321	1137	1458
25.	Baksa	90	669	759
26.	Chirang	209	381	590
Total		13163	24338	37501
NH		2841	-	2841
Assam Total		16004	24338	40342

Note: Total does not tally due to rounding off.

Source : P.W.D. , Assam.

APPENDIX– XL
DISTRICT-WISE LENGTH OF ROADS ACCORDING TO
DIFFERENT CLASSES UNDER PWD IN ASSAM, 2009-10

(in Km.)

Sl. No.	District	State Highway	Major District Road	Rural Road	Urban Road	Total
1.	Barpeta	158	171	875	31	1225
2.	Bongaigaon	41	16	683	36	776
3.	Cachar	107	165	712	35	1020
4.	Darrang	143	119	762	7	1031
5.	Dhemaji	45	42	1157	7	1251
6.	Dhubri	56	53	830	38	977
7.	Dibrugarh	155	163	1204	63	1586
8.	Goalpara	137	48	728	10	924
9.	Golaghat	160	157	1327	33	1676
10.	Hailakandi	17	99	278	6	400
11.	Jorhat	162	89	1472	86	1810
12.	Kamrup	89	230	2064	410	2793
13.	Karbi-Anglong	337	561	3345	66	4309
14.	Karimganj	35	343	539	19	936
15.	Kokrajhar	61	131	748	16	956
16.	Lakhimpur	121	97	797	44	1060
17.	Morigaon	142	86	922	0	1150
18.	Nagaon	297	327	1729	53	2406
19.	Nalbari	119	45	783	18	965
20.	N.C.Hills	380	199	1169	60	1808
21.	Sivasagar	100	310	1450	40	1900
22.	Sonitpur	55	402	1969	59	2485
23.	Tinsukia	63	171	957	51	1242
24.	Baksa	97	43	619	0	759
25.	Chirang	0	223	364	3	590
26.	Udalguri	56	125	1269	9	1458
Total		3134	4413	28753	1202	37501

Note: Total does not tally due to rounding off.

Source : P.W.D., Assam.

APPENDIX- XLI

LENGTH OF ROADS PER LAKH OF POPULATION AND PER '00' SQ. KM. OF GEOGRAPHICAL AREA IN ASSAM (2009-10)

Sl. No.	District	District wise Road length	Road length per lakh of population	Road length per '00' Sq. Km. of geographical area
1.	Baksa	759	89	37.81
2.	Barpeta	1236	88	46.16
3.	Bongaigaon	776	125	44.94
4.	Cachar	1020	71	26.94
5.	Chirang	590	144	29.88
6.	Darrang	1030	130	72.15
7.	Dhemaji	1250	219	38.62
8.	Dhubri	977	64	46.21
9.	Dibrugarh	1586	134	46.90
10.	Goalpara	924	112	50.67
11.	Golaghat	1676	177	47.87
12.	Hailakandi	400	74	30.11
13.	Jorhat	1810	181	63.48
14.	Kamrup	2793	118	69.07
15.	Karbi-Anglong	4309	530	41.30
16.	Karimganj	936	93	51.74
17.	Kokrajhar	957	114	30.22
18.	Lakhimpur	1060	119	46.54
19.	Morigaon	1150	148	74.13
20.	Nagaon	2406	104	60.56
21.	Nalbari	965	138	95.57
22.	NC Hills	1808	961	36.99
23.	Sivasagar	1900	181	71.21
24.	Sonitpur	2485	149	46.70
25.	Tinsukia	1242	108	32.77
26.	Udalguri	1458	194	87.10
Total		37501	140.69	47.81
NH		2841	10.67	3.62
Total including NH		40342	151	51

Source : P.W.D., Assam.

APPENDIX – XLII

DISTRICTWISE DISTRIBUTION OF THE NUMBER OF REPORTING OFFICES, AGGREGATE DEPOSITS AND GROSS BANK CREDIT OF SCHEDULED COMMERCIAL BANKS IN ASSAM (March, 2010)

(Rupees in Crore)

Sl. No.	District	Reporting Offices	Deposits	Credit
1.	Dhubri	45	854	369
2.	Kokrajhar	23	856	254
3.	Bongaigaon	32	741	223
4.	Goalpara	33	519	243
5.	Barpeta	58	1113	480
6.	Nalbari	41	692	380
7.	Kamrup	82	1943	1783
8.	Kamrup (M)	166	20025	5626
9.	Darrang	29	474	262
10.	Sonitpur	88	1721	819
11.	Lakhimpur	47	653	367
12.	Dhemaji	18	349	181
13.	Morigaon	28	471	270
14.	Nagaon	94	2057	926
15.	Golaghat	56	856	442
16.	Jorhat	76	2028	813
17.	Sivasagar	67	1434	685
18.	Dibrugarh	94	4520	1053
19.	Tinsukia	78	1969	694
20.	Karbi Anglong	50	903	309
21.	N. C. Hills	15	296	132
22.	Karimganj	49	1014	361
23.	Hailakandi	20	419	175
24.	Cachar	84	2649	972
25.	Baksa	22	239	122
26.	Chirang	14	397	153
27.	Udalguri	25	353	216
ASSAM		1434	49545	18311

Source : Quarterly Statistics on Deposits and Credit of Scheduled Commercial Banks, March, 2010 (RBI).

APPENDIX - XLIII

STATISTICS ON SMALL SAVINGS IN ASSAM DURING 2008-09

(Rupees in Crore)

MONTH	Collection during the Month		Progressive	
	GROSS	NET	GROSS	NET
April/ 08	67.54	0.35	67.54	0.35
May/ 08	99.33	7.72	166.87	8.07
June/08	117.48	(-) 59.15	284.35	(-) 51.08
July/08	201.35	(-) 10.71	485.69	(-) 61.79
August/08	227.26	(-) 1.51	712.95	(-) 63.30
September/08	95.83	6.91	808.79	(-) 56.39
October/08	114.83	(-) 115.95	923.62	(-) 172.34
November/08	216.97	27.52	1140.59	(-) 144.82
December/08	135.92	(-) 52.30	1276.51	(-) 197.12
January/09	139.51	(-) 133.14	1416.03	(-) 330.26
February/09	215.92	(-) 22.29	1631.94	(-) 352.55
March/09	160.92	14.60	1792.86	(-) 337.95
Supplementary Collection	261.12	(-) 56.34	2053.98	(-) 394.29

Source : Directorate of Small Savings, Assam.

APPENDIX –XLIV
WHOLESALE PRICE INDEX NUMBER OF
AGRICULTURAL COMMODITIES IN ASSAM

(Base 1993 - 94 =100)

Year	Annual Average
1996 – 1997	130
1997 – 1998	137
1998 – 1999	149
1999 – 2000	172
2000 – 2001	162
2001 – 2002	163
2002 – 2003	161
2003 – 2004	165
2004 – 2005	170
2005 – 2006	176
2006 – 2007	185
2007 – 2008	204
2008 – 2009	221
2009 - 2010	249

MONTHLY AVERAGE FOR THE YEAR 2010

April/2010	262
May	263
June	266
July	269
Aug	270
Sept	273
Oct	275
Nov	275
Dec	276

Source : Directorate of Economics and Statistics, Assam.

APPENDIX – XLV
CONSUMER PRICE INDEX NUMBER FOR
WORKING CLASS POPULATION IN ASSAM

(Base 1982 = 100)

Sl. No.	Period	Guwahati	Silchar	Tinsukia	Assam
1.	1991 Annual Average	208	193	195	200
2.	1992 Annual Average	235	217	216	224
3.	1993 Annual Average	252	233	233	241
4.	1994 Annual Average	280	251	255	264
5.	1995 Annual Average	312	274	281	291
6.	1996 Annual Average	341	295	309	318
7.	1997 Annual Average	357	312	320	333
8.	1998 Annual Average	405	345	362	374
9.	1999 Annual Average	436	375	386	403
10.	2000 Annual Average	460	370	389	412
11.	2001 Annual Average	471	372	384	415
12.	2002 Annual Average	480	374	398	424
13.	2003 Annual Average	496	383	416	439
14.	2004 Annual Average	516	411	430	459
15.	2005 Annual Average	531	415	450	473
16.	2006 Annual Average	551	442	470	495
17.	2007 Annual Average	575	476	504	525
18.	2008 Annual Average	615	521	536	563
19.	2009 Annual Average	684	565	592	621
	2010, January	720	595	634	658
	February	734	613	622	664
	March	730	610	622	662
	April	734	621	622	666
	May	734	631	634	673
	June	739	650	650	685
	July	744	664	650	691
	August	754	675	650	698
	September	763	675	654	703
	October	763	683	659	706
	November	773	679	663	711
	December	782	679	671	717

Source : Directorate of Economics and Statistics, Assam.

APPENDIX – XLVI
CONSUMER PRICE INDEX NUMBER FOR
WORKING CLASS POPULATION IN ASSAM

(Base 2001 = 100)

Sl. No.	Period	Guwahati	Silchar	Tinsukia	Assam
1.	2006 Annual Average	115	121	116	117
2.	2007 Annual Average	120	130	125	125
3.	2008 Annual Average	128	143	133	134
4	2009 Annual Average	143	155	147	148
	2010, January	150	163	157	156
	February	153	168	154	158
	March	152	167	154	157
	April	153	170	154	159
	May	153	173	157	160
	June	154	178	161	164
	July	155	182	161	165
	August	157	185	161	167
	September	159	185	162	168
	October	159	187	163	169
	November	161	186	164	170
	December	163	186	166	171

Source : Labour Bureau, Govt. of India.

APPENDIX – XLVII
CONSUMER PRICE INDEX NUMBER FOR
INDUSTRIAL WORKERS IN ASSAM AND INDIA

Sl. No.	Period	Base 1982 = 100						
		Guwahati	Doom-Dooma	Labac	Ranga-para	Mariani	Assam	All India
1.	1991 Annual Average	208	195	193	209	205	203	212
2.	1992 Annual Average	235	216	217	230	229	226	237
3.	1993 Annual Average	252	233	233	246	244	243	252
4.	1994 Annual Average	280	255	251	266	264	264	278
5.	1995 Annual Average	312	281	274	295	296	293	306
6.	1996 Annual Average	341	309	295	323	324	320	334
7.	1997 Annual Average	357	320	312	340	339	335	358
8.	1998 Annual Average	405	362	345	390	389	380	405
9.	1999 Annual Average	436	386	375	412	416	407	424
10.	2000 Annual Average	460	389	370	408	418	412	441
11.	2001 Annual Average	471	384	372	419	411	415	458
12.	2002 Annual Average	480	398	374	417	411	420	477
13.	2003 Annual Average	496	416	383	427	432	435	496
14.	2004 Annual Average	516	430	411	433	441	450	514
15.	2005 Annual Average	531	450	415	439	449	461	536
16.	2006 Annual Average	551	470	442	476	464	485	569
17.	2007 Annual Average	575	504	476	526	509	522	605
18.	2008 Annual Average	615	536	521	548	532	554	656
19.	2009 Annual Average	684	592	565	600	591	611	727
20.	2010, January	720	634	595	609	622	640	796
	February	734	622	613	609	610	642	787
	March	730	622	610	605	610	640	787
	April	734	622	621	605	622	644	787
	May	734	634	631	617	622	651	796
	June	739	650	650	634	622	662	806
	July	744	650	664	651	630	671	824
	August	754	650	675	671	646	682	824
	September	763	654	675	676	646	686	829
	October	763	659	683	680	650	690	838
	November	773	663	679	680	670	696	843
	December	782	671	679	680	670	700	857

Source : Labour Bureau, Govt. of India.

APPENDIX – XLVIII
CONSUMER PRICE INDEX NUMBER FOR
INDUSTRIAL WORKERS IN ASSAM AND INDIA

Sl. No.	Period	Base 2001 = 100						
		Guwahati	Doom-Dooma	Labac	Ranga-para	Mariani	Assam	All India
1.	2006 Annual Average	115	116	121	114	116	116	123
2.	2007 Annual Average	120	125	130	126	127	125	131
3.	2008 Annual Average	128	133	143	131	133	133	142
4.	2009 Annual Average	143	147	155	144	147	147	157
5.	2010, January	150	157	163	146	155	154	172
	February	153	154	168	146	152	155	170
	March	152	154	167	145	152	154	170
	April	153	154	170	145	155	155	170
	May	153	157	173	148	155	157	172
	June	154	161	178	152	155	160	174
	July	155	161	182	156	157	162	178
	August	157	161	185	161	161	165	178
	September	159	162	185	162	161	166	179
	October	159	163	187	163	162	167	181
	November	161	164	186	163	167	168	182
	December	163	166	186	163	167	169	185

Source : (i) Directorate of Economics & Statistics, Assam.
(ii) Labour Bureau, Govt. of India.

APPENDIX - XLIX
CONSUMER PRICE INDEX NUMBER FOR
RURAL POPULATION IN ASSAM
(Plain Districts)

Sl. No.	Period	Consumer Price Index Number (Base 1944=100)
1.	1991 Annual Average	1735
2.	1992 Annual Average	1962
3.	1993 Annual Average	2112
4.	1994 Annual Average	2309
5.	1995 Annual Average	2505
6.	1996 Annual Average	2709
7.	1997 Annual Average	2748
8.	1998 Annual Average	3046
9.	1999 Annual Average	3278

Sl. No.	Period	Consumer Price Index Number (New Base 1999-2000=100)
1.	2000-01	104
2.	2001-02	108
3.	2002-03	112
4.	2003-04	109
5.	2004-05	128
6.	2005-06	130
7.	2006-07	139
8.	2007-08	158
9.	2008-09	177
10	2009-10	194
11	2010-11 April	201
	May	201
	June	202
	July	204
	August	204
	September	205

Source : Directorate of Economics and Statistics, Assam.

APPENDIX - L
DISTRICT WISE NUMBER OF BPL & AAY FAMILY
IDENTITY CARD HOLDERS IN ASSAM: 2008-09

District	BPL	AAY
Dhubri	69424	39101
Kokrajhar	40241	22531
Bongaigaon	26599	16281
Chirang	25376	14452
Baksa	38565	22797
Goalpara	37147	19723
Barpeta	62283	38210
Nalbari	34164	22172
Kamrup (Metro)	16204	8384
Kamrup	78114	41866
Darrang	31894	17952
Udalguri	39871	23945
Sonitpur	79046	40831
Lakhimpur	42785	24620
Dhemaji	25036	17188
Morigaon	33175	20532
Nagaon	107704	57936
Goalpara	41877	29415
Jorhat	45905	31354
Sivasagar	47867	31423
Dibrugarh	48962	30762
Tinsukia	46973	33238
Karbi Anglong	32356	19152
N C Hills	12407	5864
Karimganj	44170	22145
Hailakandi	25344	15006
Cachar	69511	37119
Assam	1202000	704000

Source :: Directorate of Food, Civil Supplies and Consumer Affairs, Assam.

APPENDIX – LI

DISTRICTWISE NUMBER OF EDUCATIONAL INSTITUTIONS HAVING VARIOUS FACILITIES IN ASSAM UPTO 31ST MARCH/2010

District	Primary School				
	Total School	Schools having pacca Building	Schools having Drinking Water facility	Schools having cooking shade for midday meal	Schools having Toilet facility
Dhubri	1275	728	1238	1446	982
Kokrajhar	1253	798	1153	1064	543
Bongaigaon & Chirang	966	594	906	962	745
Goalpara	941	712	930	957	647
Barpeta & Baksa Part	1839	811	1808	1820	1320
Nalbari & Baksa Part	1484	623	1383	1483	1357
Kamrup (R) & (M)	2172	1089	2064	2168	2065
Darrang & Udalguri	1519	942	1348	1495	1272
Sonitpur	1313	1170	1254	1325	809
Lakhimpur	1366	681	1294	1372	786
Dhemaji	847	325	822	840	323
Morigaon	816	527	790	812	685
Nagaon	2009	1158	1940	1998	1280
Golaghat	1002	783	979	1003	1885
Jorhat	1567	1414	1553	1562	1233
Sivasagar	1714	1421	1698	1707	698
Dibrugarh	1184	898	1168	1227	760
Tinsukia	839	722	824	860	780
Karbi Anglong	1402	677	798	1414	607
N. C. Hills	689	346	251	720	185
Karimganj	1245	682	844	1238	567
Hailakandi	1003	345	587	998	435
Cachar	1609	909	1120	1596	977
Total	30054	18355	26752	30067	20941

Source : Office of the Directorate of Elementary Education, Assam.

APPENDIX – LI (Contd.)

DISTRICTWISE NUMBER OF EDUCATIONAL INSTITUTIONS HAVING VARIOUS FACILITIES IN ASSAM UPTO 31ST MARCH/2010

District	Middle School				
	Total School	Schools having pacca Building	Schools having Drinking water facility	Schools having cooking shade for midday meal	Schools having Toilet facility
Dhubri	334	153	323	-	257
Kokrajhar	169	115	146	-	116
Bongaigaon & Chirang	184	98	177	-	161
Goalpara	214	136	213	-	205
Barpeta & Baksa Part	352	118	349	-	288
Nalbari & Baksa Part	273	126	255	-	246
Kamrup (R) & (M)	437	209	405	-	364
Darrang & Udalguri	208	126	181	-	179
Sonitpur	203	203	195	-	164
Lakhimpur	338	165	312	-	231
Dhemaji	168	63	166	-	95
Morigaon	180	105	169	-	144
Nagaon	439	216	419	-	306
Golaghat	235	172	225	-	190
Jorhat	322	286	318	-	248
Sivasagar	322	270	317	-	195
Dibrugarh	238	182	235	-	183
Tinsukia	154	137	150	-	139
Karbi Anglong	206	110	148	-	117
N. C. Hills	110	72	34	-	69
Karimganj	240	149	152	-	130
Hailakandi	238	89	148	-	135
Cachar	299	127	196	-	215
Total	5863	3427	5233	-	4377

APPENDIX –LII

FAMILY WELFARE PERFORMANCE IN ASSAM, 2009-10

Sl. No.	District	Sterilisation	I. U. D. Insertion	C. C. Users	O. P. Users
1.	Dhubri	972	1240	3403	3503
2.	Kokrajhar	519	1693	1168	1924
3.	Bongaigaon	627	779	1119	1374
4.	Chirang	0	1184	597	827
5.	Baksa	596	1736	656	1608
6.	Goalpara	1899	1716	2123	2730
7.	Barpeta	4628	1017	2179	4425
8.	Nalbari	2092	768	1768	1849
9.	Kamrup	4980	2167	3126	3920
10.	Kamrup (M)	4170	1492	1026	1468
11.	Darrang	2977	1237	1447	2057
12.	Udalguri	1244	797	846	1578
13.	Sonitpur	3377	1363	1872	5332
14.	Lakhimpur	5351	2259	1762	2767
15.	Dhemaji	4506	1039	1619	1278
16.	Morigaon	2720	981	1273	2067
17.	Nagaon	6635	2492	3034	2791
18.	Golaghat	3162	1493	3204	5115
19.	Jorhat	4775	2191	3321	2228
20.	Sivasagar	3946	1016	1341	1996
21.	Dibrugarh	7409	3189	1640	3459
22.	Tinsukia	5218	1774	939	1375
23.	Karbi Anglong	1027	1649	2560	1818
24.	N.C.Hills	184	275	247	427
25.	Karimganj	2290	1337	2115	2251
26.	Hailakandi	1221	683	774	981
27.	Cachar	4704	2502	5099	3718
	Total	81229	40069	50258	64866

Source : Directorate of Health Services (FW), Assam.

APPENDIX – LIII
NO. OF GOVERNMENT HOSPITALS, DISPENSARIES,
P. H. C., SUB CENTRES, COMMUNITY HEALTH
CENTRE (CHC) AND BEDS IN ASSAM, 2009

Sl. No.	District	Hospital	P. H. C.	Dispensaries	Bed	Sub-Centres	C. H. C.
1.	Dhubri	1	34	13	492	246	5
2.	Kokrajhar	1	42	24	367	163	2
3.	Bongaigaon	0	27	14	236	58	3
4.	Chirang	0	21	0	144	76	2
5.	Baksa	0	40	0	310	159	5
6	Goalpara	1	33	12	350	151	1
7	Barpeta	1	36	8	504	264	6
8	Nalbari	1	40	19	542	121	6
9	Kamrup (M)	1	54	8	418	52	1
10	Kamrup (R)	1	21	33	717	298	9
11	Darrang	1	25	14	474	163	3
12	Udalguri	0	23	0	205	142	3
13	Sonitpur	1	47	8	564	281	4
14	Lakhimpur	1	26	5	422	156	5
15	Dhemaji	1	19	3	268	98	3
16	Morigaon	1	26	13	190	125	2
17	Nagaon	1	58	19	590	368	9
18	Golaghat	1	38	5	378	144	5
19	Jorhat	1	39	9	528	142	5
20	Sivasagar	1	33	1	504	222	2
21	Dibrugarh	0	26	9	242	240	5
22	Tinsukia	1	19	5	318	164	4
23	Karbi Anglong	1	46	9	456	103	5
24	N. C. Hills	1	10	2	190	65	2
25	Karimganj	1	22	24	222	217	1
26	Hailakandi	1	12	2	208	105	1
27	Cachar	1	27	2	260	269	4
Total		22	844	261	10099	4592	103

Source : Directorate of Health Services, Assam.

APPENDIX – LIV
PERFORMANCE OF UNIVERSAL IMMUNIZATION
PROGRAMME (UIP) IN ASSAM
(Period 2004-05 to 2009-10)

Year	Activity	Target	Achievement	Percentage
2004-05	DPT3	681411	529476	77.70
	OPV3	681411	533884	78.35
	BCG	681411	566924	83.20
	Measles	681411	494682	72.60
	Full Immunised	681411	422139	61.95
	TT (PW)	810642	574485	70.87
2005-06	DPT3	654912	581214	88.87
	OPV3	654912	579718	88.52
	BCG	654912	672731	102.72
	Measles	654912	570715	87.14
	Full Immunised	654912	490301	74.87
	TT (PW)	779121	599344	76.93
2006-07	DPT3	717747	621956	86.65
	OPV3	717747	637402	88.81
	BCG	717747	702868	97.93
	Measles	717747	612258	85.30
	Full Immunised	717747	538014	74.96
	TT (PW)	848430	652089	76.86
2007-08	DPT3	689922	652294	94.55
	OPV3	689922	636749	92.29
	BCG	689922	729154	105.69
	Measles	689922	611986	88.70
	Full Immunised	689922	568494	82.40
	TT (PW)	820769	635384	77.41
2008-09	DPT3	700896	631006	90.03
	OPV3	700896	632553	90.25
	BCG	700896	708480	101.08
	Measles	700896	583953	83.32
	Full Immunised	700896	555741	79.29
	TT (PW)	826354	594760	71.97
2009-10	DPT3	690937	613229	88.75
	OPV3	690937	611267	88.47
	BCG	690937	657562	95.17
	Measles	690937	581680	84.19
	Full Immunised	690937		
	TT (PW)	802969	595546	74.17

Source : Directorate of Health Services (FW), Assam.





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