CHAPTER – I

AN OVERVIEW OF THE STATE

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 percent of the country's total geographical area, Assam provides shelter to 2.57 percent 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. The less densely populated two hill districts - Karbi-Anglong and Dima Hasao, separated 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.

Population

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 percent during the decade 2001-2011 as against 17.64 percent for the country as a whole. The density of population of the State has gone up to 397 as against India's density 382 as per 2011 Census. The corresponding State's figure as per 2001 Census was 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 8.42 percent in real terms (at 2004-05 prices) as per Advance Estimates for 2011-12 as against the growth rate of 7.34 percent estimated in the previous year. The Gross State Domestic Product (GSDP) at constant (2004-05) prices for the year 2011-12 (Advance Estimates) is estimated at ₹80,465.15 crores as against ₹74,214.94 crores for 2010-11 (Quick Estimates) reflecting a growth of 7.34 percent. The estimated growth of 8.42 percent in GSDP of the State for 2011-12 comprises of a growth of 6.43 percent in Agriculture and Allied sector, 7.19 percent in Industry sector and 9.74 percent in Services sector.

As per Advance Estimates for 2011-12, the growth of the 'Industry' sector, comprising of 'Mining & Quarrying', 'Manufacturing' (Registered and Unregistered), 'Electricity, Gas & Water Supply' and 'Construction', is expected to be encouragingly high as compared to 4.78 percent in the previous year 2010-11. This flourishing growth is due to the high growth of the 'Industry sector' contributed by the sub sectors especially 'Construction (11.86 percent)', 'Mining & Quarrying' (5.1 percent) and 'Manufacturing' (4.82 percent).

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 9.74 percent during 2011-12 as compared to 8.76 percent growth in 2010-11 due to good performance of the all the key sub sectors like 'Transport, Communication, Trade, Hotels and Restaurants' and specifically 'Banking & Insurance', 'Real estate and Business services'(14.99 percent).

In respect of the Agriculture and Allied sector, while forestry sector is likely to experience moderately higher growth of 5.35 percent than the previous year's growth of 4.48 percent, the growth anticipated in the fishing sector is 5.23 percent in 2011-12 from the downbeat growth (-4.05) experienced in 2010-11. However, the Agriculture alone has registered a growth rate of 6.64 percent and all together Agriculture and Allied sector is expected to attain a growth rate of 6.43 percent in 2011-12 against 6.49 percent in the previous year.

The Net State Domestic Product (NSDP), also known as State Income, at 2004-05 prices is also expected to grow by 8.57 percent as per Advance Estimates for the year 2011-12 compared to 7.33 percent during 2010-11.

It is expected that as per Advance Estimates for 2011-12, the per capita income will attain the level of ₹22956.00 at constant prices (2004-05) and ₹33633.00 at current prices as against ₹21406.00 and ₹30569.00 at constant (2004-05) prices and current prices respectively in the previous year 2010-11. In terms of growth rate, per capita income is increased by 7.24 percent at constant (2004-05) prices and 10.0 percent at current prices in 2011-12 over the previous year.

State Finance

In the budget 2011-12, the receipt under the consolidated fund of the State is expected to be ₹36892.68 crore. Out of this, ₹32730.85 crore is on Revenue Account and the remaining ₹4161.83 crore is under Capital Account. After taking into account the estimated receipt of ₹97222.89 crore under Public Accounts and ₹50.00 crore under Contingency Fund, the aggregate receipts amount comes to ₹134165.57 crore. The total expenditure from the consolidated fund of the State in 2011-12 is estimated at ₹37173.02 crore, of which ₹31616.63 crore is on Revenue Account and ₹5556.39 crore is on Capital Account. Taking into account of the expenditure of ₹93980.00 crore under Public Account and ₹50.00 crore under Contingency Fund, the aggregate expenditure for the year is estimated at ₹131203.02 crore. Thus, during the year (2011-12), it is expected to have a surplus of ₹2962.55 crore which together with the opening deficit of ₹4505.26 crore for the year 2011-12 will lead to an estimated closing deficit of ₹1542.71 crore. The State's own Tax Revenue is expected to increased to ₹6565.92 crore in 2011-12 (B.E.) against ₹5929.84 crore in 2010-11 there by expected to achive a growth of 10.73% in collection of own Tax Revenue in the State. On the otherhand, the Non Tax Revenue of the State is estimated an increase of 30 percent in 2011-12 (B.E.) over previous year. While the share of the State's own tax revenue is estimated at 41 percent to total tax revenue, the share of Central taxes is estimated at 59 percent, in Budget Estimates for 2011-12.

The total outstanding debt on the State during 2010-11 was ₹25495.28 crore (24.46 percent of the GSDP). The per capita loan outstanding as on March 2011 was calculated at ₹8677.

Banking

As per the "Quarterly Statistics of deposits and credit of Scheduled Commercial Banks of Reserve Bank of India, March, 2011", the number of reporting Bank Offices of all Scheduled Commercial Banks in Assam stood at 1504 against 1434 Bank Offices as reported in 2010, March.. The average population covered per Bank branch office (based on the projected mid-year population) in the State was around 20 thousand compared to all India average of 14 thousand as on March, 2011. The aggregate bank deposit and gross credit was ₹59101.00 crore and ₹21053.00 crore respectively with scheduled commercial bank in the State as on March 2011. The credit deposit ratio was 35.6 percent during the year against 37.0 percent in 2010-11. Out of the total 1504 reporting offices as on March 2011, 802 bank offices (53 percent of the total reporting offices) located in the rural areas of Assam and share more than 17 percent of the total bank deposit of the State.

Agriculture

The economy of Assam continues to be predominantly agrarian. The Agriculture sector in the State providing employment to more than 50 percent of the rural people The net cultivated area of the State is 28.11 lakh hectare(2009-10) which is about 88 percent of the total land available for agricultural cultivation in the State. The contribution of Agriculture sector to the State Domestic Product was nearly 25 percent during 2010-11. The area covered under Paddy cultivation was 25.71 lakh hectares and more than 91 percent of the total area under foodgrains in the State during the year 2010-11. During the year 2010-11, the productivity of Winter Rice has increased to 1993 Kg. per hectare from 1894 Kg. per hectare i.e.more than 5 percent increase in productivity per hectare. The yield rate of Autumn Rice has been expected to reach all time high with 1155kg/hectare which is 17.6 percent above the yield rate of 982 kg/hectare in 2009-10. The productivity of Summer Rice has also continued to maintain its increasing trend by more than 18 percent in 2010-11 over the previous year.. As a result of effect of yield rate, the production of Rice, the most important cereal crop grown in the State, has increased to 50.33 lakh tonnes

in 2010-11 from 44.09 lakh tonnes in 2009-10 registering about 14 percent 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 27.10 lakh hectare of area under Rice so as to increase the production of Rice more than 54 lakh MT during the year 2011-12. As per available estimates, the production of total foodgrains in the State was 51.78 lakh tonnes during 2010-11 as against 45.57 lakh tonnes during 2009-10 showing an increase of Foodgrain production of 13 percent over the previous year. The increase in the production of Pulses in 2010-11, has recorded 9.1 percent over 2009-10. During the same period, the production of oilseeds has also increased by 8.4 percent as compared to the previous year.

Horticultural crop in the State occupy about 15 percent gross cultivated area and annually produces more than 15.0 lakh MT of fruites, 44.0 lakh MT of vegitables 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, 16.45 lakh MT fruits, 44.70 lakh MT vegetables and 2.47 lakh MT of spices were produced during the year 2010-11.

The Index of Agricultural Production (base triennium ending 1981-82=100) for the State increased to 201 for all commodities, including food and non-food items, in 2010-11 as against 186 in 2009-10.

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 41.05 lakh hectare of the State, the State Irrigation Department created potential of 7.97 lakh hectare till 2010-11 and out of which 1.30 lakh hectare irrigation potential was utilised during the year. It has been worth mentioning that the State Agriculture Department has also created a potential of 6.84 lakh hectares through the Shallow Tubewells and Low Lift Points out of which 4.70 lakh hectare are covered under utilisable/assured irrigation.

Flood and Flood Control

The State of Assam covers an area of 78,438 sq km. The total land mass of the State consist of the Brahmaputra and Barak valleys named after the mighty Brahmaputra and Barak river and the two hill districts. The unique geographical location criss-crossed by vast network of 48 major and 128 small rivers originating from the hills and mountains surrounding the State is largely responsible for the recurring flood and erosion of the river banks. The heavy monsoon rain over catchments of Himalayan and Patkai ranges of hills pausing threats to gently sloping narrow valley of the rivers coupled with high seismic activities in the easily erosive hill slopes along with certain anthropogenic causes create heavy flood in the State. All the rivers in Assam are liable to floods, mainly because they receive heavy rainfall within a short time. Due to deforestation in the upstream and downstream areas of surrounding Hill States, the river waters collect a tremendous amount of silt and other debris and raise the level of the river beds making it impossible for the main channel to cope with the vast volume of water received during the rains. 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 percent 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)

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 2010-11, the fish production has reached the tune of 2.32 lakh metric tone against 2.18 lakh metric tone fish produced in 2009-10. State is yet to reach self-sufficiency in productivity with regards to economic as well as minimum nutritional requirement.

Forest

As per Forest profile of the State, the Reserved Forest area and Proposed Forest area is 14212 sq km and 2102 sq km respectively in 2010-11. The total Forest area excluding unclassed State Forest is 20092 sq km and 3778 sq km area is under protected area as reported by State Forest Department. Thus, the reserved forest area constitutes around 18 percent and total forest area excluding unclassed forest with constitutes around 26 percent of the total geographical area of the State. The amount of revenue earned from the forest products during the year 2010-11 was ₹5868.52 lakh against ₹7751.62.00 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 2010-11 was estimated at 832 million liters. The egg and meat production were estimated at 470 million numbers and 34000 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 7.0 percent during 2010-11 which is not encouraging. However, the Industries and Commerce Department of 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 Infrustructure 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 entrprenuers of the State.

The total SSI/MSME units in the State numbered 34327 are providing employment to 178054 persons till the year 2010-11. In 2009-10, the value of produced goods of 1214 number SSI units was worth ₹916.79 crores. During the year the number of factories resistered was 4262 and provided employment to 150485 persons. The growth of Manufacturing Sector is estimated at 3.8 percent at constant (2004-05) prices and 9.0 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, etc. over the level of production of the previous year. The General Index of Industrial Production of the State has shown upliftment to 157.37 in 2010-11 (Base 1999-2000) from 155.83 2009-10.

The Tea Industry of Assam, playing a vital role in the State as well as in the national economy. The Assam's Tea industry also posseses 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 Tea Gardens in the State are covering land of 322000 Hectares out of 578000 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. The 10213 MT rubber production covered an area of 27083 Hectares and employment generated of 2767450 mandays in the year 2010-11.

Assam has ample scope for Bamboo based industry like Paper manufacturing industry, since this region has highest cocentration of bamboo i,e, around 60% of the total Bamboo of the country. In viewing of the potentialities, The Minisry 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.

Traditionally, Sericulture, a majore cottage industry of the State, is practiced in more than 10532 villages and provided employment to more than 2.5 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 2010-11 was observed as not 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 downward 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 100.31 in 2010-11.

Transport

The rapid increase of numbers of motor vehicles on road in Assam has been observed over the past few years. The on road vehicle population in the State has reached to 1363625 as on March 2011 as against 1320867 as on March 2010. An additional of 199076 vehicles was added during the year 2010-11 as against 241247 vehicles in 2009-10. The number of Motor vehicles registered per lakh of population of the State has reached at 65 in 2010-11 against 803 in 2009-10. The number of motor vehicles on road per 100 squire kilometer in the State was 1738 during 2010-11 as against 1684 during 2009-10.

Telecommunication

The tele-density (Telephone per 100 populations) of the State as on December 2010 was 35.88 percent as against the national average of 66.17 percent. 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 114.11 percent, the rural tele-density was only 22.16 percent.

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 18753 in the State and the length of un-surfaced road is 21047. Excluding the National Highways, the total road length in the State that is maintained by State PWD is 39800 kilometer consists of State Highways, major district roads, urban roads and rural roads.

Power

The power supply position in the State was not much encouraging in the State. There have been always a shortage power due to less generation of power in comparison to demand in the State. The total available installed capacity of generating plants in the State has remained the same at 401.5 MU during the 2010-11, 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 2010-11 the generation of electricity in the State was 1707.762 MU as against 1712.208 MU, a nominal decrease in generation by 0.25 percent only than the previous year 2009-10. The energy requirement in the state has been worked out at 5967 Million Units during 2010-11 as against 5049 Million Units in the previous year. But the availability of energy during 2010-11 was 5028 Million Units and the State is facing power deficit of 939 Million Units i.e. by around 16 percent. 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 availablity of power in the State was 168 Kwh in 2010-11. The total transmission and commercial losses was calculated at 29 % during the year 2010-11. Like most of the states of the country, Assam is also lagging behind in respect of rural households electrification. Till the end of the 2010-11 electrification of only 78 percent 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 7.41 percent in 20111 till the month of October over the corresponding period of 2010. The annual average Wholesale Price Index Number for Agricultural Commodities (Base 1993-94=100) stood at 272 in 2010-11 as against 249 in 2009-10 and 221 in 2008-09 and there by recorded an increase of price of 9.24 percent, 12.67 percent, and 8.33 percent respectively over the respective previous years for Agricultural commodities of the State. During 2011 the annual average of Consumer Price Index for Industrial Workers for Assam has shown a rise of 6.21 percent over 2010 as against 9.09 percent increase has recorded at all India .

Public Distribution System

Under the Public Distribution System the State has a network of 34,536 Fair Price Shops as on March 2011, 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 achived target of selecting 19.06 lakh beneficiaries from BPL families by providing BPL PDS item at subsidized rate.

Employment Situation

The traditional involvement in the agricultural sector has been declining day by day among the present generation of the youths of the State which implies attribution of shift of employment to the other sectors. 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 Emplyment Exchanges. The number of un-employed person as per Live Register is 1911431 number in 2010. 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 educated job-seekers on the Live Register of Employment Exchanges has stood at 14 lakh in 2010. The registration during the year was 181743 from different disciplines of education. The previous year's registration of educated job seekers was 154999. The number of persons employed in organized economic activity (comprising both Public and Private Sectors) was 11.14 lakh in the year 2010. The employment of women in the organised sector of the State was 366.7 thousand at the end of 2010 which was around 32.9 percent of the total employment.

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 Yojona, 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 unemploment problems, recurrence of natural calamities in the shape of flood, drought etc. the State is expected to achieve 8.42 percent growth of the State's economy in terms of GSDP in real terms during the year 2011-12, a positive development is already under way.

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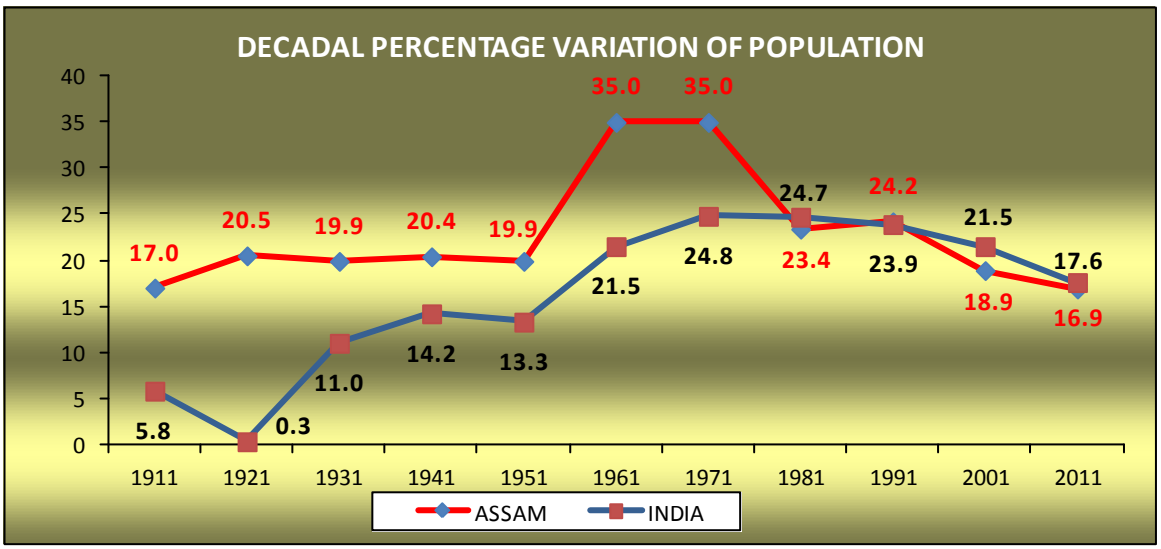
CHAPTER – II

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 percent of the country's total geographical area, Assam provides shelter to 2.6 percent populatiosn 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 Dima Hasao, 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 are females. The decadal growth of the State's population works out to 16.93 percent during the decade 2001-2011 as against 17.64 percent for the country as a whole. The density of the population of Assam has gone upto 397 in 2011 which was 340 in 2001 Census. The corresponding all India figure was 382 as per Census, 2011.

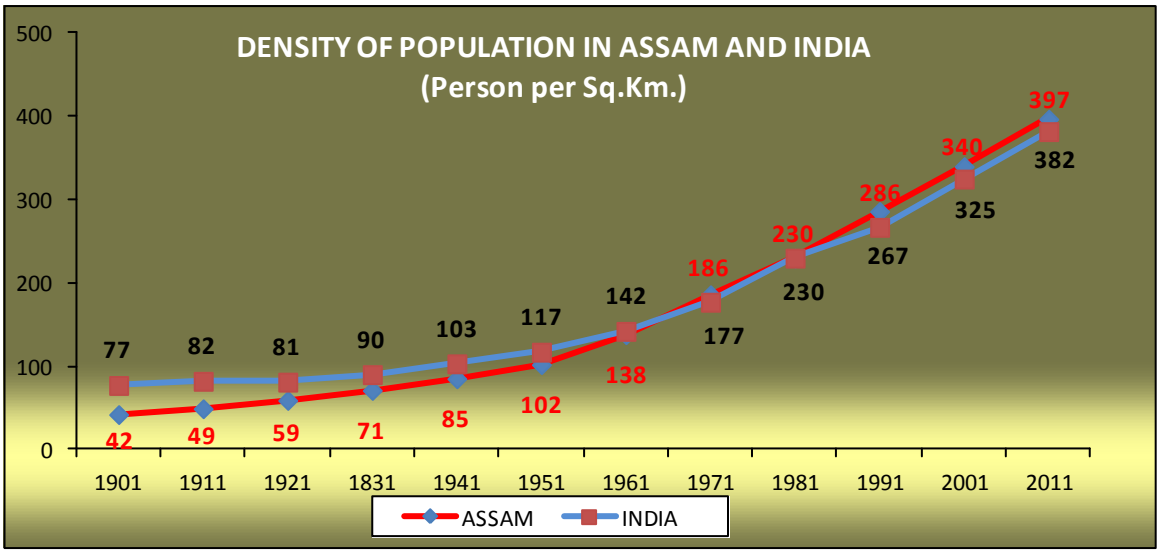


TABLE – 2.1

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.

Source: Census of India 2011, Provisional Population Totals.

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

TABLE-2.2

POPULATION FEATURES AT A GLANCE ASSAM

Particulars	Unit	2001 Census	2011 Census
		Assam	Assam
Population	Lakh	267	311
Decadal Growth	Percent	18.92	16.93
Change in percentage of decadal growth	Percent	(-) 5.32	
Density	Per Sq. Km.	340	397
Sex-Ratio	Females per 1000 males	935	954
Literacy	Percent	63.25	73.18
(a) Male	Percent	71.28	78.81
(b) Female	Percent	54.61	67.27
Urban Population	Percent	12.90	14.08
(a) Male	Percent	53.41	51.61
(b) Female	Percent	46.58	48.39
Rural Population	Percent	87.10	85.92
(a) Male	Percent	51.43	51.12
(b) Female	Percent	48.57	48.88
S.C. Population	Percent	7.40	NA
S.T. Population	Percent	12.83	NA

POPULATION

Rural and Urban

As per Population Census, 2011, the rural population of the State was 86 percent of the total population. This percentage was much higher than that for All-India (69 percent). The proportion of rural population in the State decreased from 87 percent in 2001 to 86 percent in 2011. As per the Population Census, 2011, around 14 percent of the State population was living in urban areas. The proportion of urban population in the State increased from 12.9 percent in 2001 to 14 percent in 2011.

Sex Ratio

The sex-ratio in the State shows an improvement from 935 in 2001 to 954 in 2011. 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 957 female per 1000 male child as per Census, 2011. The corresponding sex ratio in the State for the age-group 0-6 years declined to 967 in 2001 from 975 in 1991.

Literacy

The growth of literacy in Assam has shown an encouraging sign. The literacy rate for Assam as per Census 2011 increased to 73 percent with 79 percent for males and 67 percent for females. The literacy rates for rural and urban areas found at 70.44 percent and 88.88 percent respectively. The literacy rate for country as a whole increased to 74 percent from 65 percent with male and female literate 79 percent and 67 percent respectively.

Some State highlightes in 2011 census, such as highest and lowest population, percentage of growth, literacy rate, sex ratio and density among the districts of Assam may be seen in the following.

STATE HIGH LIGHTS – 2011 CENSUS

The Census Directorate of Assam highlighted the following observation after completion of the Population Census, 2011.

- Growth of population in the state during 1971-2011 is 113.12 percent against the national growth rate of 120.77% during this period.
- Assam ranks 14th in size of population among the states of India.
- Assam ranks 15th in density among the states of India.
- Assam ranks 15th in sex-ratio among the states of India.
- Assam ranks 26th in literacy among the states of India.
- Highest and lowest population, percentage of growth, literacy rate, sex-ratio and density among the districts of the state.

Information on		Highest	Lowest
Total Population		Nagaon (826,006)	Dima Hasao (213,529)
Total Rural Population		Nagaon (2,457,906)	Dima Hasao (152,302)
Total Urban Population		Kamrup Metro (1,044,832)	Baksa (12,173)
Percentage of Population Growth	Total	Dhubri (24.40)	Kokrajhar (5.19)
	Rural	Dhubri (27.13)	Kamrup Metro (2.93)
	Urban	Nalbari (200.34)	Sonitpur (-2.65)
Literacy Rate	Total	Kamrup Metro (88.66)	Dhubri (59.36)
	Rural	Jorhat (81.36)	Dhubri (56.49)
	Urban	Hailakandi (94.67)	Darrang (66.86)
Sex-ratio	Total	Marigaon (974)	Kamrup Metro (922)
	Rural	Marigaon (975)	Darrang (923)
	Urban	Hailakandi (992)	Dima Hasao (880)
Density		Kamrup Metro (2,010)	Dima Hasao (44)

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 percent were Hindus, 30.92 percent were Muslims, 3.70 percent were Christians, 0.08 percent were Sikhs, 0.19 percent were Buddhists, 0.09 percent were Jains, 0.09 percent were from other religions and persuasions and 0.04 percent 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
Assamese	13010478	53.08
Bengali	7343338	29.96
Hindi	1569662	6.40
Bodo	1296162	5.29
Nepali	564790	2.30
Santali	242886	0.99
Oriya	231474	0.94
Manipuri	154059	0.63
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 percent were main workers, 15 percent were marginal workers, while among females 47 percent were main workers and 53 percent were marginal workers. Out of the total 9538591 workers in Assam, 3730773 were Cultivators (39 percent), 1263532 were Agricultural labourers (13 percent), 344912 were engaged in Household Industries (4 percent) and 4199374 were Other Workers (44 percent). Thus, about 52 percent 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
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.

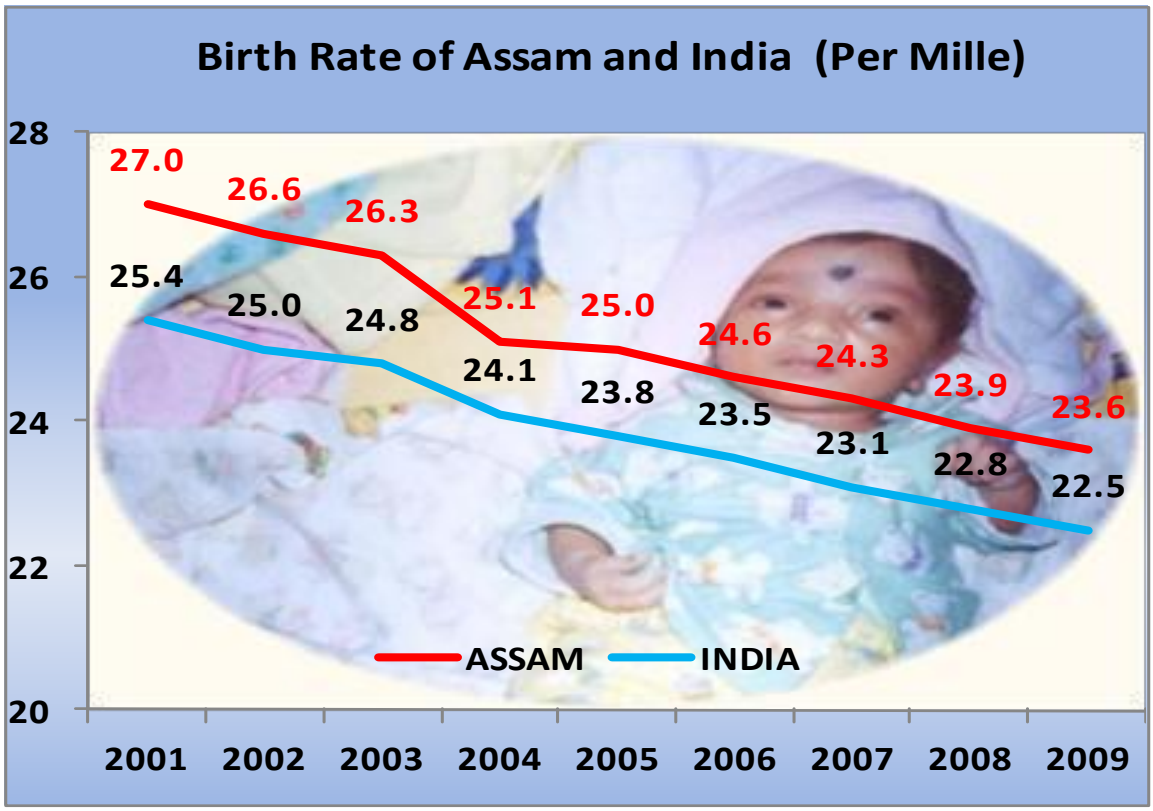


TABLE - 2.6

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.

APPENDIX – 2.1

DISTRICTWISE DEMOGRAPHIC PROFILE OF ASSAM, 2011 CENSUS

Sl. No.	District	Area in Sq. Km.	Population	Rural Population	Urban Population	Population Density per Sq. Km.
1	Dhubri	1664	1948632	1746715	201917	1171
2	Bongaigaon	1725	732639	631813	100826	425
3	Kokrajhar	3165	886999	832249	54750	280
4	Chirang	1975	481818	446290	35528	244
5	Baksa	2007	953773	941600	12173	475
6	Goalpara	1824	1008959	871132	137827	553
7	Barpeta	2677	1693190	1545901	147289	632
8	Nalbari	1010	769919	687368	82551	763
9	Kamrup (M)	627	1260419	215587	1044832	2010
10	Kamrup (R)	3484	1517202	1375188	142014	436
11	Darrang	1851	908090	852692	55398	491
12	Udalguri	1674	832769	795191	37578	497
13	Sonitpur	5281	1625975	1754835	171140	365
14	Lakhimpur	2277	1040644	949348	91296	457
15	Dhemaji	3237	688077	639605	48472	213
16	Morigaon	1551	957853	884557	73296	618
17	Nagaon	3973	2826006	2457906	368100	711
18	Golaghat	3502	1058674	960892	97782	302
19	Jorhat	2851	1091295	871730	219565	383
20	Sivasagar	2668	1150253	1040376	109877	431
21	Dibrugarh	3381	1327748	1083984	243764	393
22	Tinsukia	3790	1316948	1053956	262992	347
23	Karbi-Anglong	10434	965280	851158	114122	93
24	Dima Hasao	4888	213529	152302	61227	44
25	Karimganj	1809	1217002	1106745	110257	673
26	Hailakandi	1327	659260	611087	48173	497
27	Cachar	3786	1736319	1420309	316010	459
ASSAM		78438	31169272	26780516	4388756	397

Source : Census of India, 2011.

APPENDIX – 2.2

DECADAL PERCENTAGE VARIATION IN POPULATION OF ASSAM

District	1901-1911	1941-1951	1951-1961	1961-1971	1971-1991	1991-2001	2001-2011
Dhubri*	28.73	12.74	43.74	43.26	45.65	22.97	24.40
Bongaigaon*	28.69	12.88	36.27	35.81	38.77	22.09	19.58
Kokrajhar*	28.73	17.11	55.41	54.89	61.96	14.49	5.19
Chirang*	5.02	18.18	40.32	57.37	103.33	(-) 0.08	11.26
Baksa*	18.36	33.68	60.52	66.67	73.65	12.51	11.17
Goalpara	29.97	9.25	37.10	45.88	54.12	23.03	22.74
Barpeta*	18.65	16.62	34.39	33.91	40.97	19.62	21.40
Nalbari*	15.24	35.15	33.56	31.79	75.78	14.21	11.74
Kamrup(M)*	6.59	2.39	13.30	19.99	20.77	45.91	18.95
Kamrup *	10.01	17.01	45.12	44.48	81.53	14.97	15.67
Darrang*	22.72	18.58	40.94	36.05	89.77	22.18	19.51
Udalguri *	45.60	29.13	54.04	37.85	43.03	10.02	9.76
Sonitpur*	23.67	22.02	41.99	33.17	68.08	18.11	15.67
Lakhimpur	26.29	17.94	50.46	43.39	56.29	18.30	17.06
Dhemaji	26.29	17.94	75.21	103.42	107.50	19.45	20.30
Morigaon	15.84	36.63	37.89	37.51	50.90	21.35	23.39
Nagaon	15.84	36.65	35.91	38.99	51.26	22.26	22.09
Golaghat	16.55	19.76	26.04	30.85	58.12	14.27	11.88
Jorhat	16.90	14.87	24.17	17.47	33.10	14.69	9.21
Sivasagar	13.41	15.98	23.36	19.47	38.76	15.83	9.37
Dibrugarh	26.29	17.94	30.64	22.93	37.78	13.68	12.04
Tinsukia	26.29	17.94	35.92	31.02	47.03	19.51	14.51
Karbi Anglong	-	30.96	79.21	68.28	74. 72	22.72	18.69
Dima Hasao	(-) 33.12	6.16	36.95	40.00	98.30	24.72	13.53
Karimganj	12.94	29.87	22.96	25.13	42.08	21.87	20.74
Hailakandi	16.09	17.48	27.23	23.61	45.94	20.89	21.44
Cachar	12.33	23.92	22.60	23.96	47.59	18.89	20.17
ASSAM	**16.99**	**19.93**	**34.98**	**34.95**	**53.26**	**18.92**	**16.93**

**Due to creation of 4 new Districts the rates for 2001 have been affected in 12 Districts.*

APPENDIX – 2.3

STATEWISE POPULATION, SEX RATIO, POPULATION DENSITY, LITERACY RATE AND PERCENTAGE DECADAL GROWTH IN INDIA

Sl. No.	India, States, Union Territories	Population 2011	Sex Ratio 2011	Population Density per sq. km. 2011	Literacy rate 2011	Percentage decadal growth	
						1991-2001	2001-2011
	India	**1210193422**	**940**	**382**	**74.04**	**21.54**	**17.64**
1.	Jammu & Kashmir	12548926	883	124	68.74	29.43	23.71
2.	Himachal Pradesh	6856509	974	123	83.78	17.54	12.50
3.	Punjab	27704236	893	550	76.68	20.10	7.58
4.	Chandigarh	1054686	818	9252	86.43	40.28	-68.51
5.	Uttarakhand	10116752	963	189	79.63	20.41	11.34
6.	Haryana	25353081	877	573	76.64	28.43	10.00
7.	Delhi	16753235	866	11297	86.34	47.02	-55.61
8.	Rajasthan	68621012	926	201	67.06	28.41	19.05
9.	Uttar Pradesh	199581477	908	828	69.72	25.85	17.81
10.	Bihar	103804637	916	1102	63.82	28.62	23.90
11.	Sikkim	607688	889	86	82.20	33.06	-5.20
12.	Arunachal Pradesh	1382611	920	17	66.95	27.00	22.88
13.	Nagaland	1980602	931	119	80.11	64.53	-14.59
14.	Manipur	2721756	987	122	79.85	24.86	10.58
15.	Mizoram	1091014	975	52	91.58	28.82	18.20
16.	Tripura	3671032	961	350	87.75	16.03	2.13
17.	Meghalaya	2964007	986	132	75.48	30.65	27.04
18.	**Assam**	**31169272**	**954**	**397**	**73.18**	**18.92**	**15.35**
19.	West Bengal	91347736	947	1029	77.08	17.77	13.93
20.	Jharkhand	32966238	947	414	67.63	23.36	22.34
21.	Orissa	41947358	978	269	73.45	16.25	13.97
22.	Chhatisgarh	25540196	991	189	71.04	18.27	22.59
23.	Madhya Pradesh	72597565	930	236	70.63	24.25	20.30
24.	Gujarat	60383628	918	308	79.31	22.66	19.17
25.	Daman & Diu	242911	618	2169	87.07	55.73	53.54
26.	Dadra & Nagar Haveli	342853	775	698	77.65	59.22	55.50
27.	Maharastra	112372972	925	365	82.91	22.73	15.90
28.	Andhra Pradesh	84665533	992	308	67.66	14.59	11.10
29.	Karnataka	61130704	968	319	75.60	17.51	15.67
30.	Goa	1457723	968	394	87.40	15.21	8.17
31.	Lakshadweep	64429	946	2013	92.28	17.30	6.23
32.	Kerela	33387677	1084	859	93.91	9.43	4.86
33.	Tamil Nadu	72138958	995	555	80.33	11.72	15.60
34.	Puducherry	1244464	1038	2598	86.55	20.62	27.72
35.	Andaman & Nicobor Islands	379944	878	46	86.27	26.90	6.68

Source : Census of India, 2011.

APPENDIX – 2.4

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
2010	23.2	24.4	15.8	8.2	8.6	5.8

Source : Registrar General of India.

APPENDIX – 2.5

INFANT MORTALITY RATE IN ASSAM AND INDIA

SECTOR	ASSAM/ INDIA	YEARS									
		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Rural	Assam	77	73	70	69	71	70	68	66	64	60
	India	72	69	66	64	64	62	61	58	55	51
Urban	Assam	34	38	35	38	39	42	41	39	37	36
	India	42	40	38	40	40	39	37	36	34	31
Total	Assam	74	70	67	66	68	67	66	64	61	58
	India	66	64	60	58	58	57	55	53	50	47

Source : Registrar General of India.

APPENDIX – 2.6

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 2011 Census)	Number of Gaon Panchayat as on 2011	Number of Community Development Block as on 2011	Number of Anchalik Panchayat as on 2011	Number of Zila Parishad as on 2011
1.	Dhubri	1091	168	15	15	1
2.	Kokrajhar	1068	-	4	-	-
3.	Bongaigaon	563	65	5	5	1
4.	Goalpara	829	81	8	8	1
5.	Barpeta	835	129	11	11	1
6.	Nalbari	456	65	7	7	1
7.	Kamrup	1068	146	16	16	1
8.	Darrang	561	76	6	6	1
9.	Sonitpur	1876	158	14	14	1
10.	Lakhimpur	1184	81	9	9	1
11.	Dhemaji	1319	65	5	5	1
12.	Morigaon	632	85	5	7	1
13.	Nagaon	1412	239	18	20	1
14.	Golaghat	1125	102	8	8	1
15.	Jorhat	848	110	8	8	1
16.	Sivasagar	875	118	9	9	1
17.	Dibrugarh	1348	93	7	7	1
18.	Tinsukia	1168	86	7	7	1
19.	Karbi Anglong	2921	-	11	-	-
20.	Dima Hasao	695	-	5	-	-
21.	Karimganj	936	96	7	7	1
22.	Hailakandi	331	62	5	5	1
23.	Cachar	1040	163	15	15	1
24.	Chirang *	508	-	2	-	-
25.	Baksa *	690	-	7	-	-
26.	Kamrup (M)*	216	14	-	-	-
27.	Udalguri *	800	-	5	-	-
Assam		**26395**	**2202**	**219**	**189**	**20**

*N. B * Indicates newly created Districts.*

APPENDIX – 2.7

COMPARATIVE STATEMENT ON PERCENTAGE OF POPULATION BELOW POVERTY LINE

Sl. No.	State	Lakdawala Methodology (Poverty estimates)			Using TENDULKAR Methodology (Poverty Headcount Ratio)		
		2004-05			2004-05		
		Rural	Urban	Combined	Rural	Urban	Combined
1	Andhra Pradesh	11.2	28.0	15.8	32.30	23.40	29.90
2	Arunachal Pradesh	22.3	3.3	17.6	33.60	23.50	31.10
3	**Assam**	**22.3**	**3.3**	**19.7**	**36.40**	**21.80**	**34.40**
4	Bihar	42.1	34.6	41.4	55.70	43.70	54.40
5	Chhatisgarh	40.8	41.2	40.9	55.10	28.40	49.40
6	Delhi	6.9	15.2	14.7	15.60	12.90	13.10
7	Goa	5.4	21.3	13.8	28.10	22.20	25.00
8	Gujrat	19.1	13.0	16.8	39.10	20.10	31.80
9	Haryana	13.6	15.1	14.0	24.80	22.40	24.10
10	Himachal Pradesh	10.7	3.4	10.0	25.00	4.60	22.90
11	Jammu & Kashmir	4.6	7.9	5.4	14.10	10.40	13.20
12	Jharkhand	46.3	20.2	40.3	51.60	23.80	45.30
13	Karnataka	20.8	32.6	25.0	37.50	25.90	33.40
14	Kerala	13.2	20.2	15.0	20.70	18.40	19.70
15	Madhya Pradesh	36.9	42.1	38.3	53.60	35.10	48.60
16	Maharashtra	29.6	32.2	30.7	47.90	25.60	38.10
17	Manipur	22.3	3.3	17.3	39.30	34.50	38.00
18	Meghalaya	22.3	3.3	18.5	14.00	24.70	16.10
19	Mizoram	22.3	3.3	12.6	23.00	7.90	15.30
20	Nagaland	22.3	3.3	19.0	10.00	4.30	9.00
21	Odisha	46.8	44.3	46.4	60.80	37.60	57.20
22	Puducherry	22.9	22.2	22.4	22.90	9.90	14.10
23	Punjab	9.1	7.1	8.4	22.10	18.70	20.90
24	Rajasthan	18.7	32.9	22.1	35.80	29.70	34.40
25	Sikkim	22.3	3.3	20.1	31.80	2.90	31.10
26	Tamil Nadu	22.8	22.2	22.5	37.50	19.70	28.90
27	Tripura	22.3	3.3	18.9	44.50	22.50	40.60
28	UttarPradesh	33.4	30.6	32.8	42.70	34.10	40.90
29	Uttarakhand	40.8	36.5	39.8	35.10	26.20	32.70
30	West Bengal	28.6	14.8	24.7	38.20	24.40	34.30
All India		**28.3**	**25.7**	**27.5**	**41.80**	**25.70**	**37.20**

Source: Planning Commission, Govt. of India.

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CHAPTER – III

STATE INCOME

The State Domestic Product (SDP) is the most effective indicator to scale the progress of economic development of the State. The estimate of State Domestic Product over a period of time also indicates the extent and direction of changes in the level of economic development of the State. During the 11th Five Year Plan (2007-08 to 2011-2012) the State has registered an average growth of 6.86% against the Nation's GDP growth of 8.2% (base year 2004-05).

The Central Statistical Office (CSO), has 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 latest data from various surveys and censuses conducted by State / Central Government as per latest international standards and 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 2011-12

The GSDP at constant (2004-05) prices for the year 2011-12 (Advance Estimates) is estimated at ₹80,465.15 crore as against ₹74,214.94 crore for 2010-11 (quick Estimates) reflecting a growth of 8.42 percent. The estimated growth of 7.34 percent in GSDP of the State for 2010-11 comprises of a growth of 6.49 percent in Agriculture and Allied sector, 4.78 percent in Industry sector and 8.76 percent in Services sector.

TABLE-3.1

ADVANCE ESTIMATES OF STATE DOMESTIC PRODUCT FOR ASSAM, 2011-12

Year-2011-12	GSDP	NSDP	Per Capita NSDP (₹)
At constant (2004-05) Prices (Rupees in crore)	80465.13	70682.88	22956
At current Prices	115407.64	103559.07	33633

Source: Directorate of Economics & Statistics, Assam.

As per Advance Estimates for 2011-12, the growth of Industry sector, comprising of 'Mining & Quarrying', 'Manufacturing' (Registered and Unregistered), 'Electricity, Gas & Water Supply' and 'Construction', is expected to be achieved at 7.19 percent in 2011-12 against 4.78% in the previous year 2010-11.Amongst the sub sectors of Industry sector, a favourable growth rate is expected in the "Manufacturing' and 'Construction' sector.

The Services sector comprising of Trade, Hotel & Restaurants, Transport by other means & Storage, Real Estate & Business Services and Communications, Banking & Insurance, Social & Personal Services is likely to grow by 9.74 percent during 2011-12 as compared to 8.76 percent growth achieved in 2010-11.

In respect of the Agriculture and Allied sector, while forestry sector is likely to experience moderately higher growth of 5.35 percent than the previous year's growth of 4.48 percent, the growth anticipated in the fishing sector is 5.23 percent in 2011-12 from the downbeat growth (-4.05) experienced in 2010-11. However, Agriculture alone has registered significantly high growth rate of 6.64 percent and along with the Agriculture and Allied sector all together is expected to attain a favourable growth rate of 6.43 percent in 2011-12 against 6.49 percent in the previous year.

The expected estimated sectoral growth of State Domestic Product for 2011-12 is presented in the following table:

TABLE-3.2

SECTORAL GROWTH OF STATE DOMESTIC PRODUCT, 2011-12

Sector	Growth of GSDP at 2004-05 prices
Agriculture and Allied Services	6.43
Industry	7.19
Services	9.74

Source: Directorate of Economics and Statistics, Assam.

The Net State Domestic Product (NSDP), also known as State Income, at 2004-05 prices is also expected to grow by 8.57 percent as per Advance Estimates for the year 2011-12 compared to 7.33 percent achieved during 2010-11.

Advance Estimates of Per Capita Income for 2011-12

It is expected that as per Advance Estimates for 2011-12, the net per capita income will attain the level of ₹22956 at constant (2004-05) prices and ₹33633 at current prices as against ₹21406 and ₹30569 at constant (2004-05) prices and current prices respectively in the previous year 2010-11. In terms of growth rate, the per capita income at constant (2004-05) prices has increased by 7.24 percent and 6.01 percent in 2011-12 and 2010-11 over the previous years.

Gross State Domestic Product (GSDP) for 2010-11 (Quick Estimates)

The Gross State Domestic Product (GSDP) of the State of Assam, during 2010-11 (Quick estimates) at current prices was 104015.07 crores which was 12.16 percent higher than that of ₹92736.67 crore in 2009-10 in which Agriculture and Allied sector alone has contributed substantially high growth of 17.44 percent over the previous year. A considerably high production of Winter Rice resulted to the overall increase in the production of total rice in the State. This high production of rice is due to the positive efforts taken by the Government in the agriculture sector and also due to a favourable agro-climatic condition prevailed during the years.

The Gross State Domestic Product of the State during 2010-11(Quick Estimates) at constant (2004-05) prices was ₹74214.94 crore against ₹69143.13 crore in 2009-10 showing an increase of 7.34 percent growth over the previous year. It reveals from the quick estimates that the Agriculture and Allied Activities showed a comparatively stable growth of 6.49 percent as like the growth of 6.39 percent experienced in 2009-10. The Industry Sector has also experienced a marginally higher growth of 4.78 percent against 2.70 percent recorded during 2009-10. However, in 2010-11 the growth of Service Sector has slide down to 8.76 percent from 11.07 percent in 2009-10.

TABLE-3.3

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

Sector	Percentage change over previous year		
	2009-10	2010-11 (Q)	2011-12 (Adv)
Agriculture	5.89	7.55	6.64
Forestry	4.98	4.48	5.36
Fishing	16.09	(-)4.05	5.23
Mining & Quarrying	0.66	2.40	5.06
Manufacturing	4.07	3.81	4.82
Construction	2.81	7.04	11.86
Electricity, Gas & Water Supply	4.16	6.78	2.44
Trade, Hotel & Restaurant, Transport, Storage& Communication	9.58	6.67	11.40
Banking & Insurance, Real Estates and Business Services	5.70	12.10	14.99
Public Administration & Other Services	14.52	9.99	6.38
Gross State Domestic Product (GSDP)	7.98	7.34	8.42
Agriculture & Allied Services	6.39	6.49	6.43
Industry(2+3+4+5)	2.70	4.78	7.19
Services(6+7+8)	11.07	8.76	9.74

(Q)- Quick Estimate: (Adv) – Advance Estimate.

Source: Directorate of Economics and Statistics, Assam.

State Income 2010-11 (Quick Estimates)

The State Income i.e., Net State Domestic Product (NSDP) at current prices is estimated at ₹92967.97 crore in 2010-11 (Quick Estimates) which was higher by 12.70 percent than that of ₹82495.04 crore in 2009-10. At current prices, the agriculture &allied activities recorded a commendable high growth of 18.27 percent, likewise the industry and service sector also registered an impressive growth of 10.58 percent and 10.5 percent respectively.

Per Capita Income

The per capita NSDP of Assam at constant (2004-05) prices and current prices during the year 2010-11 were calculated at ₹21406.00 and ₹.00espectively against ₹20193.00 and ₹27464.00 respectively in the previous year. The percentage increase in per capita income during 2010-11 was 6.01 at constant (2004-05) prices and 6.72 percent over the previous year.

Sectoral Composition of Gross State Domestic Income (GSDP)

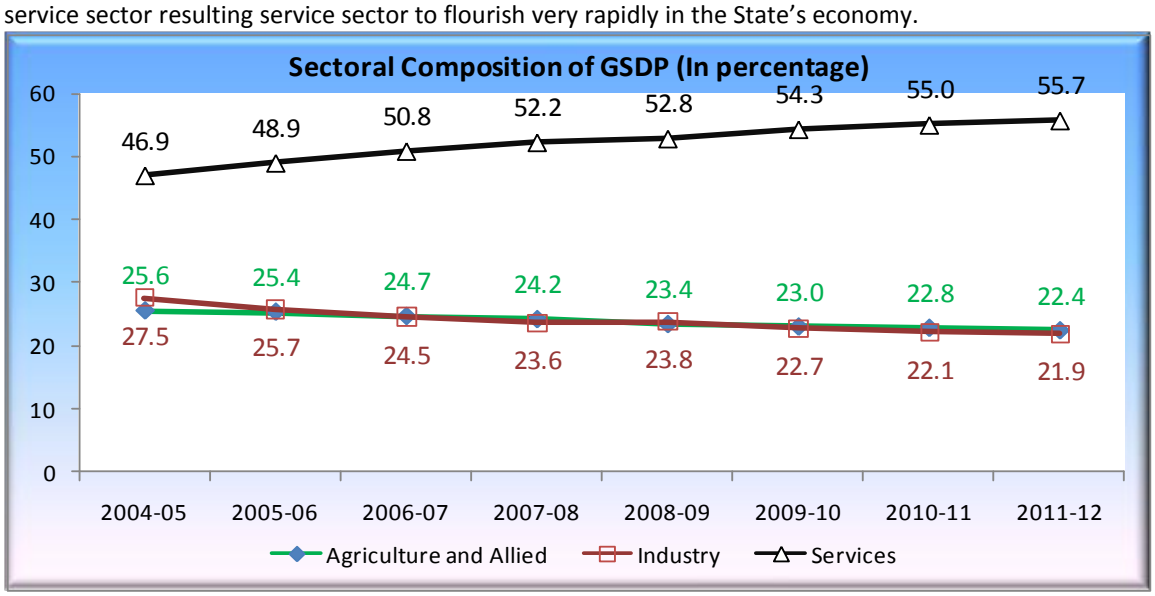
The Sectoral composition of GSDP both at current and constant (2004-05) prices has undergone considerable change during the past few years. In 2004-05 at constant (2004-05) the share of Agriculture and Allied sector was 25.6 %, Industry 27.5 % and Services sector was 46.9%.The changes over the years are shown in Table-3.4

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	25.6	27.5	46.9	100
2005-06	25.4	25.7	48.9	100
2006-07	24.7	24.5	50.8	100
2007-08	24.2	23.6	52.2	100
2008-09	23.4	23.8	52.8	100
2009-10	23.0	22.7	54.3	100
2010-11	22.8	22.1	55.0	100
2011-12	22.4	21.9	55.7	100

It is evident from the above that over the years the share of Agriculture and Allied sector in the GSDP has been gradually declining from 25.6 percent in 2004-05 to 22.4 percent in 2011-12.The contribution of Industry sector to GSDP has also shown a downward trend from 27.5 percent in 2004-05 to 21.9 percent in 2011-12, while the share of Services sector has progressed from 46.9 percent in 2004-05 to 55.7 percent by 2011-12. Thus, the State Economy has witnessed a change over the periods and the primary sector has witnessed a shift to service sector resulting service sector to flourish very rapidly in the State's economy.



The Assam Economy [GSDP at constant (2004-05) prices] has been growing with the average growth rate 6.05 percent per annum during the last seven years. Apart from Industry sector, "Agriculture & allied "and "Services" sector witnessed notable growth of 4.08 and 8.68 percent respectively during the period. While the "Industry" sector grew only at the rate of 2.67 percent, the "Manufacturing" (within the Industry Sector) showed a negative growth of (-) 0.96 percent, and the "Electricity, Gas & Water Supply" showed favourably positive growth of 4.51 percent over the period of last seven years.

The Economy of Assam at present notably sustained by the Services Sector. The key sub-sectors of the "Total Services" sector, namely, the Communication, Banking & Insurance, Real Estate, Other Services & Public Administration have played very important role in the economic growth and contributes at the rate, 21.11 percent by Communication, 14.69 percent by Banking & Insurance, 4.71 percent by Real Estate, Ownership of dwellings and Business Services, 10.02 percent by Public Administration and 6.40 percent by Other Services Sector during the last seven years.

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 (₹ Crore)	Growth rate (%)	GDP (₹ Crore)	Growth rate (%)
2004-05	5339772		2971464	
2005-06	5521356	3.40	3254216	9.5
2006-07	5778253	4.65	3566011	9.6
2007-08	6056750	4.82	3898958	9.3
2008-09	6403254	5.72	4162509	6.8
2009-10	6914313	7.98	4493743	8.0
2010-11	7421494	7.34	4877842	8.5
2011-12	8046513	8.42	NA	NA

Source: Directorate of Economics and Statistics, Assam.

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 table3.6

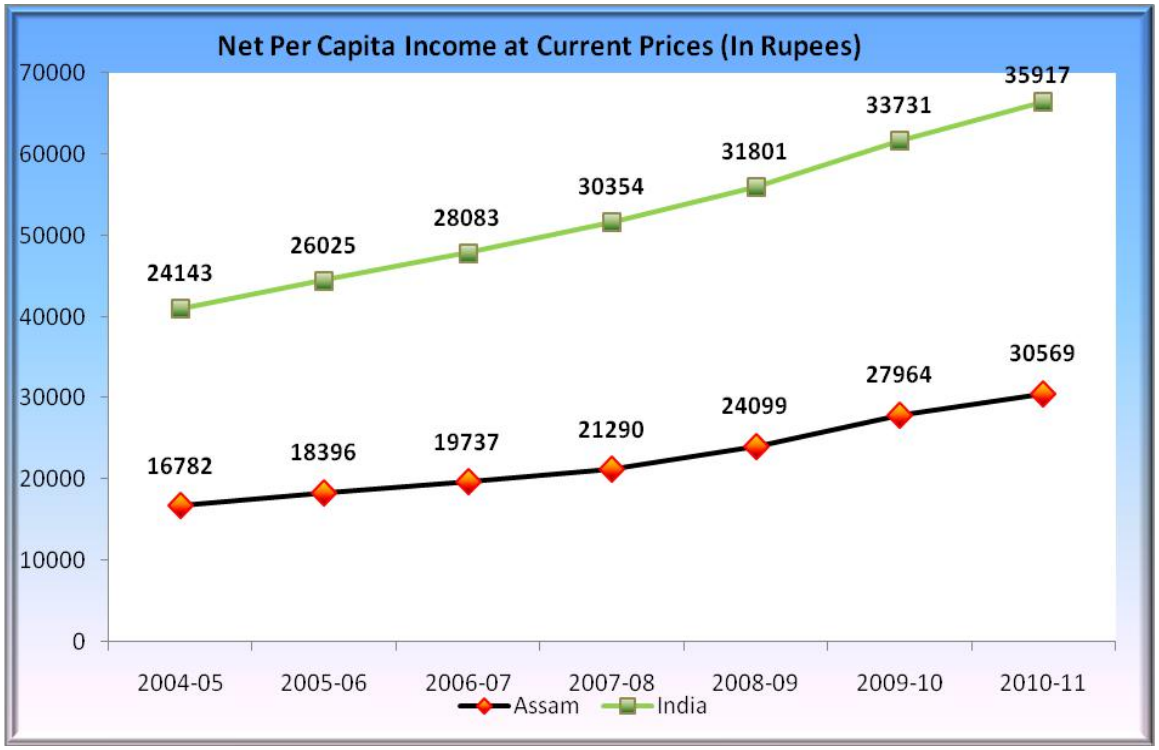
TABLE -3.6

NET PER CAPITA INCOME AT CURRENT PRICES

Year	Assam		India	
	Per Capita Income (in Rupees	Growth Rate (%)	Per Capita Income (in Rupees	Growth Rate (%)
2004-05	16782		24143	
2005-06	18396	9.62	26025	7.8
2006-07	19737	7.29	28083	7.9
2007-08	21290	7.87	30354	8.1
2008-09	24099	13.19	31801	4.8
2009-10	27964	13.96	33731	6.1
2010-11	30569	11.30	35917	6.5
2011-12	33633	10.02	NA	NA

Source: Directorate of Economics and Statistics, Assam.

The Per Capita Income of Assam at current prices for 2010-11 has been worked out at ₹30569 against ₹35917 at all India level as per Advance Estimates. From the above table it is observed that there exists a large gap in respect of Per Capita Income of Assam and India.



Advance Estimates of National Income, 2011-12

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, 2011-12. 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 Deflator (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 ₹4877842 crore, as against the Quick Estimates of GDP ₹4493743 crore for the 2009-10. Quarterly GDP at factor cost at constant (2004-05) prices for Q2 of 2011-12 is estimated at ₹1227254 crore as against ₹1148472 crore in Q2 of 2010-11, showing a growth rate of 6.9 percent over the corresponding quarter of previous year. The growth rate of 8.4 percent in GDP during the first quarter of 2011-12 has been due to the growth rates of over 7.8, 6.7, 10.2, 10.0 percent 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 percent in its GDP (Q2) during 2011-12, as against the previous year's growth rate of 2.4 percent over the same quarter of the previous year. According to the information furnished by the Department of Agriculture and Cooperation (DAC), which has been used in compiling the estimate GDP from agriculture(Q_2) in 2011-12, production of food grains and oilseeds is expected to grow by 8.0 percent and 0.2 percent respectively, as compared to the previous agriculture year ($Q_{2)}$. The production of coarse cereals and pulses is expected to decline by (-) 6.2 percent and (-) 9.7 percent respectively in 2011-12. Among the horticultural crops, production of fruits and vegetables, other crops, livestock products, forestry and fisheries show a growth in the range between 3-4 percent.

Industry

The growth in GDP (Q2) for mining and quarrying and manufacturing sectors during 2011-12 is expected to be 8.0 and 7.8 percent respectively over the previous year. According to the latest estimates available on the index of Industrial Production (IIP), manufacturing and electricity, registered growth rates of (-) 2.7 percent and 3.1 percent and 10.5 percent, respectively in Q2 of 2011-12. The estimated growth rate for construction sector is 6.4 percent in 2011-12. The key indicators of construction sector, namely, cement production and steel consumption have registered growth rates of 6.4 percent and 2.1 percent respectively in Q2 of 2011-12.

Services

The estimated growth in GDP (Q2) for trade, hotel transport and communication sectors during 2011-12 is placed at 10.2 percent. Among the Services, the key indicators of railways, namely, the net tonne kilometres and passenger kilometres have shown growth rates of 3.5 percent and 7.1 percent respectively in Q2 of 2011-12. In the transport and communication sector, the sales of commercial vehicles, cargo handled at major ports, passenger handled by the civil aviation and the total stock of connections (including WLL and cellular) registered growth rates of 21.3 percent, 0.9 percent, 17.2 percent and 36.4 percent respectively in Q2 of 2011-12 over Q2 of 2010-11. The other key indicators, namely, aggregates bank deposits and bank credits have shown growth rates of 21.1 percent and 23.1 percent respectively in Q2 of 2011-12 over Q2 of 2010-11. The Wholesale Price Index (WPI), in respect of the groups –food articles, manufactured products, electricity and all commodities has risen by 9.0 percent, 7.7 percent, (-)0.2 percent and 9.6 percent respectively during Q2 of 2011-12 over Q2 of 2010-11.T he Consumer Price Index for Industrial Worker (CPI-IW) has shown a rise of 9.2 percent during Q2 of 2011-12 over Q2 of 2010-11.

National Income

The Net National Income (NNI) at factor cost, also known as National income, at 2004-05 prices is likely to be ₹4259782 crore during 2010-11, as against the previous year's quick estimate of ₹3946540 crore. In terms of growth rates, the National income is expected to rise by 7.9 percent during 2010-11 in comparison to the growth rate of 7.5 in the year 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 ₹35917 as compared to the quick estimate for the year 2009-10 of ₹33731. The growth rate in percent per capita income is estimated at 6.5 percent during 2010-11, as against the previous year's estimate 6.1 percent.

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 ₹7306990 crore, showing a growth rate of 19.1 percent over the Quick Estimates of GDP for the year 2009-10 of ₹6033230 crore.

National Income

The NNI at factor cost at current prices is anticipated to be ₹6503394 crore during 2010-11, as compared to ₹5439557 crore during 2009-10, showing a rise of 19.6 percent.

Per Capita Income

The per capita income at current prices during 2010-11 is estimated to be ₹54835 as compared to ₹46492 during 2009-10, showing a rise of 17.9 percent.

APPENDIX – 3.1

GROSS STATE DOMESTIC PRODUCT AT FACTOR COST BY INDUSTRY OF ORIGIN AT CURRENT PRICES IN ASSAM

Sl. No	Sector	2005-06	2006-07	2007-08	2008-09	2009-0(P)	2010-11(Q)
1.	Agriculture	1427998	1434835	1557501	1946101	2333919	2421171
2.	Forestry and logging	142226	140971	147797	153873	166935	180290
3	Fishing	115528	146975	146761	159180	169854	238813
	Agriculture and Allied	**1685752**	**1722781**	**1852059**	**2259154**	**2670708**	**2840274**
4	Mining and Quarrying	494435	499749	522027	573542	620022	675790
	a)Primary Sector (Sub-Total)	**2180187**	**2222530**	**2374086**	**2832695**	**3290730**	**3516064**
5.	Manufacturing (Total)	565728	616757	609499	668636	748082	744087
	5.1 Registered	425730	449266	411747	462290	510937	481219
	5.2 Unregistered	139997	167492	197752	206345	237145	262869
6.	Construction	334175	379149	408050	450817	475597	848969
7.	Electricity, Gas and Water supply	104656	99146	123242	127556	137808	172643
	b) Secondary Sector (Sub-Total)	**1004559**	**1095052**	**1140791**	**1247009**	**1361487**	**1765699**
	c) Industry [4+(b)]	1498994	1594801	1662818	1820550	1981509	2441490
8.	Transport, Storage and Communication(Total)	362655	432914	514691	575991	661189	740325
	8.1 Railways	93723	126065	166511	183728	224559	208292
	8.2 Transport by other means	2630	3403	3767	3984	4488	358007
	8.3 Storage	173405	198617	225078	246881	269470	4942
	8.4 Communication	92897	104828	119335	141398	162672	169085
9.	Trade, Hotel and Restaurant	901881	1031747	1132387	1210828	1264194	1458149
10.	Banking and Insurance	168184	199596	225772	281755	324132	288519
11.	Real Estate, Ownership of Real Estate, Dwelling and Business services	161876	180473	195625	221705	257491	264970
12.	Public administration	348435	380963	448692	495252	726184	826747
13.	Other services	810682	925946	1075575	1256865	1361838	1541032
	d) Tertiary Sector (Sub –Total)	**2753713**	**3151638**	**3592743**	**4042397**	**4595028**	**5119744**
14.	State Domestic Product (Rupees In lakh)	5938459	6469220	7107620	8122101	9247245	10401507
15.	State Per Capita Income in Rupees	20832	22388	24273	27384	30786	34201

APPENDIX – 3.2

GROSS STATE DOMESTIC PRODUCT AT FACTOR COST BY INDUSTRY OF ORIGIN AT CONSTANT (2004-05) PRICES IN ASSAM

Sl. No	Sector	2005-06	2006-07	2007-08	2008-09	2009-10(P)	2010-11(Q)
1.	Agriculture	1181144	1200941	1237322	1316782	1371361	1426236
2.	Forestry and logging	134868	143152	149075	155758	163520	170853
3	Fishing	84579	83276	81205	87918	91259	97925
	Agriculture and Allied	**1400591**	**1427369**	**1467602**	**1560458**	**1626140**	**1695013**
4	Mining and Quarrying	476607	483032	502212	512309	521111	435276
	a)Primary Sector (Sub-Total)	**1877198**	**1910400**	**1969814**	**2072767**	**2147252**	**2130290**
5.	Manufacturing (Total)	524114	514547	480985	509556	522856	497276
	5.1 Registered	391168	364362	308857	333699	337437	298629
	5.2 Unregistered	132946	150186	172128	175857	185420	198647
6.	Construction	316673	330107	339953	348503	358879	581476
7.	Electricity, Gas and Water supply	101177	90097	104274	103770	107649	128268
	b) Secondary Sector (Sub-Total)	**941964**	**934751**	**925212**	**961829**	**989384**	**1207021**
	c) Industry [4+(b)]	**1418570**	**1417783**	**1427423**	**1474138**	**1510495**	**1642297**
8.	Transport, Storage and Communication(Total)	367906	427651	489983	536397	616391	662490
	8.1 Railways	95310	117140	145777	158248	184936	209587
	8.2 Transport by other means	2475	2720	2733	2774	2831	215753
	8.3 Storage	169795	180183	186730	194218	205581	2938
	8.4 Communication	100326	127608	154742	181157	223043	234211
9.	Trade, Hotel and Restaurant	871911	937566	958059	985031	1026227	1145883
10.	Banking and Insurance	181159	220648	252141	300409	351319	352955
11.	Real Estate, Ownership of Real Estate, Dwelling and Business services	152044	156546	169383	182363	201178	188153
12.	Public administration	343773	349582	382963	409655	598587	595913
13.	Other services	785401	841108	909197	1021238	1062027	1138790
	d) Tertiary Sector (Sub –Total)	**2702195**	**2933101**	**3161725**	**3435093**	**3855729**	**4084184**
14.	State Domestic Product (Rupees In lakh)	5521356	5778253	6056750	6469688	6992365	7421494
15.	State Per Capita Income in Rupees	19369	19997	20684	21813	23279	24402

APPENDIX – 3.3

NET STATE DOMESTIC PRODUCT AT FACTOR COST BY INDUSTRY OF ORIGIN AT CURRENT PRICES IN ASSAM

Sl. No	Sector	2005-06	2006-07	2007-08	2008-09	2009-10(P)	2010-11(Q)
1.	Agriculture	1321638	1316962	1437907	1812744	2190636	2297570
2.	Forestry and logging	140464	139229	145899	151945	164943	178219
3	Fishing	101172	128583	128814	137149	145103	210993
	Agriculture and Allied	**1563274**	**1584774**	**1712620**	**2101837**	**2500682**	**2686782**
4	Mining and Quarrying	406133	408723	426036	470885	511605	544150
	a)Primary Sector (Sub-Total)	**1969407**	**1993497**	**2138656**	**2572722**	**3012287**	**3230932**
5.	Manufacturing (Total)	428634	471757	448216	499711	568896	550772
	5.1 Registered	307914	326147	274195	319572	360259	318998
	5.2 Unregistered	120719	145611	174021	180138	208637	231774
6.	Construction	320960	363276	390094	431566	454678	809661
7.	Electricity, Gas and Water supply	45167	38589	36739	37777	38172	107203
	b) Secondary Sector (Sub-Total)	**794761**	**873622**	**875049**	**969053**	**1061746**	**1467636**
	c) Industry [4+(b)]	1200894	1282345	1301085	1439938	1573351	2011786
8.	Transport, Storage and Communication(Total)	290373	349791	422181	474511	550426	607396
	8.1 Railways	56279	83035	118167	131271	167481	143536
	8.2 Transport by other means	2458	3168	3471	3640	4090	321135
	8.3 Storage	154259	176750	200279	219892	240015	4446
	8.4 Communication	77377	86837	100264	119709	138840	138279
9.	Trade, Hotel and Restaurant	873459	999053	1094187	1167341	1215456	1396453
10.	Banking and Insurance	164841	195919	221819	277547	319655	284113
11.	Real Estate, Ownership of Real Estate, Dwelling and Business services	112249	123579	128462	147530	175301	167572
12.	Public administration	279429	304750	355084	397071	569799	718711
13.	Other services	759450	863136	998724	1170522	1264430	1424182
	d) Tertiary Sector (Sub –Total)	**2479801**	**2836227**	**3220458**	**3634522**	**495067**	**4598428**
14.	State Domestic Product (Rupees In lakh)	5243969	5703346	6234163	7176298	8169100	9296997
15.	State Per Capita Income in Rupees	18396	19737	21290	24195	27197	30569

APPENDIX – 3.4

NET STATE DOMESTIC PRODUCT AT FACTOR COST BY INDUSTRY OF ORIGIN AT CONSTANT (2004-05) PRICES IN ASSAM

Sl. No	Sector	2005-06	2006-07	2007-08	2008-09	2009-10(P)	2010-11(Q)
1.	Agriculture	1079329	1095104	1136129	1208102	1259180	1332049
2.	Forestry and logging	133178	141587	147473	154214	162012	169118
3	Fishing	70634	65438	63561	66467	67193	76498
	Agriculture and Allied	**1283141**	**1302129**	**1347163**	**1428783**	**1488385**	**1577664**
4	Mining and Quarrying	392992	400532	418736	426430	433610	319953
	a)Primary Sector (Sub-Total)	**1676133**	**1702660**	**1765899**	**1855213**	**1921995**	**1897617**
5.	Manufacturing (Total)	393414	380354	336438	362770	371272	325631
	5.1 Registered	278523	249832	184817	208788	208961	152835
	5.2 Unregistered	114891	130523	151621	153983	162311	172795
6.	Construction	304000	315305	323734	331525	340807	545624
7.	Electricity, Gas and Water supply	44700	35621	30815	30075	28317	65039
	b) Secondary Sector (Sub-Total)	**742114**	**731280**	**690987**	**724370**	**740396**	**936294**
	c) Industry [4+(b)]	1135105	1131812	1109722	1150801	1174006	1256246
8.	Transport, Storage and Communication(Total)	299497	351070	409005	432492	496594	553262
	8.1 Railways	60137	77550	104206	97056	110935	158839
	8.2 Transport by other means	2311	2509	2481	2486	2504	183539
	8.3 Storage	151371	159581	164076	170007	179602	2610
	8.4 Communication	85678	111430	138241	162944	203553	208274
9.	Trade, Hotel and Restaurant	844806	907696	924983	948080	985712	1098905
10.	Banking and Insurance	177975	217255	248612	296767	347548	349127
11.	Real Estate, Ownership of Real Estate, Dwelling and Business services	105142	105816	113782	122832	137445	116952
12.	Public administration	277943	280368	301905	327523	511919	510490
13.	Other services	736552	783507	841627	946780	949573	1047513
	d) Tertiary Sector (Sub –Total)	**2441916**	**2645712**	**2839913**	**3074474**	**3428791**	**3676250**
14.	State Domestic Product (Rupees In lakh)	4860162	5079653	5296798	5654057	6091182	6510160
15.	State Per Capita Income in Rupees	17050	17579	18089	19063	20279	21406

APPENDIX – 3.5

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	8107367	6403254	27334	21589
2009-10(P)	9273667	6914313	30874	23019
2010-11(Q)	10401507	7421494	34201	24402

APPENDIX – 3.6

MOVEMENT OF NET STATE DOMESTIC PRODUCT (NSDP) OF ASSAM AT CURRENT AND CONSTANT (2004-2005) PRICES

(New Series)

YEAR	Net State Domestic Product (Rs.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	7147811	5612294	24099	18922
2009-10(P)	8249504	6065296	27464	20193
2010-11(Q)	9296997	6510160	30569	21406

Source: Directorate of Economics and Statistics, Assam(Appendix 2.1-2.6)

APPENDIX – 3.7
ESTIMATES OF GROSS DISTRICT DOMESTIC PRODUCT OF ASSAM AT FACTOR COST BY INDUSTRY OF ORIGIN AT CURRENT PRICES, 2009-10

(Rupees in Lakh)

District	Agriculture	Forestry & Logging	Fishing	Mining & Quarrying	Primary Sector (Sub-Total)	Manufacturing (Total)	Registered	Unregistered
Chirang	50360	3010	1604	22	53256	3956	2658	1389
Baksa	76675	4243	3103	80	82857	21310	13524	7727
Kokrajhar	62996	5845	2725	59	69668	32090	17955	14464
Udalguri	51716	4171	3431	286	59059	16813	11900	4810
Dhubri	75208	3711	10563	255	88064	19534	15912	3269
Goalpara	52914	5119	4553	1701	63490	11747	7670	4076
Bongaigaon	60276	5710	3017	298	68230	12874	5277	7943
Barpeta	85252	8287	12364	654	105250	21975	14061	7943
Nalbari	58339	4651	5245	3549	70879	10401	6806	3592
Kamrup	86876	8913	11610	5156	111550	58211	38616	19522
Kamrup (M)	25973	6755	1122	3677	37874	68928	48799	19701
Darrang	58126	5929	5815	1567	70602	16813	10979	5833
Sonitpur	140545	10213	7818	1657	157500	28448	20129	8144
Lakhimpur	100548	5444	10218	3050	117180	12032	4728	7650
Dhemaji	58096	3486	4432	3127	68041	10651	5404	5418
Dibrugarh	119125	7205	7630	184927	327841	37606	24530	13075
Tinsukia	96951	7423	7886	135479	254327	45382	26452	19278
Jorhat	87701	6155	8644	10925	112316	30185	18107	12254
Sivasagar	99955	6432	6933	237653	363738	26105	15456	10822
Golaghat	91015	5774	5795	61	100637	29643	17780	12035
Nagaon	151917	4919	16130	1654	170852	34355	25564	8441
Morigaon	56235	4771	7170	36	67211	10318	5805	4616
Cachar	88664	8866	15929	1532	113784	44514	29067	15441
Hailakandi	33654	3349	6453	89	43062	19209	14136	4895
Karimganj	72854	6165	9812	682	88262	30982	21823	8979
Dima Hasao	19680	7479	621	16987	46242	5364	3503	1860
Karbi-Anglong	105096	12910	4106	15633	137435	22919	18299	4248
ASSAM	2066747	166935	184729	630796	3049207	682365	444940	237425

APPENDIX – 3.7 (Contd..)
ESTIMATES OF GROSS DISTRICT DOMESTIC PRODUCT OF ASSAM
AT FACTOR COST BY INDUSTRY OF ORIGIN
AT CURRENT PRICES, 2009-10

(Rupees in Lakh)

District	Construction	Electricity,Gas & Water Supply	Secondary Sector (Sub-Total)	Transport, Storage & Communication	Railway	Storage	Transport by Other Means	Communication
Chirang	6448	3146	13308	7097	927	47	2999	3371
Baksa	15677	4349	43246	8929	714	142	3298	5177
Kokrajhar	32810	3765	68940	20992	4910	146	9369	6790
Udalguri	18818	3732	39314	19078	4572	76	8270	6346
Dhubri	19644	4039	43672	10805	3573	117	2854	4121
Goalpara	11698	2747	26531	14034	6755	80	3733	2802
Bongaigaon	17083	3592	32937	27015	14295	104	7375	3669
Barpeta	39256	4484	61981	16896	5311	130	6733	4579
Nalbari	24220	3068	34640	8648	3608	88	1534	3130
Kamrup	52363	10458	123727	59725	10493	302	39734	10676
Kamrup (M)	77686	15640	161957	98659	23619	451	59597	15967
Darrang	11768	4150	34473	14602	3009	120	7481	4238
Sonitpur	27482	7442	64496	30075	6191	215	16590	7597
Lakhimpur	18607	4095	33597	21755	8279	118	8664	4181
Dhemaji	8805	2171	22342	7940	2970	62	2510	2220
Dibrugarh	32589	11177	83941	39215	10874	323	16615	11410
Tinsukia	35310	11567	96124	35427	9353	332	14044	11808
Jorhat	29550	8532	69439	35871	2661	246	25988	8709
Sivasagar	35894	12239	73271	49301	5959	353	32332	12494
Golaghat	15691	5489	54927	19527	8641	157	4371	5602
Nagaon	58775	9113	97296	36422	10485	262	16296	9302
Morigaon	12000	2988	25245	10326	4133	87	2759	3050
Cachar	57206	7168	106611	20445	3876	206	9466	7316
Hailakandi	16536	2206	38877	17156	11234	64	2100	2252
Karimganj	30642	4029	66222	22883	13720	117	3216	4113
Dima Hasao	21213	1221	24029	7387	4162	37	1457	1249
Karbi-Anglong	28918	1323	51841	11832	3489	112	4247	3935
ASSAM	756689	153930	1592984	672042	187813	4494	313632	166104

APPENDIX – 3.7 (Contd..)
ESTIMATES OF GROSS DISTRICT DOMESTIC PRODUCT OF ASSAM
AT FACTOR COST BY INDUSTRY OF ORIGIN
AT CURRENT PRICES, 2009-10

(Rupees in Lakh)

District	Trade, Hotel & Restaurant	Banking & Insurance	Ownership of Real Estate, Ownership of dwelling & Business	Public Administration	Other Service	Tertiary Sector (Sub-Total)	Total :: State Domestic Product	Per Capita DDP (in Rs.)	Population (In'000 Nos)
Chirang	11817	1894	2303	10381	4618	37098	104084	22480	463
Baksa	21156	8132	4689	12720	24681	80464	206020	21528	957
Kokrajhar	41109	16192	12203	22003	45402	158674	295787	31135	950
Udalguri	18872	8779	7298	19828	43909	116955	215104	25366	848
Dhubri	49689	6605	4995	17729	49893	140969	272946	15805	1727
Goalpara	42710	4490	9658	13049	46431	131847	222734	24027	927
Bongaigaon	48413	5875	13039	16152	48912	160703	262739	37534	700
Barpeta	61782	7336	6575	15905	40420	150931	317596	20012	1587
Nalbari	28984	5017	8031	21829	48191	119975	225800	28582	790
Kamrup	94107	17101	17089	73864	71154	327565	560465	37998	1475
Kamrup (M)	134351	25579	40367	106217	94738	491968	687736	57551	1195
Darrang	20277	6789	5137	20821	69955	137152	242747	27183	893
Sonitpur	63496	12171	6540	30321	65170	208159	430946	22910	1881
Lakhimpur	25020	6699	4430	11537	31956	101859	253525	25302	1002
Dhemaji	11192	3555	952	6839	18981	49536	140133	21760	644
Dibrugarh	25117	18278	15103	48165	94825	237092	651442	48761	1336
Tinsukia	87630	18917	14291	19313	79309	259602	610928	47140	1296
Jorhat	100779	13952	17371	40254	81703	291194	473705	42070	1126
Sivasagar	72574	20018	13827	29665	47615	234156	674967	56959	1185
Golaghat	80955	8978	6981	20410	42261	181518	337275	31639	1066
Nagaon	86243	14903	9465	28359	58803	236226	503564	19308	2608
Morigaon	26102	4886	6207	26218	48813	120828	214158	24475	875
Cachar	122937	11721	13076	27889	44153	243920	462081	28383	1628
Hailakandi	14241	3607	1670	16201	37966	89753	170911	27927	612
Karimganj	58098	6588	3657	26677	56262	174231	327882	28863	1136
Dima Hasao	3547	2001	914	4983	22138	40914	110839	52037	213
Karbi-Anglong	33766	6304	2523	19384	34739	108187	297553	32449	917
ASSAM	1384964	266367	248391	706713	1352998	4631476	9273667	30874	30037

APPENDIX – 3.8
ESTIMATES OF GROSS DISTRICT DOMESTIC PRODUCT OF ASSAM AT FACTOR COST BY INDUSTRY OF ORIGIN, 2009-10 AT CONSTANT (BASE-2004-05) PRICES

(Rupees in Lakh)

District	Agriculture	Forestry & Logging	Fishing	Mining & Quarrying	Primary Sector (Sub-Total)	Manufacturing (Total)	Registered	Unregistered
Chirang	32490	2976	1044	14	34683	3159	1859	1310
Baksa	49020	4129	1559	54	52017	14607	8817	5809
Kokrajhar	40679	5789	1729	39	45720	23424	12001	11738
Udalguri	32927	3728	1673	193	36531	11131	7698	3316
Dhubri	48468	3633	5834	174	54655	13304	10448	2549
Goalpara	34103	5008	2515	1143	40685	8214	5037	3177
Bongaigaon	38844	5597	1667	201	43932	9354	3465	6192
Barpeta	54945	8113	6832	438	66156	15397	9232	6192
Nalbari	37598	4554	2900	2389	45419	7271	4468	2801
Kamrup	55991	8730	6415	3473	71062	40632	25355	15216
Kamrup (M)	16740	6615	618	2477	25666	47769	32044	15356
Darrang	37461	5807	3211	1056	45099	11758	7209	4548
Sonitpur	90579	10099	4320	1121	100829	19718	13217	6349
Lakhimpur	64801	5332	5645	2053	73962	8765	3103	5965
Dhemaji	37440	3412	2450	2108	43495	7623	3549	4224
Dibrugarh	76771	7060	4217	124610	234096	26297	16108	10191
Tinsukia	62481	7268	4356	91291	180449	32093	17368	15032
Jorhat	56520	6023	4776	7360	72408	21285	11888	9552
Sivasagar	64418	6307	3828	160138	264252	18432	10148	8436
Golaghat	58656	5655	3204	41	63972	20905	11675	9382
Nagaon	97907	4813	8912	1114	106629	23669	16786	6579
Morigaon	36241	4672	3962	28	42242	7318	3811	3598
Cachar	57140	8684	8802	1035	71112	31122	19086	12034
Hailakandi	21690	3285	3566	58	26761	13252	9282	3815
Karimganj	46951	6036	5420	460	55457	21481	14329	6996
Dima Hasao	12684	7328	343	11449	33086	3753	2300	1452
Karbi-Anglong	62586	12867	2265	10559	86415	17290	13280	3651
ASSAM	1326131	163520	102063	425076	2016790	479023	293563	185460

APPENDIX – 3.8 (Contd..)
ESTIMATES OF GROSS DISTRICT DOMESTIC PRODUCT OF ASSAM
AT FACTOR COST BY INDUSTRY OF ORIGIN, 2009-10
AT CONSTANT (BASE-2004-05) PRICES

(Rupees in Lakh)

District	Construction	Electricity,Gas & Water Supply	Secondary Sector (Sub-Total)	Transport, Storage & Communication	Railway	Storage	Transport by Other Means	Communication
Chirang	4946	2693	10625	7945	1163	33	2231	4803
Baksa	10933	3159	29943	8212	395	90	1945	6254
Kokrajhar	24016	3276	51109	20851	5072	93	6566	9419
Udalguri	13045	2575	26640	16429	3934	49	5136	7570
Dhubri	13970	3139	30653	10339	3397	74	1893	5331
Goalpara	8320	2135	18901	12485	6418	50	2477	3626
Bongaigaon	12152	2791	23978	23385	13581	66	4891	4745
Barpeta	27923	3486	44401	15384	5047	81	4467	5924
Nalbari	17227	2384	24880	8243	3429	56	1017	4049
Kamrup	37247	8129	87866	51699	9969	192	26356	13807
Kamrup (M)	55260	12157	114952	85032	22442	284	39534	20647
Darrang	8368	3227	24501	13330	2859	76	4963	5481
Sonitpur	19546	5787	45751	26991	5883	136	11005	9823
Lakhimpur	13239	3183	24508	19176	7866	76	5747	5407
Dhemaji	6267	1688	16102	7280	2820	40	1666	2869
Dibrugarh	23178	8687	59823	35953	10333	205	11023	14753
Tinsukia	25117	8990	68831	33074	8887	210	9317	15270
Jorhat	21017	6631	49735	31810	2528	155	17239	11263
Sivasagar	25533	9515	52777	44055	5662	224	21447	16159
Golaghat	11161	4268	39117	18033	8208	100	2899	7248
Nagaon	41808	7083	69241	32881	9962	166	10811	12030
Morigaon	8534	2322	18156	9548	3925	55	1831	3944
Cachar	40692	5572	75998	19215	3681	130	6280	9462
Hailakandi	11762	1714	27354	14928	10674	41	1394	2911
Karimganj	21798	3131	46830	20305	13035	74	2135	5320
Dima Hasao	15091	950	17330	6507	3952	21	962	1612
Karbi-Anglong	25062	1454	42359	11061	3315	70	2819	5089
ASSAM	543212	120126	1142361	604151	178437	2847	208051	214816

APPENDIX – 3.8 (Contd..)
ESTIMATES OF GROSS DISTRICT DOMESTIC PRODUCT OF ASSAM AT FACTOR COST BY INDUSTRY OF ORIGIN, 2009-10 AT CONSTANT (BASE-2004-05) PRICES

(Rupees in Lakh)

District	Trade, Hotel & Restaurant	Banking & Insurance	Ownership of Real Estate, Ownership of dwelling & Business	Public Administration	Other Service	Tertiary Sector (Sub-Total)	Total :: State Domestic Product	Per Capita DDP (in Rs.)	Population (In'000 Nos)
Chirang	9566	2469	1858	7982	3827	33001	80215	17325	463
Baksa	16412	8839	3272	9120	19003	64845	148010	15466	957
Kokrajhar	32757	18741	9202	16711	35696	134182	227206	23916	950
Udalguri	14498	9422	5112	14252	33882	93081	154830	18258	848
Dhubri	39147	7449	3667	13124	38869	113487	198362	11486	1727
Goalpara	33648	5065	7088	9658	36174	105443	164189	17712	927
Bongaigaon	38142	6627	9570	11956	38105	128902	195052	27865	700
Barpeta	48673	8273	4826	11771	31489	121645	231739	14602	1587
Nalbari	22835	5657	5895	16157	37543	96407	166311	21052	790
Kamrup	74140	19286	12542	54672	55434	264509	414715	28116	1475
Kamrup (M)	105847	28851	29628	78619	73807	397717	517178	43278	1195
Darrang	15975	7655	3769	15409	54498	110520	179169	20064	893
Sonitpur	50025	13724	4799	22442	50771	168670	316847	16845	1881
Lakhimpur	19712	7554	3250	8538	24896	83073	184975	18461	1002
Dhemaji	8817	4010	699	5062	14789	40528	102341	15891	644
Dibrugarh	19788	20614	11085	35650	73876	194731	503498	37687	1336
Tinsukia	69038	21334	10490	14297	61786	212425	469019	36190	1296
Jorhat	79399	15734	12749	29795	63651	234311	351933	31255	1126
Sivasagar	57177	22576	10149	21958	37094	192864	528814	44626	1185
Golaghat	63779	10126	5124	15107	32925	146497	248306	23293	1066
Nagaon	67947	16809	6946	20991	45810	192134	367586	14095	2608
Morigaon	20566	5510	4554	19406	38028	96994	157116	17956	875
Cachar	96854	13221	9596	20643	34399	196472	338402	20786	1628
Hailakandi	11220	4068	1226	11990	29576	72213	124539	20350	612
Karimganj	45773	7431	2684	19746	43832	139737	239445	21078	1136
Dima Hasao	2795	2255	674	3691	17246	33045	84677	39754	213
Karbi-Anglong	26601	7109	1852	14348	27064	87728	219839	23974	917
ASSAM	1091131	300409	182306	523095	1054070	3755161	6914313	23019	30037

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CHAPTER – IV

STATE FINANCE

The State finances of Assam experienced severe financial crisis since the beginning of the current century and it continued unabated till 2004-05. Since, 2005-06 the fiscal position of the State made a remarkable recovery due to consistent and cohesive reformatory measures undertaken by the State Government. The State could achieve both revenue and fiscal surpluses during the period 2005-06 to 2008-09. These surpluses again turned into deficits due to implementation of revised pay scale and pension of State Government's employees recommended by the Sixth Pay Commission from 2009-10. But, gradually from 2009-10 the growth rate of net VAT collection increased and was 27 percent over previous year. Moreover the Gross VAT collection increased by 22 percent in 2010-11 over previous year which resulted the overall financial position to a comfortable situation.

Budget 2011-12

The analysis of the Assam Government Budget 2011-12 reveals that the receipt under the consolidated fund of the State is expected to be ₹36892.68 crore. Out of this, ₹32730.85 crore is on Revenue Account and the remaining ₹4161.83 crore is under Capital Account. After taking into account the estimated receipt of ₹97222.89 crore under Public Accounts and ₹50.00 crore under Contingency Fund, the aggregate receipts amount to ₹134165.57 crore. The total expenditure from the consolidated fund of the State in 2011-12 is estimated at ₹37173.02 crore, of which ₹31616.63 crore is on Revenue Account and ₹5556.39 crore is on Capital Account. Taking into account of the expenditure of ₹93980.00 crore under Public Account and ₹50.00 crore under Contingency Fund, the aggregate expenditure for the year is estimated at ₹131203.02 crore. Thus, during the year (2011-12) it is expected to have a surplus of ₹2962.55 crore which together with the opening deficit of ₹4505.26 crore for the year 2011-12 will lead to an estimated closing deficit of ₹1542.71 crore.

TABLE-4.1
BUDGET AT A GLANCE

(Rupees in crore)

Item	2010-11(R.E.)	2011-12(B.E.)
A. Receipts	127807.91	134165.57
I. Consolidated Fund	31409.98	36892.68
Revenue Account	27989.41	32730.85
Capital Account	3420.57	4161.83
II. Contingency Fund Accounts	50.00	50.00
III. Public Accounts	96347.93	97222.89
B. Expenditure	130908.77	131203.02
I. Consolidated Fund	37723.14	37173.02
Revenue Account	33246.21	31616.63
Capital Account	4476.93	5556.39
II. Contingency Fund Accounts	50.00	50.00
III. Public Accounts	93135.63	93980.00
C. Transactions during the year (A-B)		
Surplus (+)		2962.55
Deficit (-)	(-)3100.86	
D. Opening balance		
Surplus (+)		
Deficit (-)	(-)1404.40	(-)4505.26
E. Closing balance (C+D)		
Surplus (+)		
Deficit (-)	(-)4505.26	(-)1542.71

R.E. = Revised Estimate, B.E. = Budget Estimate.
Source: Assam Budget in Brief, 2011-12, Assam.

Critical Analysis of State Finances

The deepening fiscal crisis of the State during the period 2000-2005 is reflected by the growing size of revenue and fiscal deficits. The most disturbing feature is the high proportion of revenue deficits as percentage of fiscal deficit. It indicates a declining trend in capital expenditure and that borrowings are used largely to finance revenue expenditure rather than creation of capital assets. A remarkable feature is that these crippling deficits have occurred despite a significant improvement in State's own tax and non-tax revenue collection. Table-4.2 below summarises the position of the State during the period 2000-2005.

TABLE-4.2
FISCAL PARAMETERS

(Rupees in crore)

Parameters	2000-01	2001-02	2002-03	2003-04	2004-05
Overall Revenue Expenditure	779.48	881.38	319.16	684.89	291.88
Non-Plan Revenue Deficit	1269.06	1310.55	1099.30	1449.21	1386.30
Fiscal Deficit	1539.96	1448.14	927.70	1393.98	2057.46
Fiscal Deficit as percentage of GSDP	4.18	3.78	2.14	2.95	3.92

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

According to the State Finance Department, the State taxes showed a growth of around 92 percent and non-tax revenue increased more than hundred percent during the period 2000-2005. However, this favourable trend in revenue collection was more than counter balanced by the abnormal growth in revenue expenditure. The main factors responsible for the burgeoning revenue expenditure are the relentless increase in expenditure on salaries, wages and pension mainly on account of periodic revision of pay scales and twice a year increase in dearness allowance and dearness relief. Expenditure on salary and wages which was to the tune of ₹3300.00 crore in 2000-01 soared up to ₹5194.00 crore in 2004-05 even though it does not include grants-in-aid for salary given to Universities, Colleges and other autonomous bodies. Over the same period pensioner's liability soared from ₹673.00 crore to ₹1062.00 crore.

Apart from salary and pensioner's liability, growing debt servicing burden accounted for a significant increase in revenue expenditure. The accumulated debt stock of the State Government which was ₹10067.00 crore at the end of 2000-01 swelled to ₹16418.00 crore by the end of March, 2005. Consequently, interest payment which was of the order of ₹865.00 crore in 2000-01 increased to ₹1404.00 crore in 2004-05. Another important aspect of the exponential growth of revenue expenditure is the ever rising trend of expenditure on administrative overhead.

Finally, the long drawn insurgency problem accompanied by violent outbursts at times has necessitated very heavy expenditure on maintenance of law and order.

Finance Commission Awards

The collection of State taxes showed resilience during the period 2000-05. As per assessment of the Eleventh Finance Commission, collection of State taxes was ₹8260.00 crore but actual collection was ₹9685.00 crore which showed an improvement of ₹1425.00 crore. During this period devolution of Central taxes recommended by them was ₹12362.00 crore but actual devolution based on collection was only ₹9950.00 crore leading to a shortfall of ₹2412.00 crore. Likewise, non-plan revenue expenditure was assessed at ₹23670.00 crore while actual expenditure far exceeded to ₹31414.00 crore. The overall assessment of Eleventh Finance Commission over the five year period was a surplus of ₹2976.00 crore on non-plan revenue account. On the contrary, the actual position that emerged showed a non-plan deficit of ₹6514.00 crore. Thus, the overall deterioration over the assessment of the Commission amounted to a staggering figure of ₹9490.00 crore. The full financial burden of meeting this additional gap vested on the State Government and it is the root cause of the fiscal imbalance.

That the above variations between assessments and the actual was not an aberration is evident from similar variations between the award and actual position of subsequent Commissions. The pre-devolution non-plan revenue gap as assessed by the Twelfth Finance Commission for the period 2005-10 was ₹17984.00 crore. After devolution of Central taxes the State had a non-plan revenue surplus of ₹1867.00 crore. However, the actual position that emerged showed a non-plan revenue deficit of ₹126.00 crore during the period. The overall deterioration over the assessment of the Commission was ₹1993.00 crore. This was so, despite several fiscal reform programmes undertaken by the State Government during this period.

The available trend indicates that the position will be no better in respect of assessment made by the Thirteenth Finance Commission for the period 2010-15. Actual available for 2010-11 shows a non-plan revenue gap of ₹53.00 crore while the Commission assessed a post-devolution revenue surplus of ₹248.00 crore for that year. In Chapter-7.72 of the Commission's report it is stated that budget estimates of 2009-10 has been adopted as the base for projection of expenditure under the head Compensation and Assessment to Local Bodies and an annual growth of 8 percent is assumed over the base. On the contrary, in case of Assam the base adopted is the actual of 2007-08 which was only ₹8.94 crore and the assessment made for five years is a meagre sum of ₹66.00 crore vide Annexure-7.7 in Volume-II of the Report. In contrast, the budget estimates for 2009-10 was more than ₹900.00 crore. It has been ascertained that in case of other States the budget estimates of 2009-10 has been adopted as the base. It has thus deprived the State Govt. of considerable amount to the tune of ₹926.00 crore. Government of India did not agree to compensate the loss on the ground that the recommendations of the Central Finance Commission have been accepted in accordance with convention.

Fiscal Reforms

The Eleventh Finance Commission recommended the Medium Term Fiscal Reform Programmes (MTFRF) to contain fiscal imbalance. The major agenda of this programme was the cumulative reduction of revenue deficit as a percentage of revenue receipt by 16 percent in a period of five years (2000-05) for Special Category States and 12 percent for General Category States.

Another important milestone in fiscal reform is the enactment of the Assam Fiscal Responsibility and Budget Management Act (AFRBM) in 2005. This was followed by a programme of Medium Term Fiscal Plan (MTFP) under Assam Governance and Public Resource Management Programme (AGPRMP). The objectives of the programmes were to eliminate revenue deficit and to contain fiscal deficit to 3 percent of Gross State Domestic Product (GSDP) by 2008-09.

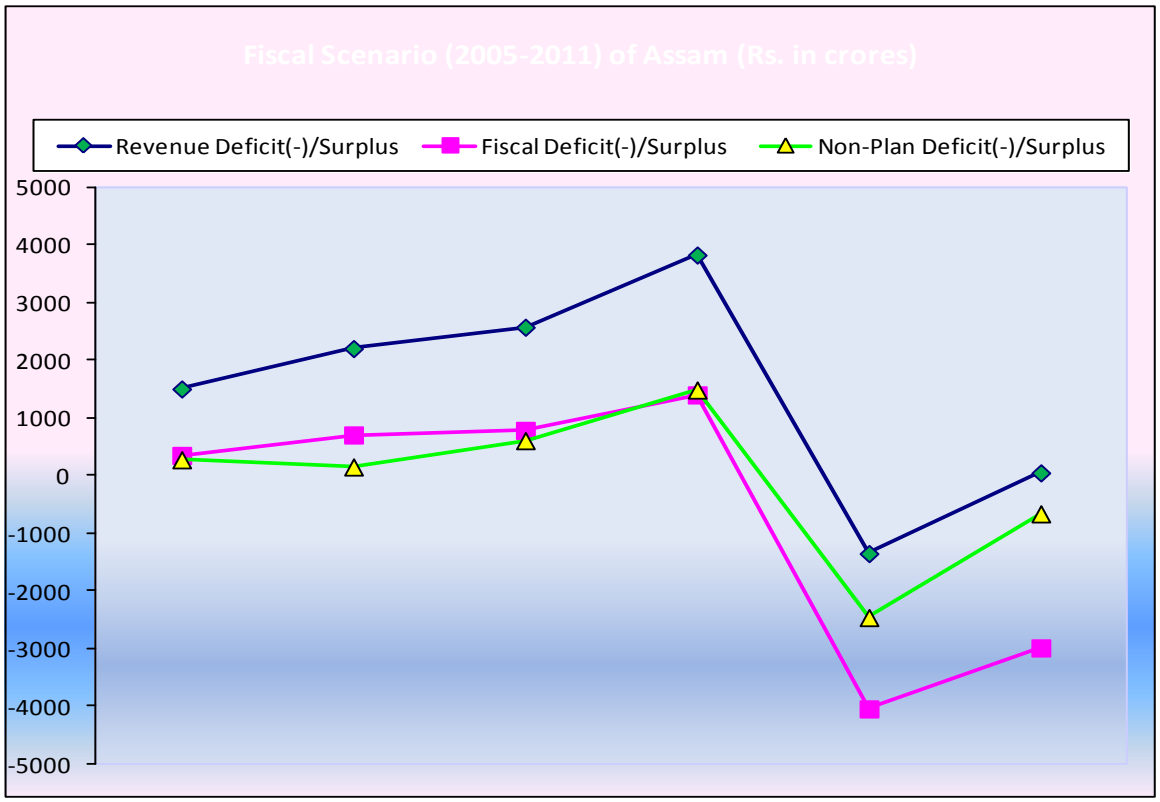
The fiscal reform measures started yielding favourable result from 2005-06, onwards. The revenue and fiscal deficits which took alarming proportion in the preceding years took a positive turn in 2005-06. The overall revenue and non-plan revenue account showed a surplus of ₹1509.00 crore and ₹281.00 crore in 2005-06 from a huge deficit of ₹292.00 crore and ₹1386.00 crore respectively in the previous year (2004-05). Likewise the fiscal deficit of ₹2057.00 crore in 2004-05 turned into a positive figure of ₹356.00 crore in 2005-06. 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 non-plan deficit mainly due to increase of salary expenditure on account of implementation of revised scale of pay and pension of State Government employees from 2009-10. The fiscal deficit stood at 4.37 percent of GSDP in 2009-10 as a percentage of GSDP. This crossed the 3.5 percent of GSDP limit of State's FRBM Act and also 4 percent of GSDP raised by Government of India as a part of stimulus packages to facilitate more borrowings for increasing capital expenditure for recovery from economic recession. As per actual available for 2010-11, the revenue deficit turned into surplus of ₹53.00 crore, non-plan revenue deficit declined to ₹657.00 crore and fiscal deficit came down to ₹2985.00 crore being 1.91 percent of GSDP. The table-4.3 below summarises the position.

TABLE-4.3

FISCAL PARAMETERS

Year	Revenue deficit (-)/surplus(+) (Rupees in crore)	Fiscal deficit (-) /surplus(+) (Rupees in crore)	Non-Plan deficit (-)/surplus(+) (Rupees in crore)	Fiscal deficit (-)/ surplus(+) as percentage of GSDP
2005-06	1509.08	355.71	281.17	0.60
2006-07	2210.42	711.39	156.25	1.10
2007-08	2580.76	790.39	613.18	1.11
2008-09	3833.71	1406.79	1492.26	1.73
2009-10	(-)1347.71	(-)4043.42	(-)2457.05	(-)4.37
2010-11	53.12	(-)2984.82	(-)657.26	(-)1.91

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



Revenue Receipts and Revenue Expenditure

Revenue Receipts comprises two major components - State's Own Resources and Transfer from the Centre. The trend of actual Revenue Receipts from 2004-05 to 2010-11 and the Budget estimate for 2011-12 is indicated in the following table.

TABLE-4.4

TOTAL REVENUE RECEIPTS

(Rupees in crore)

Year	Tax Revenue			Non-Tax Revenue	Grants from the Centre	Total Revenue Receipts
	State's OTR	Share in Central Taxes	Total			
2004-05	2712.93	2585.90	5298.83	1070.02	3568.42	9937.27
2005-06	3232.21	3056.78	6288.99	1459.28	4297.12	12045.39
2006-07	3483.32	3898.99	7382.31	1859.27	4425.37	13666.95
2007-08	3359.50	4918.21	8277.71	2134.59	4912.63	15324.93
2008-09	4150.21	5189.90	9340.11	2271.90	6465.03	18077.04
2009-10	4986.71	5339.53	10326.24	2752.94	6805.31	19884.49
2010-11	5929.84	7968.61	13898.45	2373.32	6733.16	23004.93
2011-12 (B.E.)	6565.92	9572.78	16138.70	3325.96	13266.20	32730.86
Expected Growth in 2011-12 over 2010-11 (in %)	10.73	20.13	16.28	30.54	14.73	16.94

OTR : Own Tax Revenue

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

Revenue expenditure is segregated into plan and non-plan expenditure. The actual expenditure trends of Government of Assam for the last five years from 2006-07 to 2010-11 and the Budget estimate for 2011-12 are presented in the table below.

TABLE-4.5

REVENUE EXPENDITURE

(Rupees in crore)

Item	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12 (B.E.)
A. Plan Expenditure	1662.50	2067.38	3110.65	4168.91	5055.96	10072.93
Salary & Wages	200.21	172.62	256.68	297.59	413.18	495.82
B. Non-Plan Expenditure	9794.03	10676.78	11132.68	17063.29	17895.86	21543.70
Interest Payment	1515.67	1512.24	1593.33	1832.58	1912.12	2098.88
Salary & Wages	4484.19	5068.58	5583.70	7804.80	10030.59	12036.71
Pension	1177.86	1340.68	1437.37	1769.28	2384.53	2356.31
Total Revenue Expenditure (A+B)	11456.53	12744.16	14243.33	21232.20	22951.82	31616.63

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

The expected revenue receipts and revenue expenditure during 2011-12 are ₹32730.86 crore and ₹31616.63 crore respectively, amounting to a revenue surplus of ₹1114.23 crore. The financial year 2010-11 ended with a revenue surplus of ₹53.12 crore compared to a revenue deficit of ₹1347.71 crore in 2009-10 as shown in the table-4.3. The compounded annual growth rate of State's own tax revenue during the period 2005-06 to 2010-11 is 9.08 percent and growth of share in central taxes is 15.65 percent. It is expected to have 16.94 percent growth in Revenue Receipts during 2011-12 over the actual of 2010-11.

The Taxation Department contributes more than 80 percent of the State's own tax revenue. During the year 2010-11, the Department collected ₹5185.59 crore which was 15 percent in excess to the target of ₹4498.00 crore. The growth of collection was 18 percent more during 2010-11 against the corresponding collection of ₹4404.91 crore during 2009-10. The target for collection of taxes set by the State Government for 2011-12 is ₹5684.62 crore.

The collections of taxes under different Taxation Acts are presented in the table given below.

TABLE-4.6
COLLECTION OF TAXES UNDER TAXATION ACTS

(Rupees in crore)

Name of the Acts	Collection during 2010-11	Collection during 2009-10	Growth in Percentage
The Assam Value Added Tax Act, 2003	3952.20	3229.44	22
The Central Sales Tax Act, 1956	366.41	305.82	20
The Assam Entry Tax Act, 2008	461.67	526.64	-12
The Assam Professions, Trades, Calling and Employments Taxation Act, 1947	160.58	150.06	7
The Assam Electricity Duty Act, 1964	41.58	27.07	54
The Assam Amusement and Betting Tax Act, 1939	4.51	3.50	29
The Assam Taxation on Luxuries (Hotels and Lodging Houses) Act, 1989	5.42	5.17	5
The Assam Taxation (on Specified Land) Act, 1990	92.02	78.87	17
The Assam Agricultural Income Tax Act, 1939	101.20	78.34	29
Total	5185.59	4404.91	18

Source: Commissioner of Taxes, Assam

During 2010-11, collection of taxes under the Assam Entry Tax Act, 2008 was ₹461.67 crore showing a fall of 12 percent over the previous year. On the other hand, taxes collected under Assam Electricity Duty Act, 1964 increased by 54 percent during 2010-11 over the previous year. The growth of VAT collection in 2010-11 was 22 percent more over 2009-10.

Capital Expenditure

Capital expenditure consists of capital outlay and lending. The trend of actual capital expenditure during the period from 2006-07 to 2010-11 and Budget Estimate (BE) for 2011-12 is indicated in the table below.

TABLE-4.7
CAPITAL EXPENDITURE

(Rupees in crore)

Item	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12 (B.E.)
Capital Outlay						
Plan	1403.11	1470.83	2286.15	2548.98	1929.97	5556.38
Non-Plan	49.86	217.28	86.86	80.37	70.92	357.48
A. Total Capital Outlay	**1452.97**	**1688.11**	**2373.01**	**2629.35**	**2000.89**	**5913.86**
Lending						
Plan	76.85	139.80	75.09	96.99	70.78	115.36
Non-Plan	3.78	3.09	13.65	2.24	0.10	6.20
B. Total Lending	**80.63**	**142.89**	**88.74**	**99.23**	**70.88**	**121.56**
C. Total Capital Expenditure (A+B)	1533.60	1831.00	2461.75	2728.58	2071.77	6035.42
D. Total Revenue Expenditure	11456.53	12744.16	14243.33	21232.20	22951.82	31616.63
Total Expenditure (C+D)	12990.13	14575.16	16705.08	23960.78	25023.59	37652.05
Ratio of Capital expenditure to Total expenditure (in percent)	11.81	12.56	14.74	11.39	8.28	16.03

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

It appears from the above table that capital expenditure of the State Government, which was 11.81 percent of total expenditure in 2006-07 rose to 14.74 percent in 2008-09 and came down to 8.28 percent in 2010-11. This sliding trend of capital expenditure during 2009-10 and 2010-11 may be attributable to abrupt rise of salary and pension expenditure on the revenue account owing to implementation of revised pay scale and pension of the employees of the State Government. It is expected that capital expenditure may increase to 16.03 percent of the total expenditure during 2011-12.

Borrowings and Repayment:

Sources of borrowings of the State Government are loans from the market, loans from financial institution/banks, NSSF loans and loans from the Centre against EAPs and State Provident Fund and GIS. State Government usually resorts to borrowings to meet the fiscal deficit. The prudent level of borrowings is the 3.0 percent fiscal deficit of GSDP. The table-4.7 shows the position of actual borrowings and repayment of loans of the State Government for the last five years from 2006-07 to 2010-11 and Budget Estimate for 2011-12.

TABLE-4.8

BORROWINGS AND REPAYMENT

(Rupees in crore)

Year	Borrowings	Repayment of Loans	Net Loans
2006-07	1115.75	494.72	621.03
2007-08	1138.30	575.14	563.16
2008-09	2877.51	780.80	2096.71
2009-10	2190.28	1007.56	1182.72
2010-11	2045.32	923.38	1121.94
2011-12 (B.E.)	4125.59	934.22	3191.37

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

Debt Position

The standard criteria for determining the debt sustainability of the states are the 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 level of debt-GSDP ratio and the ratio of interest payment to total revenue receipts respectively. The table below summarises the debt position of the State from 2005-06 to 2010-11.

TABLE-4.9

DEBT POSITION

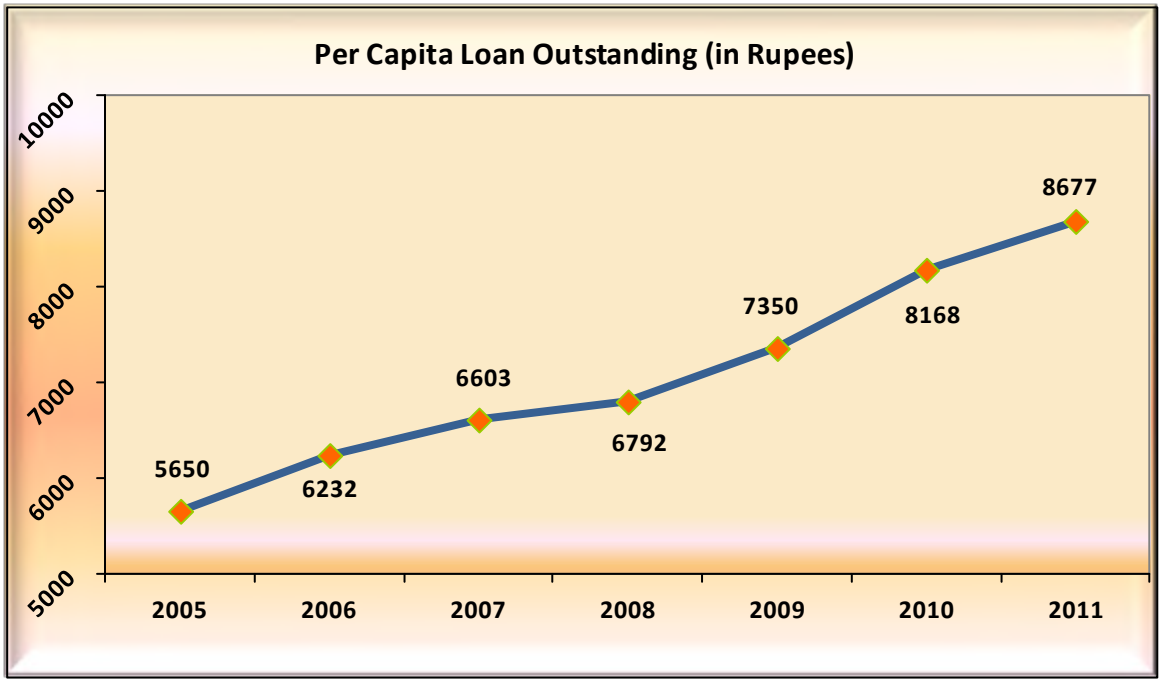
(Rupees in crore)

Year	Market Loan	Institutional Loan	NSSF Loan	Central Loan	State Provident Fund	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	11261.30	690.92	4721.82	2346.38	4812.52	23832.94	25.77
2010-11	11561.34	760.05	5582.28	2238.69	5352.93	25495.28	24.46

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

It appears from the above table that outstanding debt position of the State has come down within the manageable level of 28 percent of GSDP as prescribed by the Twelfth Finance Commission. In 2010-11 debt stock has further declined to 24.46 percent of GSDP as against the 28.2 percent of GSDP prescribed by the Assam FRBM (Amendment) Act, 2011 as per award of the Thirteenth Finance Commission.

The per capita loan outstanding of the State from 2005 to 2011 calculated taking mid-financial year population published by the RGI is reflected in the figure given below. (Source: Budget in Brief, 2011-12 published by the Directorate of Economics and Statistics, Assam).



Interest Payment to Revenue Receipts

The position of interest payment to total revenue receipts in terms of percentage is indicated below.

TABLE-4.10

INTEREST PAYMENT TO REVENUE RECEIPTS

(Rupees in crore)

Year	Total Revenue Receipts	Interest Payment	Interest Payment to Revenue Receipts Ratio (in percent)
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	19884.49	1832.58	9.22
2010-11	23004.94	1912.12	8.31

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

It appears from above Table that the ratio of interest payment to revenue receipts has been falling persistently and has come down to 8.31 percent in 2010-11 from 11.09 percent in 2006-07. The ratio of interest payment to revenue receipts remains well below the 15 percent benchmark prescribed by the Twelfth Finance Commission.

Government Guarantees

State Government has been providing Government guarantees to various State PSUs and Cooperative Institutions for investment in different sectors of the economy against loans given by Banks and Financial Institutions. Since most of the borrowing PSUs failed to discharge guarantee liabilities in time due to their weak financial conditions and became defaulters, Banks and Financial Institutions started invoking the Government guarantees. To honour the Government guarantees invoked by the Banks and Financial Institutions, State Government had initiated a process of one time settlement with the Banks and the Financial Institutions and liquidated major amount of Government guaranteed debt on behalf of the defaulted PSUs and misguided youths. In this way, State Government was able to reduce the outstanding contingent liability arising out of Government guarantees. The Table below shows the position.

TABLE-4.11

OUTSTANDING GOVERNMENT GUARANTEES AS ON 31ST MARCH

(Rupees in crore)

Year	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11
Principal	1220.56	863.49	897.63	735.42	246.53	186.26
Interest	52.37	40.92	53.68	60.45	61.22	60.79

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

Consolidated Sinking Fund and Guarantee Redemption Fund

Government of Assam joined the Consolidated Sinking Fund (CSF), a scheme set up by the Reserve Bank of India to facilitate redemption of matured State Development Bonds, by constituting a CSF in 1999-2000. Government of Assam revised the scheme of CSF for redemption of all outstanding loans of the State Government commencing from 2007-08. Under the revised scheme, State Government is to contribute to the CSF on a modest scale of at least 0.5 percent of the outstanding liabilities as at the end of the previous year beginning with the financial year 2007-08. The Corpus comprising the periodic contributions as well as the interest accruing to the Fund has been kept outside the General Revenues of the Government. The Fund is administered by the Reserve Bank of India subject to such directions / instructions as the Government may issue from time to time. The year-wise contribution of the Government towards CSF is indicated below: -

TABLE-4.12

CONSOLIDATED SINKING FUND AND GUARANTEE REDEMPTION FUND

(Rupees in crore)

Year	Amount
1999-2000	15.32
2000-01	20.00
2001-02	60.00
2002-03	72.00
2003-04	96.00
2004-05	44.00
2005-06	144.00
2006-07	176.00
2007-08	204.00
2008-09	108.00
2009-10	108.00
2010-11	120.00
Total	**1167.32**

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

The total contribution of the Government towards CSF as on 31.03.2011 is ₹1167.32 crore. State Government has not yet utilized the interest amount of CSF towards redemption of loans of the State Government.

To liquidate future contingent liabilities arising out of Government guarantees, State Government has constituted Guarantee Redemption Fund.

APPENDIX – 4.1

COLLECTION OF TAX UNDER DIFFERENT TAXATION ACTS IN ASSAM

(Rupees in lakh)

ACT	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11
AGST/AVAT	178138	201536	223856	269477	322944	395220
CST	49034	55049	44315	41581	30582	36641
AET	29669	21643	913	26884	52664	46167
APTC & E	9962	10880	12454	13761	15006	16058
AED*	1329	1589	462	2236	2707	4158
LUX (H & L)	231	270	293	241	350	451
LUX ' 97	249	270	311	575	517	542
LUX ' 97**	6	3	-	-	-	-
SP. LAND	6146	6392	6855	8000	7887	9202
AAIT	702	252	314	1818	7834	10120
TOTAL	**275466**	**297884**	**289773**	**364573**	**440491**	**518559**
Growth Rate (in Percent)	**18.09**	**8.14**	**(-) 2.72**	**25.81**	**21.00**	**17.7**

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.

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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 percent area of total land mass of the State is rural. The net cultivated area of the State is 28.11 lakh hectares (2009-10) which is about 88 percent of the total land available for agricultural cultivation in the State. The average operational holding is 1.15 hectare only and more than 83 percent of the farmer family is small and marginal farmers [2005-06, Agricultural Census]. It has been observed that the contribution of Agricultural Sector to the State economy [GSDP at constant (2004-05) prices] has been recording gradual fall during the period 2005-06 to 2009-10 but shown slight recovery in 2010-11(Quick estimate). On the other hand, the trend of growth of the agriculture sector [GSDP (at constant 2004-05 prices)] was erratic during the same period and finally pegged at 7.5 percent 2010-11 (Quick estimate). However, Agriculture sector continues to support more than 75 percent population of the State directly or indirectly providing employment of more than 53 percent of the total workforce.

TABLE-5.1

TREND OF GROWTH AGRICULTURAL SECTOR [GSDP at Constant (2004-05) Prices]

(Figure in percentage)

Year →	2005-06	2006-07	2007-08	2008-09	2009-10 (P)	2010-11 (Q)
Contribution to GSDP	21.39	20.78	20.43	19.56	19.18	19.22
Annual Growth over the previous year	1.9	1.7	3.0	1.2	5.9	7.5

Source: Directorate of Economics and Statistics, Assam.

Assam has been experiencing erratic rainfall due to unpredictable monsoon since a few years back. Insufficient irrigation support, damage caused by natural calamities coupled with inconsistent weather like flood also stands as impediment in attaining self sufficiency in food production by the State. Despite such situation, the State Agriculture Department has given more focus of attention to increase production of food grains to provide food security to the growing population by 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 technologies. The Department has formulated District / State specific plans depending on Agro-Climatic condition, growth potential and specific requirement of Districts through improved farm mechanization and assured irrigation, use of quality/certified HYV seeds, popularizing the integrated Nutrient and Pest Management with the special use of bio-fertilizer and bio-pesticides and organic farming etc.

Regarding the two hill districts of the State viz. Karbi Anglong and Dima Hasao, the developments in the Agriculture Sector are suffering from various weaknesses viz. low infrastructural facilities, low productivity due to extensive jhum cultivation, non-availability of market etc. Changing the pattern of cultivationin these two hilly terrains is a great challenge before the State Government. Introduction of new schemes for production of cash crops, horticultural crops and settled agriculture in terrace lands will remain a priority in the coming periods. Infrastructural development and access to markets are special areas of concern in development of hill agriculture. Exploitation of horticultural potentialities through introduction of suitable fruits and spices and their value addition will substantially contribute towards the economy of these two districts.

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 and 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 2010-11.

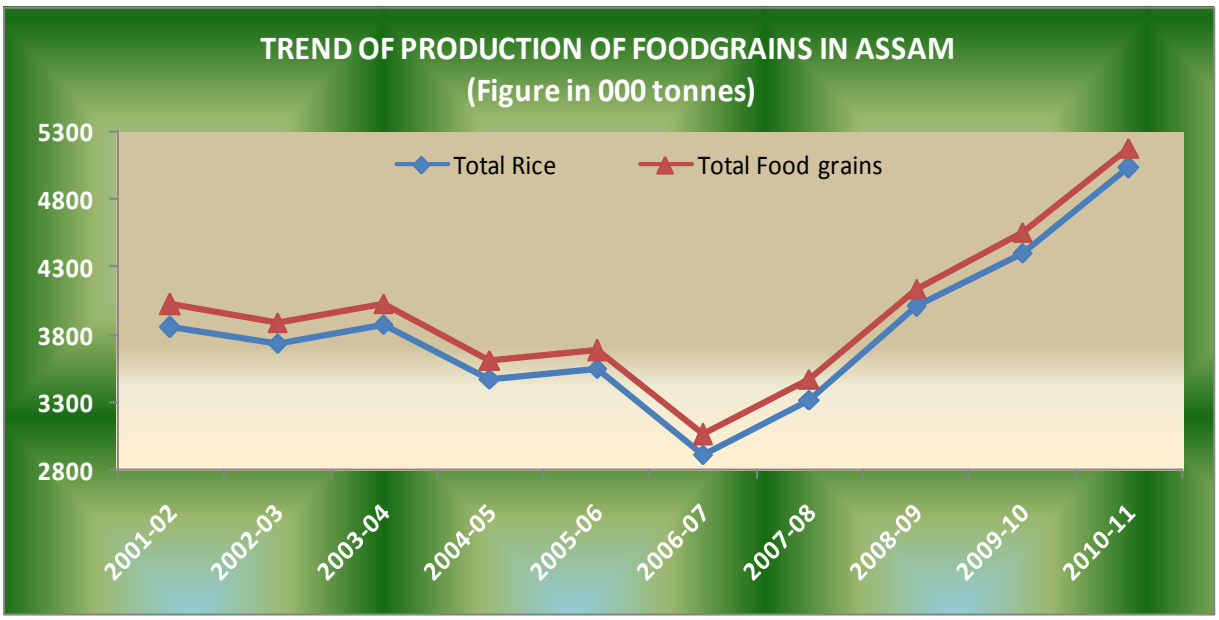
TABLE-5.2

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	2010-11
Total Rice	3854	3738	3880	3470	3552	2916	3319	4009	4409	5033
Wheat	85	78	73	68	54	67	71	55	65	56
Total Pulses	66	60	63	61	56	59	61	62	66	72
Total Food grains	4023	3894	4034	3617	3680	3060	3468	4142	4557	5178
Total oilseeds [excl.Coconut]	151	144	152	142	110	129	135	137	143	155

Source: Directorate of Economics and Statistics, Assam.



Agricultural Policy

The Government of Assam has adopted Agricultural Policy in the year 2004. Special emphasis on Assured irrigation and farm mechanisation, Diversification of Agriculture, Marketing facilities for agriculture produces, Agricultural credit, Crop insurance etc. has been given priority in the Policy with the basic aim to raise the agricultural growth upto 4.12 percent during the year 2011-12 as well as to attain the average growth to the tune of 2 percent annually at the end of 11th Five Year Plan.

Agriculture Scenario – 2010-11

Weather and Rainfall:

Rainfall during 2010-11

It is evident from the Table 5.3 that the State had experienced 2275.9 mm rainfall during 2010-11 out of which 2066.3 mm was occurred during the Kharif crop season. According to the State Agriculture Department, the climate change although resulted due to erratic rainfall and unpredictable monsoon behaviour, the pattern of overall rainfall in the State during 2010-11 was normal both in terms of total rainfall (+5% deviation from normal) and its spread during the Kharif season except in the month July, 2010 with 22 percent deficit.

TABLE-5.3

RAINFALL IN ASSAM DURING KHARIF AND RABI SEASON, 2010-11

Month	Actual (mm)	Normal (mm)	Departure from normal
Kharif Season			
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%**
Rabi Season			
October, 2010	82.9	143.4	-42%
November, 2010	9.2	25.2	-63%
December, 2010	7.1	12.7	-44%
January, 2011	10.1	16.7	-40%
February, 2011	10.3	32.0	-68%
March, 2011	90.0	78.1	15%
Total :	**209.6**	**308.1**	**-32%**

Source: Directorate of Agriculture, Assam.

Timely rainfall in Kharif Season resulted in timely cropping of Kharif Crops. Flood occurred in a few districts due to excessive rainfall and down stream water from the neighbouring hill states and countries. But, immediate steps taken by the Agriculture Department helped the farmers in saving the Kharif crops, mainly Sali Paddy, from damaging in most of the affected areas. The Department helped the farmers in transplantation of fresh seedlings in the affected areas.

During the Rabi season, 2010-11, the State received 209.6 mm of rainfall against normal rainfall of 308.1 mm, i.e. a deficit of (-) 32%. Overall rainfall during Rabi Season, 2010-11 was deficient. The water requirement in some crops like Summer/ Boro Rice is provided by Shallow Tube Well / Low Lift Pump irrigation. Hence, the deficient rainfall did not cause any problem for Rabi Crop cultivation.

Rainfall during Kharif Season of 2011

TABLE-5.4

Rainfall in Assam during Kharif Season, 2011

Month	Actual (mm)	Normal (mm)	Departure from normal
April, 2011	74.7	172.9	-57%
May, 2011	225.4	304.2	-26%
June, 2011	267.6	427.3	-37%
July, 2011	382.0	454.2	-16%
August, 2011	268.8	356.7	-25%
September, 2011	191.6	285.7	-33%
Total :	**1410.1**	**2001.0**	**-30%**

Source: Directorate of Agriculture, Assam.

Despite deficient rainfall which was (-) 30% during the Kharif Season, 2011, favourable conditions prevailed for the farmers in the State which has helped them for normal cultivation. However, flood in Dhemaji and Lakhimpur district affected some area under Winter Paddy but immediate steps were taken by Agriculture Department and farmers were able to save the crop from damage in most of the affected areas. The department helped the farmers in transplantation of fresh seedlings in the 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 91.5 percent of the net cropped area and 62.6 percent of the Gross Cropped area in the State during the year 2010-11. As per final estimates, the average area covered for normal paddy cultivation during the year was 25.71 lakh hectares or about 92.9 percent of the total area under food grains in the State leaving 7.8 percent area for cultivation of other food grains.

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 2010-11, the area under Autumn Rice cultivation recorded 36.9 percent decline over the period of ten 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 3.13 lakh hectares during 2010-11.

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 18.59 lakh hectares during 2010-11. The area coverage under the crop recorded 24.1 percent [or 3.61 lakh hectares] increase during 2010-11 compared to the area under the crop during 2006-07.

According to the final estimates, the area covered for cultivation of Summer Rice during 2010-11 was 3.99 lakh hectares which was 1.27 percent more than that of the previous year. This estimated area under Summer Paddy has been recorded highest over the period of last ten years [2001-02 to 2010-11]. Compared to the area covered during 2007-08 [3.23 lakh hectares], the area under Summer Rice during 2010-11 was about 23.5 percent more.

The area coverage under Pulses and Oilseeds in 2010-11, as per final estimates, has been expected to reach the level of 1.26 lakh hectares and 2.64 lakh hectares respectively against 1.14 lakh hectares and 2.46 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 1.26 lakh hectares in 2010-11, the area coverage under Oilseeds recorded moderate increase from 2.46 lakh hectares in 2008-09 to 2.64 lakh hectares in 2010-11 despite overall deficient rainfall experienced during the rabi season of 2010-11.

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

TABLE-5.5

AREA UNDER CROPS IN ASSAM DURING THE PERIOD 2000-01 to 2010-11

(In lakh hectares)

Crop	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11
Autumn Rice	4.96	4.64	4.41	4.36	3.98	3.79	3.54	3.51	3.46	3.13
Winter Rice	17.15	17.49	17.69	16.36	17.07	14.98	16.47	17.73	17.89	18.59
Summer Rice	3.26	3.27	3.19	3.11	3.15	3.12	3.23	3.60	3.94	3.99
Total Rice*	25.37	25.40	25.29	23.83	24.20	21.89	23.24	24.84	25.30	25.71
Wheat	0.72	0.69	0.70	0.64	0.50	0.60	0.56	0.50	0.60	0.45
Total Pulses	1.18	1.11	1.14	1.08	1.00	1.07	1.13	1.14	1.19	1.26
Total Food grains	27.55	27.48	27.41	25.82	25.97	23.82	25.18	26.71	27.35	27.67
Total Oilseeds (excl. Coconut)	2.99	2.87	2.89	2.68	2.35	2.60	2.57	2.46	2.65	2.64

*Total 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 50.33 lakh MT as against 44.08 lakh MT produced in 2009-10. During the year 2008-09, production of rice in the State was 40.09 lakh MT. Total production of rice in the State recorded 25.54 percent increase during the year 2010-11 over 2008-09. The weather condition and pattern of overall rainfall in the State during the Kharif season of 2010-11 was normal both in terms of total rainfall and its spread [except in the month July, 2010 with 22 percent deficit] assisted to bumper production of Kharif crops, more particularly the Winter Paddy. Sali paddy in a few districts was also affected by flood during the Kharif season due to excessive rainfall and down steam water from the neighbouring hill states and countries. But, immediate steps taken by Agriculture Department and farmers helped in saving the Kharif crops, mainly Sali Paddy, from damage in most of the affected areas. The department helped the farmers in transplantation of fresh seedlings in the affected areas.

The production of Pulses, on the other hand, increased marginally from 0.66 lakh MT in 2009-10 to 0.72 lakh MT during the year 2010-11. The increase of estimated production of Pulses during the year 2010-11 was 9.1 percent more compared to the production of Pulses in the previous year. The increasing trend of production of Pulses continued since 2005-06. The Oilseeds production was also increased by 8.4 percent during the year 2010-11 with 1.55 lakh MT as against 1.43 lakh MT in 2009-10. The production of Oil seeds in the State was 1.35 lakh MT and 1.37 lakh MT during the years 2007-08 and 2008-09 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 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 2010-11, the yield rate of Autumn Rice has been expected to reach all time high level with 1155 kg/hectare which is 17.6 percent above the yield rate of 982 kg/hectare in 2009-10.

TABLE-5.6

YIELD RATE OF PRINCIPAL AGRICULTURAL CROPS IN ASSAM

(Kg/hect)

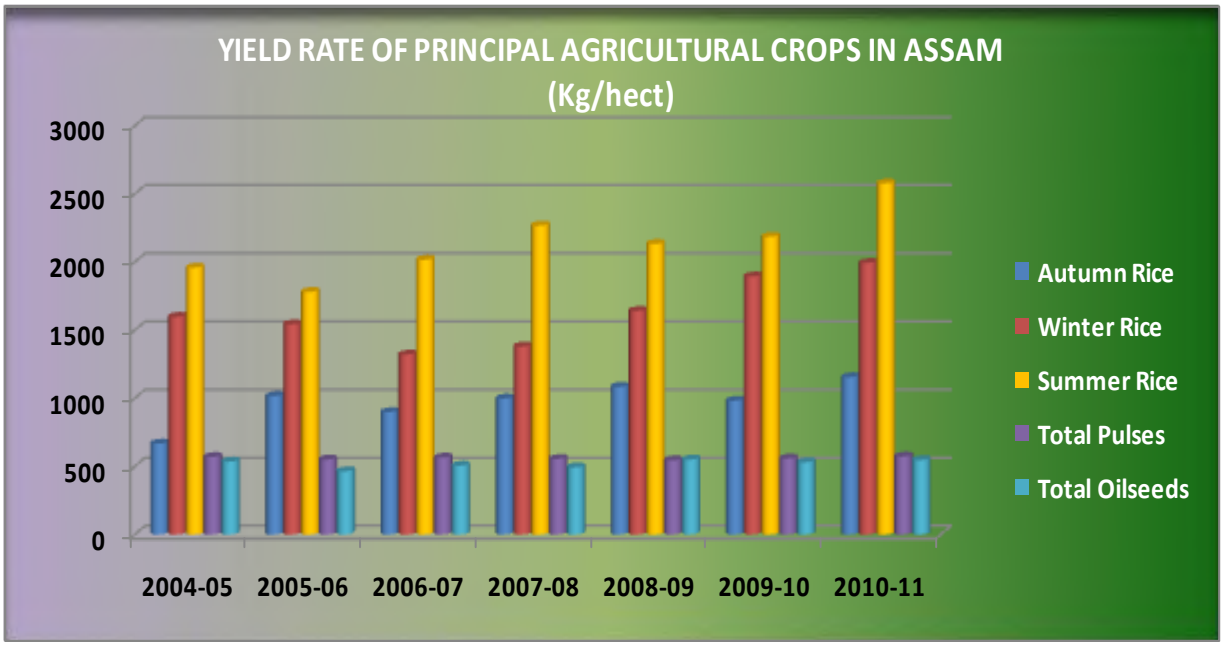
Name of Crop	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11
Autumn Rice	667	1016	899	999	1084	982	1155
Winter Rice	1598	1543	1321	1380	1641	1894	1993
Summer Rice	1959	1780	2017	2267	2133	2185	2577
Total Pulses	569	550	564	555	545	558	572(P)
Total Oilseeds	535	464	506	493	550	530	546(P)

P: Provisional. *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 21.45 percent increase during the year 2010-11 over 2008-09.

The productivity of Summer Rice also continued to maintain its increasing trend during the period 2004-05 to 2010-11 except in the year 2005-06. The yield rate of summer paddy although remained marginally low during 2009-10 [3.8 percent] compared to the yield rate of 2007-08, it recorded 17.94 percent more in 2010-11 compared to the yield rate calculated in the previous year.

The trend of productivity of Pulses and Oil Seeds was erratic during the period 2004-05 to 2009-10. However, productivity of both the crops is expected to increase by 2.5 percent and 3.0 percent respectively in 2010-11 over 2009-10.



Area 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 16.97 lakh hectares in 2010-11. During the year 2005-06 the area under HYV was 14.5 lakh hectares. The area coverage under HYV rice in 2010-11 was 6.73 percent more over the preceding year i.e., 2009-10. The area coverage of HYV rice to total rice area has been increasing step by step from 59.9 percent in 2005-06 to 65.0 percent in 2010-11. 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 may be evident from the Table below.

TABLE-5.7

AREA UNDER HIGH YIELDING VARIETY RICE

(Area in lakh hectares)

Crop	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11
Autumn Rice	2.35	2.15	2.23	2.24	2.29	2.13
Winter Rice	9.50	8.63	8.94	9.75	10.2	11.3
Summer Rice	2.65	2.67	2.78	3.14	3.41	3.54

Source: Directorate of Agriculture. Assam.

Hybrid Rice

In addition to the HYV rice, the State Agriculture Department has started cultivation of hybrid variety of rice on experiment basis in the State. The area under such variety of rice covers 2.4 percent of the total area under rice in the State during the year 2010-11.

Table 5.8 shows the area under hybrid rice in Assam.

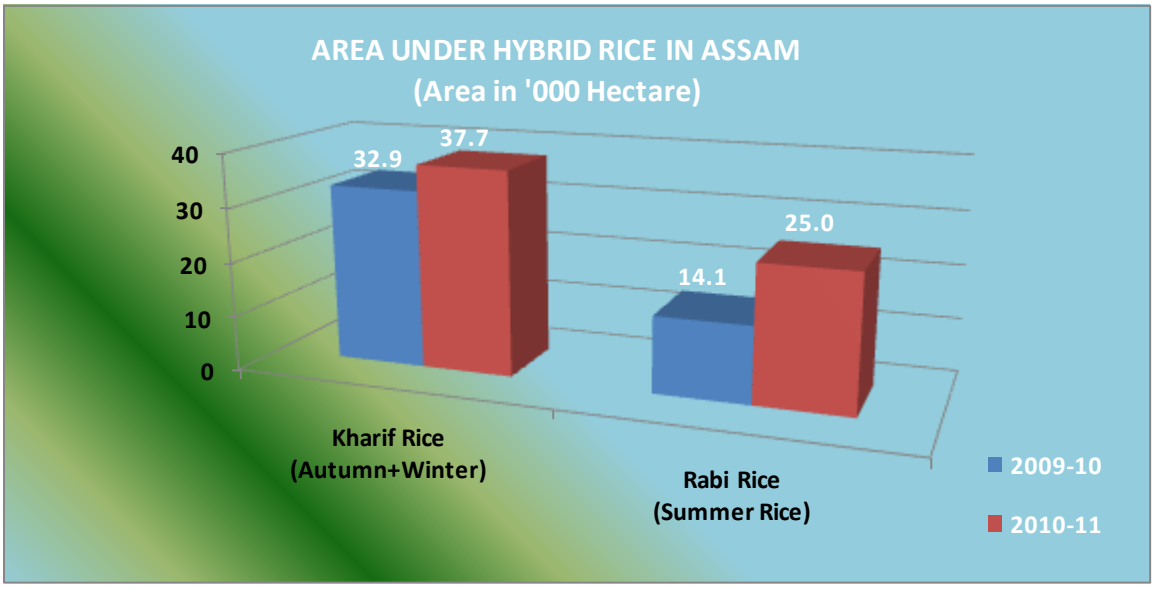
TABLE-5.8

AREA UNDER HYBRID RICE IN ASSAM

(Area in '000 hectare)

Crop	2009-10	2010-11
Kharif Rice (Autumn+Winter)	32.9	37.7
Rabi Rice (Summer Rice)	14.1	25.0
Total	47.0 (1.9)	62.7 (2.4)

**Total figure may not be equal due to rounding off to nearest zero.*
Figure in bracket shows the percentage to Total Rice Area.
Source: Directorate of Agriculture. Assam.



TARGET OF AREA, PRODUCTION & PRODUCTIVITY

Target of Production of Major Crops during 2011-12

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 27.10 lakh hectare of area under rice so as to increase the production of rice to 54.47 lakh MT during the year 2011-12. Details of target set for production of various food crops during the year 2011-12 shown below.

TABLE-5.9
TARGET OF PRODUCTION OF MAJOR CROPS IN 2011-12

Crop	Area (in lakh hect)	Production (in lakh MT)	Average Yield (in Kg/hectare)
Autumn Rice	3.14	3.65	1180
Winter Rice	18.96	39.22	2100
Summer Rice	5.00	11.60	2325
Total Rice	27.10	54.47	2032
Wheat	0.75	1.05	1400
Pulses	1.44	0.89	620
Oilseeds	3.55	2.27	640
Total Food grains	29.90	56.96	1924

Source: Directorate of Agriculture. Assam.

Target of Area, Production & Productivity of Crops in Assam during 12th Five Year Plan Period

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 increase the area under total food grains in the State from 27.67 lakh hectares at present (2010-11) to 34.9 lakh hectares at the end of the 12th Five Year Plan so as to increase production of food grains in the State from 51.78 lakh MT in 2010-11 to 80.25 lakh MT in 2016-17. Rice being the staple food of the State, the State Agriculture Department has planned to increase production of rice through systematic and schematic planning so that the area under rice can be increased to 30.00 lakh hectare so as to attain self sufficiency in rice production with target of 75.00 lakh MT at the end of 2016-17.

Details of target set for production of various food crops during the 12th Five Year Plan period i.e., 2012-13 to 2016-17 presented in the table below.

TABLE-5.10

TARGET OF AREA, PRODUCTION & PRODUCTIVITY OF CROPS IN ASSAM DURING 12TH FIVE YEAR PLAN PERIOD

(Area in lakh hectares, Production in lakh MT & Productivity in Kg. per hectare)

Crop	Item	2012-13	2013-14	2014-15	2015-16	2016-17
Rice	Area	27.25	27.90	28.40	29.60	30.00
	Production	57.20	62.00	66.00	71.00	75.00
	Productivity	2100	2225	2325	2400	2500
Wheat	Area	0.90	1.05	1.20	1.35	1.50
	Production	1.30	1.50	1.80	2.05	2.35
	Productivity	1425	1450	1480	1525	1550
Maize	Area	0.70	0.75	0.85	0.90	1.00
	Production	0.70	0.79	0.94	1.04	1.20
	Productivity	1000	1050	1100	1150	1200
Pulses	Area	1.60	1.75	1.90	2.00	2.25
	Production	1.05	1.20	1.30	1.45	1.60
	Productivity	660	675	690	705	725
Other Cereals & Small Millets	Area	0.06	0.08	0.10	0.12	0.15
	Production	0.03	0.04	0.06	0.07	0.10
	Productivity	540	550	560	570	580
Total Food grains	Area	30.50	31.55	32.45	34.00	34.90
	Production	60.30	65.55	70.10	75.60	80.25
	Productivity	1975	2075	2160	2225	2300
Oilseeds	Area	3.80	4.00	4.20	4.40	4.50
	Production	2.45	2.70	3.00	3.30	3.60
	Productivity	640	680	720	760	800
Jute & Mesta	Area	0.86	0.98	1.10	1.22	1.35
	Production	10.55	12.40	14.20	16.20	18.20
	Productivity	2210	2280	2325	2390	2430
Sugarcane	Area	0.30	0.35	0.40	0.45	0.50
	Production	13.75	17.30	21.15	25.40	30.00
	Productivity	45810	49360	52910	56460	60000
Cropping Intensity :		**152%**	**156%**	**162%**	**168%**	**175%**

Source: Directorate of Agriculture, Assam.

Index of Agricultural Production

Index of Agricultural Production (Base triennium ending 1981-82=100) for the State stands at 201 in 2010-11 compared to 186 in 2009-10. The Index of Agricultural Production for the State was 170 in 2008-09. The All India Agricultural Production Index, on the other hand, stands at 179 (Base Triennium ending 1993-94=100) in 2010-11. The table 5.11 shows the trend of Index of Agricultural Production in the State as well as in the country as a whole, for the last ten years.

TABLE-5.11

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
2010-11	218	184	201	172	164	179

N. B.: 1.The Agricultural Indices for Assam is constructed only on the crops covered by the Crop Forecast.

2. The Agricultural Indices for All India for 2010-11 base is Triennium ending 1993-94=100

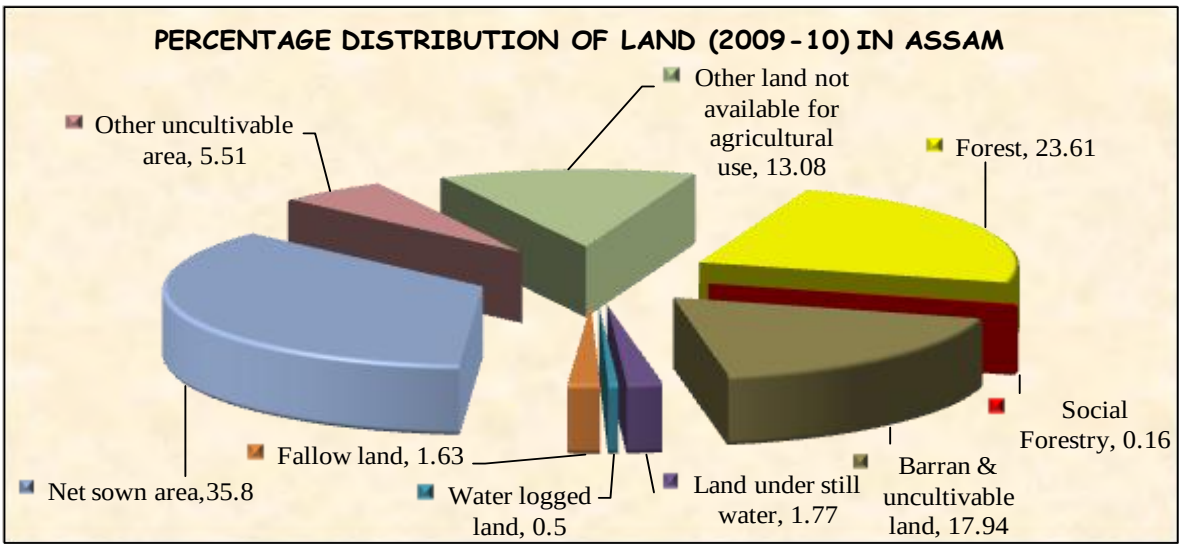
3. Figure rounded to nearest zero.

Source: (1) Directorate of Economics and Statistics. Assam.

(2) Department of Agriculture and Cooperation, Ministry of Agriculture, Govt. of India/Reserve Bank of India.

Land Utilization Statistics

As per the Land Utilization Statistics for the year 2009-10(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 hectare or 0.16 percent of the total reporting area.



The Gross Cropped Area recorded increase to 41.05 lakh hectares from 39.99 lakh hectares in 2008-09. In 2007-08 the Gross Cropped Area in the State was 38.39 lakh hectares. The Gross Cropped Area in the State, thus show 6.93 percent during the year 2009-10 over 2007-08.

The area sown more than once and the net cropped area recorded 19.15 percent and 2.11 percent increase with 12.94 lakh and 28.11 lakh hectares during the year 2009-10 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 was just above 46 percent as against 39.45 percent during the year 2007-08. The ratio of area more than once to the net sown area in the State was 42.28 percent during 2008-09.

The ratio of net sown area to gross cropped area, on the other hand, was calculated at 68.48 percent during the year 2009-10 compared to 71.71 percent during the year 2007-08. During the year 2008-09 the ratio of net sown area to gross cropped area was 70.28 percent.

Agricultural Holding

According to the Agricultural Census, 2005-06 there were 27.5 lakh operational holdings in Assam covering an operated area of 30.49 lakh hectares of land compared to 27.1 lakh operational holdings covering an operated area of about 31.1 lakh hectares of land in 2000-01. The Table 5.12 depicts the trend of number of holding and area between the two Agricultural censuses, 1995-96 and 2000-01.

TABLE- 5.12

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 percent of the total holdings and 24.9 percent of the total operated area of the State in 2005-06. The small holding with size class between 1-2 hectares, shared 21.5 percent of the total holdings and 23.6 percent of the total operational area. On the other hand, the large holdings (10 hectares and above) constituted only 0.18 percent of the total number of holdings and 9.8 percent of the total operated area in the State.

The Table 5.13 shows the trend of agricultural holdings and operated area in the State from 1970-71 to 2005-06.

TABLE- 5.13

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 produce more than 15.0 lakh MT of fruits, 44.0 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, commercialization of horticulture sector in Assam is not yet getting its momentum.

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 centers 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 2010-11 presented in the Table 5.14.

TABLE-5.14

AREA, PRODUCTION & PRODUCTIVITY OF HORTICULTURAL CROPS

Crop		2005-06	2006-07	2007-08	2008-09	2009-10	2010-11
Fruits	Area (lakh hectares)	1.13	1.14	1.16	1.34	1.27	1.32
	Production (lakh MT)	13.52	13.72	14.08	16.61	15.65	16.45
	Productivity (Kg./ hectare)	12005	12139	12142	12425	12370	12480
Spices	Area(lakh hectares)	0.86	0.86	0.88	0.93	0.94	0.98
	Production (lakh MT)	2.12	2.14	2.18	2.80	2.35	2.47
	Productivity (Kg./ hectare)	2475	2476	2478	3023	2505	2530
Vegetables	Area (lakh hectares)	2.32	2.36	2.38	2.46	2.51	2.60
	Production (lakh MT)	38.18	38.87	39.18	44.20	42.55	44.70
	Productivity (Kg./ hectare)	16485	16469	16462	17923	16952	17192

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 specialty 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 2010-11 the Directorate of Horticulture and FP could cover an additional area of 8125 hectare under various crops viz: Banana, Orange, Pineapple, Assam lemon, Cashewnut, Black pepper, Ginger, Turmeric, Potato, Aromatic plants, Bhut Jalakiya etc. under 'Horticulture Mission' as against 1883 hectare in 2009-10.
- The Directorate could train 3394 nos. of farmers on improved practices of horticultural crops, deputed 800nos. of farmers to outside the State for exposure visit during the year 2009-10.
- As many as 577 numbers of 0.2 ha units of floriculture projects were setting up for commercial production of Gerbera, Tube rose etc.
- Similarly the medicinal and Aromatic plants sector was a neglected area and no systematic cultivation was taken up. Now Govt. of India has introduced a new scheme on this vital and comparatively new sector. Under this scheme 8 nos. of Private Sector nurseries of medicinal plants have been established to generate planting materials for area expansion.
- Successfully introduced cultivation of Bhot Jalakiya the hottest chili in the world and area expansion programme is going on at Golaghat, Baska, Karbi Anglong, Nagaon and Jorhat district.

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 in production and average yield due to implementation of TMIDH presented in the Table 5.15

TABLE-5.15
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	2010-11	2000-01	2010-11	Production	Average Yield
Fruit Crops	12.94	16.45	11870	12480	(+) 27.1	(+) 5.1
Spice Crops	1.87	2.47	2309	2530	(+)32.1	(+)9.6
Vegetable Crops	24.71	44.70	12660	17192	(+) 80.9	(+)35.8

Source: Directorate of Agriculture. Assam.

Action Plan For the year 2011-12

The Directorate of Horticulture, Assam has taken up two nos. of schemes to boost up those areas that has not been touched by the any of the centrally sponsored schemes. Gist of objectives of the schemes and proposed budget for the year 2011-12 are given below-

Name of plan schemes and objective	Proposed budget (Rupees in lakh)
DEVELOPMENT OF WOMEN FARMERS:	
1. Demonstration on Betel vine cultivation:	
a. Planting materials of Betel vine	5.00
b. Specialized training on betel vine cultivation at AAU for SHG	1.50
c. Inputs like vermin-compost, neem cake	3.50
d. Infrastructural cost to be provided to beneficiary	6.00
e. Need base pesticide assistance to beneficiary	1.00
Sub total-	**17.00**
2. Introduction of new tools	
Distribution of non woven polypropylene fabric bag for protection of banana bunches from pests	2.50
Sub total	**2.50**

3. Women empowerment (SHG)	
a. Construction of low cost mushroom cultivation house (2 nos./group=100 nos.)	8.00
b. Distribution of mushroom kit with all necessary inputs to women SHG (16000/kit) x500 nos.	80.00
c. Training of women SHG on mushroom cultivation (1300/beneficiary)	6.50
d. Awareness campaign for eradication of deaths due to consumption of wild mushroom	5.00
e. HDPE vermin-bed for women farmers	4.00
Sub total	**103.50**
4. **High value vegetable crops**	
a. Area expansion and popularization of crops like Capsicum, Carrot, Broccoli, French bean, Papaya etc.	80.00
b. Supporting inputs like Sprayer, water can, plastic crates, Garden rake, Hoe etc. will be provided	139.00
Sub total	**219.00**
5. Commercial Orchid project at Hajo	
A commercial floriculture project at Hajo area with all necessary inputs	11.00
Sub total	**11.00**
Grand total	**353.00**
Chief Ministers' special employment generation programme in horticulture sector	
a. Distribution of four wheeler mini truck at a cost of ₹1,54,035/-per truck at 50 percent subsidy for vending of vegetables in urban areas	**240.2946**
b. Distribution ceremony and inscription on the truck	**9.7054**
Total	**250.00**

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 Government of India has initiated a centrally sponsored scheme 'National Mission on Medicinal Plants' from the year-2009-10.

Under this scheme a comprehensive approach will be made during the year 2010-11 for integrated development of the sector in Assam with a total outlay of ₹543.34 lakh.

Components	Proposed Target	Pattern of assistance	Estimated cost per hectare/unit (Rupees in lakh)	Proposed amount (Rupees in lakh)
Model Nursery - 4 hectare (Public sector)	1 no.	100%	20.00	20.00
Small Nursery – 1 hectare (Private sector)	6 nos.	50%	4.00	12.00
Sub total	**7 nos.**			**32.00**
Drying shed	3 nos.	100%	5.00	15.00
Storage godown	7 nos.	100%	5.00	35.00
Processing unit	1no.	25%	200.00	31.07
Market promotion	2 nos.	50%	14.43	7.215
Others	-	-	-	99.28
Sub total	**-**	**-**	**-**	**187.565**

Area expansion				
Brahmi	100 ha	20%	0.40	8.00
Tulsi	80 ha	20%	0.30	4.80
Vach	75 ha	20%	0.625	9.375
Arjun	60 ha	20%	0.45	5.40
Pippali	110 ha	20%	0.625	13.75
Kapur Kachari	75 ha	20%	0.40	6.00
Neem	40 ha	20%	0.375	3.00
Amla	100 ha	20%	0.65	13.00
Stevia	25 ha	20%	3.125	15.625
Ghritakumari	20 ha	20%	0.425	1.70
Kalmegh		20%	0.25	1.50
Lokhandi	20 ha	50%	0.50	5.00
Sarpagandha	165 ha	50%	0.625	51.5625
Ashok	75 ha	50%	0.625	23.75
Bael	50 ha	50%	0.40	10.0
Bhatghila	50 ha	75%	0.45	16.875
Agar	160 ha	75%	0.65	78.00
Chandan	100 ha	75%	0.75	56.25
Sub total				**323.775**
Total	-	-	-	**543.34**

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, BFVFCL, 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. At present there are 6923 fertilizer sale point and 416 whole sale point in Assam.

TABLE-5.16
FERTILIZER SALE & WHOLESALE POINT IN ASSAM

Sale Point		
Co-operatives	:	337 nos.
Individual Agencies	:	114 nos.
Private	:	6472 nos.
Total	:	**6923 nos.**
Wholesale Point		
IPL	:	9 nos.
IFFCO	:	172 nos.
BVFCL	:	150 nos.
TCL	:	10 nos.
TAI	:	41 nos.
KOROMONDEL	:	34 nos.
PROG. FERTILISER	:	Tie-up with BVFCL
Total	:	**416 nos.**

Source: Directorate of Agriculture, Assam.

Consumption of Fertiliser

The trend of fertiliser 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 67.09 kg per hectare during the year 2010-11. It reveals from the Table 5.16 that the consumption of chemical fertiliser 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 fertilisers 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 fertilizers in Assam during the last six years is presented in the Table 5.17.

TABLE-5.17
SEASON WISE CONSUMPTION OF FERTILISERS

(Fig in '000 MT)

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
2010-11	Kharif	116.24	52.54	45.67	18.35	232.81	NA	NA	NA	6.45
	Rabi	136.84	52.48	62.90	41.50	293.71	NA	NA	NA	5.62

Source: Directorate of Agriculture. Assam.

The trend of per hectare consumption of fertilizer, according to the Agriculture Department, also increased more than 35 percent during the period 2003-04[49.5 kg] to 2010-11[67.09 kg]. Table 5.18 shows the trend of fertilizer consumption in the State.

TABLE-5.18
CONSUMPTION OF FERTILIZER PER HECTARE

(Fig. in Kg.)

Item	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11
Fertilizer Consumption	49.5	42.65	50.66	52.27	56.20	57.80	63.16	67.09

Source: Directorate of Agriculture, Assam.

Application of Bio-fertilisers

Depletion of soil nutrient poses a major threat to sustainable crop production, which needs tapping of other plant nutrient sources. Bio-fertiliser 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-fertiliser 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-fertiliser 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-fertiliser kits have been distributed to farmers.

TABLE -5.19
CONSUMPTION OF BIO-FERTILISER

ITEM	YEAR		
	2008-09	2009-10	2010-11
Bio-Fertilizer **(MT)**	178	227	175
Organic Manure (including FYM) **(Lakh MT)**	NA	1.92	2.80

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.

TABLE-5.20
AREA UNDER ORGANIC FARMING
(Figure in Hectare)

Crop	Year				
	2006-07	2007-08	2008-09	2009-10	2010-11
Joha Rice	91.00	91.00	267.00	71.00	71.00
Pineapple	-	-	157.00	157.00	157.00
Ginger	-	-	957.00	550.00	750.00
Turmeric	-	-	236.00	236.00	642.00
Orange	2483.00	2483.00	2483.00	109.00	109.00
Total	2574.00	2574.00	4100.00	1123.00	1729.00

Source: Directorate of Agriculture, Assam.

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:

a. 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.
b. Dissemination of refined technical knowledge to the farmers.
c. Motivating farmers to use their own resources.

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-5.21
CROP SEASON WISE AVAILABILITY OF QUALITY SEEDS IN THE STATE

(in thousand quintal)

Crop	Kharif season			Rabi season		
	2008-09	2009-10	2010-11	2008-09	2009-10	2010-11
Paddy	148.69	833.77	417.8	8.456	76.240	165.00
Wheat	-	-	-	11.462	49.087	50.70
Maize	-	-	2.20	0.590	4.733	4.73
Pea	-	-		6.597	14.362	15.00
Lentil	-	-		0.472	4.394	7.50
Rape- Mustard	-	-		19.25	19.703	24.48
Arahar	-	0.250	0.310	-	-	-
Sesamum	0.280	0.230	1.05	-	-	-
Black gram	0.150	8.560	10.35	-	-	-
Green ram	0.500	1.000	3.00	-	-	-
Jute	1.000	1.015	3.10	-	-	-

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.

TABLE – 5.22
PRODUCTION OF FOUNDATION SEEDS UNDER SEED VILLAGE PROGRAMME

(in '000 Qtl.)

Crop	Year		
	2008-09	2009-10	2010-11
Paddy	777.92	296.30	664.46
Rape & Mustard	27.0	7.5	-
Black gram	8.56	9.0	4.4
Green gram	-	2.50	-
Sesamum	-	0.80	-

Source: Directorate of Agriculture, Assam.

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).

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 2010-11 was 47 percent, 2 percent, 37 percent and 72 percent respectively as against seed replacement rate of paddy was 33 percent, wheat 51 percent, Pea 51 percent and Rape & Mustard 60 percent during 2009-10. Table 5.22 shows the Seed Replacement Rate during the period 2004-05 to 2010-11.

TABLE-5.23

SEED REPLACEMENT RATE (SRR)

(Figure in percentage)

Crop	Year						
	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11
Paddy	3.01	3.41	10.7	17	23	33	47
Wheat	37.25	7.80	34.8	28	42	51	2
Black gram	-	-	17.8	20.5	7	64	53
Lentil	-	-	9.0	21	7	51	34
Pea	-	-	12.4	20.2	37	88	37
Oilseed (Rape & Mustard)	4.17	12.60	15.3	16	24	60	72

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 5.24 below shows the status of seed certification in Assam.

TABLE-5.24

STATUS OF SEED CERTIFICATION

(Area in Hectare/Quantity in Quintal)

Crop	Year	Area Registered	Quantity Certified
Paddy	2008-09	10098	20500
Rape and Mustard		925	8180
Black gram		90	290
Paddy	2009-10	6026	19750
Rape and Mustard		3970	9780
Black gram		370	2010
Paddy	2010-11	6768	18960
Rape and Mustard		1720	7520
Black gram		540	1591
Sesamum		-	85
Green gram		-	324

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).

However, consumption of pesticides in Assam is very low compared to national average.

TABLE-5.25

CONSUMPTION OF PESTICIDES

2006-07	2007-08	2008-09	2009-10	2010-11
165 MT	158 MT	150 MT	143 MT	150MT
(41.25 gm ai per hectare)	(39.50 gm ai per hectare)	(37.50 gm ai per hectare)	(38.75gm ai per hectare)	(37.50 gm 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 0.90 HP per hectare as compared to 1.40 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-5.26

STATUS OF FARM MECHANISATION

(Figure in Nos.)

Item	Year				
	2006-07	2007-08	2008-09	2009-10	2010-11
Tractor	338	855	1705	507	965
Power Tiller	2552	4748	1281	3825	3085
Small Implement	958	850	1527	92492	0
Rotovator	-	-	20	26	65
Farm power available [HP per hectare]	0.54	0.60	0.60	0.69	0.90

Source: Directorate of Agriculture, Assam.

Irrigation

The State Agriculture Department has prioritized improvement of irrigation facilities in the State and created irrigation potential of 6.84 lakh hectares or 24.3 percent of the net cropped area 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 utilization and thus there is less coverage of assured irrigation. There are several reasons:

- The STWs installed long back (1993) are not effective as well as pump sets installed till 2000-01 were not functional.
- 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-5.27

IRRIGATION POTENTIAL CREATED BY THE AGRICULTURE DEPARTMENT

Source	Year				
	2006-07	2007-08	2008-09	2009-10	2010-11
STW [Nos]	1297	4463	16787	38775	79130
LLP [Nos]	774	6166	3462	4646	14266
Flow Irrigation(Ha)	-	-	5250	0	0
Micro Irrigation [Sprinkler/Drip] (Ha)	280	365	1001	307	0
Deep Tube well[Nos]	-	-	44	-	-

Source: Directorate of Agriculture, Assam.

The State Agriculture Department has taken following steps to increase irrigation coverage in the State.

- 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 around 4.75 lakh hectare area in the State is chronically flood prone and around 0.94 lakh hectares area is draught prone. Therefore, the crop insurance is an area to help farmers at the time when there is crop loss/ crop damage due to recurring natural calamities, severe pest infestations and diseases in notified crops.

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-5.28

PERFORMANCE OF NATIONAL AGRICULTURAL INSURANCE SCHEME IN ASSAM

Season & Year	No. of Farmers covered	Area covered (Ha)	Sum Insured (Rs in Crore)
Kharif 2006	8800	8304.30	10.84
Rabi 2006-07	5818	4757.90	9.12
Kharif 2007	8938	7541.80	11.72
Rabi 2007-08	10780	5854.91	13.60
Kharif 2008	7458	7332.90	8.26
Rabi 2008-09	28359	5565.22	41.71
Kharif 2009	24619	23616.62	48.02
Rabi 2009-10	27288	19486.44	57.20
Kharif 2010	21433	17277.05	46.26
Rabi 2010-11	14675	10464.97	31.03

Source: Directorate of Agriculture, Assam.

Modified National Agricultural Insurance Scheme (MNAIS)

- The scheme is being implemented on pilot basis in 50 districts in the country. NAIS is withdrawn from those districts in which MNAIS will be implemented.
- Unit of insurance for major crops is Village / Village Panchayat.
- Scheme is compulsory for loanee farmers & voluntary for non-loanee farmers. Uniform seasonality norms will be applicable for both loanee & non-loanee farmers.
- Sum insured can be opted up to 150% of the value of average yield. Premium subsidy is available up to the value of threshold yield / loan amount only.
- Entire claim will be borne by the implementing agency. The scheme provides account payment up to 25% of likely claim for immediate relief to the farmers.
- Minimum indemnity level will be 70% against 60% in case of NAIS.
- Calculation of threshold yield: Average yield of last 7 years excluding up to 2 years of declared natural calamity.
- The scheme is implemented in two districts, viz., Kamrup & Dhubri from Rabi, 2010-11.

TABLE-5.29

STATUS OF MODIFIED NATIONAL AGRICULTURAL INSURANCE SCHEME [MNAIS] IN ASSAM

Item	Kamrup (R) district	Dhubri District
Village Panchayats covered	144 nos.	168 nos.
Farmers covered	903 nos. (Loanee farmer: 893 nos. & Non-loanee farmer: 10 nos.)	1194 nos. (Loanee farmer: 1186 nos. & Non-loanee farmer: 8 nos.)
Area covered	869.71 hectare	694.48 hectare
Sum insured	₹ 2.74 crore	₹ 2.24 crore
Premium received	₹ 9.58 lakh	₹ 10.10 lakh

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 5.30.

TABLE-5.30

MARKET INFRASTRUCTURE AND PROCESSING UNIT DEVELOPED (Status till 2010-11)

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. [Wholesale Market developed 21 nos (6 nos in progress)]
	Rural Primary Market	735nos. [Rural Primary Market developed 272 (47 in progress)]
	Total market	1140 nos.
4	Organic Market developed	1 no.
5	Godowns	▪ Godown -52nos. ▪ Seed Storage Godown – 21 nos.
6	Cold Storage	26 nos. (Total capacity : 109540 MT)
7	Processing Unit	6 Nos.
8	Drying Platform	33 nos
9	Community Threshing floor	55 nos (under RKVY)
10	Grocery Society	680 nos.
11	Transportation	Three wheeler:162 nos, Four wheeler:470 nos.

Source: Directorate of Agriculture, Assam.

FOOD & AGRO PROCESSING - a value addition & better commercial proposition

- The state produces surplus quantity of fruits & vegetables to the tune of 26 lakh MT. Due to lack of adequate marketing & processing facility about 20% of the produce is lost.
- In such a scenario, processed food is a great boon for value addition & better commercial gain.
- 6 nos. of processing units of Pineapple, Orange are set up with support from MFPI. 1 more units are in the pipeline.
- Still there is huge scope for processing industries in the State.

Export Initiatives

Pineapple: Pineapple cubes are being exported to meet the export demand of 300 MT.

Orange: Assam has started export of Orange recently.

Flower: Dendrobium Orchids are an attraction in Kolkata Market. Anthurium from Kamrup district has become a part of export from North-East.

Bhot Jalakia: Commercial cultivation of Bhot Jalakia, the hottest chilli (a special germ plasm of Assam) has been started recently.

Problems of marketing

Assam is a surplus State in respect of production of Vegetables. The farmers faced a lot of problem for marketing of these perishable commodities. Moreover Rice and Jute is the main economic crop in Assam. Moreover location of markets from fields is not within easily reached of the farmers. The State Agriculture Department assessed the market distance as at Table 5.31.

Besides there are some other related problems highlighted below:

TABLE-5.31

ACCESS TO MARKETS

Distance from Markets	Percentage of Markets
Up to 5 Km.	71%
5 – 10 Km.	22%
10 – 15 Km.	3%
15 – 20 Km.	1%
Above 20 Km.	2%

Source: Directorate of Agriculture, Assam.

- During peak season of harvest from January to March, the markets are overloaded with the Rabi Vegetables and farmers failed to catch remunerative price and compelled to dispose their produce at a very low price during the 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 carry their produce at distant markets where they can fetch justified market prices.
- Inadequate transfer of off season Vegetable Technology.

Agricultural Extension

With a view to decentralize decision making at the district level and to ensure effective participation of farmers in programme planning and resource allocation, it has been decided to adopt the model "Agriculture Technology Management Agency (ATMA)" to effect reforms in Agriculture Extension. 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.

STATUS OF IMPLEMENTATION OF ATMA IN ASSAM

ATMA - Centrally Sponsored : (Since 2005-06)

ATMA Districts	14 nos.
ATMA Registered	14 nos.
Farm Information and Advisory Centre (FIAC) formed	57 nos. (out of total 96 nos.)
Block Technology Team (BTT) Registered	96 nos.

ATMA - World Bank aided AACP sponsored : (Since 2005-06)

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 Points set up	58 nos. (covering 580 villages)

Source: Directorate of Agriculture, Assam.

Convergence between Agricultural Research and Extension

For better coordination with ATMA activities, the Assam Agriculture University (AAU) has deputed Programme Coordinator and Subject Matter Specialist of KVKs in every ATMA district for monthly and time to time interface with the Project Director, ATMA and field functionaries'

Officials of Agriculture and allied departments as well as the scientists of KVKs have been actively participated in preparation of SREP, District Action Plan and field activities including training programmes.

OPERATIONAL OF FARM SCHOOLS & OTHER ACTIVITIES IN ATMA CAFETERIA, 2010-11

Activities	Unit	Number	Amount (Rs. in lakh)
Farm Schools	Nos.	96	32.08
Training of Farmers	Nos.	96	36.00
Organizing of Demonstrations			
• Agriculture sector	Nos.	480	19.20
• Allied sector	Nos.	480	19.20

Source: Directorate of Agriculture, Assam

Agri- Clinic

- 45 nos. of unemployed Agri-Graduates were trained up by MANAGE at Extension Wing, AAU, Jorhat for three months course in two batches.
- Out of the 45 nos. 12 nos. have already taken up the profession of Agri- Clinic and Agri –Business Centre.
- Nodal Agency, the Indian Society for Agri. Business Profession has trained 321 nos. of participants in 10 batches since 2007-08 and 110 nos. have already established various professions. 61 nos. are sponsored by NABARD.

Involvement of State Functionaries in Kisan Call Centre

- Kisan Credit Card (KCC) is in operation since 2004.
- Objective of Kisan Call Centre are usually discussed in every ADO and VLEW meetings to bring awareness among the field functionaries.
- To bring awareness among the farming community about KCC toll free number and its objective, information are provided to the farmers in every training programme/ workshop etc. conducted in the district.
- KCC toll free number has been sent to the field functionaries through SMS for onward communication to the farming community.
- Single toll free number 1800-180-1551 (available from 6 am to 10 pm everyday)

PROGRESS OF KISAN CALL CENTRE DURING 2010-11 & 2011-12

Year	No. of successful calls
2010-11	10358
2011-12 (till October, 2011)	5686

Feedback on Mass Media Support to Agriculture Extension

- Doordarshan Kendra, Guwahati and Dibrugarh broadcast "Krishi Darshan" programme from 6.00 PM to 6-30 PM in six days in a week. Success stories of agriculture and allied activities, information on market intelligence, messages related to cultivation practices, pest and diseases, departmental schemes etc. are highlighted through this programmes.
- Live in phone in programme are also organized time to time both in Doordarshan and AIR, anchored by departmental officers to reply to the queries of the farming community.
- Measures to be taken by the farming community during flood, drought and pest attack etc. are also published in different local news paper and through printed leaflets to help the farming community to overcome any unavoidable situation.

INNOVATIVE ACTIVITIES UNDER AGRICULTURAL EXTENSION

Engagement of Farmers Friend (Kisan Bandhu)	
No of Farmers Friend	1587
No. of villages involved	3174

Status of Flagship Programmes/Projects

The Agriculture Department is implementing several flagship projects/programmes in the context of improvement of agricultural production in the state to meet the growing food demand of growing population. Impact of implementation of these projects/programmes may be evident from the table below:

TABLE-5.32

STATUS OF IMPLEMENTAION OF FLAGSHIP PROJECTS/PROGRAMMES IN ASSAM

Programme / Project	Year of starting of Programme / Project	Physical impact of the project in terms of production and productivity of crops
AACP	February, 2005	**Impact in Project Area after 6 years of 5 years of implementation (in 2010-11 over 2004-05)** ▪ Cropping intensity increased – 43% ▪ **Productivity of crops increased** – Sali Paddy – 95% Summer Paddy – 92% Mustard – 30% Vegetable – 66%

Programme / Project	Year of starting of Programme / Project	Physical impact of the project in terms of production and productivity of crops
RKVY	2008-09	▪ **Production (anticipated) of crops increased after 3 years (2010-11) over 2007-08 (Pre- Project) by –** Rice – 53% Pulses – 3% Oilseeds – 7% ▪ **Productivity (anticipated) of crops increased after 3 years (2010-11) over 2007-08 (Pre Project) by –** Rice – 38% Pulses – 2% Oilseeds – 10%
NFSM (Rice) **NFSM (Pulse)** **A3P**	NFSM (Rice) – 2007-08 NFSM (Pulse) – 2010-11 A3P – 2010-11	▪ **Production** (anticipated) of Rice in 13 NFSM (Rice) districts after 4 years (2010-11) of Mission Period over 2006-07 (Pre Mission) increased by – 81% ▪ **Productivity** (anticipated) of Rice in 13 NFSM (Rice) districts after 4 years (2010-11) of Mission Period over 2006-07 (Pre Mission) increased by – 56% ▪ NFSM-Pulse & A3P has been implemented from Kharif, 2010-11.
HMNEH (MM-II & MM-III)	2001-02	▪ **Production** (anticipated) increased after 10 years (2010-11) of Mission Period over 2000-01 (Pre Mission) - Fruits – 27% Spices – 32% Vegetables – 81% ▪ **Productivity** (anticipated) increased after 10 years (2010-11) of Mission Period over 2000-01 (Pre Mission) – Fruits – 5% Spices – 10% Vegetables – 36%

Source: Directorate of Agriculture, Assam.

Extending Green Revolution to Assam

Government 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.

APPENDIX – 5.1

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)

Crops	2009-10			2010-11		
	Area	Production	Average yield	Area	Production	Average yield
Autumn Rice	346	335	982	312	355	1155
Winter Rice	1789	3214	1824	1858	3649	1939
Summer Rice	4	6	1554	398	1027	2577
Total Rice	2530	4408	1765	2568	5031	5671
Wheat	60	65	1087	44	56	1256
Maize	19	14	718	19	14	714
Total Cereals	2616	4491	1738	2631	5101	7641
Total Pulses	119	66	558	117	66	564
Total food grains	2735	4557	1686	550	5178	4525
Rape & Mustard	249	131	529	243	142	585
Total Oil Seeds (excluding coconut)	269	142	530	264	155	-
Potato	83	600	7263	85	657	7735
Sugarcane	27	1062	39110	29	1076	36196
Jute *	65	713	1967	62	625	1808

*** Production in '000' bales of 180 Kg. per bale.**

Source : Directorate of Economics and Statistics, Assam

APPENDIX – 5.2

AREA PRODUCTION AND AVERAGE YIELD OF SOME MAJOR HORTICULTURAL CROPS IN ASSAM DURING THE YEAR 2010-11 (estimated)

Name of Crop	Area in '000' hectare	Production in '000 MT	Average Yield in kg/hect.
FRUITS			
Banana	47	724	15192
Pineapple	14	221	15750
Orange	14	160	11535
Papaya	7	134	18233
Guava	5	97	19975
Litchi	5	41	7789
Mango	5	47	9102
Jackfruit	22	201	9955
SPICES			
Chilly	18	13	736
Turmeric	15	12	830
Onion	8	22	2773
TUBER CROPS			
Potato	87	738	8500
Sweet Potato	9	35	3870
Topeoca	4	32	7650
NUT CROPS			
Coconut *	20	185	73
Arecanut **	68	403	153

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 – 5.3

PROVISIONAL ESTIMATES OF INDEX NUMBERS ON AREA, PRODUCTION AND PRODUCTIVITY OF SOME CROPS IN ASSAM, 2010-11

(BASE TRIENNIUM ENDING 1981-82=100)

Sl. No.	Commodities	Area Index	Production Index	Productivity Index
1.	Autumn Rice	54.54	90.75	166.39
2.	Winter Rice	120.25	203.92	169.58
3.	Summer Rice	1104.55	2526.92	228.77
4.	**TOTAL RICE**	**114.13**	**225.24**	**178.20**
5.	Maize	86.67	145.63	168.03
6.	Wheat	50.12	55.27	110.28
7.	Other cereals & small millets	26.61	27.83	104.58
8.	**TOTAL CEREALS**	**110.77**	**220.49**	**177.44**
9.	Gram	50.26	80.11	159.39
10.	Tur	108.37	109.33	100.89
11.	Rabi pulses	117.75	166.54	141.44
12.	**TOTAL PULSES**	**106.93**	**143.71**	**136.30**
13.	**Total Food Grains**	**110.92**	**218.30**	**176.41**
14.	Linseed	128.49	101.94	79.34
15.	Castor	46.17	47.61	103.12
16.	Sesamum	94.79	111.48	117.61
17.	Rape & Mustard	118.75	149.61	125.99
18.	Coconut	336.96	301.81	89.57
19.	**TOTAL OIL SEEDS**	**120.58**	**246.36**	**94.94**
20.	Jute	58.67	61.94	105.57
21.	Cotton	33.70	33.90	100.59
22.	Mesta	38.64	49.37	127.77
23.	**TOTAL FIBRES**	**55.46**	**60.72**	**106.43**
24.	Plantation Crop (Tea)	139.44	164.13	117.71
25.	Chillies	174.09	194.62	111.79
26.	Turmeric	192.26	225.13	117.10
27.	Arecanut	146.56	215.29	146.90
28.	**TOTAL CONDIMENTS & SPICES**	**156.91**	**213.56**	**141.02**
29.	Potato	227.63	364.91	160.31
30.	Banana	193.41	210.81	109.00
31.	**TOTAL FRUITS & VEGETABLES**	**216.7**	**283.57**	**132.07**
32.	Sugarcane	61.28	59.64	97.32
33.	Tobacco	8.71	6.38	73.25
34.	**TOTAL MISC CROPS**	**55.81**	**60.26**	**96.98**
35.	**TOTAL NON FOOD CROPS**	**121.35**	**184.12**	**114.23**
36.	**ALL COMMODITIES**	**119.38**	**200.58**	**139.75**

Source : Directorate of Economics and Statistics, Assam

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CHAPTER – VI

IRRIGATION

Agriculture and its allied activities played an important role in the socio-economic development of the State of Assam. This vital sector is the major contribution of the State economy as well as providing livelihood to a significant proportion of the population of the State. This Sector continues to support more than 75 per cnet population of the State directly or indirectly providing employment to a sizeable section of the work-force.

Irrigation is the main input to this agriculture practice. To coping with the growing problem of food shortage due to formidable increase in population and adverse & unpredictable weather condition, natural calamities etc., multiple cropping, modernization of agricultural practices in agricultural sector is highly essential in Assam. 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.

Land use pattern in Assam indicates that out of the total geographical area of 78.44 lakh hectares, the Gross Cropped Area of Assam is 41.05 lakh hectares [2009-10]. 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 65.8 percent 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 has been 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 categorized 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 41.05 lakh hectares of the State, the Irrigation Department created potential of 7.97 lakh hectares up to 2010-11 of which 2.44 lakh hectares through Major & Medium Irrigation Projects and the rest 5.53 lakh hectares under Minor Irrigation Schemes. Of the 5.53 lakh hectares of created potential under Minor Irrigation Sector, a potential of 4.04 lakh hectares was created through the Govt. Minor Irrigation Schemes executed by the State Irrigation Department and the rest 1.49 lakh hectares through Shallow Tube Wells (STWs) and Low Lift points (LLPs) installed by the Assam State Minor Irrigation Development Corporation (ASMIDC) Limited .The position of creation of irrigation potential under different sectors is shown below.

TABLE-6.1
GROSS IRRIGATION POTENTIAL CREATED
UPTO 2010-11 (IN HECTARES)

Department/ Agency	Major & Medium Irrigation Sector	Minor Irrigation Sector	Total
Irrigation Department	243665	403926	647591
ASMIDC	NIL	149205	149205
Total	243665	553131	796796

Source: Chief Engineer, Irrigation Department, Assam.

It has been worth mentioning that the State Agriculture Department has also created a potential of 6.84 lakh hectares through the Shallow Tubewells and Low Lift Points out of which 4.70 lakh hectare are covered under utilisable/assured irrigation.

CREATION OF IRRIGATED AREA AND UTILISATION OF POTENTIAL:

Major and Medium Irrigation Sector

At present there are 4(four) AIBP funded ongoing Major/Medium Irrigation Projects (Dhansiri I/P. Champamati I/P, Borolia I/P and Buridehing I/P). Till March 2011, 51729 Hectares of irrigation potential has been created through these ongoing projects. During 2011-12, an area of 19244 Hectare is targeted to be created from these projects requiring an amount of ₹304.60 Crore (Central Share: ₹274 Crore; State Share: ₹30.48 Crore). The Budget allocation made under AIBP is ₹1400 Lakh as State Share and ₹18103 Lakh as Central Share including spillover amount of 2010-11. The expenditure incurred in this sector is ₹32.541 Lakh (State Share). Targeted potential is likely to be achieved during the ongoing working season with timely release of fund.

Works of reconstruction of Bordikorai I/P has been taken up for ₹47.22 Crore under One Time ACA. Upto March 2011 expenditure incurred is ₹30.55 Crore reviving a lost potential of 27200 Hectares. Major balance works are targeted to be completed during 2011-12 requiring an amount of ₹6.67 Crore to revive 5455 Hectares. The budgetary allocation made is ₹1667 Lakh.

Under Assam Bikash Yojana, Reconstruction of Rupahi I/P (Medium) is going on with the estimated amount of ₹2.47 Crore to revive lost potential of 5668 Hectares. Expenditure incurred upto March 2011 is ₹1.37 Crore. Balance amount of ₹1.10 Crore is required to complete the project during 2011-12.

Minor Irrigation Sector

627 nos. of Minor Irrigation Schemes have been taken up under AIBP funding at estimated amount of ₹2122.42 Crore to create a potential of 263678 Hectares. Upto March 2011, 209 nos. have been completed creating a potential of 78,678 Hectares. It is proposed to complete 223 nos. of Minor Irrigation Schemes during 2011-12 to create a potential of 103034 Hectare including revival of lost potential. It requires an additional amount of ₹1192.49 Crore. The Budgetary allocation in this sector is ₹33546 Lakh including spillover amount of 2010-11. During the first six months of 2011-12, 34 nos. of Minor irrigation Schemes have been completed creating a potential of 10005 Hectares.

Four Minor Irrigation Schemes under NLCPR at an estimated cost of ₹960.05 Lakh to achieve a potential of 3010 Hectare are targeted to be completed during 2011-12 requiring an amount of ₹389.79 Lakh. Two nos. of new schemes are proposed. Budget allocation is ₹625.00 Lakh.

Two NEC funded Minor Irrigation Schemes are targeted to be completed during 2011-12 to achieve a potential of 400 hectare with budget allocation for 2011-12 of Rs, 610.00 Lakh.

Works of 2(two) Minor Irrigation Schemes with NABARD funding are targeted to be completed to achieve a target of 1300 Hectares. The Budgetary allocation is ₹500 Lakh.

55(fifty-five) Minor Irrigation Schemes were taken up under TSP schemes since 2005-06 at an estimated amount of ₹2758.338 Lakh to create potential of 8519 Hectares. Out of which 26 schemes have already been completed with created potential of 5389 Hectares. Execution of remaining 29 schemes is in progress and targeted to be completed within the financial year 2011-12. Upto March 2011, expenditure incurred for these schemes was ₹1148.32 Lakh for the same.

Under SCSP, 117 Minor Irrigation Schemes were taken up since 2005-06 at an estimated cost of ₹6566.40 Lakh to create a potential of 13951 Hectares, out of which 43 schemes have already been completed creating a potential of 5839 Hectares. Remaining 74 schemes are targeted to be completed within 2011-12. Expenditure incurred upto March 2011 was ₹2566.16 Lakh. An additional amount of ₹4000.24 Lakh is required to complete the balance schemes.

Under Assam Vikash Yojana, 12 Minor Irrigation Schemes are proposed to be completed during 2011-12 to achieve a potential of 497 Hectares.

Command Area Development and Water Management

During 2011-12, works of CADWM to Kaldiya I/P and Dekadong I/P are proposed to be completed along with ongoing works of Pahumara I/P and Bordikorai I/P to cover an area of 5,430 Hectares for judicious distribution of irrigation water to the field. The Budgetary allocation is ₹642 Lakh as State Share and ₹1286 Lakh as Central Assistance. The targeted works are proposed to be achieved within the financial year.

Thirteenth Finance Commission: Grant-in-aid

Under 13th Finance Commission's Grant-in-aid, ₹15.00 Crore is proposed for repairing of 78 nos. of Deep Tube Well points, 10 nos. of Lift Irrigation Schemes and 5 Nos. of Flow irrigation Schemes in Minor Irrigation Sector to revive lost potential of 3940 Hectares during the financial year 2011-12. Another amount of ₹7.00 Crores are proposed for repairing of 3 Nos. of Major/Medium Irrigation Projects to make them operational.

Utilisation of Irrigation Potential

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

TABLE-6.2

IRRIGATION POTENTIAL UTILISED (FIGURES IN HECTARES)

Year	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
2010-11	63649	44691	108340	15612	5874	21486	79261	50565	129826

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.

Creation of Irrigation Potential and its Utilization [As per Census of Minor Irrigation Schemes]

As per 4th Census of Minor Irrigation, 2006-07, there were 104312 Ground Water Schemes (Shallow Tube wells and Deep Tube wells) and 6442 Surface Water Schemes (Surface Flow and Surface Lift) creating 306905 hectares and 322856 hectares of irrigation potential respectively in the State under Minor Irrigation Sector. Of the total potential of 629761 hectares (306905 hectares + 322856 hectares) created under Minor Irrigation Sector, a total of 323297 hectares of area was irrigated during that particular year 2006-07. Thus there exists large gap between irrigation potential created and irrigation potential utilized. The identified causes for gap were - general wear and tear of the schemes, damage caused by natural calamities like flood, storm etc., erratic power supply in respect of the electrically operated schemes (Surface Lift and Ground Water Lift), damage of transformer, HT line and mechanical components, change of river course in respect of Surface Flow and Surface Lift Irrigation Schemes, damage of canal System, no demand from cultivators, reluctance of the cultivators to adopt multiple cropping system where assured irrigation is necessary, non-functioning of the schemes due to theft of motors/ pumps and other accessories, imposition of Irrigation Service Charges by the government for realization from the cultivators.

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 1.03 lakh hectare receiving irrigation from 'other sources'. The table below shows the size class wise area receives irrigation from different sources in the State.

TABLE-6.3

SIZE CLASS AND SOURCE-WISE AREA IRRIGATED IN ASSAM

(Area in Hectare)

Size Class (in Ha)	Area under Operational Holding	Area Receiving Irrigation from Sources					Net Irrigated Area
		Canal	Tanks	Wells	Tube wells	Other Sources	
Below 0.5	353051.83	1904.95	1197.90	28.13	1545.57	10486.60	15163.15
0.5-1.0	407092.81	2538.38	281.01	80.01	2374.69	9879.69	15153.78
1.0-2.0	718383.23	5499.75	331.41	66.71	4146.96	18333.57	28378.40
2.0-3.0	496982.96	3862.86	379.48	37.94	2471.65	10661.63	17413.56
3.0-4.0	349023.18	3354.49	198.91	25.41	2004.46	9996.45	15579.72
4.0-5.0	203932.59	1647.67	125.39	11.04	845.12	6617.06	9246.28
5.0-7.5	177267.26	2379.52	135.41	16.60	775.95	6222.10	9529.58
7.5-10.0	44203.07	395.95	64.33	0.00	415.22	2237.11	3112.61
10.0-20.0	34251.16	80.40	28.02	0.00	252.87	2398.58	2759.87
20 & above	264354.79	1456.23	400.01	65.06	1863.33	25580.87	29365.50
All Classes	3048542.88	23120.20	3141.87	330.90	16695.82	102413.66	145702.45

Source: Report of Agriculture Census, Assam 2005-06.

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 8853 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 24,400 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. On completion of the project a potential of 5,668 hectares will be restored.

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. The potential achieved was 26,118 hectare.

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.

The actual expenditure incurred during 2009-10 was ₹9045.98 lakh and total potential achieved during the year was 35,688 hacters which includes revival of lost potential of 24,000 Hectares from modernisation of Sukla Irrigation Project under NABARD funding.

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, 1, 28,204 hectare under AIBP funding, 1060 hectare under Assam Bikash Yojana. The potential achieved was 1082 hectares under NABARD, 43834 hectare under AIBP and 546 hectares under Assam Bikash Yojana.

Area Irrigated during 2010-11

The table below shows the crop season-wise area irrigated during the year 2010-11 in different districts of Assam from Government sources of irrigation:

TABLE-6.4

CROP SEASONWISE AREA IRRIGATED DURING 2010-11(PROVISIONAL)

Name of District	Area Irrigated (in hectares)		
	Kharif	Rabi & Pre-kharif	Total
Dhubri	287	368	655
Kokrajhar	6521	777	7298
Bongaigaon	140	29	169
Goalpara	1440	278	1718
Barpeta	523	543	1066
Nalbari	88	81	169
Kamrup	248	90	338
Kamrup Metro	2442	1604	4046
Darrang	5320	1052	6372
Sonitpur	5973	25	5998
Lakhimpur	670	188	858
Dhemaji	-	-	-
Morigaon	202	934	1136
Nagaon	24812	5150	29962
Golaghat	55	81	136
Jorhat	-	35	35
Sivasagar	35	-	35
Dibrugarh	-	-	-
Tinsukia	528	15	543
Karbi Anglong	18185	5163	23348
Dima Hasao	4056		4056
Karimganj	-	23	23
Hailakandi	530	-	530
Cachar	1075	2181	3256
Chirang	5511	856	6367
Baska	12079	603	12682
Udalguri	17620	1410	19030
State Total	108340	21486	129826

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:

TABLE-6.5

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.

The reasons for poor realisation of Irrigation Service Charges from the beneficiary cultivators are -

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 making its endeavour to realize the Service Charges from the beneficiary cultivators. The status of Irrigation Charges actually realised during the last eleven years is presented below:

IRRIGATION CHARGES REALISED

(Rupees in Lakh)

Year →	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11
Amount realized	0.23	0.24	1.74	2.86	4.92	3.53	2.02	1.96	2.02	3.40	4.72

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 the 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.

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CHAPTER – VII

FLOOD AND FLOOD CONTROL MEASURES

The State of Assam covers an area of 78,438 sq km. The total land mass of the State consist of the Brahmaputra and Barak valleys named after the mighty Brahmaputra and Barak river and the two hill district. The unique geographical location criss-crossed by vast network of 48 major and 128 small rivers originating from the hills and mountains surrounding the State is largely responsible for the recurring flood and erosion of the river banks. The heavy monsoon rain over catchments of Himalayan and Patkai ranges of hills pausing threats to gently sloping narrow valley of the rivers coupled with high seismic activities in the easily erosive hill slopes along with certain anthropogenic causes create heavy flood in the State. All the rivers in Assam are liable to floods, mainly because they receive heavy rainfall within a short time. Due to deforestation in the upstream and downstream areas of surrounding Hill States and Assam the river waters collect a tremendous amount of silt and other debris and raise the level of the river beds making it impossible for the main channel to cope with the vast volume of water received during the rains. The siltation problem is acute in Upper and Central Assam.

The problem of flood and erosion is menacing and probably the most acute and unique in the country. Every year successive waves of floods submerges most of the areas for a considerable number of days causing wide spread damage 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 percent 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

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;
- 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.

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.

Flood Management Programme (FMP)

For the 11th Five Year Plan the Ministry of Water Resource, Government of India approved flood management schemes and accordingly, the first Empowered Committee meeting on Flood Management Programme (FMP) held on 14th March 2008 recommended 73 numbers of flood management schemes under Water Resource Department, Assam with an estimated cost of ₹427.56 crore. However, two numbers of schemes out of 73 schemes are abandoned and accordingly total cost for the remaining 71 schemes comes to ₹414.22 crore. The Empowered Committee in its third meeting on FMP recommended 9 numbers of schemes amounting to ₹274.87 crore on 27th January 2009. Till date 73 numbers of schemes have been physically completed and the remaining 7 schemes are targeted to be completed by March 2012. Under FMP, the Empowered Committee in its sixth meeting recommended 3 schemes with a cost of ₹109.20 crore and was targeted to be completed by March, 2012.

The Government of India has released a sum of ₹508.92 crore, ₹290.30 crore for the 71 schemes, ₹197.02 crore for 9 schemes and ₹21.60 crore for the 3 schemes against the ongoing FMP schemes till July 2011. Amount utilised against the ongoing schemes as Central share is ₹372.22 crore (₹223.66 crore for the 71 schemes, ₹136.56 crore for the 9 schemes and ₹12.00 crore for the 3 schemes) and the total State share utilised for aforesaid scheme is ₹53.47 crore. Amount of ₹209.54 crore is to be received as Central assistance.

Again 20 numbers of new schemes with an estimated cost of ₹533.00 crore have been submitted to the Ministry of Water Resource for placing to the Empowered Committee on FMP. The schemes will be taken up in 2011-12 after receiving necessary approval and sanction of fund.

North Eastern Council (NEC)

For controlling the river Jiadhal, Dhemaji and river Longai, Patharkandi, two schemes with benefited area of about 245000 hectare at a cost of ₹1993.13 lakh has been taken up and completed under NEC. An amount of ₹1182.466 lakh have been utilised against this scheme.

During 2010-11, one scheme with an estimated amount of ₹374.00 lakh on benefited area of 1000 hectare for controlling the river Janali in Kokrajhar district was sanctioned. The work of the scheme is in progress.

a) Completed Schemes under NEC:

Year	Number of schemes	Estimated Amount (Rupees in lakh)	Benefitted area (in Hectare)	Achievement	
				Physical progress (in Percentage)	Financial progress (Rupees in lakh)
2009-10	2	1993.13	245000	100	1182.466

b) Ongoing Scheme under NEC:

Year	Number of schemes	Estimated Amount (Rupees in lakh)	Benefitted area (in Hectare)	Achievement	
				Physical progress (in Percentage)	Financial progress (Rupees in lakh)
2011-12	1	374.00	1000	-	-

Source: Office of the Chief Engineer, Water Resource Department.

Joint River Commission (JRC)

Under this head four schemes with an estimated cost of ₹374.187 lakh and benefited area of 16.88 hectare was taken up and have been completed successfully in 2009-10. An amount of ₹251.39 lakh have been utilised against this scheme.

Non-Lapsable Central Pool of Resources (NLCPR)

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.

Additional Central Assistance (ACA)/SPA Schemes

Under the ACA/SPA scheme Govt. of India approved five numbers of schemes for the year 2007-08 for ₹1666.99 lakh. An amount of ₹1581.799 lakh have been utilised for completion of the schemes with benefited area of about 10900 hectare.

In the year 2008-09, 44 numbers of schemes with estimated cost of ₹14122.32 lakh were taken up under ACA/SPA with an anticipated benefited area of about 1,88,200 hectare. The works of all the schemes have been completed. An amount of ₹11761.97 lakh have been utilised against these schemes till now.

During the year 2009-10, another 4 number of schemes with estimated cost of ₹2186.27 lakh have been sanctioned under the same head. Out of these schemes, 3 schemes have already been completed and the rest is on the verge of completion. So far, an amount of ₹650.00 lakh have been utilised against these schemes.

During the year 2010-11, 2 numbers of schemes with an estimated cost of ₹1289.15 lakh has been sanctioned under ACA. Administrative approval for implementation of the schemes is being processed.

NABARD:

NABARD (RIDF-XI)

Under RIDF-XI, 19 schemes were taken up with an anticipated benefited area of about 89,960 hectare, were taken up with an estimated amount of ₹8244.408 lakh. All the schemes have been completed. An amount of ₹8093.89 lakh have been utilised against the schemes.

Schemes Completed under RIDF-XI

Year	Number of schemes	Estimated Amount (Rupees in lakh)	Benefitted area (in Hectare)	Achievement	
				Physical progress (in Percentage)	Financial progress (Rupees in lakh)
2006-07	2	450.00	35,000	100	438.18
2007-08	10	4664.16	61,345	100	4629.82
2008-09	5	1800.16	19,226	100	1756.30
2009-10	1	718.16	140	100	671.58
2010-11	1	611.93	5,750	100	598.01

Source: Office of the Chief Engineer, Water Resource Department.

NABARD (RIDF-XII)

Under RIDF-XII, 20 numbers of schemes with an estimated amount of ₹9962.97 lakh, with benefited area of 99,800 hectare has already been completed. Expenditure incurred against the schemes is ₹9798.87 lakh.

Schemes Completed under RIDF-XII

Year	Number of schemes	Estimated Amount (Rupees in lakh)	Benefitted area (in Hectare)	Achievement	
				Physical progress (in Percentage)	Financial progress (Rupees in lakh)
2007-08	1	89.00	4,000	100	88.98
2008-09	8	4737.93	48,712	100	4737.73
2009-10	6	3359.24	25,590	100	3269.44
2010-11	5	1776.80	21,506	100	1722.48

Source: Office of the Chief Engineer, Water Resource Department.

NABARD (RIDF-XV)

The NABARD has sanctioned a loan amount of ₹48.0925 crore for 13 numbers of schemes for the year 2010-11 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 from 2007-08 to 2009-10. The Works of all these schemes have been completed. An amount of ₹955.09 lakh have been utilised against these schemes.

Another, four schemes amounting to ₹700.00 lakh with an anticipated benefited area 6812.5 hectare was sanctioned under State Plan during the year 2010-11. The works of all these schemes have been completed and till date an amount of ₹697.60 lakh have been utilised.

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

The Government of Assam has embarked upon a project under nomenclature "Assam Integrated Flood and River Bank Erosion Risk Management Project" with the financial assistance from the Asian Development Bank. The salient feature of the project is:

Funding Agency	: Asian Development Bank
Nodal Agency	: Ministry of DONER
Total Project Cost	: $ 150.00 Million
Expected Investment	: $ 120.00 Million
Govt. of India	: $ 30.00 Million

The project aims to enhance sustainable and inclusive economic growth in flood prone areas along the Brahmaputra River in the State. Three subproject sites, viz. Dibrugarh (Dibrugarh district), Kaziranga (Golaghat district) and Palasbari (Kamrup district) have been selected based on their productive and strategic importance.

A study team under PPTA was fielded and accordingly the pre-feasibility study of the project was completed in November 2007 and the feasibility study was completed in June 2008.

The loan on the project is presently included as a firm Multi Trench Financing Facility (MFF) loan. The Multi Trench Financing Facility is intended to finance the components including their subprojects of the Investment Plan, which are divided based on procurement packages and/or implementation years and are packaged as individual projects (or trenches).

The DPR of the trench-1 part of the project for the three sub-projects of Dibrugarh, Kaziranga and Palasbari was submitted to Central Water Commission, Govt. of India for approval.

The present status of the scheme is reflected below:

Name of scheme	Estimated Amount	Present Status
Assam Integrated Flood and River Bank Erosion Risk Management Project-Dibrugarh Sub-Project	₹61.33 crore	The scheme is cleared by CWC and presently bidding is under process.
Assam Integrated Flood and River Bank Erosion Risk Management Project-Kaziranga Sub-Project	₹98.35 crore	The scheme is presently under scrutiny at CWC.
Assam Integrated Flood and River Bank Erosion Risk Management Project-Palasbari Sub-Project	₹129.49 crore	The scheme is cleared by CWC and presently bidding is under process.

The project is proposed to be implemented in six years (2011-12 to 2016-17) with two trenches. It will be implemented by Assam Integrated Flood and River Bank Erosion Risk Management Agency.

NEW INITIATIVES TAKEN BY THE DEPARTMENT:

Use of space technology for project planning and flood warning system

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 Matress is used for bank pitching work at Kamarkuchi area in Nalbari district to prevent erosion of river Pagladia. Similarly, bank protection work with geo-matress 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 Grasses 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 and Sivasagar 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.

Land Reclamation

Water Resource Department has adopted the strategy to reclaim the land lost due to erosion and to safeguard the reclaimed land with porcupine and Jack Jetty system including revetment and apron by Geo bags.

Selective Dredging

The dredging of the river bed of the tributaries at the selective reaches, railway bridge approaches, highly silt deposited reaches and the use of the excavated deposits in the raised platforms has been adapted by the Department.

Soil conservation:

The State government through the Soil Conservation Department is implementing various programmes relating to soil and water management. The basic strategy is to include climate change adaptation measures, Rubber and Bamboo plantation, use of vetivers, wetland regeneration and catchment rehabilitation through the Flood Prone River Project and the Integrated Water Shed Management Programme. Some of the few schemes taken by the department that directly or indirectly helps to contain the flood or to compensate the damage to the agricultural land to an extent are described below.

Scheme on Protection of Riverine Land

During the current 11th Five Year Plan, an amount earmarked of ₹120.00 lakh in this particular scheme has been approved with a physical target of 5926 rm for protection of riverine land. During 2007-08, an amount of expenditure for ₹3.00 lakh and during 2008-09 an amount of ₹40.00 lakh have been incurred in order to achieve a physical target of 150 rm and 1975 rm of riverine land respectively. Expenditure of ₹100.00 lakh during 2009-10 with a physical target of 4935 rm of riverine land achieved. It is anticipated to have expenditure of ₹105 lakh, 1680 rm of riverine land.

Protective Afforestation Scheme

During 2008-09, an area of 93 hectare and during 2009-10 an area of 469 hectare of barren and riverine land has been covered under Protective Afforestation Scheme with a financial expenditure of ₹15.00 lakh and ₹140.00 lakh respectively. It is anticipated to carry out a physical target of 262 hectare of such land with a financial expenditure of ₹75.00 lakh during 2010-11 against the total approved outlay of ₹87.00 lakh with a physical target of 870 hectares of barren and riverine land during the current 11th five year plan.

Gully Control Scheme

In 2008-09, an expenditure of ₹46.65 lakh has been incurred to achieve a physical target of 549 hectares of gullied and eroded agricultural land. During 2009-10 an expenditure of ₹75.00 lakh has been incurred to achieve 882 hectare of gullied area. It is anticipated to incur an expenditure of ₹100.00 lakh in this particular scheme with a physical target of 883 hectare of gullied and eroded land during 2009-10 against the approved amount of ₹165.00 lakh with a physical target of 1941 hectare during the current 11th Five Year Plan.

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CHAPTER – VIII

LIVESTOCK, ANIMAL HUSBANDRY AND DAIRY DEVELOPMENT

Assam economy continues to be predominately an agrarian economy as more than 85 percent 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. 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 456 veterinary hospitals/ dispensaries, 10 ICDP centers, 7 Frozen semen production centers, 226 A.I. Centers, 14 hatcheries, 18 poultry breeding farm, 13 pig breeding farm, 3 sheep/goat 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 2007, the cattle population constitutes the largest group with more than one crore followed by goat population 43.20 lakh and pig 20.00 lakh. The buffalo population, on the other hand, was only about 5.00 lakh. While species like cattle, goat and pig have witnessed positive growth over the population of the census of 2003, the population of buffalo showed 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 Censuses 1997, 2003 and 2007.

TABLE-8.1

LIVESTOCK AND POULTRY POPULATION IN ASSAM

[As per Livestock Census 1997, 2003 and 2007]

Livestock Species	1997	2003	2007 †	Growth (%) 2007 over 2003
Total Cattle	8029865	8419647	10041269	+19.26
Buffalo	727707	677669	499912	-26.23
Sheep	83608	154597	353799	+128.85
Goat	2677357	2986913	4319773	+44.62
Horse and Ponies	12476	11642	-	-
Pigs	1082335	1543789	2000429	+29.58
Dogs	857329	656354	-	-
Elephant	1183	-	-	-
Rabbit	2417	4647	-	-
Fowls	12930514	14757979	20609304	+39.65
Ducks	5049361	6888679	8439083	+22.07

†: *Provisional.*

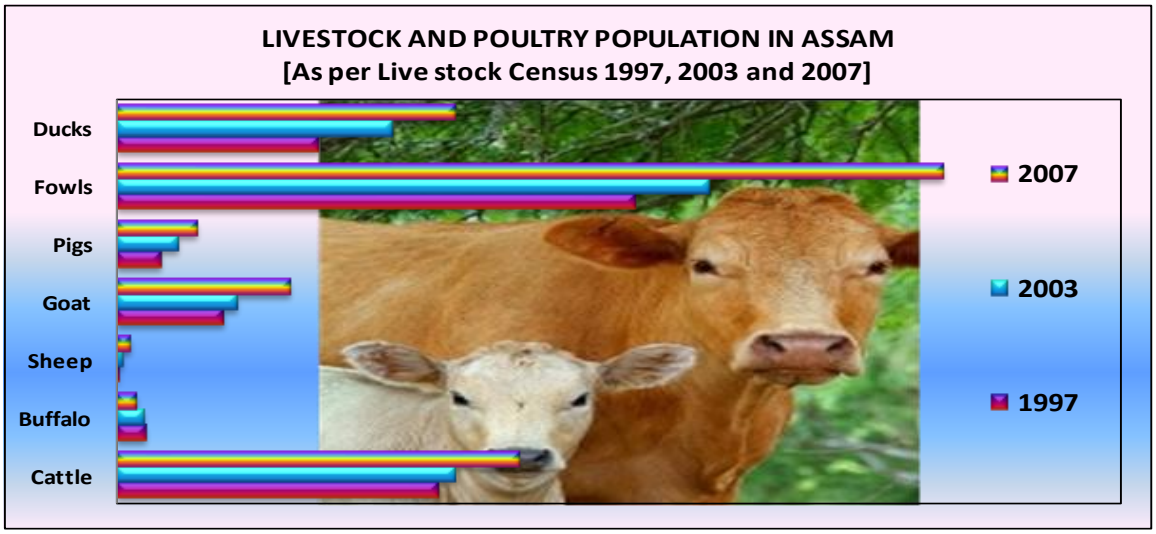
Source: 1.Directorate of Animal Husbandry & Veterinary, Assam.

2. Draft Annual Plan 2011-12, P&D Department, Govt. of Assam.

Poultry Population

The poultry population of the State, as revealed from the Livestock Census 2007, has registered an increase of 34.2 percent over the previous census 2003. The category-wise population of these species during 2007 was fowls 206.09 lakh and duck 84.4 lakh as against 147.58 lakh fowl and 68.9 lakh duck recorded in the Livestock census 2003.The comparative analysis of Livestock census Reports shows that the growth of fowl population was more than 59 percent during the period 1997-2007.In respect of duck population the growth was 67 percent during the said period.

On the other hand, the fowl and duck population recorded 21.6 percent and 22.4 percent fall during 2009-10 over 2005-06 according to the reports published by the State Animal Husbandry & Veterinary Department. This decrease was mainly due to outbreak of "bird flu" and other related diseases in the State during 2007-08 and 2008-09.



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	561212	2807366	9035338	3343114
2009-10	7762572	446185	571756	2828529	7942817	3106136

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

11TH FIVE YEAR PLAN - REVIEW OF ANNUAL PLAN 2007-2011

The aims and objectives of the 11Th Five Year plan was to ensure availability of high – yielding variety of germ plasm to the society for production of milk, meat and egg as well as livestock health coverage for both curative and preventive purposes, up-gradation of skill to combat the dreaded diseases like bird flu, swine flu etc before it reaches the pandemic stage. To achieve the goal, action has been initiated for up-gradation of Animal Health Centre to a Regional Disease Diagnostic Laboratory to cater the need of entire NE Region, extensive health coverage programme for the livestock population through number of Veterinary dispensaries, Hospitals etc throughout the State.

Breed up-gradation Programme

Despite having sizeable number of cattle, milk production in the State is not upto the satisfactory level as the major percentage of the cattle population in the State are of non-descript type. Implementation of World Bank funded scheme as well as the Scheme under 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 very satisfactory. At present, breed upgradation programme is carried out under AACP, RKVY and NPCBB Schemes. The department's serious initiave to increase awareness about need of breed upgradation among the farmers in the remote areas by engaging private AI workers is on, but the impact towards achieving the objective was not upto the expected level.

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. On the top of it the poultry sector suffered from major setback due to outbreak of bird flu in 2007-08 and 2008-09 in the State. However, necessary innovative measures have been taken to rehabilitate the affected poultry farmers under various centrally sponsored schemes viz., RKVY, Livestock Census Programmes, Assistance to ALPCO etc. During 2009-10, the department implemented Rehabilitation Programme in Dhubri and Kokrajhar districts for the victims of Bird flu, Grass Land Development in 10 Districts, Poultry Development in 10 districts of Assam. During 2010-11, it was proposed to raise 14 commercial broiler raising farm in the periphery of Jorhat and Guwahati city under Chief Minister's Special Employment Generation Programme and Assam Vikash Yojana respectively to facilitate bulk production of meat to meet the growing demand.

Piggery Development

Eleven Government 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 network for more production of meat and to create gainful employment. The State Animal Husbandry & Veterinary Department implemented rehabilitation programme for the 6400 families of Kokrajhar and 5600 families of Dhubri districts affected due to outbreak of bird flu in the bordering areas of West Bengal. Besides the department is implementing semi-Intensive Pig Farming under RKVY in 10 districts and selected 46 SHGs [most of them are women] in each district to support 460 beneficiaries in each district. In addition Jonai in Lakhimpur District has been selected to implement the said scheme under RKVY during the year 2010-11. The Department is going to implement its Piggery Development programme under the AACP Scheme in Kokrajhar District and selected 100 SHGs. The department also decided to upgrade the existing base Pig Breeding farm of Dirpai in Dhemaji District under RKVY scheme from 20 sow unit to 100 sow unit with the total cost of ₹2.75 crore.

Goat Development

Considering the low productivity of meat and milk from local breed of goat, the Department has proposed to introduce superior germ plasm (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.

Central Minikit Scheme

It is a centrally sponsored scheme launched with the objective of free distribution of fodder seeds to the farmers. This is a Government of India's scheme where 100% fund for the distribution of seeds comes from the Government of India. Seeds like Oat, Maize, Berseem, Sorghum etc are distributed for both Rabi and Kharif Seasons. Earlier these seeds were used to be supplied to each district annually but after launching the RKVY scheme, supply of the seeds remains confined to Kamrup, Jorhat and Sonitpur district and remaining districts are being covered by RKVY Scheme. Achievements under the Scheme during the years 2009-10 and 2010-11 may be evident from the table 8.3.

TABLE NO: 8.3

ACHEVEMENTS OF FODDER DEVELOPMENT UNDER CENTRAL MINIKIT SCHEME DURING 2009-10 AND 2010-11

Year	Fodder Seed received(qt)	Fodder seed distributed (qt)	No. of beneficiaries	Area under cultivation (ha)	Production (qt)
2009-10	575.00	558.66	3511	900.12	2,85,584
2010-11	630.00	379.70	1157	455.64	1,13,910

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

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 modernize 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. Under the **Rural Infrastructure Development Fund [RIDF]** Scheme of NABARD, the Department proposed to take up the following projects at the estimated costs of ₹6836.64 lakh :

- To construct 60 Hospitals/Dispensary Complex;
- To construct training centre for Veterinary professionals of North Eastern Region at Khanapara, Guwahati;
- To construct/upgrade infrastructure of existing Para-Vets training centre at Ghungoor, Silchar;
- Establishment of hatchery through Entrepreneurship Development in the Capital city periphery.

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 2009-10**".

Milk Production

According to the Report, the total milk production of the State for the year 2009-10 was estimated at 829.86 million liters or 788 thousand tones as against estimated production of 827.01 million liters or 753.40 thousand metric tones during the year 2008-09 which was about 0.97 percent more than the estimated production of milk during the previous year. The cattle milk contributes 84 percent of the total milk production during the year. The production of buffalo and goat milk shared, on the other hand, 16 percent of the total milk production. While the milk production of Crossbreed Cattle registered a positive growth, the milk production of Indigenous cattle, Buffalo and Goat recorded negative growth over the previous year.

TABLE-8.4

TOTAL MILK PRODUCTION IN ASSAM DURING 2009-10

(in million liters)

Season	Cattle			Buffalo	Goat	Total
	Crossbreed Cattle	Indigenous Cattle	Overall			
Summer	70.26	167.06	237.32	38.56	8.57	284.45
Monsoon	60.88	157.65	218.53	29.86	8.07	256.45
Winter	71.01	170.85	241.86	39.10	8.00	288.96
Annual 2009-10	202.15	495.55	697.70	107.52	24.64	829.86
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 (%) 2009-10 over 2008-09	(+)10.1	(-)2.33	(+)0.97	(-)2.16	(-) 5.75	(+)0.34

Source: Report on Integrated Sample Survey for estimation of production of Milk, Egg and Meat-2008-09 and 2009-10.

The per capita/per day milk availability in the State during the year was estimated at 76 ml, which was remained at the same level compared to per capita/per day availability of milk during the previous year. The availability of milk per capita/per day in the State during the year was far below while compared with national level availability of 264 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 2009-10 was around 31.61 lakh and 11.57 lakh respectively as against 30.39 lakh layer fowl and 13.19 lakh layer duck population during the year 2008-09. It has also been revealed from the Report that while the growth of total layer population decreased around 1.0 percent during the year over the previous year, the growth of the layer duck decreased by 12.26 percent and the growth of population of layer fowl increased by 4.0 percent during the same period. However, the growth of population of both the fowl and duck of improved category decreased by around 9.0 percent and 31.0 percent respectively. Out of the total layer fowl and duck population, 96 percent fowl and around 89 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, rearing of birds mostly for meat purpose also one of the prime cause of less production egg in the State. Over and above, impact of outbreak of "Bird Flu" also affected egg production in some of the districts.

Total egg production in the State was estimated at 4684 lakh numbers during the year 2009-10 which was marginally above 4664.86 lakh numbers of eggs produced in the State during the year 2008-09. The Table below shows season wise total egg production in the State based on the estimated average egg yield per layer per season.

TABLE: 8.5

EGG PRODUCTION AND AVERAGE YIELD PER LAYER IN THE STATE DURING THE YEAR 2009-10

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	825.64	70.28	283.98	77.56	1257.47	30	54	29	54
Monsoon	823.18	69.98	309.27	76.69	1279.14	29	53	29	55
Winter	1465.88	69.77	527.08	84.71	2147.45	41	78	51	77
Overall	3114.71	210.03	1120.34	238.97	4684.07	41	78	51	77

Source: The Report on Integrated Sample Survey for estimation of production of Milk, Egg and Meat-2009-10.

The per capita availability of egg in the State for the year 2009-10 was estimated at 15.6 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 in respect of per capita availability 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-2009-10]

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 2009-10 was estimated at 31.59 thousand tones comprising of both livestock and poultry as against estimated meat production around 30.69 thousand tones during 2008-09.

The Table 8.6 shows the number of animals/birds slaughtered, average meat yield per animal/bird and total production of meat during the year 2009-10. It reveals from the table that pig meat contributes 42 percent of the total meat production in the State followed by goat meat (24 percent) and fowl meat (13 percent) respectively during the year. The estimated total meat production in the State was 29.90 thousand tones during the year 2007-08.

TABLE: 8.6

MEAT PRODUCTION IN ASSAM DURING 2009-10

Item	Animals/Birds Slaughtered (No.)	Average meat yield per animal / bird(in kg)	Meat production (in tonne)
Cattle	120762	43.20	5137.90
Buffalo	6445	49.00	315.46
Goat	1156965	6.57	7565.77
Sheep	26850	7.03	187.45
Pig	570711	23.00	13250.36
Fowl	4927279	0.800	4023.21
Duck	6809012	0.977	1111.70

Source: The Report on Integrated Sample Survey for estimation of production of Milk, Egg and Meat-2009-10.

Livestock Products During 2010-11

The volume of milk production of the State was estimated at 832 million litres for the year 2010-11 against 830 million litres produced in 2009-10 showing a marginal increase of milk production over the previous year. During 2008-09 the production of milk in the State was 827 million litres. Meat production of the State was also showing a growth from 32.0 thousand tonnes in 2009-10 to 34.0 thousand tones in 2010-11. The production of meat was 30.7 thousand tonnes in 2008-09. Estimated production of egg in the State although shown some moderate increase during2010-11 over the previous year but remained considerably low compared to the estimated egg production in 2005-06 [536 million no]. The trend of production of Livestock products from 2004-05 to 2010-11 is shown in the Table 8.7.

TABLE-8.7

TRENDS OF PRODUCTION OF LIVE STOCK PRODUCTS IN ASSAM

Item	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11
Milk (million litres)	812	821	823	824	827	830	832
Egg (million number)	522	536	535	490	466	468	470
Meat (000 tonnes)	24.07	26.06	28.8	29.9	30.7	32.0	34.0

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:

Rastriya Krishi Vikash Yojana (RKVY)

Rastriya Krishi Vikash Yojana (RKVY) is the biggest programme in the 11th Five year Plan under Ministry of Agriculture, providing substantial central assistance for the State Plans. The RKVY programme has been structured in such a way that 50% of the funds are allocated to the States taking into account their own growth projections for agriculture and allied sectors during the 11th Plan period. States have been given complete flexibility and choice in selecting investment interventions to achieve the targeted growth projections. The primary aim of the RKVY scheme is to raise the growth of agriculture sector to 4% on an average through public investment in agriculture.

The Animal Husbandry and Veterinary Department, Assam has taken up steps for better production of milk, meat etc and to deliver better service to the public of entire districts of Assam through various selected activities like Cattle Breeding, Goatery development, Piggery development, Fodder development, Animal Health coverage, Skill development, Infrastructure development etc.

Physical and Financial Achievement of RKVY 2010-11 [as on 31st August, 2011]

Components	Physical		Financial [Rs. in lakh]		Remarks
	Target	Achieve-ments (%)	Target	Achieve-ments (%)	
Development of Pig Village	30 units	100	45	45	To increase pork Production
Procurement of disposable Hand Gloves for A.I	4 Lakh Pcs	100	6	6	A.I. done=209002 Nos. Nos of crossbred calves produced =87283 Nos.
Fodder Development	51,692 units	100	594	594	50,000 farmers benefitted
De-worming of A.I Born calves	50000 Nos.	100	17	17	50,000 A.I born calves supported from worms infestation with liver tonic support
Liver Extract for A.I Born Calves	50000 Nos.	100	30	30	
Strengthening of Livestock Farm, Khanapara	1 No.	Being implemented	100	0	To increase milk production

Frozen Semen & Assam Livestock Development (ALDA)

The semen station at Khanapara, Guwahati was initiated during 1968-69 under Intensive Cattle Development Project (I.C.D.P).Later the station has been updated in the year 1975-76 under the Indo-Australian Cattle Breeding Project (IACBP) for production of chilled semen till the beginning of 1995-96. In the year 1995-96 under the ARIASP, Khanapara semen station was strengthened with new bulls and equipments for production of Frozen Semen. Of let the process of A. I. by using Frozen Semen to upgrade the local indigenous cattle with the objective to increase milk productivity has been gaining its popularity in the State.

ALDA was constituted under the society Act as per guidelines of National Project on cattle and Buffalo Breeding (NPCBB) and it started functioning from 2004. The main objective of ALDA is- to produce good quality semen, to improve training facilities for extending breeding network. All the objectives are targeted for improving milk production in the State. As per report of ALDA:

- The No. of Semen distributed for the year 2010-11 is 2.46 Lakh
- The No. of A.I done during 2010-11 is 209301
- The No of Calf borne during 2010-11 is 87677

Co-ordinated 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 indigenous cattle breed. Therefore, CCBP was launched with the objective to infuse superior germ plasm into the non-descript low producing stock by artificial insemination with sole aim 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) (Rs. in Lakh)		
		Year	Fund Release	Achievement
i) Collection of semen.	Started	2007-08	10.00	-
		2008-09	NIL	2.69
		2009-10	NIL	3,69
ii) Distribution of semen in FPR Area.	Started	2009-10	Nil	6.31
		2010-11	Nil	7.51

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.

TABLE – 8.10

PHYSICAL ACHIEVEMENTS OF BCPP ERADICATION PROGRAMME IN ASSAM UNDER NPRE DURING YEAR 2010-11

Item	Achievements during	
	2009-10	2010-11
Village Search	8421	7447
Institutional Search	1209	1005
Slaughter House Inspected material collected	102	98

Source: Directorate of Animal Husbandry & Veterinary, Assam.

TABLE – 8.11

FINANCIAL ACHIEVEMENTS OF BCPP ERADICATION PROGRAMME UNDER NPRE (Wef. 2002-2003 to 2010-11)

Year	Fund allotted (Rupees 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	4,94007.00
2010 - 2011	7.0	6,93087.00

Source: Directorate of Animal Husbandry & Veterinary, Assam.

The State Animal Husbandry & Veterinary Department has set following action plan for **BCPP** eradication during the year 2012-13-

Action Plan for C.B.P.P. Eradication in Assam under N.P.R.E., Govt. of India 2012-13:

1.	Target for village search	All the 9690 nos of villages in the 8 endemic districts of Assam will be searched at least once per year during the 2012-13 to route out any possibility of CBPP occurrence.
2.	Target for institutional search	All the veterinary Institution especially the dispensaries & Hospitals (184 nos) will be inspected one in every month in the 8 endemic districts to follow any respiratory distress cases.
3.	No of Animal Inspected in Slaughter House	Inspection of all the Bovine Slaughter Places located in the endemic districts of Assam at least twice in a week will be carried out for PM, isolation and histopathological examination.
4.	Check post/ Stock Route Search	Examination of all the transportation cattle/ buffalo passing through the 7 CBPP check post will be carried out in the addition to inspection of cattle in market places and other routes of movements.
5.	Clinical Material/ Swab Collection	Materials such as pleveral fluid, swab etc. will be collected from all inspected cases and will processing in the laboratory at central CBPP laboratory in Khanapara and also will be sent to IVRI Izatnagar.

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 Government of India. Surveillance programme are being conducted under NPRE for total eradication of **Rinderpest** and **Bovine Contagious Pluro Pneumonia.** OIE has already issued eradicate declaring "Freedom from Infection in respect of Rinderpest for India". 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 Government of India.

PHYSICAL AND FINANCIAL ACHIEVEMENTS UNDER NPRE

Year	PHYSICAL ACHIEVEMENTS			FINANCIAL ACHIEVEMENTS (Rupees in lakh)		
	Village search	Institution Search	Stock Route Search	Amount released by Govt. of India	Amount released by Govt. of Assam	Amount Drawn
2009-10	7147	717	504	5.00	5.00	5.00
2010-11	7462	601	564	8.00	8.00	8.00

Source: Directorate of Animal Husbandry & Veterinary, Assam.

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. This institute is mainly responsible to make vaccines available in the local dispensaries/ hospitals at free of cost through district network. Beside mass immunization, emphasis has also been given in prevention, diagnosis and treatment if the diseases. Subsequently economically important diseases like Duck Cholera, Duck Plasma, Ranikhet, Swan Fever, F.M.D. etc. prevalent all over the state are also covering by this project. During 2009-10 and 2010-11, 27.05 lakhs 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 with the objective of economic upliftment as well as to generate employment opportunities of rural milk producers/ farming communities and to help urban consumers to get quality milk at a reasonable price. Till February 1982 the Dairy Development activities were carried out by the Director of A.H. & Veterinary Department .To expand the role of Dairy activities in the state economy, the Govt. of Assam created a separate Directorate of Dairy Development bifurcating it from the Animal Husbandry and Veterinary Department during the year 1982.Accordingly the physical activities of the Directorate have been set to achieve the objective through the following:

i) Formation of new Dairy Co-operative Societies in the operation Flood areas and in other Districts.

ii) Enforcement of legal provisions relating to Milk and Dairy products and to liaise with other enforcing authorities.

iii) To liaise with ICAR, IVRI, NDRI, NDDB, IDC, AAU and Govt. of India in all matters relating to research and development activities.

iv) To organize more Town Milk Supply Schemes with a view to cover all districts and Towns of the state and to improve the functioning of the existing Town Milk Supply Schemes and to re-organize the entire Dairy Industry of the state in a Scientific way.

v) To implement the Central Sector and Centrally Sponsored Schemes linking with the existing Milk Supply Schemes and causing inflow of financial benefit to the milk producers in the remote areas by providing a steady market throughout the year.

vi) To Co-ordinate between the allied departments and Nationalized Bank and to provide financial resources to rural farmers for enhancement of milk production and economic status of the villagers especially marginal, small and landless farmers.

vii) To modernize the supply of inputs like A.I., Feed, Fodder, Animal Health coverage and Training etc. to the Dairy farmers in the milk shed areas linked with Milk Supply Schemes and Milk Plants.

viii) To help the villagers in marketing their produce by setting up of suitable transport and marketing organization.

Present Status

- The trend of estimated milk production in the State as presented in the Table-8.12 below shows that the production has been increasing over the years but shares less than 1 percent of total milk produced in India. From the Sample Survey reports published by the State A.H. & Veterinary Department it reveals that the per capita/per day availability of milk in the State is far less than the national level availability of 264 gram milk or the ICMR recommended milk availability norms of 208 gram per head/ per day.
- Infrastructure facilities available for dairy development at present are: Dairy Plant-2 nos., Milk Processing Plant-7 nos., Chilling Plant-12 nos., Bulk Milk Cooler-19 nos., Automatic Milk Collection Unit-21 nos., and Bulk Milk Vending Machine -9 nos.

TABLE: 8.12

TRENDS OF MILK PRODUCTION IN ASSAM & INDIA

(In'000Tonne)

Year	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11
Assam	747 (0.77)	751 (0.74)	752 (0.72)	753 (0.69)	756 (0.67)	791 (0.69)
All India	97061	100869	104842	108587	112540	114305

Figure in bracket shows the share of Milk production in Assam to All India.

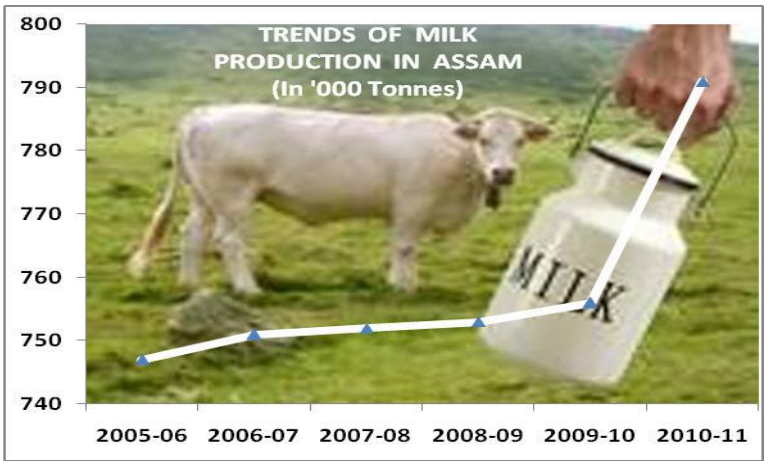
Sources: 1. Agricultural Statistics at a Glance-2009 & 2010.

2. Directorate of Animal Husbandry & Veterinary, Assam.

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 into Dairy Cooperative Society (DCS) and Self Help Group (SHG) and Milk Producers Institutions (MPIs) to provide both forward and backward linkage to them in order to strengthen their capacity, make them more competitive and economically sustainable and to make them 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).

Items	Rupees in Lakh
Revised Project Cost	1083.09
Fund released by Govt. till date (Deposited to PCU)	754.00
Fund Released to the Department by PCU	532.63
Fund Utilized by the Department	534.67
Anticipated expenditure during 2011-12	329.09

ADDITIONAL FINANCING UNDER AACP-2(EAP) [Proposed Period of Implementation-2012-15]

On completion of the term of operation of AACP in December 2011, the second phase of AACP will be continued as AACP-2 to provide support services to DCSs, SHGs, and MPIs with additional financing from World Bank. Dairy Development is included as a priority sector under this programme. Under this programme it is proposed to provide support to 150 nos. of DCSs/SHGs, 200 no of MPIs and to renovate 4(four) nos. of existing milk processing plants. The proposed fund requirement will be ₹503.00 lakh for the programme implementation period.

Integrated Dairy Development Project (IDDP), PHASE-I (100% Govt. of India 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% Govt. of India Funded)

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

- Area of implementation: Jorhat, Dibrugarh and Tinsukia district.
- 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.

A fresh proposal amounting to **₹19.19 Crore** was sent to Govt. of India for implementation of Intensive Dairy Development Programme in the district of **Jorhat, Golaghat, Nalbari and Kamrup (Metro) by West Assam Milk Union (WAMUL).**

Clean Milk Production, CMP -II

The project is proposed to 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 the rest of ₹19.31 lakh is State Govt. share. Govt. of India and Govt. of Assam released fund of ₹20.00 lakh and ₹3.86 lakh respectively to the implementing agency during March'2009 and was utilized. The training to 862 Farmers of 31 DCSs has already been completed. The balance amount of ₹77.63 Lakh to be received from the Govt. of India is proposed under annual plan 2011-12.

Rastriya Krishi Vikash Yojana (RKVY)

All the existing or new schemes/projects under the Dairy Development, Assam will be carried out in synchronization with each other irrespective of the source of fund to achieve one common objective i.e. to increase overall milk production in the State, thereby giving livelihood avenues to the poor dairy farmers on one hand and to give quality milk and milk products to the consumers at a remunerative price.

The activity of cattle induction to dairy farmers of the Dairy Cooperative Societies (DCSs) formed under EAP project AACP in the districts of Kamrup, Barpeta, Darrang, Sonitpur, Nagaon, Morigaon, Jorhat , Golaghat and Cachar are in progress under RKVY during 2008-09 & 2009–10, so as to enhance overall milk production capacity of the existing cattle rearer's and to have the economic sustainability at the end of the project period. Milk procurement and marketing infrastructure are also created in 27 locations of above project districts for giving these farmer communities the forward and backward linkages.

The State Level Sanctioning Committee (SLSC) for the project related to RKVY under Dairy Development Department accorded sanction of the following project outlay during the years 2008-09, 2009-10 and 2010-11. The project is implemented in the 21 districts viz, Dhuburi, Bongaigaon, Baska, Udalguri, Goalpara, Nalbari, Sibsagar, Dibrugarh, Tinsukia, Chirang, Kokrajhar, Jorhat, Kamrup, Barpeta, Darrang, Sonitpur, Nagaon, Morigaon, Golaghat, Cachar and Lakhimpur.

Year	Sanction accorded by SLSC	Release of fund by Govt. of India
2008-09	₹3.30 Crore	₹3.30 Crore
2009-10	₹5.00 Crore	₹5.00 Crore
2010-11	₹4.00 crore	₹4.00 Crore
2011-12	₹7.00 crore	Sanction received

Following activities are undertaken during the financial year 2010-11:

Target under 2010-11:-

- Total Sanction amount :- ₹400.00 Lakh
- Physical Targets:-
  - Establishment of Milk collection centre … 15 Nos
  - Installation of BMC … 21 No.
  - Milk Sale booth … 60 Nos.
  - Distribution of bicycle including two Aluminium Milk Can … 555 Nos
  - Consumers Awareness programme … 20 Districts

Target under 2011-12:-

- Total Sanction amount: - ₹700.00 Lakh
- Physical Targets:-
  - Up-gradation of Milk Processing Plant … 5 Nos
  - Installation of BMC … 5 No.
  - Chaff Cutter machine for Farmers to DCSs … 500 farmers
  - Power Driven Cream separator to DCSs … 50 DCSs
  - Milk Sale booth with Refrigeration facility … 15 Nos
  - Establishment of Milk Parlour … 3 Nos
  - Distribution of bicycle including two Aluminium Milk Can … 855 Nos
  - Lactometer with Cylinder & thermometer … 3000 household
  - Consumers Awareness programme … 27 Districts

Milk Village Scheme (State Plan)

This is a state plan scheme meant for distribution of crossbreed cattle among the Schedule Caste and Schedule Tribe people of selected villages on a cluster basis in different sub division of the state. Milch Cattle with calf and other inputs like cattle insurance, cowshed, medicine, feeds and fodder are proposed to be provided SC and ST beneficiaries during 2011-12.

- SCSP - 140 Beneficiaries - ₹200.00 Lakh
- TSP - 42 Beneficiaries - ₹60.00 Lakh

Town Milk Supply Scheme

There are all together 7 (seven) nos. of Town Milk Supply Schemes (TMSS) 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 theme of the TMSS are procurement, processing and marketing that will make rural milk producers an assured market and the urban consumers clean and hygienic milk and milk products at reasonable price. To achieve the goal the dilapidated existing milk chilling plants and processing plants are to be revitalized by incorporating new machinery and equipments and minor repairing and renovation of the buildings. Due to activities resulted out of implementation of projects like EAP and RKVY; the societies have taken steps to increase milk production in the producer's level which has started showing result. For proper market linkage of this increased quantity of milk, provision for processing facility has become an urgent need. In addition to this provision for establishment of milk collection centre with installation of Bulk Milk cooler of various capacities in these societies are proposed to maintain cold chain under Annual Plan 2011-12 for which following activities are proposed to be undertaken during 2011-12.

i. Renovation and up-gradation of existing 2000LPD Milk Processing Plant (MPP) located at Nagaon & Bokakhat to 5000 LPD MPP.
ii. Renovation and revival of Chilling Plant located Dudhnoi.
iii. To establish Bulk Milk Cooler having 1000 litre capacity at Joysagar & Velloguri (Nagaon) and 50 litre capacity at Abhayapuri and Goalpara.

Milk Traders Training on Clean & Hygienic Milk Handling and Distribution

At present, the most of the milk consumers of City/Town areas are getting their milk from milk vendors in unhygienic condition. So to create awareness among milk vendors/supplier regarding Clean & Hygienic milk handling and distribution and diversified dairy products made from local milk production, proposal for awareness programme is made under Annual Plan 2011-12.

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 is a bankable scheme and the margin money will be borne by the department.

The farmers group 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 objective of the scheme is 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.

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.

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CHAPTER – IX

FISHERY

With its vast water resources suitable for pisciculture, the Fishery sector is considered as an important economic activity in the socio-economic context in the State of Assam. The State Fishery Sector has made consistent growth during the 11th Plan period registering an average growth of 6.4% in fish production. Fish production in the State has reached the level of 232 million kg in 2010-11 compared to 219 million kg in 2009-10. The highest fish production was noticed in Nagaon district among the all districts of the State. It is observed from the statistics of the last few years that the State has encouraging prospect in fish production as well as in employment generation through Fishery sector. Estimated market demand of fish during 2010-11 is 249 thousand MT. The Fishery Department of the State is proposed to activate the Marketing Wing of the Department to serve the producers and consumers in a manner so that maximum return goes to fish farmers while the consumer gets the commodity at reasonable rate. It is therefore proposed to strengthen the fish marketing activity under the scheme through Self Help Group (SHG). However, there is considerably large gap in between demand for fish and production of fish in the State. The present per capita fish production is 8.30 kg. per year. The Department of Fishery of the State has undertaken various measures to meet the requirement of the shortage by enhancing fish production and productivity through:

- Horizontal expansion of area through construction of new pond
- Reclamation of low lying areas & derelict water bodies
- Development and sustainable management of wet land/*beel* fisheries, pen and cage culture
- Integrated fish farming
- Species diversification
- Improvement in quality of fish seed and regulation on fish seed production through Assam Fish Seed Rules, 2010.
- Conservation of fish and fishery resources through intensive sensitization programme and implementation of Assam Fishery Rules.
- Commercialization of indigenous fishes for entrepreneurship development
- Infrastructure development through establishment of feed mill, hatchery, hygienic fish market for remunerative price for both producers and consumers etc
- Development of model Fishermen/ Fishery villages
- Initiation of organic Fish Farming in the State with provision of certification.
- Strengthening of extension networking through “Para fishery extension workers” etc.

Fish farming has now become popular and more and more people are taking up fish farming on a commercial basis as a result of extensive awareness campaign by the Department. Considering the potential of the fishery sector on rural employment, income and livelihood, Government has been making a number of positive interventions for sustainable development of this sector and to meet the ever increasing demand for fish. The focus is on bridging the gap between the demand and supply of fish. Government is also taking various initiatives for conservation and propagation of local fish species including the indigenous fish having ornamental value. The fish seed production and its marketing are also regulated under the provisions of newly framed Assam Fish Seed Rules, 2010 to ensure quality fish seed to the farmers.

The Assam Fisheries Development Corporation Ltd. has been making effective interventions in the *beels*/wetland which has resulted in increasing the productivity in the *beels* to a considerable extent with maximum of 1600 kg/ha/yr. This has also benefited the local communities around the *beels* by raising their living standard. The Corporation has received an amount of ₹35.00 lakh as Grants-in- Aid for development of various activities in this Sector.

TABLE-9.1

PRODUCTION OF FISH SEED AND FISH IN ASSAM

Year	Production of Fish Seed (in million Nos)	Production of Fish (in tone)
2004-05	2741	186314
2005-06	3207	187378
2006-07	2062	181479
2007-08	3206	190320
2008-09	3429	206700
2009-10	3326	218823
2010-11	4264	232339

Source: State Fishery Department, Guwahati.

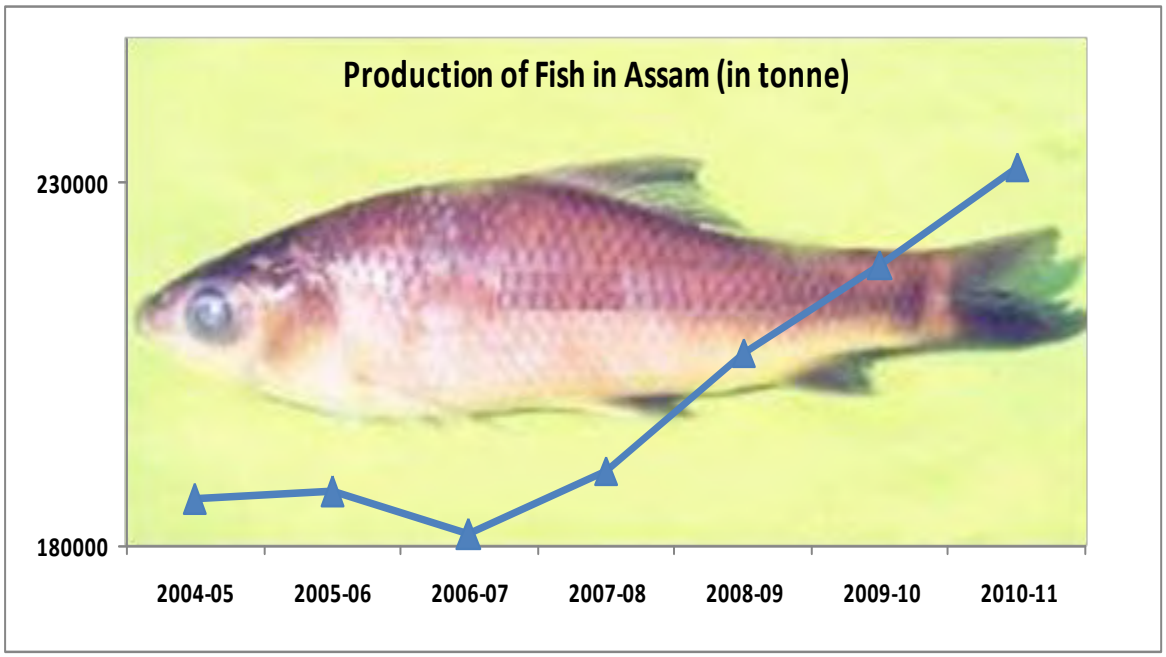

TABLE-9.2

STATISTICS OF FISHERIES ON INLAND WATER BODIES, 2011

Resource	Number	Water Spread Area (Hectare)
River Fisheries		2,05,000
i) Main River	2	
ii) Tributaries	53	
Beels/Ox-bow Lakes Fisheries		1,00,815
i) Registered *Beels*	430	
ii) Un- Registered *Beels*	766	
Forest Fisheries	N.A.	5,017
Derelict Water Bodies/ Swamp	9,852	39,240
Reservoir Fisheries	1	1,713
Ponds and Tanks	2,08,124	39,583
Total	2,19,318	3,91,481

For Enhancement of the Fish production in the State the following Schemes/Programmes are implemented in the State during the last five years:

Fish Seed Farming/Women Empowerment

Quality Fish Seed is the basic inputs for profitable fish farming. One of the main focuses of the Department is production and distribution of quality fish seed. There are about 220 hatcheries in private sector and 7 hatcheries under the Department which developed 4263 numbers of fish seed farming.

Under Women Empowerment Programme women beneficiaries are imparted with required training and provided with inputs for rearing of fish seed to produce fingerlings in the backyard ponds as part time employment to provide additional income to their families. The number of beneficiaries was 1028 in 2010-11.

EMPLOYMENT GENERATION PROGRAMME

Chief Minister's Special Employment Generation Programme

This newly introduced program aims at generating employment and increasing fish production through development of water areas and scientific fish farming managed by SHGs. Provision of fishing tools like nets, boats, bicycle etc are also made under the programme. The expenditure incurred for implementation of the scheme was ₹274.00 lakh during the year 2010-11.

Chief Minister's Employment Generation Programme	Target	Achievement
Water area Development (Hectare)	127	76
Supply of Boat (No)	203	203
Supply of Net (No)	1300	1300
Supply of By-cycle with Aluminium Seed Container (No)	125	125

Employment Generation Scheme through SHG under Fishery Extension Service

The aim and objective of the scheme is to engage the unemployed youth of the locality in fish farming where low-lying areas are available. Under this programme assistance was extended to *Matsya Mitras* for taking up fisheries development activities, training imparted to educated unemployed youth as *Matsya Mitra* and organising the 'Assam *Matsya Mahotsav*'.

Development of Fresh Water Aquaculture through FFDA

This is a centrally sponsored scheme with 75% of funding for development component being shared by the Government of India. The scheme aims at development of individual ponds through involvement of fish farmers by providing them with financial assistance in the form of subsidies and bank loans. The water area developed under Aquaculture through FFDA was 144 Hectare in 2010-11.

Reclamation of derelict Water Bodies

The State is having about 39,000 Hectare of derelict water bodies which are unsuitable for agriculture. There is great potential for fish farming in these water bodies by converting them into scientific fisheries. The objective of the Scheme is to reclaim the derelict water bodies for enhancement of fish production and to provide employment to the rural unemployed youth. After development, the management is vested with local communities/SHGs supported by technical guidance of the Department. The achievement in reclamation of derelict water bodies was 238 Hectare against the target of 398.08 Hectare.

Fisheries Extension and Training

For increasing farm output, training and extension support with transfer of fish farming technologies has been accorded due importance. The aim and objective of the scheme is to impart training to the fish farmers on scientific fish farming and publication of training manual to popularise scientific fish farming among fish farmers. The one time assistance and training to unemployed youth as *Matsya Mitra* was provided to 109 and 90 numbers respectively under the scheme of Fishery Extension and Training.

National Welfare Fund for Fishermen (Centrally Sponsored Scheme)

a) **Saving-cum-Relief**: The objective of Saving-cum-Relief scheme is to provide financial assistance to the fishermen during the lean fishing period. The contribution by the fisher folk is ₹600.00 which is collected over a period of 9 months. This contribution is matched by Government of India contribution of ₹900.00 and State Government's contribution of ₹300.00. The accumulated amount is distributed among the fishermen in three equal installments at the rate of ₹600.00 per month.

b) **Fishermen's Insurance**: Under the scheme, fisher folk licensed, identified or registered with the State Government could be insured for ₹1.00 lakh against death or permanent disability and ₹0.50 lakh for partial disability.

Development of *Beel* and Open Water Fisheries [State and Central Sponsored Programme (SCSP)]

The objective of the scheme is to develop small *beels* and open water fisheries within SCSP areas followed by community based management. The area developed under this scheme was 105 hectare in the year 2010-11.

Rural Infrastructure Development Fund

This is a programme under NABARD for infrastructure development in the rural areas contributing towards agriculture growth, rural connectivity and other social sector development. The programme is being implemented by Assam Fisheries Development Corporation.

Assam Agricultural Competitiveness Project (AACP)

During the period from 1995-96 to 2003-04 the Department of Fisheries, Assam has successfully implemented a multi-component World Bank Aided Project "Assam Rural Infrastructure and Agricultural Services Project" (ARIASP). As a follow up programme, the World Bank Aided Project namely the Assam Agricultural Competitiveness Project (AACP) is under implementation by the Department since 2004-05 with a total fund of ₹6076 lakh with the objective to increase competitiveness amongst poor and marginal farmers/communities dependent on fish farming as primary and secondary income. Up to 2010-11, an amount of ₹4468 lakh has been released by Project Coordination Unit, Khanapara under this program. Major achievements under this project is development of over 3750 hectare of water area covering individual ponds, community tanks, *beels* benefiting more than 29,000 farmers; establishment of 24 improved mini hatcheries and capacity building of over 1200 departmental officers & staffs.

Rashtriya Krishi Vikash Yojana (RKVY)

This Scheme aims at holistic development of Agriculture and allied sector. The pattern of funding is 100 percent Central Government grant. The Department has been implementing various schemes viz. construction of new ponds, development of low-lying areas, *beels/*wet lands, fresh water prawn farming, *kuchia* culture, establishment of fish feed mills, hatcheries, development of Departmental Farms etc.

National Fisheries Development Board (NFDB)

National Fisheries Development Board (NFDB) is established as a nodal agency to work towards blue revolution with a focused attention basically aimed at fish production in the country. For addressing the issues related to production of enhancement through sustainable approach, NFDB has formulated various activities.

The NFDB developed Farmers Pond covering water area of 113.12 Hectare in 2010-11 where the number of beneficiaries were 93.

Assam Fisheries Investment Facilitation Centre

For facilitating easy access to institutional credit to the prospective fish farmers and fishery entrepreneurs, the Assam Fisheries Investment Facilitation Centre, a Single Window System was established at Panbazar, Guwahati during the year 2008. The Centre has facilitated direct interaction of Bankers with the farmers besides assisting them in preparing fisheries projects for bank loan. As a result of this innovative initiative by

the Department, an amount of ₹10.31 Crore has already been sanctioned till 31st January 2011 to 706 fish farmers by the various Banks like SBI, UBI, Assam Gramin Vikash Bank and Indian Overseas Bank. It is proposed to fully equip the Facilitation Centre with computerized facility, internet etc. for the benefit of the fish farmers.

Assam Matsya Mahotsav 2011

Assam Matsya Mahotsav is an annual Fish Festival cum Awareness Program organised with the objective of creating mass awareness on various aspects of scientific fish farming, role of various stake holders in the development of the Fishery sector in the State and various initiatives undertaken by the Department, Assam Agriculture University, Indian Council of Agriculture Research Institutions, academic institutions. It also provides a platform to all stake holders for discussion, exchange of ideas and dissemination of fisheries technologies. The Mahotsav was organized for the 5th time on 27th, 28th & 29th January, 2011 at Shilpgram, Guwahati with the participation of farmers, NGOs, SHGs, academicians, researchers, ICAR Institutions, AAU, Gauhati University, Dibrugarh University, College of Fisheries, Raha, National Fisheries Development Board and Bankers. The activities include exhibition, seminars, workshops, various competitions.

Matsya MIitra

To strengthen the extension services at field level, the innovative scheme of Matsya Mitras was introduced in the year 2008. Educated unemployed youths are given short duration training for 15 days in the Fishery College, Raha on various aspects on fish farming and allied subjects. The trainees are provided with a kit box required for testing different aspects of water parameters required in fish farming. The Matsya Mitras provides the required extension services to the fish farmers on the spot besides helping them in scheme preparation for Govt/Bank assistance. The Matsya Mitras have also been assisted by the Department to take up fish farming in their own ponds, establish fishery service centres/clinics. There are 410 trained Matsya Mitras in the State as on 2010-11.

Fresh Water Prawn Hatchery

Fresh water prawn is one of the most sought after aqua product. With a view to popularize and encourage prawn farming and to make prawn seed available in the State, the Department has established one Fresh Water Prawn Hatchery, in the Meen Bhawan Complex at Guwahati, the first of its kind in the State under RKVY. The works for establishment of two other such hatcheries in Dhubri & Silchar are under process.

State Fish Laboratory

A State Fish Laboratory has been established at the Directorate Complex, Guwahati under RKVY for testing of Soil and water quality parameters. Additionally the laboratory will also extend support to farmers for investigation on fish health and hygiene.

Live Gene Bank

Live Gene Bank, a joint venture of Department of Fisheries, Assam and National Bureau of Fish Genetic Research, Lucknow established at Ulubari Fish Seed Farm, Guwahati in 2007 has been continuing. Under this programme, conservation through breeding and propagation of local endangered economically important fish species has been taken up for future use and research. Species like *Chital* and *Pavo* has been successfully bred and reared in improved ponds in the farm.

The expenditure incurred for implementation of various schemes/ plan & programmes for development of Fishery sector during the last three years have shown in the following Table:

TABLE -9.3

FINANCIAL ALLOCATION AND EXPENDITURE IN THE FISHERY SECTOR, ASSAM

(Rupees in lakh)

Name of the Schemes/ Plan & Programmes	2008-09		2009-10		2010-11	
	Outlay	Expen-diture	Outlay	Expen-diture	Outlay	Expen-diture
General Areas						
CM Special Employment Generation Programme					274.00	274.00
Grants in aid to Assam Fisheries Development Corporation	10.00	7.00	14.00	14.00	35.00	35.00
Marketing and Transport of Fish	5.00	0.00	10.00	3.00		
Fish Seed Farming	300.00	211.10	375.00	319.18	76.00	75.77
Women Empowerment programme in Fish Farming			150.00	150.00	45.00	45.00
Fish Farmer Development Agency	150.00	150.00	300.00	300.00	230.00	230.00
Extension and Training (CSS)	10.00	0.00	10.00	10.00	10.00	7.50
Development of Water logged areas and derelict water bodies (CSS)			10.00	0.00	10.00	10.00
Employment Generation Scheme through SHG	304.10	299.46	150.00	150.00		
Training in fisheries	40.00	5.00	28.20	25.08	3.70	1.62
Fishery Extension Service			50.50	15.74	169.30	150.00
Reclamation of Derelict Water bodies	404.00	393.20	750.00	745.00	350.00	300.00
Fishery Research & Investigation	12.00	4.85	10.00	9.98		
Survey of Fisheries and Collection of Statistics	29.00	29.00	15.00	3.55	2.00	2.00
Sub Total	**1950.00**	**1586.35**	**2170.50**	**1958.02**	**1284.00**	**1201.75**
Tribal Sub Plan						
Fish seed Farming	15.00	6.00	30.00	30.00	30.00	30.00
Reclamation of Derelict Water Bodies	35.00	35.00	30.00	30.00	30.00	-
Fish Farmers Development Agency	35.00	0.00	20.00	20.00	10.00	10.00
Sub -Total	**85.00**	**41.00**	**80.00**	**80.00**	**70.00**	**40.00**

Contd....

Name of the Schemes/ Plan & Programmes	2008-09		2009-10		2010-11	
	Outlay	Expen-diture	Outlay	Expen-diture	Outlay	Expen-diture
Scheduled Cast Sub Plan						
Reclamation of Derelict water Bodies	130.00	124.59	178.00	178.00	236.00	236.00
National Welfare Fund for Fishermen						
a) Housing	20.00	0.00	20.00	20.00	18.00	
b) Saving-Cum Relief	12.00	0.00	12.00	12.00	10.00	10.00
c) Fishermen Insurance			2.00	2.00	4.00	4.00
Fish Farmer Development Agency	88.00	88.00	88.00	88.00	10.00	10.00
Development of *Beel*/ Fisheries/ Open Water Fisheries	200.00	22.16	190.00	190.00	200.00	200.00
Sub-Total	450.00	234.75	490.00	490.00	478.00	460.00
Externally Aided Project						
ARIASP & AACP	1037.00	1037.00	444.00	444.00	441.00	39.45
Sub-Total	1037.00	1037.00	444.00	444.00	441.00	39.45
Rural Infrastructure Dev. Project					700.00	227.00
Sub-Total					700.00	227.00
CENTRAL SHARE						
AQUACULTURE DEV. UNDER (ffda)	320.00		624.00	75.02	420.00	75.00
National welfare Fund for Fishermen	30.00		60.00	14.60		
a) Housing					54.00	
b) Saving cum Relief Scheme	5.00		36.00		30.00	
c) Fishermen Insurance			6.00	6.00	12.00	12.00
Development of waterlogged areas	15.00		30.00		30.00	
Strengthening of Data base and Information Networking	20.00	3.30	20.00	5.00	15.00	
Training and extension	20.00		3.30	15.80	30.00	
Sub Total	410.00	3.30	779.30	116.42	591.00	87.00
Total (State Plan + EAP)	3932.00	2902.40	3990.00	3088.44	3564.00	2055.72
RKVY (Rastriya Krishi Vikash Yojana)	2000.00	2000.00	1000.00	812.62	1400.00	625.21
Sub Total	2000.00	2000.00	1000.00	812.62	1400.00	625.21
NFDB (National Fisheries Development Board)	10.35	10.35	134.45	75.19	94.71	44.63
Sub Total			134.45	75.19	94.71	44.63
Grand Total	5942.35	4912.75	5124.45	3976.25	5058.71	2725.56

APPENDIX – 9.1

DISTRICTWISE WATER SPREAD AREA 2009-10

District	Ponds & Tanks*		Beel		Swamps/Derelict /Lowlying Area		Total	
	Nos	Water Area (Hect)	Nos	Water Spread Area (Hect)	Nos	Water Spread Area (Hect)	Nos	Water Area (Hect)
Dhubri	7520	1373	156	6999	77	282	7753	8654
Kokrajhar	5118	987	30	1100	5	332	5153	2419
Chirang	79	23	-	-	-	-	-	-
Bongaigaon	7362	911	47	4348	7	107	7416	5366
Goalpara	8782	966	57	6820	49	281	8888	8067
Barpeta	24026	2901	23	6299	61	1086	24110	10286
Nalbari	23114	3087	37	2399	57	470	23208	5956
Baksa	89	29	-	-	-	-	-	-
Kamrup(R+M)	20412	2701	59	1418	92	270	20563	4389
Darrang	17184	2464	28	5064	50	502	17262	8930
Udalguri	95	23	-	-	-	-	-	-
Sonitpur	14305	1655	60	7032	132	461	14497	9148
Lakhimpur	8104	1212	20	6499	68	570	8192	8281
Dhemaji	5872	504	16	4575	58	128	5946	5207
Morigaon	4798	703	84	8299	163	1583	5045	10585
Nagaon	44084	4462	134	9919	158	870	44376	15251
Golaghat	5406	702	15	2600	96	525	5517	3827
Jorhat	5646	804	124	6298	131	7154	5901	14256
Sivasagar	8893	741	66	3878	216	3111	9175	7730
Dibrugarh	3256	349	38	5289	10	50	3304	5688
Tinsukia	2478	473	36	2957	7	10	2521	3440
Karbi-Anglong	3795	528	19	60	0	0	3814	588
Dima Hasao	619	111	1	3	13	5	633	119
Karimganj	21566	3406	37	3459	52	7403	21655	14268
Hailakandi	18846	2203	35	1241	20	40	18901	3484
Cachar	20320	6265	75	3359	268	14000	20663	23624
Assam	**281769**	**39583**	**1197**	**100815**	**1790**	**39240**	**284493**	**179638**

N.B.: Districtwise Water area of River is not available

* Includes individual & community Ponds & Tanks

*(R+M)=Rural +Metro

Source: Directorate of Fishery, Assam.

APPENDIX – 9.2
DISTRICTWISE NUMBER OF REGISTERED BEEL, FISHERIES AND RIVER FISHERIES IN ASSAM, 2010-11

District	Registered Beel Fisheries	Registered River Fisheries
Dhubri	75	13
Kokrajhar	2	3
Chirang	0	0
Bongaigaon	6	0
Goalpara	17	3
Barpeta	23	15
Nalbari	18	0
Baksa	0	0
Kamrup (Rural+Metro)	20	5
Darrang	16	2
Udalguri	0	0
Sonitpur	20	5
Lakhimpur	11	8
Dhemaji	8	8
Morigaon	35	5
Nagaon	40	12
Golaghat	15	1
Jorhat	17	8
Sivasagar	23	9
Dibrugarh	8	9
Tinsukia	5	10
Karbi-Anglong	0	0
Dima Hasao	0	0
Karimganj	27	9
Hailakandi	6	9
Cachar	38	43
ASSAM	**430**	**177**

Source: Directorate of Fishery, Assam.

APPENDIX-9.3
PRODUCTION OF FISH SEED AND FISH IN ASSAM

Year	Production of Fish Seed (in Million Nos.)	Production of Fish (in Tonne)
2001-02	1801	161450
2002-03	1902	165521
2003-04	2228	180945
2004-05	2741	186314
2005-06	3208	187378
2006-07	2063	181479
2007-08	3206	190320
2008-09	3429	206700
2009-10	3326	218824
2010-11	4264	232339

Source: Directorate of Fishery, Assam.

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CHAPTER – X

FORESTRY

FOREST AREA :

Forestry is a vital sector of the State . The State Forest Department has been entrusted the maintenance and management of Forest, Forest Produce and Wild life in the State. In the recent past the importance of environment protection and conservation of natural resources has been given wide attention at state and national level. As a result various NGO's with the Forest Department has come forward to protect and maintain the Forestry sector of the State. The State of Assam is enriched with extensive forest area and also rich with different species and strains of floras and faunas along with valuable forest products.. People of Assam from time immemorial have also depended upon the forests to meet their daily needs.

Forest Cover:

The forest cover in the state, as per India State Forest Report 2009, based on interpretation of satellite data of October 2006-January 2007, is 27,692 sq km, which is 35.30% of the State's geographical area. In terms of forest canopy density classes, the State has 1,461 sq km very dense forest, 11,558 sq km moderately dense forest and 14,673 sq km open forest. Probably more than what the nation aspires to achieve by the end of 11th Five Year 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 14212 sq km and 2102 sq km respectively in 2010-11 as against 14206 sq km and 1942 sq km reported in 2009-10 by the State Forest Department. The total Forest area excluding unclassed State Forest is 20092 sq km and 3778 sq km area is under Protected Area in 2010-11, as reported. Thus, the reserved forest area constitutes around 18 percent and total forest area excluding unclassed forest constitute around 26 percent 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:

a) Preservation of the existing biodiversities.

b) Arresting the trend of degradation and reverting the process by afforestation & extension forestry with multiple stake holders.

c) Preservation and development of the existing Protected Area Network (PAN) and their expansion in suitable areas.

d) Improvement of research and development activities in Forestry and Wildlife.

e) Bridging the gaps in infrastructural and 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 2010-11, the Department has earned ₹5868.52 lakh as revenue from the forest product which is however, 24 percent less earning than that of the previous year. The out-turn of major and minor forest products for the years 2008-09, 2009-10 and 2010-11 may be evident from the table below:

TABLE-10.2

PRODUCTION OF FOREST PRODUCT OF THE STATE

Forest Produce	Unit of production	2008-09	2009-10	2010-11
Major forest produce				
Timber	Cubic Metre	13731	9839	34142
Fuel wood	Stack Cubic Metre	8169	16063	1289
Minor forest produce				
Sand	Cubic Metre	525.178	2905.333	2470.587
Gravel/Stone	Do	2182.197	34269.919	1979.815
Silt/Clay	Do	2682.504	2243.569	1730.252
Others		2974.431	4192.455	6579.400

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:

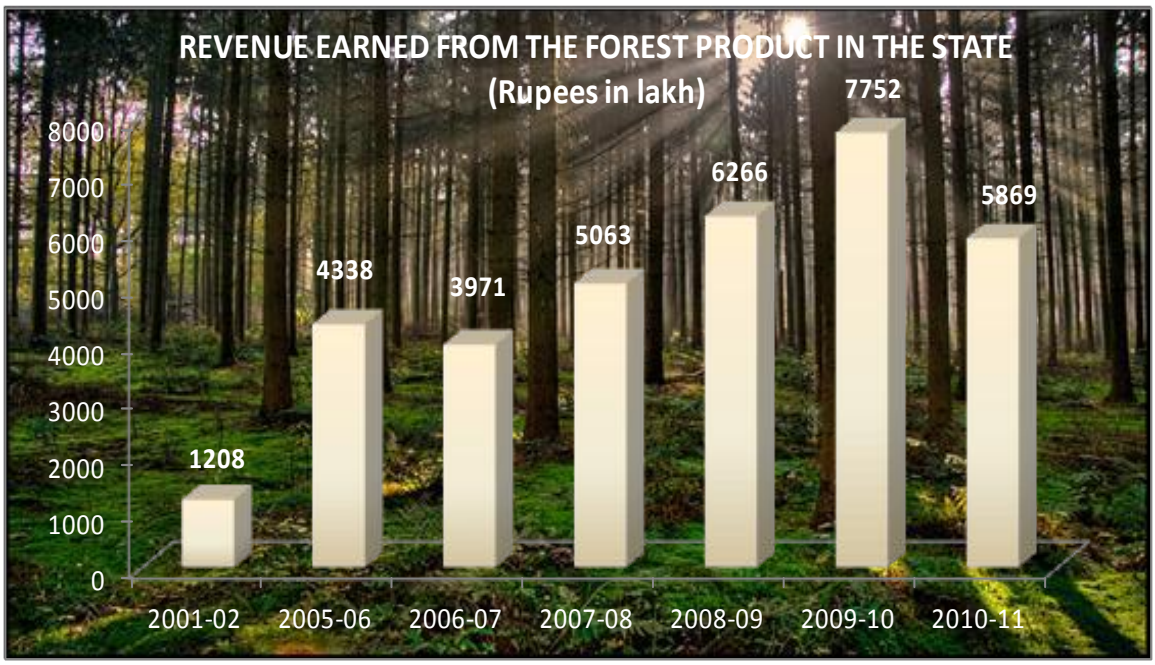
TABLE 10.3

REVENUE EARNED FROM THE FOREST PRODUCT IN THE STATE

(Rupees in lakh)

Year	2001-02	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11
Revenue Earned	1207.77	4338.26	3971.07	5062.70	6266.00	7751.60	5868.52

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

Name of the National Park	Location (District)	Area in Sq. Km.
Kaziranga National Park	Golaghat, Nagaon & Sonitpur	858.98
Manas National Park	Chirang and Baksa	500.00
Orang National Park	Udalguri and Sonitpur	78.81
Nameri National Park	Sonitpur	200.00
Dibru-Saikhowa National Park	Dibrugarh and Tinsukia	340.00

WILDLIFE SANCTUARIES (WLS)

Name of the Wildlife Sanctuaries	Location (District)	Area in Sq. Km.
Bhejan-Borajan-Padumoni WLS	Tinsukia	7.22
Panidehing WLS	Sivasagar	33.93
Hollongpara Gibbon WLS	Jorhat	20.98
Nambor-Doigurung WLS	Golaghat	97.15
Garampani WLS	Karbi Anglong	6.05
Nambor WLS	Karbi Anglong	37.00
East Karbi Anlong WLS	Karbi Anglong	221.81
Marat Longri WLS	Karbi Anglong	451.00
Burhachapori WLS	Sonitpur	44.06
Laokhowa WLS	Nagaon	70.13
Pabitora WLS	Morigaon	38.80
Sonai-Rupai WLS	Sonitpur	220.00
Barnadi WLS	Udalguri	26.22
Chakrasila WLS	Kokrajhar	45.56
Dihing-Patkai WLS	Dibrugarh and Tinsukia	111.19
Barail WLS	Cachar	326.25
Amchang WLS	Kamrup (Metro)	78.64
Deepor Beel Wildlife Sanctuary	Kamrup (Metro)	4.1

PROPOSED WILDLIFE SANCTUARIES

Name of the Proposed Wildlife Sanctuaries	Location (District)	Area in Sq. Km.
North Karbi Anglong WLS	Karbi Anglong	96.00
Bardoibam Beelmukh WLS	Lakhimpur	11.25

Source: Chief Conservator of Forest (WL), Assam.

Tiger Project

The objective of the Tiger Project is to preserve Tiger population by providing all round protected measures. The total area under Tiger Reserve in Assam is 4211.52 Sq km. and numbers of Tigers in the Reserve is 354 as per 'Tiger Census' of 2000. 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.

Project Elephant

The scheme is proposed for the payment of Ex-Gratia for loss of life and property due to elephant depredation, procurement of arms and ammunition, setting up of anti-depredation squads of villagers to scare away Wild Elephants, Establishment of squad with temporary camp, mobile power fencing, etc. The amount of ₹500.00 lakh was earmarked during the year 2010-11.

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.

TABLE –10.5

POPULATION OF RHINO, ELEPHANT, TIGER, LEOPARD AND ANY OTHERS PRIMATES IN VARIOUS CENSUSES IN THE STATE

Name of Animals	Year of Census	Number of Animals
Elephant	1997	5312
	2002	5246
	2008	5281
Tiger	1993	430
	1997	458
	2000	354
Rhino	1999	1672
	2006	2006
	2009	2201
Leopard	1993	239
	2000	248
Any others-Primate	2009	127502
i) Rhesus Macaque	Do	72674
ii) Assamese Macaque	Do	30866
iii) Slow Loris	Do	431
iv) Pig Tailed Macaque	Do	649
v) Capped Langur	Do	17813
vi) Golden Langur	Do	2772
vii) Hoolock Gibbon	Do	1517
viii) Stumptailed Macaque	Do	648
ix) Phayre's leaf Monkey/ Spectacled langur	Do	132

Source: Office of the Principal Chief Conservator of Forest (WL), Assam.

The famous one horned Rhinos of Assam and various species of unique flora and fauna attracts a large number of Domestic and Foreign Tourists visit to the State every year. The number of arrival of Tourist in National Park and revenue collection thereof for the years 2007-08, 2008-09 and 2009-10 are as follows.

TABLE –10.6

NUMBER OF ARRIVAL OF TOURIST IN NATIONAL PARK

AND REVENUE COLLECTION THEREOF

Name of National Park	Year	No. of visitors		Revenue Collection (In Rupees)
		Indian	Foreign	
Kaziranga National Park	2007-2008	53640	6106	9164423
	2008-2009	100384	5767	11220698
	2009-2010	105264	7580	12167974
Manas National Park	2007-2008	6394	624	743890
	2008-2009	1104	240	1318435
	2009-2010	8030	139	1696766
Orang National Park	2007-2008	1631	215	278550
	2008-2009	1285	267	257015
	2009-2010	1628	325	311030
Dibru-Saikhowa National Park	2007-2008	1766	53	45470
	2008-2009	2567	74	475556
	2009-2010	2613	62	311030
Nameri National Park	2007-2008	4154	524	278550
	2008-2009	5489	479	257015
	2009-2010	4342	346	311030

SOCIAL FORESTRY:

Social Forestry Wing of Forest Department have been implementing four schemes under State Sector during 2009-10 and 2010-11 i.e. Social Forestry General (SFG), Tribal Sub-Plan (TSP), Scheduled Caste Component Plan (SCCP), Rural Fuel Wood (RFG) and one Centrally Sponsored Scheme i.e. National Afforestation Programme (NAP) during 2009-10 and 2010-11.

Scheme-wise financial and physical achievement is as shown below

TABLE –10.7

SCHEME-WISE FINANCIAL AND PHYSICAL ACHIEVEMENT

State Sector			
Year	**Name of Scheme**	**Financial Achievement (Rupees in lakh)**	**Physical Achievement (Area in Hectare)**
2009-10	SFG	110.00	20
	TSP	70.00	Maintenance only
	SCCP	185.00	2
	RFW	20.00	92
2010-11	SFG	130.00	17
	TSP	-	-
	SCCP	-	-
	RFW	30.00	6.54
Centrally Sponsored Scheme			
Year	**Name of Scheme**	Financial Expenditure **(Rupees in lakh)**	Physical Expenditure **(Area in Hectare)**
2009-10	NAP(FDA)	1447.71	6865
2010-11	NAP(FDA)	607.87	4915

The National Afforestation Programme came into existence in Assam during the year 2003-04 with 100% Central Assistance. Since then the State FDA has been implementing the scheme through 1955 Joint Forest Management Committees (JFMCs). An area of 1,55,511 hectare have been covered with plantation like Aided Natural Regeneration of 17,374 hectare, Artificial Regeneration of 23,650 Hectare, Silvipasture of 165 Hectare, Bamboo Plantation of 8,275 Hectare, Cane Plantation of 340 Hectare, Mixed Plantation having Minor Forest Product (MFP) of 5,215 Hectare, Regeneration of Herbs and Shrubs of Medicinal value of 820 Hectare. While doing Afforestation works through these JFMCs, the poor people both male and female of fringe communities are engaged and have the opportunities of earning their livelihood. Accordingly there are 3,09,925 households with 42,00,050 people which include Scheduled Caste, Scheduled Tribes, and other Communities.

Scheme wise Outcome implementation of the above schemes during 11th Five Year Plan are as follows:

A. State Sectore Scheme	**Financial Expenditure (Rupees in lakh)**	**Area of Plantation (Area in Hectare)**
i) SFG Scheme	350.00	68
ii) TSP Scheme	198.00	388.02
iii) SCCP Scheme	525.00	1941.61
iv)RFW Scheme	50.00	98.54
B. Central Sector Scheme		
i) NAP(FDA)	3891.74	26864

APPENDIX – 10.1
AREA UNDER FOREST IN ASSAM (As on 31-3-2011)

(Area in hectare)

Sl. No.	Forest Division	Reserved Forest	Proposed Reserved Forest	Protected Area	Total Forest (Excluding Un-classed State Forest)
	ASSAM	1421237.612	210175.78	377819.781	2009233.173
1.	Goalpara	22972.563	11412.51	-	34385.073
2.	Kamrup East	37052.356	11596.46	-	48648.816
3.	Kamrup West	75329.297	568.85	-	75898.147
4.	North Kamrup	4412.197	1141.40	-	5553.597
5.	Dibrugarh	20728.678	-	11119.420	31848.098
6.	Digboi	49598.074	5479.15	8712.000	63789.224
7.	Doomdooma	29404.176	4252.75	-	33656.926
8.	Golaghat	98519.181	133.45	9715.000	108367.631
9.	Jorhat	26096.841	-	2098.621	28195.462
10.	Sivasagar	24092.903	-	3393.000	27485.903
11.	Hamren	27454.539	-	-	27454.539
12.	Karbi Anglong East	61995.937	84089.60	34042.000	180127.537
13.	Karbi Anglong West	90949.915	3525.00	451.000	94925.915
14.	Dima Hasao	63776.154	-	-	63776.154
15.	Baksa	13542.551	-	-	13542.551
16.	Lakhimpur	32816.112	-	-	32816.112
17.	Dhemaji	42468.430	9400.00	1121.800	52990.230
18.	Nagaon	33250.006	3573.04	-	36823.046
19.	Nagaon South	64873.521	-	-	64873.521
20.	Sonitpur East	67831.702	-	-	67831.702
21.	Sonitpur West	66163.372	910.00	-	67073.372
22.	Cachar	34199.791	14270.00	7386.900	55856.691
23.	Hailakandi	78145.833	170.00	-	78315.833
24.	Karimganj	48057.303	6489.09	32625.00	87171.393
25.	Aie Valley	6144.969	5901.73	-	12046.699
26.	Dhubri	6082.060	865.77	-	6947.830
27.	Haltugaon	63806.919	2949.00	-	66755.919
28.	Kachugaon	82199.233	213.00	60526.00	142938.233
29.	Dhanshree	17812.765	-	-	17812.765
30.	Parbotjhora	19168.924	1234.98	-	20403.904
31.	Chirang	73314.550	-	-	73314.550
32.	West Assam Wild life	-	42000.00	-	42000.00
33.	Tinsukia Wild life	32677.785	-	34722.00	67399.785
34.	Nagaon Wild life	2156.000	-	11417.040	13573.04
35.	Mangaldoi Wild life	-	-	7881.00	7881.00
36.	Assam State Zoo	175.000	-	-	175.00
37.	Kokrajhar Wild life	-	-	4556.00	4556.00
38.	Manas National park	2837.120	-	50000.00	52837.120
39.	East Assam Wild life	1130.855	-	85898.00	87028.855
40.	District Council Reserved Forest	-	-	12155.00	12155.00

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

APPENDIX – 10.2

OUT TURN OF TIMBER FUEL, WOOD AND MINOR FOREST PRODUCTS IN ASSAM FOR THE YEAR 2010-11

Name of Forest Division	Industrial Timber (Cubic Metre)	Fuel-Wood (State Cubis Metre)	Minor Forest Products			
			Sand	Gravel /Stone	Silt/Clay	Others
Kamrup West Division	437.628	0	9685.885	4626.089	0	1561130
Kamrup East	29.302	0	59447.177	21294.514	0	976900
North Kamrup	189.800	0	57035.145	121674.985	0	92600
Goalpara	6873.537	0	6091.050	29941.71	5.00	85000
Sonitpur East	0	0	63781.364	11423.529	0	54000
Sonitpur West	123.437	3.084	37611.00	30307	99269.36	807500
Nagaon South	272.080	0	100214.375	35897.686	0	28000
Lakhimpur	13856.706	0	48993.854	7020	0	310800
Dhemaji	180.791	0	450606.395	161411.246	0	67000
Nagaon	886.210	5.00	52394.00	483788.00	1474832.00	151900
Aie Valley	89.810	3.75	5440.00	149829	70000.00	0
Dhubri	121.484	0	21372.60	149428.04	2500.00	0
Golaghat	0.854	0	13532.00	40826.59	0	0
Dibrugarh	8154.720	0	103583.13	24553.037	0	37700
Doom Dooma	3.204	454.00	43575.00	480.00	250.00	150000
Jorhat	3.218	3.00	5909.50	0	0	50000
Sibasagar	10.292	2.00	5050.00	36375.00	2400.00	100860
Digboi	0	0	11500.00	27669.00	0	85000
Hailakandi	7.782	0	5432.241	1945.895	0	0
Karimganj	315.308	817.944	72614.134	315908.661	13996.00	1837010
Cachar	60.585	0	438720.36	104769.044	0	75000
Dhanshree	0	0	0	0	0	0
Haltugaon	2338.355	0	137753.031	24672.186	0	59000
Kachugaon	0	0	0	0	0	0
Parbotijhora	0	0	0	0	0	0
Chirang	236.576	0	710245.53	195974.360	67000.00	50000
Karbi Anglong East	Not Available					
Karbi Anglong West	Not Available					
Hamren	Not Available					
Dima Hasao	Not Available					
Assam	34191.679	1288.778	2470587.766	1979815.572	1730252.36	6579400

Source: Principal Chief Conservator of Forest, Assam.

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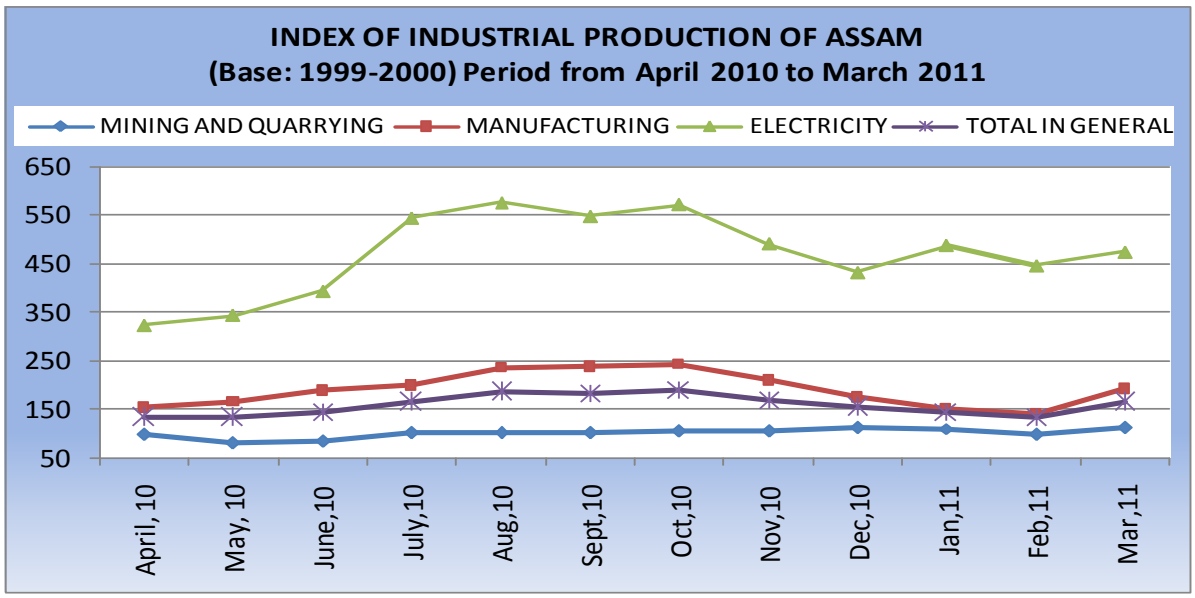
CHAPTER – XI

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 coalfield. 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 attainment of independence and at present Assam is amongst the industrially under- developed States in the Country. Therefore, industrial scenario of the State is 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 Manufacturing Sector's contribution to the State economy maintains its downward trend in 2010-11 (Quick Estimates) and pegged at 3.8 percent at constant (2004-05 prices). The Index of Industrial Production in the State, on the other hand, shows some recovery and reached 157.37 in 2010-11 (Base-1999-2000) as against 155.83 in 2009-10. The Index of Industrial Production in 2008-09 was 151.40(Revised).

The declaration of the North East Industrial Investment Promotion Policy has been another important feature for industrialisation of the State. The Central Government has approved a package of fiscal incentives and other concession for the entire North-eastern Region and Assam will be the leading State to exploit benefit from it. To supplement the NEIIPP, 2007 the Government of Assam has already announced State Industrial Policy, 2008 that would provide more support to the entrepreneurs. The thrust has been given by the State as well as central Government in the industrial sector of this region by modifying and enhancing the benefits to those entrepreneurs' desirous to set up their units. The State Government in turn has to provide supplement effort by development of infrastructure and offers its participation in the form of Government share or partner in the PPP models of projects which are prime importance considering in location of the State.



Industrial Production of some selected Industries in Assam

Although the manufacturing and processing industries have ruled 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 contribution of the Registered Manufacturing sector to the total economy was 6.7 percent and accounted for 30 percent share of the total Industry Sector contribution to the [GSDP at constant 2004-05 prices] during 2010-11 (Quick Estimates). The Index of Industrial Production for the Manufacturing Sector, however, recorded positive trend during 2010-11[189.84] against 186.71 in 2009-10 (Base 1999-2000=100). The production of some selected items of the State for the last seven 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	2010-11
Tea	000 tonnes	443	655	531	486	484	498	525
Wheat Flour	-do-	207	220	202	837	848	1044	1198
Coal	-do-	628	956	1058	1101	1147	1203	1110
Jute Textiles	Tonnes	7903	5910	7227	9494	11249	12511	12904
Crude Oil	000 tonnes	4724	4429	4426	4361	4673	4738	4714
Cement	-do-	341	251	175	213	446	644	736
Fertilizer	000 M. T.	203	222	308	346	313	338	325

Source: Tea: Tea Board of India; Minerals: Indian Bureau of Mines, Nagpur; Others: Individual Industrial Units

Industrial Estate and Industrial Growth Centre

The prime function of the Directorate of Industries and Commerce Department, Assam is to create environment for industrialization by setting up Industrial infrastructure in the perspective of industrial development and attract investment through proper planning. At present, there are 16 Industrial Estates, 17 Industrial Areas, 11 Growth Centers under the Industries and Commerce Department of Assam spread over an area of 2155 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 Centers, 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 2011, 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 2010-11. The civil works like construction of boundary wall, internal road, water facilities, construction of power works etc are completed. Other works are also in the verge of completion. Already 20 bighas of land are allotted for setting up of a pharmaceutical unit. AIDC is implementing of 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 2010-11, the Government of India and the State Government has released ₹1170.00 lakh and ₹117.14 lakh respectively. The civil construction works and setting up of power sub-station etc. are in progress. The total expenditure incurred ₹1287.14 lakh up to the year 2010-11.

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. Both the Central and the State Government also jointly share the cost of the project amounting to ₹1615.24 lakh. 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.

The Industries and Commerce Department has proposed ₹50.00 Crore for Logistic Hub area Industrial Growth Centre, Chayagaon during the Annual Plan 2011-12 for preparation of Detail Project Report and preliminary works.

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, Demow in Sivasagar, Parbatpur in Tinsukia district and Serphangguri in Kokrajhar district. The Government of India has released ₹2589.1 lakh and the Government of Assam has released ₹976.19 lakh against all the eleven IIDC projects up to the year 2010-11. The projects at Bhomoraguri, Dalgaon and Rangia are already completed and the other projects are also in the verge of completion.

Three more IIDCs one at Moran in Dibrugarh District, Sonari in Sivasagar District and the other at Bajali in Barpeta district are in active consideration for sanction by Government 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.

The Industries and Commerce Department has proposed an amount of ₹100.00 lakh in the Annual Plan 2011-12 as State share for up-gradation of existing facilities of the Export Promotion Industrial Park (EPIP).

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 280 thousand tonnes per annum. Government of Assam will provide exemption for entry tax on capital goods; works contact 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 first instalment of land acquisition cost during 2006-07.Though an amount of ₹2800.00 lakh has been earmarked in the financial year 2007-08, actually ₹154.00 lakh has been released during the said year. Since further amount will be required, an amount ₹6070.00 lakh has been proposed in the 11th Five Year Plan.

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. In order to initiate action for land acquisition activities and for preparation of the feasibility report, an amount of ₹495.00 lakh, ₹400.00 lakh and ₹1400.00 lakh has been released by the State Government in the Annual Plans 2008-09, 2009-10 and 2010-11 respectively.

Jute Park

The Ministry of Textile, Government 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 Kolkata). The project cost is ₹56.16 crore out of which ₹40.00 crore would be provided by the Government of India as grant under SITP. The Revenue Department has allotted 300 bighas of land to AIDC Ltd. for the purpose. The Government of Assam has approved participation of AIDC in Equity by way of cost of land of the project. AIDC has already taken possession of the land.

SOME PROPOSED PROJECTS:

Agri Hub at Boko

The proposed Agri-Hub & Agri project Zone will have large scale integrated infrastructure to facilitate consolidation of Agri products at one location, which include cold storage with sorting, grading, processing and packaging facilities, phyto-sanitary labs and normal warehouse with transportation terminals. An amount of ₹200.00 lakh has been proposed for the project in the Annual Plan 2011-12.

Chemical Hub at Chandrapur

AIDC has decided to set up a Chemical Hub at the premised of Assam State Fertilizers and Chemical Ltd. (ASFCI), Chandrapur, Guwahati, a subsidiary unit of AIDC Ltd. The total project cost would be around ₹15.00 crore. The project cost includes various infrastructure related activities including creation of common facilities, power supply etc. For setting up of the proposed unit, an amount of ₹100.00 lakh has been proposed in the Annual Plan 2011-12.

Pharmaceutical Hub in Assam

Based on the viability of the project in Assam, AIDC is going to set up Pharmaceutical Hub in and around Guwahati. An amount of ₹50.00 lakh has been proposed in the Annual Plan 2011-12.

Air Cargo Complex

AIDC has proposed to set up one Air-Cargo Complex at a location near the LGBI Airport, Guwahati. Techno-Economic Feasibility Report has been prepared and submitted to the Air Port Authority of India for its views and comments. The Project Cost as estimated in the initial study is ₹30.00 crore for both the in-site and Off-site works of the proposed Air Cargo Complex.

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 Suman Project Consultant Pvt. Ltd, New Delhi, has prepared the Techno-Economic Feasibility Report.

International Trade Centre

The Industries and Commerce Department has proposed to develop and utilize the nine (9) Bighas of land of the Assam Conductors and Tubes (ASCON), a Government of India enterprise (since closed) for establishment of an International Trade Centre. Total cost involvement is estimated at ₹100.00 crore. The Department has proposed an amount of ₹25.00 lakh for preparation of the DPR and other preliminary works including dismantling of the existing buildings etc.

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 categorization 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 34327 SSI/MSME units in Assam and provided employment to 178054 persons till the end of 2010-11. The Table – 11.2 shows some annual statistics in respect of setting up of SSI/MSME units' upto 31-03-2011.

TABLE – 11.2

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

Year	No. of SSI / MSME units	No. of Employ-ment	Average no of Em-ployment 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	1678	12787	7.6	29901.68	17.82	58456.80	34.84
2010-11(P)	1214	9002	7.4	25557.59	21.05	91678.97	75.52

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 2010-11. The average production per unit is found to be ₹6.33 lakh in 2001-02 which has increased to ₹76.00 lakh in 2010-11.

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

TABLE – 11.3

NUMBER OF NEW UNITS ESTABLISHED BY THE TYPE OF INDUSTRIES

Item	2004	2005	2006	2007	2008	2009	2010(P)
Agro Based	327	317	311	279	268	275	261
Forest Based	144	89	102	83	96	50	42
Textile Based	626	671	827	440	378	415	370
Chemical Based	44	64	54	51	50	40	58
Engineering Based	536	529	686	483	445	488	503
Electronic Based	59	63	45	51	58	83	75
Mineral Based	111	111	140	112	125	135	188
Leather	14	15	7	5	15	10	3
Rubber/Plastic	16	18	19	27	25	38	32
Paper Product	-	-	-	-	79	79	61
Miscellaneous	184	256	18	187	213	146	135
Total :	2061	2137	2350	1719	1752	1759	1728

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 State KVIC Directorate, State KVIB and the District Industries and Commerce Centres and Banks implement the scheme in Assam. 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 2010-11.

TABLE- 11.4

TARGET AND ACHIEVEMENTS OF PMEGP [Period 2008-09 to 2010-11] 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	For the State
2010-11	3193	4469.66	4756	4756	4801.10	For the State

Source: Directorate of Industries & Commerce, Assam.

Registered Factory

The number of Registered Factories in the State stood at 4262 at the end of 2010 against 3971 in the previous year. Table-11.5 shows the growth of registered factories and employment of average daily workers in Assam during the period 2001-2010.

From the available data of District-wise distribution of Registered Factories it reveals that, the undivided Kamrup District recorded 1094 registered factories with 30314 workers during 2010 as against 1005 registered factories with 24980 workers during 2009.On the other hand Dhemaji District recorded the lowest 3 number of factories with 71 workers during 2010.

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
2010	4262	150485

Source: Office of the Chief Inspector of Factories, Assam.

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 2008-09 Assam has 2211 number of functioning Registered Factories with 149256 employees as against 1859 number of functioning Registered Factories with 134284employees in 2007-08. 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 more than 18.0 percent during the year 2008-09 over the level of the previous year. However, the net income of the factories has fallen by 11.65 percent from ₹2841.21 crore 2007-08 to 2510.07 crore in 2008-09. The Table-11.6 shows some basic characteristics of Annual Survey of Industries in Assam for last seven 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	2008-09
Factories	Nos.	1533	1593	1710	1864	1967	1859	2211
Fixed Capital	Rs. lakh	596543	670965	702998	752036	801962	891081	940427
Working Capital	-do-	137282	195235	204272	267665	329704	346159	335954
Invested Capital	-do-	790402	934228	1022608	1090977	1179526	1301965	1361928
Total Employees	Nos.	111058	115082	119548	128662	136568	134284	149256
Value of Output	Rs. lakh	1204070	1634167	2205002	2560914	3047619	3104360	3676790
Net Fixed Capital Formation	-do-	1370	62260	18319	NA	NA	NA	NA
Net Value Added	-do-	253882	373164	372082	357617	364199	327473	301389
Net Income	-do-	221673	343009	347551	329431	323795	284121	251007

Source: Annual Survey of Industries, C.S.O Ministry of Statistics and Programme Implementation, 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 percent of agriculture produce are processed in the State. Among the total processed food, 80 percent are of primary food products like packaged milk, milled flour, rice, tea, spices etc. Processing and packaging of perishable fruits and vegetables, although has ample potential to grow with increasing demand, does not have 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. Upto the end of 2010-11, the Government of India and the Government of Assam have released ₹175.00 lakh and ₹146.00 lakh respectively against their respective share. The ASIDC Ltd. is implementing the project. The progress of the project is in the verge of completion.

Setting up of small Food Park in rural areas

In Assam a good quantity of fruits and 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. AIDC Ltd. will also implement this project.

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 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 people 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 2011 out of which 4561 were registered with the Tea Board of India covering around 11757 hectare registered area.

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. Major concentration is in 5 Upper Assam Districts (64519) which is 94 percent of the total number of Small Tea Growers in 14 districts of Brahmaputra valley. [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 percent 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	40.90	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	87.33	113.06	0.36	122.09	38.94	116.26	-	-
2011 (upto July)	20.17	126.78	0.06	123.34	10.17	122.82	-	-

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. The area under rubber cultivation has grown from 16.5 thousand hectares in 2006-07 to 27.1 thousand hectares in 2010-11, which was 64.0 percent higher than that of the area under rubber cultivation in 2006-07. The production of rubber has also been increased considerably 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)	Tapping Area (in hectare)	Employment Generation (Mandays)
2006-07	16508	3050	NA	1503550
2007-08	18271	4750	3320	1762591
2008-09	20975	5097	3518	2040686
2009-10	23075	9832	6505	2710230
2010-11	27083	10213	7686	2767450

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 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 Government 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. Government of Assam appointed AIDC as nodal agency to help local entrepreneurs for the bamboo sector and develop the bamboo park.

The Cane and Bamboo Technology Centre (CBTC), Guwahati, one of the Bamboo Technical Support Group under National Bamboo Mission of the Ministry of Agriculture, Government 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 (CMSS) 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 Swa-Niyojan Yojana (CMSY), which had been continuing from the year 2001-02 to 2007-08.

There are two sectors of the scheme - one is CMSS and other is Vocational training. Under the CMSS sector, the educated unemployment youths 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 ₹150.00 lakh (for CMSS ₹30.00 lakh and for vocational training ₹120.00 lakh) has been sanctioned and released for implementation of the Scheme by the Government of Assam during the year 2010-11.

The following table shows some statistics on physical achievement of CMSS and Vocational training under Assam Vikash Yojana for the years 2008-09 and 2010-11.

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 Trainees Sponsored	No. of Trainees Completed	No of Trainees absorbed	Remarks
2008-09	CMSS	160	165	130	70	
	Vocational Training	2200	2200	2200	-	Sponsored from district
2009-10	CMSS	160	176	127	50	
	Vocational Training	3200	-	568	-	Sponsored from district
2010-11	CMSS	100	43	18	5	Undergoing Training
	Vocational Training	2610	2610	2610	-	Sponsored from district

Source: Directorate of Industries and Commerce, Assam.

Udyog-Jyoti Scheme

The Industries and Commerce Department of Government of Assam have launched Udyog-Jyoti Scheme with the objective of the Scheme 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 employment 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	88.89	2700	2449	-
2006-07	100.00	75.00	2700	2062	-
2007-08	100.00	26.17	Phase 1=1350 Phase 2=135	Phase-1=1350 Phase 2=118	Phase 3 under process
2008-09	100.00	20.34	Phase 1=1350 Phase 2=135	Phase 1=1350 Phase 2 =63	-Do-
2009-10	100.00	19.70	Phase 1=1350 Phase 2=135	Phase 1=1350 Phase 2 =84	-Do-
2010-11	30.00	5.40	Phase 1=657 Phase 2=81	-	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 that have maximum potential for development of entrepreneurship. The Scheme is implemented in four Phases.

Phase 1: EDP of one week at district level (50 participants per district)

Phase 2: EDP for 2 weeks at State level by IIE/NSIC etc
(Total 135 participants @ 5 participants per district selected from Phase 1.)

Phase 3: Specialized training out side the State on identified ventures by IIE/NSIC
(135 participants)

Phase 4: Participants of Phase 3 will be provided margin money against Bank loan sanctioned letter upto 90% of the promoters' contribution or ₹1.00 lakh per participant, whichever is less.

Achievements of implementation of the Scheme may be evident 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 11.12 shows the implementation status of the Mukhyamantrir Karmajyoti Aachani during the year 2005-06 to 2010-11.

TABLE-11.12

ACHIEVEMENTS OF THE MUKHYAMANTRIR KARMAJYOTI AACHANI

[PERIOD 2005-06 to 2009-10]

YEAR	TARGET		ACHIEVEMENTS	
	Physical (In Nos.)	Financial (Rs. in lakh)	No. of Artisans Benefited	Financial Achievements (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	2480((SHG)	200.00	24800	200.00
	21325** (Individual)	75.00	21325	75.00
2010-11#	660(SHG) & 1000 (Individual / trained person)	835.00	640	113.82

*Note: *Implementation for both the years done together.*
***Under SCCP. # Under process*
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. Muga Silk and Eri Silk have a good demand in the national and international market. Rearing of Eri, Muga and Mulberry silkworm are playing an important role in the economic development of a large section of rural population of the State. It is practiced in 10532 villages at present and provides employment to more than 2.5 lakh family. Muga culture is endemic to Assam in the world. The State accounts for highest production of non-mulberry silk, muga and eri in the country. Assam has the monopoly in the world in the production of Muga, the "Golden Silk" as more than 95 percent of Muga Silk is produced in Assam. Assam has also achieved the right of 'Geographical Indication' for Muga thread. The State is also a Major producer of Eri Silk (65 percent). The State Government has decided to **"create a special fund for a Golden Silk Project to increase production of Eri, Muga and Pat Yarn. The project will be taken upon a mission mode. It is further proposed to take up a project for creating a few exclusive products with a Brand name for Eri and Muga Silk of Assam."(Source: Budget Speech of Finance Minister, Assam 2011-12).**

According to the State Sericulture Department, the State has produced 113.28 MT Muga Raw Silk,810.98 MT Eri Raw Silk, and 11.4 MT Mulberry Silk during the year 2010-11 as against 88.73 MT Muga Raw Silk, 819.09 MT Eri Raw Silk and 8.35 MT Mulberry Silk produced in the State during the year 2009-10. During the year 2008-09, the production of Muga Raw Silk, Eri Raw Silk and Mulberry Silk was 101 MT, 810.00 MT 10.00 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 Silkworm Food Plants has been recorded little increase to 21301 hectare[+0.34 percent]during 2010-11 from 21229 hectare during 2009-10.During the year 2008-09, the area under silkworm food plant was 18556 hectare. The total production of Silk Yarn recorded marginal increase(+2.13 percent) from 916.17 MT in 2009-10 to 935.66 MT in 2009-10.While the Muga and Mulberry silk recorded 27.7 percent and 36.5 percent increase respectively during the year 2010-11 over 2009-10,the production of Eri Silk marginally decreased by 1.0 percent during the same period. 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	2010-11
1.	Sericulture Villages (Nos.)	9683	9373	9373	9537	10532	10532
2.	No. of Families Engaged	196152	191434	239281	238578	260707	254134
3.	Area under Silk Worm food Plants (In Hect.)	18556	18392	18548	18556	21229	21301
3.1	Eri	7293	7382	7531	7538	7623	7670
3.2	Muga	7255	7299	7305	7305	8902	8908
3.3	Mulberry	4007	3711	3712	3713	4704	4723
4.	Yield of Cocoons						
4.1	Ericut Cocoons (in MT)	700	887	1046	1080	1089	1108
4.2	Muga Cocoons (in lakh Nos.)	4905	4933	4302	5040	4436	6368
4.3	Mulberry Reeling Cocoons (in MT)	119	92	110	100	84	110
5.	Production of Silk Yarn (in MT)	634	773	884.81	921	916.17	935.66
5.1	Eri Raw Silk	525	665	784.26	810	819.09	810.98
5.2	Muga Raw Silk	98	99	91.07	101	88.73	113.28
5.3	Mulberry Raw Silk	12	9	9.48	10	8.35	11.4

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. Women SHGs have been organized in different districts for taking up yarn processing weaving etc. for which credit linkages have been organized by the Department.

Through development of silk enterprise programme, women NGOs/SHGs/ entrepreneurs have been developed for upgrading their technology for quality yarn and fabric production of National and International standard for which 50 percent financial support has been provided to the women NGOs/SHGs and entrepreneurs.

Handloom

In Assam, Handloom Weaving is a way of life. It is inexorably linked with Assamese Culture and Heritage. Handloom Industry of Assam is known for its rich glorious 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 utilized for commercial weaving in the true sense. About 5.70 lakh looms run semi-commercially and earning subsidiary income. Rests 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 Handloom and Textiles Department of Assam, 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 21 Handloom Production Centres, one Handloom Research and Designing Centre and one Production Procurement Centre under production programme. The Assam Government Marketing Corporation is the State Level organisation to look after the weavers of the State. The three-pronged Cooperative (organised) 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.

The State Government proposed to give major thrust on upgradation of technology and Skills to ensure higher value addition and higher income generation of reelers, spinners and weaver. Accordingly, it is proposed for establishment of a CAD/CAM centre at the Handloom Research and Designing Centre (HRDC) for development of design in a high tech method. New designs and colour combinations in fabric will be categorically developed in the CAD/CAM. It is also proposed to establish a Design Museum at the HRDC to keep the traditional, ethnic, cultural designs of different caste, communities and that of different kingdoms of the north-eastern region as well as other parts of the country.

At present, the Directorate of Handloom and Textiles cover 13078 villages of the State with 1166025 weavers for its Handloom activities. The production of Handloom fabrics was 217.00 million meters during the year 2010-11 as against production of 174.00 million meters in the year 2009-10. During the year 2008-09, the production of handloom fabrics was 70.00 million meters.

To strengthen the handloom sector various development schemes have been undertaken by the State Government among which providing weavers with quality fabrics, modernization of looms, creation of commercial motivation amongst the weavers, extension of training facilities, development of textiles designs etc. During the year 2010-11, the Handloom & Textiles Department trained 1400 artisans in its Handloom Training Centres. Apart from this, the Handloom and Textile Department have been implementing Chief Minister's Assam Vikash Yojana since 2007-08 and completed implementation successfully for the years 2007-08, 2008-09 and 2009-10 with distribution of 32s Cotton Hank Yarn to the poor Handloom weavers and Poly yarn 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 3.92 lakh women weavers of the State under the programme Incentive to Handloom weavers. Besides these under the Centrally sponsored schemes, like Project Package Scheme, Deen Dayal Hathkargha Yojana, Health Insurance, Integrated Handloom Development Scheme, Export of Handloom Products etc are also under implementation in the State. Under the Mahatma Gandhi Bunkar Bima Yojana as many as 34619 women weavers are covered during the year 2010-11. During the year 2009-10, the women covered under the said Bunkar Bima Scheme were 62733.

For publicity of the development programme as well as to create awareness about the handloom products of the State, the Department has organised 55 District level Fairs, 17 Special Handloom Expos and 6 National Handloom Expo in the State during the year 2010-11.

Apart from the above, a new programme, with an objective to assist the artisans of handicraft, has been undertaken in Nalbari District under Baba Saheb Ambedkar Hasta Silpa Bikash Yojana with financial assistance from Government 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 2006-07 AND 2007-08

Item	Production (Rs. in lakh)			Sales (Rs. in Lakh)			Employment (Nos)		
	2007-08	2008-09	2009-10	2007-08	2008-09	2009-10	2007-08	2008-09	2009-10
Khadi and Poly-vastra									
Cotton	63.52	43.70	44.57	81.12	86.84	94.17	2490	2490	3000
Silk	554.48	805.59	822.03	370.94	649.34	695.26	11500	13000	14000
Woollen	-	-	-	3.62	3.91	4.25	-	-	-
Poly-vastra	12.36	24.41	28.57	12.76	18.23	26.75	95	105	204
Total	630.36	873.70	895.17	468.44	758.32	820.43	14085	15595	17204
Village Industries	40008.88	41544.57	47638.46	65878.13	69452.24	69628.85	284000	298000	359000
Grand Total	**40639.24**	**42418.27**	**48533.63**	**66346.57**	**70210.56**	**70449.28**	**298085**	**313595**	**376204**

N.B. Products sold through directly aided institutions of KVIC and Assam KVI Board.
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 percent Excise Duty Exemption will be continued on Finished Products made in the NER.
- 100 percent Income Tax exemption will continue as was available under NEIP – 1997.
- Capital Investment Subsidy @ 30 Percent 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 Percent 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 sustained efforts to achieve the objective. 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 percent 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 percent 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 percent 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 Steamer ghat, Mancachar, Golokganj, Silchar RMS, Karimganj Ferryghat, Sutarkandi, Mahisasan Railway Station and Guwahati Steamer ghat.

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

Border Trade Centre-Infrastructure Development

For facilitating the export-import business with various neighbouring Countries bordering North-East India, Government of India has taken a new initiative to create all infrastructure facilities for the exporter of the region. The Government of India has approved for setting up of two numbers of border trade centre- one at Sutarkandi in Karimganj district and the other at Mankachar in Dhuburi district to facilitate the border trade with the neighboring country of Bangladesh. The main objective of the Border Trade Centre is to provide high standard infrastructure, information and service facilities to the exporter and importer.

Border Trade Centre, Sutarkandi

The Border Trade Centre, Sutarkandi project located 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 2010-11 Government of India has released ₹653.00 lakh and the State Government has released ₹163.00 lakh against their share. The first phase of the project has been completed. The second phase of this project is on progress with a project cost of ₹588.0 lakh.

Border Trade Centre, Mankachar

The Government of India has approved for setting up of a border trade centre at Mankachar town in Dhubri district. It is located at only 100 meters away from the border gate with Bangladesh. The centre has also a linkage with Tura of Maghalaya. The approved project cost of this project is ₹426 lakh. The central share is ₹340.83 lakh and the state government share is 85.17 lakh. Till the end of the year 2010-11, Government of India has released ₹340.83 lakh and state government has released ₹85.00 lakh for this project out of their share. The project is in the verge of completion.

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 Tourism Circuit Development, Destination Development, Wayside Amenities etc., through public and private partnership to tap the unexplored potential opportunities. Assam Tourism Policy, 2008 has also been adopted by the State Government giving special emphasis to encourage private investment in Tourism sector by providing financial and logistic support. Meanwhile, the State Government has made all basic arrangements for construction of a 5 Star Hotel in collaboration with Tatas.

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 11.15 shows the volume of tourist traffic and magnitude of revenue earning by the State over the last nine years.

TABLE –11.15

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
2010-11	25831	594	4101616	15039	143.60

Source: Directorate of Tourism, Assam.

Tourists visited the National Parks may also be evident from the table 11.16 below:

TABLE 11.16

NUMBER OF TOURIST VISITED NATIONAL PARKS IN ASSAM

Year	Kaziranga National Park		Manas National Park		Orang National Park		Dibru-Saikhowa National Park		Nameri National Park	
	Indian	Foreign	Indian	Foreign	Indian	Foreign	Indian	Foreign	Indian	Foreign
2007-08	53640	6106	6391	624	1631	215	1766	53	4154	524
2008-09	100384	5767	1104	240	1285	267	2567	74	5489	479
2009-10	105264	7580	8030	139	1628	325	2613	62	4342	346
2010-11	112392	7447	NA	NA	NA	NA	NA	NA	4460	352

Source: The Principal Chief Conservator of Forest (Wildlife), Assam

Employment Generation Scheme for Educated Unemployed youths:

The State Government has been given thrust on Self-employment generation schemes. 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 Home stay facilities 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 national and foreign tourist:

The Assam Tourism Department urgently needs a full scale branding exercise in order to establish an impeccable brand identity in the domestic and international market. Brand building is a long term exercise and it involves 360 degree communication. Further it is felt that the lesser known tourism products of the State are yet to be taken to the global market. To achieve positive response from the national and global market, the Assam Tourism Department 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. Besides participating in the national level tourism fairs, the Assam Tourism Department also participated in tourism fairs in London, Berlin, Singapore, Dubai, and Dhaka etc. As a part of publicity campaign and to draw tourists, the Department organized Rongali Utsav, Elephant festival at Kaziranga. The electronic and print media are also extensively utilized for publicity and marketing campaign. The Assam Tourism Department has also started intensive media campaign through domestic and National Level electronic media. Efforts have been made to establish linkages with the neighbouring North-eastern States and countries of Bhutan, Nepal, Bangladesh and Thailand for Assam as a regional tourism hub. The State Government has also proposed to create an East India circuit linking Assam, Bihar, Odisha, West Bengal and Sikkim.

An innovative Rural Tourism Scheme is being introduced by the State Government for women showcasing the rural lifestyle, culture, handicrafts etc., for development of rural tourism as well as income and employment generation of rural women.

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 2010-11, the volume of production of Coal in the State was 1110 thousand MT, Crude Oil 4714 thousand MT, Natural Gas (Utilised) 2500 MCM and Limestone 334 thousand MT as against 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 in 2009-10. 10. During the year 2008-09, the volume production of Coal was 1147 thousand MT, Crude oil 4673 thousand MT, Natural Gas (Utilised) 2603 MCM and Lime stone 363 thousand MT. It reveals from the data that while the production of Natural Gas (utilised) recorded marginal increase of 1.0 percent in 2010-11 against 2009-10, remaining three major minerals, i. e. Coal, Crude oil and Limestone recorded decrease by 9.98 percent, 0.5 percent and 16.9 percent respectively during the same period. The Table -11.17 exhibited some statistics of minerals exploited in the State during the last eight 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
2010-11	1110	4714	2500	334

Source: Indian Bureau of Mines.

The index of mineral production in Assam (Base 1999-2000) was 100.31 in 2010-11 as against 100.99 in 2009-10. The index of mineral production was 100.39 in 2008-09. The Table 11.18 below shows the index of mineral production in Assam during the period 2002-03 to 2010-11.

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	2010-11
	Base : 1993-94					Base : 1999-2000			
Coal	52.37	61.45	48.39	82.10	88.09	184.27	200.52	210.31	194.06
Petroleum (Crude)	94.92	91.42	94.00	88.58	88.52	78.56	92.94	94.23	132.21
Natural Gas (Utilised)	153.58	160.82	163.91	176.59	180.05	139.77	137.65	130.88	93.75
Limestone	187.11	155.93	141.79	138.98	100.34	91.29	90.30	100.00	83.08
All Minerals	97.47	95.31	97.19	94.91	95.33	87.90	100.39	100.99	100.31

Source: Directorate of Economics and Statistics, Assam.

Some recent development in the Mining Sector:

The Directorate of Geology and Mining under the Mines and Mineral Department of Assam has plays an important role in development of the mining and mineral sector by undertaking survey and exploration of mineral and ground water in the State. The Mining and Mineral Department has made some important achievements for exploration of minerals 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 Government of Assam undertaking, has been formed by the Government of Assam for carrying out exploration, production and marketing of hydrocarbons (petroleum) including diversified activities related with hydrocarbons and energy. The Company has signed MOU and firm in agreement with Oil India Ltd. for 10 percent participating interest in two exploration blocks in Assam awarded under sixth round of NELP.
- 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.

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APPENDIX – 11.1

TOTAL NUMBER OF SMALL SCALE INDUSTRIES REGISTRED UNDER THE DIRECTORATE OF INDUSTRIES AND COMMERCE, ASSAM

Sl. No.	District	Unit Registration during the year			Total Registered Unit as on		Total Workers		
		2008	2009	2010	31-12-07	31-12-08	2008	2009	2010
1.	Kokrajhar	29	1	0	1018	1047	252	215	314
2.	Dhubri	37	0	1	1183	1220	230	259	701
3.	Goalpara	41	0	0	1626	1667	164	286	592
4.	Bongaigaon	35	2	0	1022	1057	142	129	287
5.	Barpeta	129	0	0	1767	1896	541	297	784
6.	Kamrup(M)	N.A.	0	0	N.A.	N.A.	N.A.	0	13
7.	Kamrup(R)	261*	86*	96*	15537	15798	2906	4812	8646
8.	Nalbari	91	7	0	2102	2193	379	281	465
9.	Darrang	75	1	3	1749	1824	373	134	303
10.	Morigaon	37	0	3	520	557	182	159	309
11.	Nagaon	91	9	16	3671	3762	419	604	1647
12.	Sonitpur	71	2	0	2758	2829	362	295	460
13.	Lakhimpur	70	0	0	2791	2861	525	442	950
14.	Dhemaji	50	1	0	792	842	279	220	378
15.	Tinsukia	99	26	18	2025	2124	739	852	1873
16.	Dibrugarh	122	6	3	5307	5429	903	607	1369
17.	Sivasagar	70	6	5	3305	3375	362	789	1571
18.	Jorhat	66	4	2	1805	1871	451	212	432
19.	Golaghat	84	6	7	1122	1206	296	518	867
20.	K. Anglong	25	1	2	558	581	117	300	440
21.	DimaHasao	5	0	0	570	575	22	17	47
22.	Cachar	77	5	3	2140	2217	433	329	497
23.	Karimganj	43	1	2	881	924	152	220	352
24.	Hailakandi	25	1	0	516	541	96	224	339
25.	Chirang	N.A.	0	0	N.A.	N.A.	N.A.	86	134
26.	Baska	N.A.	0	0	N.A.	N.A.	N.A.	449	670
27.	Udalguri	N.A.	0	1	N.A.	N.A.	N.A.	161	400
	Total	**1633**	**165**	**162**	**54763**	**56396**	**10325**	**12897**	**24840**

Source: Directorate of Industries and Commerce, Assam.

N.B: The Number of units for Chirang, Baska and Udalguri Districts merged with Kokrajhar District.

* The Units for Kamrup (M) is shown with Kamrup (R)

APPENDIX – 11.2

INDEX NUMBER OF INDUSTRIAL PRODUCTION OF ASSAM

(Base : 1999- 2000 = 100)

NIC – 1998	Industry Division	Index Number		
		2008-09	2009-10	2010-11(p)
15	Manufacturing of food products and beverages	120.95	127.16	137.71
17	Manufacturing of Textiles	113.23	129.23	133.40
21	Manufacturing of paper & paper products	141.15	143.02	148.30
22	Publishing, Printing & reproduction of recorded media	129.74	158.60	192.33
23	Manufacturing of Cake, refined petroleum products & nuclear fuel	226.77	228.82	214.60
24	Manufacturing of Chemical & Chemical Products	841.38	894.50	899.46
25	Manufacturing of rubber & Plastic Products	161.43	173.86	173.24
26	Manufacturing of other non-matellic mineral products	125.86	177.98	213.67
27	Manufacturing of basic metals	458.40	490.83	494.82
28	Manufacturing of fabricated metal products, except machinery & equipments	330.05	1054.21	1117.65
29	Manufacturing of machinery & equipments n.e.c.	375.81	411.88	483.59
31	Manufacturing of electrical machinery and apparatus n.e.c.	626.15	922.46	999.01
34	Manufacturing of motor vehicles, trailers and Semi trailers.	176.24	211.88	225.74
36	Manufacturing of furniture, Manufacturing n.e.c.	139.24	205.45	210.52
15-36	**Total Manufacturing**	**175.25**	**186.71**	**189.84**
10-14	Mining and Quarrying	100.39	100.99	100.31
15-36	Manufacturing	175.25	186.71	189.84
40	Electricity	489.79	460.04	470.25
Total in General		143.78	151.40	157.37

Source : Directorate of Economics & Statistics, Assam.

CHAPTER – XII

ENERGY

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 into following Government Companies.

The companies are – the Assam Power Generation Corporation Limited (APGCL), the Assam Electricity Grid Corporation Limited (AEGCL) and Assam Power Distribution Company Limited (APDCL). 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. The scheme like Externally Aided Project, Rural Electrification, Accelerated Power Development and Reform Programme (APDRP) which are yet being executed under Assam State Electricity Board (ASEB).

11th Five Year Plan

The total amount approved for the 11th five year plan (General Areas) for Assam State Electricity Board and its three successor companies is ₹415724.00 Lakh.

Annual Plan 2011-12

With a view of strengthening the power utilities in order to provide uninterrupted and quality power (Electricity) to the consumers door step at an affordable price, ASEB and its successor companies intend to take up some schemes for development and improvement of existing set up as well as new schemes to cater to the increasing load demand of the State of Assam. The proposed total outlay for the Annual Plan 2011-12 against the schemes is ₹72649.00 Lakh.

Installed capacity and Generation of Power

The installed capacity of generating plants at present in the State is 401.5 MW which include Coal, 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 (BTPS) and Mobile GT sets and de-rating of age-old units of Namrup (NTPS).

The status of power generation in the State is not satisfactory from the point of power requirement of the consumer. There has been always a shortage of power supply in the State due to generation of less amount of power in comparison to its demand. However, the ASEB has been trying to meet the power shortage by importing power from other foreign sources. As a result of functioning of Hydel Power Project since 2006-07 the scenario in respect of power generation has slightly been improving and generation of power increased to 1541.32 MU in 2007-08 from 867.539 MU in 2006-07. In 2009-10 generation of power increased to 1712.21 MU from 1682.82 MU in 2008-09. During 2010-11 generation of power have registered a nominal fall of 0.25% as compared to previous year. The installed capacity of various generating plants and the generation of power in the State during the last three years has shown in the following table.

TABLE – 12.1

INSTALLED CAPACITY AND POWR GENERATION BY ASEB (In million units)

Particulars	2008-09	2009-10	2010-11
Installed Capacity of Generating Plants (MW)			
Thermal (Coal/Oil)	60.00	60.00	60.00
Hydel	102.00	102.00	102.00
Gas	239.50	239.50	239.50
Total	**401.50**	**401.50**	**401.50**
Gross Unit Generated (MU)			
Thermal (Coal/Oil)	0.00	0.00	0.00
Hydel	434.40	401.910	409.492
Gas	1248.20	1310.298	1298.270
Total	**1682.820**	**1712.208**	**1707.762**
Particulars	**2008-09**	**2009-10**	**2010-11**

Auxiliary Consumption (MU)			
Thermal (Coal/Oil)	0.00	0.00	0.00
Hydel	0.788	0.821	0.796
Gas	52.162	57.029	61.324
Total	**52.950**	**57.85**	**62.12**
Net Unit Generation (MU)			
Thermal (Coal/Oil)	0.00	0.00	0.00
Hydel	433.61	401.089	408.696
Gas	1196.26	1253.269	1236.946
Total	**1629.87**	**1654.358**	**1645.642**

Source : Assam Power Distribution Company Limited.

Power Supply Position

The energy requirement in the State has been worked out at 5,967 Million Units during the year 2010-11 as against 5049 Million Units in the previous year but the availability of energy during the periods was 5028 Million Units and 4590 Million Units respectively. To meet the demand of the requirement of power the ASEB has been 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

I T E M	2007-08	2008-09	2009-10	2010-11
A. Energy Requirement (MU)	4621	5039	5049	5967
Availability (MU)	4018	4270	4590	5028
Shortage (Percentage)	15.00	18.00	10.00	15.72
B. Peak Demand (MW)	891	972	974	1066
Peak Demand Met (MW)	775	824	885	828
Shortage (Percentage)	13.04	15.25	9.09	22.32

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)	*Population	Per capita availability status (Kwh)
2005-06	3267.87	28506000	115
2006-07	3344.30	28896000	116
2007-08	4013.62	29282000	137
2008-09	4270.00	29660000	144
2009-10	4590.00	30037000	153
2010-11	5028.00	30413000	168

*Estimated on projected population.

Source : Commercial Wing of ASEB.

Power Consumption

As a result of improvement in the power generation, Assam Power Generation Corporation Limited (APGCL) could able to sale more power to the consumers during the recent years. During the year 2010-11, the sale of power has increased to 3312.35 MWH as against 3258.79 MWH sold during 2009-10 thereby registering an increase of 1.64 percent increase in the sale of electricity over the year. The statistics of the pattern of consumption during 2010-11 reveals that the Domestic Sector has been consuming highest amount of power, followed by Industrial Sector and Commercial Sector in the State. The type of consumption of power in the State during 2010-11 can be seen in the following table.

TABLE – 12.4

SALES OF ELECTRICITY BY TYPE OF CONSUMPTION

(In MWH)

Type of Consumption	2010-11	% of sale
Jeeban Dhara (Upto 0.5 KW)	44.745	1.3
Domestic	1085.338	32.8
Domestic [A]	116.348	3.5
Commercial	344.369	10.4
General Purpose	63.605	1.9
Public Lighting	8.071	0.2
Agriculture	3.684	0.1
Small Ind. LT (Rural)	40.860	1.2
Small Ind. LT (Urban)	25.619	0.8
Temporary Supply (Domestic)	0.250	0.001
Temporary Supply (Non-Domestic)	2.954	0.1
HT Category (Above 150 KW)		
Domestic	3.497	0.9
Commercial	165.514	5.0
Public Water Works	51.457	1.6
Bulk (Govt. Education)	41.857	1.3
Bulk Supply (Others)	254.792	7.7
HT-Small Industries	34.860	1.1
HT-I Industries	43.656	1.3
HT-II Industries	519.666	15.7
Tea, Coffee and Rubber	322.056	9.7
Oil and Coal	91.351	2.7
HT Irrigation	20.798	0.6
Total	3312.350	100.00

Source : Commercial Wing of ASEB

Number of Consumer in the State

The number of consumer in the State, as reported by Assam Power Distribution Company Limited, for last three years were as follows:

TABLE – 12.5

TOTAL NUMBERS OF CONSUMER

Year	Domestic	Commercial
2008-09	1359055 (RUD -23408)	151796 (RUC - 289)
2009-10	1463235 (RUD -19314)	159050 (RUC -304)
2010-11	1705663 (RUD -16122)	165544 (RUC -241)

RUD – Rural Un-metered Domestic
RUC – Rural Un-metered Commercial

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 29 percent during the year 2010-11, which includes commercial losses as well. The situation has been gradually improving since 2004-05 which was 40% during 2004-05. The power loss through transmission is however an area of concern for the power deficit State like Assam. The transmission and distribution losses in Assam during the last three years have shown in the Table 12.6 below.

TABLE-12.6

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

Item	2008-09	2009-10	2010-11
Energy Input (MUs)	4020.80	4391.90	4774.30
Energy Billed (MUs)	3043.00	3247.00	3535.00
T&D Losses (MUs)	977.80	1144.90	1238.30
Percentage of T&D Losses (MUs)	24	26	26
Amount Billed (Rupees in lakh)	1331.00	1463.19	1656.00
Amount realized (Rupees in lakh)	1289.91	1421.74	1596.10
Collection Efficiency (Percentage)	97	97	96
Overall Efficiency (Percentage)	74	72	71
AT&C Losses (Percentage)	26	28	29

AT&C losses : Aggregate Transmission and Commercial Losses.

Rural Electrification

Rajiv Gandhi Grameen Vaidutikaran Yojana (RGVY), a scheme for attaching the goal of provide access to electricity to 4355 nos. of un-electrified (UE) villages, 4051 nos. of de-electrified (DE) villages & 13380 nos. of Already Electrified (AE) villages requires creation of the following infrastructure in its 1st Phase of works within the State of Assam.

11 KV Lines	24301 KM.
Three Phase LT Lines	2292 KM.
LT Single Phase Line	17682 KM.
Distribution of Transformer	21284 Nos.
33/11 KV Sub-Station	31 Nos.
BPL Service connection (at free of cost)	Approximate 10 lakh Nos.

The status of village electrification in Assam before implementation of RGGVY as on 31.03.2007 was as under.

Total no. villages as per 2001 Census	25124
No. of electrified villages	18567
Percentage of Villages electrified	74
No. of un-electrified villages	6557
No. of remote villages	2202

RGGVY Project Cost

Under Assam State Electricity Board (ASEB) 10th Five Year Plan : ₹124.44 Crore
11th Five Year Plan : ₹1595.51 Crore
Under Power Grid Corporation Ltd (PGCL) 10th Five Year Plan : ₹64.09 Crore
11th Five Year Plan : ₹323.75 Crore

The task of electrification of 2202 nos. of remote villages is being taken up by the Remote Village Electrification Wing of ASEB (1120 nos.), Forest Department, Govt. of Assam (162.nos.) and Assam Energy Development Agency (920 nos.) through non-conventional method of Rural Electrification. The achievement as on Feb'2011 are as follows:

Institution	Villages Electrified (Nos.)		
	Target	Achievement	% of Achievement
Assam State Electricity Board	1120	923 nos.	82
State Forest Department	162	82 nos.	50
Assam Energy Development Agency	920	611 nos.	66

In Assam, implementation of the RGGVY was started in April 2007 in three Districts namely Tinsukia, Goalpara & Cachar under 10th Five Year Plan. Of these three projects, ASEB implemented Tinsukia & Goalpara Projects while implementation of Cachar District Project was entrusted to PGCIL. The works of these projects are completed. The sanctioned coverage and achievement up to **15.01.12** is attached herewith in the following.

Under 11th Five Year Plan, 20 (twenty) district Projects have been sanctioned and implementing agencies are as under:

Sl. No.	District	Implementing Agency
1	Dibrugarh	PGCIL
2	Sibsagar	
3	Sonitpur	
4	Karimganj	
5	Hailakandi	
6	Kokrajhar	PGCIL & ASEB
7	Jorhat	A. S. E. B.
8	Golaghat	
9	Morigaon	
10	Nalbari	
11	Darrang	
12	Barpeta	
13	Kamrup	
14	Bongaigaon	
15	Dhubri	
16	Nogaon	
17	N. C. Hills	
18	Karbi-Anglong	
19	Lakhimpur	
20	Dhemaji	

Initially the project completion period of 11th Five Year Plan Projects was 18 months but it has been extended by Govt. of India to 24 months from the date of award of contract because of constraints encountered by the implementing agencies in the country.

Progress of Rajiv Gandhi Gramin Vidyutikaran Yojana (RGGVY)

Achievement during Tenth Five Year Plan

Following three projects were sanctioned during the 10th Five Year Plan and the achievement in these projects were as follows:

District	Date of Award	Sanctioned			Achievement		
		UE Villages	AE Villages	BPL service connection	UE Villages	AE Villages	BPL service connection
Tinsukia	February'07	350	725	44548	350	725	51548
Goalpara	April'07	323	361	30905	323	361	30908
Cachar	March'07	230	660	45000	230	660	44153
Total		903	1746	120453	903	1746	126609

It may be seen from the above that the achievement is 100% in respect of all items of electrification of un-electrified (UE) villages, intensification of already electrified (AE) villages and providing connection to BPL families.

For Eleventh Plan, remaining 21 projects were sanctioned and the achievements are as follows:

Achievement in Eleventh Five Year Plan

District	Date of award	Sanctioned			Achievement		
		UE	AE	BPL	UE	AE	BPL
Jorhat (Incl. Ph-II)	June'08/25th Feb'11	243	472	60529	243	471	36441
Golaghat (Incl. Ph.-II)	Sept'08/ (in Process)	483	508	71034	479	505	52195
Morigaon	June'08	257	215	35417	242	215	35417
Nalbari	June'08	145	597	45672	141	581	42359
Darrang (inl. Ph-II)	Sept.'08/15th March'11	204	1082	66489	204	969	53166
Barpeta	February'09	226	710	63567	186	638	43682
Kamrup	January'09 & Jan'10	379	927	74943	348	799	52080
Bongaigaon	January'09	351	501	41969	335	489	35213
Dhubri	January'09	393	782	74274	336	530	39057
Nagaon	January'09 & Jan'10	358	1003	100514	285	835	70016
N. C. Hills	January'09	242	128	4681	127	85	2645
Karbi-Anglong	January'09	1380	436	31504	1299	416	25009
Lakhimpur	March'09	544	503	34745	523	488	31855
Dhemaji	March'09	613	294	21322	564	279	17918
Kokrajhar (2 packages under ASEB)	Nov'09	308	284	29570	119	104	3295
Total (ASEB)		6144	8442	756230	5431	7404	540348
Dibrugarh	Feb'09	245	686	24240	184	350	11193
Sivasagar	Feb'09	92	339	13505	92	277	8700
Sonitpur	Feb'09, Jan'09 & Dec'08	569	916	65817	523	890	45301
Hailakandi	March'09	63	249	9788	59	155	9788
Karimganj	May'09	210	459	27488	155	158	17489
Kokrajhar (1 packages under PGCIL)	Feb'09	122	130	11320	120	90	9363
Total (PGCIL)		1301	2779	152167	1133	1920	101834
Grand Total(ASEB+PGCIL		7445	11221	908397	6564	9324	642182
Total (X+X) the Plan		8348	12967	1028850	7467	11070	768791

As per information received from ASEB, out of the total 25124 number of villages in the State, the number of villages electrified was 19729 (78%) till 2010-11.

Electrification of Villages in Assam

(RGVY only)

District	No. of inhabited villages 2001 Census	No. of villages Electrified (Cumulative)	
		2009-10	2010-2011
Dhubri	1261	813	1100
Kokrajhar	951	422	515
Bongaigaon	881	545	793
Goalpara	761	710	710
Barpeta	1050	803	926
Nalbari	798	673	726
Kamrup(M)	1342	949	1130
Darrang	1319	1109	1258
Sonitpur	1784	974	1386
Lakhimpur	1139	530	927
Dhemaji	1236	383	679
Morigaon	592	371	448
Nagaon	1375	1006	1213
Golaghat	1066	923	1012
Jorhat	787	768	769
Sivasagar	866	365	431
Dibrugarh	1309	731	837
Tinsukia	1107	1075	1075
Karbi-Anglong	2633	805	1740
N. C. Hills	605	163	272
Karimganj	915	462	584
Hailakandi	327	277	308
Cachar	1020	890	890
Baksa*			
Chirang**			
Udalguri***			
Assam	25124	15747	19729

N. B. : * Baksa is included in Nalbari District

** Chirang is included in Bongaigaon District

*** Udalguri is included in Darrang District

Implementation of Ongoing Schemes of Assam Power Generation Corporation Ltd. (APGCL) under State Plan

The following on-going schemes are being implemented by APGCL under State Plan. Currently no schemes of APGCL are being financed by the World Bank/ ADB.

1X 37.2 MW Lakwa Waste Heat Recovery Project

Main contract (EPC) for Turbine, Generator & Boiler was awarded to Bharat Heavy Electrical Lmdt. (BHEL) at ₹208.44 Crore in March 2006. The contract for Water Intake System was already placed in May 2007 and the work is already completed in July 2009. The EPC contractor, BHEL, however could not complete the project work within the original target date of 30-06-2008 mainly due to delay in completion of civil work by their Civil Sub-contractor.

After a lapse of few target dates including the latest of 31-03-2011, BHEL finally could test commission the project on 17-08-2011 with HRSG-II as HRSG-I was not fully ready on that date. Later HRSG-I was also put on service along with the HRSG II on 30th September'11. The HRSG-III was commissioned on 24th Dec'11. There are also some concerned activities to be completed, mostly of finishing nature. The unit is expected to put into commercial operation within Jan'12.

Funding Pattern

The cost of the project is ₹236.4 Cr. The Govt. of Assam (GOA) provided ₹68.33 Cr. as equity share under State Plan and balance amount was acquired from Power Finance Corporation (PFC) as soft loan.

1X100MW Namrup Replacement Power Project

The gas turbine units of the existing Namrup gas plant have been operating since 1965 and have outlived their normal life long back. It is therefore proposed to setup a 100 MW CCGT project in Ph-I in the existing Namrup plant. Once the project is implemented, the existing gas turbines will be phased out gradually.

Progress of work:

- Civil work is in progress.
- Piling & pile cap foundation work is in progress. 1037 piles out of total 1769 piles completed in power block areas.
- Pile cap foundation of chimney completed. Pile cap foundation & pedestal of GTG Bldg, STG Bldg, HRSG in progress.
- Structural fabrication at site in progress. Appx. 642 MT out of Appx. 2029MT completed.
- Piling in switchyard area in progress. 283 out of 374 Nos. of piles completed.
- Detailed engg. is in progress. About 67% Engg drawings/ documents are approved so far.
- 84% BOP packages ordered.
- Inspection of GTG & STG at BHEL works completed.

Revised target for commissioning

The progress is in general behind scheduled time and BHEL revised target date of commissioning to Dec'2012.

Funding Pattern

The cost of the project is ₹694.4 Crore. The Government of Assam has provided ₹208.55 Crore as equity share under State Plan and balance amount will be acquired from PFC as soft loan.

Myntriang SHP (2x3 MW St-I & 2x1.5 MW St-II = 9MW)

The Myntriang Hydro Electric project is located near Karbi Langpi Hydro Electric Project at Amtereng having latitude-26° 1.5′ to 26° 1.6′N and Longitude 92° 26.03′ to 92° 28.45′E.This is a two stage development of the river Myntriang. The river is originated at an elevation of 1078m. The proposed project area is located in the foothills of the Karbi Anglong district with moderate steep topography. The river is passing through gorges and rapids but without any major fall. About 95% of the total catchment area is covered with deep forest and population is very thin. Jhum cultivation is the main occupation which is however not going to be effected due to construction of the project.

The project will be developed in two stages i.e. stage-I (6 MW) by utilizing head of 191m and 1.850 cume of discharge (at 90% dependable year) in two unit of 3.00 MW each.

Stage-II (3MW) by utilizing head of 64.00m and 2.75 cumec of discharge (at 90% dependable year) in two unit of 1.50 MW each.

Geology

Geotechnical reports have been prepared for both the stages and approved.

Population

Due to steep terrain, deep vegetation and lack of inward communication habitation is very scanty. The population of the area is mainly hill tribes namely Karbi people.

Natural resources

The whole catchment area is filled with deep vegetation and virgin forestland offering good resources for timber industry. However no mineral ore deposit has been detected so far.

Socio Economic aspect

The whole area is extremely backward, both from economic and social point of view. Due to lack of education, medical communication facilities, there is virtually no impact of modern development. If the project is coming up, better economic condition of the area can be achieved and thereby bringing up a social change by creating job facilities. There is also possibility of timber and diary industry in the area.

Present Status

- EPC contract was signed with M/s Sharada Eco Power Ltd. in September'08 with 04/12/2009 as effective date.
- 95% infrastructure works and 70% of main work of Stage-II completed.
- All Electro-mechanical equipment of Stage-I & stage –II have been received at site.
- 70% of Earth work for road cum Power channel of Stage-I is completed.
- Diversion work in Stage-I weir is completed
- Schedule date of commissioning: 2012-13.

The total cost of the project is ₹80.92 Crores and the funding pattern is - State Plan ₹19.03 Crore, MNRE ₹15.75 Crore and NABARD ₹46.14 Crore.

Lungnit SHP (2x3 MW = 6 MW)

The project is located 25 km away from Diphu, District Headquarter of Karbi Anglong, Assam having latitude 26° 03´50" and Longitude 93°24´50" (stage -I) , Latitude- 26° 04´30" and longitude 93°23´00" (stage-II). This is a two stage development of the river Lungnit. The proposed project area is located in the foothills of the Karbi Anglong district with moderate steep topography. The river is passing through gorges and rapids but without any major fall. About 95% of the total catchment area is covered with deep forest and population is very thin.

The project will be developed in two stages i.e. stage-I (3 MW) by utilizing head of 48m and 2.83 cume of discharge (at 90% dependable year) in two unit of 1.50 MW each.

Stage-II (3MW) by utilizing head of 43.00m and 3.24 cumec of discharge (at 90% dependable year) in two unit of 1.50 MW each.

Geology

Detail geological exploration of the project area is yet to be done. However exposed granite are found at weir site as well as at power house site.

Population

Due to steep terrain, deep vegetation and lack of inward communication habitation is very scanty. The population of the area is mainly hill tribes namely Karbi people.

Natural resources

The whole catchment area is filled with deep vegetation and virgin forestland offering good resources for timber industry. However no mineral ore deposit has been detected so far.

Socio Economic aspect

The whole area is extremely backward, both from economic and social point of view. Due to lack of education, medical communication facilities, there is virtually no impact of modern development. Better economic condition of the area can be achieved and thereby bringing up a social change by creating job facilities, if the project is coming up. There is also possibility of timber and diary industry in the area.

Present Status

- Contract agreement with consortium of M/s Jyoti Ltd. & M/s P. Das & Co. has been signed on 22- 07-09 with 17/08/2009 as effective date
- 90% Infrastructure works completed. 90% excavation works in Forbay and 60% excavation work in Power Channel of Stage-II completed.
- Schedule date of commissioning: 2012-13.

The total cost of the project is ₹58.70 Crore and the funding pattern is - State Plan ₹5.70 Crore, Power Finance Corporation Ltd (PFCL) ₹30.0 Crore, MNRE ₹18.0 Crore, and NEC ₹5.0 Crore.

NON CONVENTIONAL SOURCES OF ENERGY

From the Sixth Plan period the Government of India has been placing very high priority on proper utilization of Non –Conventional Energy Sources, particularly to meet the energy needs of the energy starved rural areas of the country in a decentralized manner. The Sun, Wind, water from hilly streams, heat from the earth and waves of sea offer immense potential of Non- Conventional and renewable sources of energy.

Decentralized Energy system based on Non- Conventional energy resources are the answer to our rural energy problem. Use of renewable energy sources not lonely provides solution to energy problems at the local level but also has direct relevance to important socio- economic issues like improvement of the quality of environment, minimize deforestation, improvement of the quality of life and employment generation.

In Assam, Bio-gas and improved *chulha* programmes has been taken up since mid eighties. But other programmes like solar energy, wind energy, and biomass programmes were stared from early nineties. The improved *chulha* (NPIC), bio-gas (NPBD) and Integrated Rural Energy Planning (IREP) programmes are implemented in Assam by the Panchayat and Rural Development. Other programmes were implemented by the Assam Science Technology and Environment Council, a registered society under the Science, Technology and Environment Department, Assam.

However, with the setting up of the Assam Energy Development Agency during 2002-2003, the Energy Cell under Societies Registration Act 1860, under Science & Technology Department, Government of Assam is solely responsible for implementation of renewable energy and energy conservation programme in the State.

Review of Eleventh Five Year Plan

Approved outlay of the Eleventh Plan for Non- convention Energy Source is ₹145.00 lakh. The Annual Plan Expenditure of 2007-08 was ₹6.00 Lakh and ₹8.00 Lakh in 2008-09 and no expenditure was incurred during 2009-10.

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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. However, contribution of this transport and communication sector calculated at 7.1 percent of State Gross Domestic Product in 2010-11 at current prices. 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 primarily responsible for improvement of road communication through construction and maintenance of roads, bridges and culverts for speedy development of the State.

At present 42641 km road network including 1950.651 km National Highways [out of total 2841 km NH Way length] is maintained by the State PWD details of which are shown in the Table 13.1 below. Excluding the National Highways, the 39800 Km road length consists of State Highways, major district roads, urban roads and rural roads consists of 18753 Km is blacktopped roads out of which 974 Km are intermediate lane and 253 Km are double lane or above. The rest, i.e. 93.46 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, considerable portion of the maintenance fund has to be spent on maintenance of these bridges which hinder the interest of speedy development. However, at present, about 7000 km of road length is under improvement and 1433 nos. bridges are under different projects.

TABLE-13.1
ROAD NETWORK IN ASSAM

(in Km)

Item	2007-08	2008-09	2009-10	2010-11
Surfaced Road*	10488	13734	13163	18753
Un-surfaced Road	24458	23187	24338	21047
National Highway	2754	2755	2841	2841
State Highway	3134	3134	3134	3134
Major District Road	4414	4413	4413	4413
Rural Road	26221	27283	28753	30844
Urban Road	1177	1173	1202	1409

**Excluding National Highways* *Source: Office of the Chief Engineer PWD (Roads), Assam*

The surfaced road kilometer [excluding NH Way] constitutes 47.1 percent of the total road length in the State during the year 2010-11. This indicates that as against total road length availability of about 51 km per 100 sq.km and about 131 km per lakh of population [projected] of during the year 2010-11, about 24km per 100 sq.km of geographical area and about 62 km per lakh of population [projected] of surfaced roads are available in the State during the same period.

To maintain smooth road communication, the State PWD has been maintaining a good number of RCC bridges on State Highways, Major District Roads, Rural Roads and Urban Roads. Among the maintained RCC bridges by the State PWD, 309 bridges were constructed upto the year 2001, 497 bridges constructed during 2001-2006 and 1179 bridges during 2006-2011(March). At present as many as 1433 RCC bridges are under construction. In addition to the RCC bridges, there are 2341 SPT bridges maintained by the State PWD that need to be converted to RCC bridges.

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 70934 km length of NH in the Country, Assam's share is only 4.00 percent. Compared to 21.58 km NH length per thousand sq.km geographical areas and 5.86 km NH length per lakh of population (2011 Census) of the country as a whole, Assam has 36.2 km per thousand sq.km geographical areas and 9.11 km NH per lakh of population in the State.

As on 31st December, 2010, twenty nine improvement works costing ₹581.96 crore, are in progress in Assam. A length of 678 km [East West corridor, Assam portion] connecting Silchar to Srirampur via Lumding-Daboka-Nagaon-Guwahati, except for 31 km between Udarband and Harangajo [a portion of East-West corridor fall in Assam] has been entrusted to NHAI under NHDP Phase-II is in progress. For the 31 km stretch between Udarband and Harangajo, Detailed Project Report (DPR) for realignment is in progress and four laning works are in different stages of progress. The costs involvement for this 31 km stretch estimated amounting to ₹51.61 crore for improvement to 2-lane has been approved by the Ministry under NH (O). The work is in progress. In addition, a road project of 2-laning alternative route connecting Barak Valley (Silchar) - Guwahati via Harangajao-Turuk [285 km] has been taken up under modified SAEDP-NE Phase "B". 18 km of Guwahati bypass has been completed.

In addition, Government of India has proposed to construct/improve roads connecting Doboka (Assam) to Dimapur (Nagaland Border), Baihata-Chariali to Banadardewa, Bandardewa (Assam) to Arunachal Border, Assam/Meghalaya Border to Assam Tripura Border and Silchar (Assam) to Mizoram Border under NHDP Phase-II.

Under the CRF, eighty seven works amounting to ₹338.90 crore have been taken up so far for the improvement of state roads. Under the ISC & EI scheme, two works costing ₹6.94 crore are in progress.

Government has approved implementation of four laning of NH-37 from Numaligarh to Dibrugarh (201 km) along with construction of 4-lane Bridge over river Brahmaputra connecting Numaligarh and Gohpur on NH-52 on Built Operated and Transfer [BOT (Annuity)] basis and two laning with paved shoulders of single lane stretches of NHs of 1179 km in State of Assam under Phase 'A' SARDP-NE.

Government of India has approved implementation of Arunachal Pradesh Package of Roads & Highways covering 2319 km of roads at an estimated cost of ₹11703 crore. Out of 2319 km, 139 km falls in Assam.

The details of Road works taken up under Phase 'A' of SARDP-NE in Assam given in the Table below:

TABLE-13.2

DETAILS OF ROADS UNDER PHASE 'A' of SARDP-NE

State	Roadwork	Category of Road	Road Length (in Km)
Assam	Improvement of existing 2-lane NH -37 from Nagaon – Dibrugarh to 4-lane[BOY(Annuity)]	NH	301
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
Assam	2 lane Dibrugarh bypass on NH-37(on EPC basis)	NH	14
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

State	Roadwork	Category of Road	Road Length (in Km)
Assam and Arunachal Pradesh	4-lane connectivity to Itanagar NH 37A,52 & 52A	NH	150
Manipur, Mizoram Meghalaya & Assam	2-laning of NH-44,53,54 &154 including Jowai bypass in Meghalaya	NH	180
Assam	2 laning of Golaghat-Rangajan Road	State road	7
Assam	2 laning of Lumding-Diphu- Manja road	State road	56
Assam	2 laning of Haflong- Jatinga road	State road	8
Assam	2 laning of Dhubri- Gauripur road	State road	8.5
Assam	2 laning of Baska- Bamara road	State road	25
Assam	2 laning of Morigaon- Jagi road	State road	23
Assam	2 laning of Barpeta- Howly road	State road	12
Assam	2 laning of Goalpara- Solmari road	State road	6.5
Assam	2 laning of Kokrajhar- Karigaon road	State road	18
Assam	2 laning of Udalgiri- Rowta road	State road	13

Source: Annual Report Ministry of Road Transport & Highways, 2010-11

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:

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.The achievements of implementation under the scheme so far-

Up-to-date Road length sanctioned	:	15909 km
Road length completed	:	10915 km
Amount sanctioned	:	₹8801.81 crore
Amount released by GOI	:	₹6299.63 crore
Fund Utilized	:	₹5933.88 crore
Habitation sanctioned (1000+)	:	6102 nos
Habitation already connected	:	4635 nos
Balance road length in progress	:	4994km
Balance habitation (1000+) to be connected	:	1467 nos

MPNA (Mukhyamantrir Pakipath Nirman Achani)

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 PMGRY. Under this scheme, 1039 Km of roadwork have been sanctioned. Progress of the scheme is detailed as under:

Sanctioned length	:	1039 Km
Length completed	:	990 Km
Work not feasible	:	4 Km
Work in progress	:	45 Km
Bridge sanctioned	:	2 nos
Bridge Completed	:	2 nos

MPDNA (Mukhya Mantrir Paki Dalang Nirman Achoni)

This programme has been launched by the Govt. of Assam with the objective to replace existing wooden bridges of remote rural areas by constructing RCC bridges for improvement of connectivity. Under this scheme, 199 RCC bridges have been sanctioned. Progress of the scheme is detailed as under:

RCC bridges sanctioned	:	199 nos
RCC Bridges completed	:	12 nos
Ongoing	:	187nos
Total cost	:	₹119.93 crore
Fund utilized	:	₹19.43 crore
Target for 2011-12: RCC Bridge	:	50 nos

Assam Vikash Yojana

Following road projects [improvement/up- gradation of existing roads] have been taken up under the Assam Vikash Yojana. 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. Under the scheme following important State Highways are proposed to be improved/up-graded-

a) Improvement / Up-gradation of Mangaldoi- Bhutia chang Road under Assam Border;

b) Improvement /Up-gradation of Bongaigaon- Lengtichinga -Daulasal-Kalitakuchi-Hajo-North Guwahati Road;

c) Improvement/ Up-gradation of Dhodar Ali.

Assam Agricultural Competitive Project (AACP)

This is a World Bank funded project. The GOI has received a credit from IDA on behalf of the State of Assam for the AACP that includes rural road component alongwith agricultural and its allied farm sector. The rural road component is to be implemented in nine districts of Assam viz., Jorhat, Sonitpur, Nalbari, Dhubri, Hailakandi, Barpeta, Goalpara, Morigaon and Karimganj. The component involves upgradation of 716 km of existing rural road to black top road standards including construction of box culvert, replacement of 181 timber bridges with permanent RCC/PSC bridges and rehabilitation of 1000 km of existing link/feeder roads(gravel roads) including repair of timber bridges and cross drainage in the above noted project districts. Although the plan was for to complete the project over a period of five-year wef 242-2005 to March 2010, the World Bank has extended the time to complete the project.

The physical achievement of implementation of the project shows that out of the total 716 km of road, 624 km black top work and out of 181 bridges 170 bridges has been completed. Road rehabilitation work has also been progressed satisfactorily.

RIDF [Loan assistance from NABARD] Projects

Road length sanctioned	…	801 Km.
Completed	…	437Km.
RCC Bridges sanctioned	…	396Nos.
Completed	…	270Nos.
Work in progress	…	Roadwork 334 Km
		Bridge 126 Nos.

Assam State Road Project (ASRP)

The objective of the project is to provide road users in Assam with good quality and better managed state highways and major district roads. Its progress will be monitored through – (i) road condition, (ii) traffic speed, (iii) level of service, (iv) performance on road maintenance, and (v) improvement of business procedures of PWD.

a) Road improvement (about 95 percent of the project): Civil works for a combination of road widening/upgrading and pavement rehabilitation/strengthening(within the existing Right of Way) of about 800 km high priority core network roads including bridges and road safety engineering measures; Pilot project to demonstrate innovative bridge design; rehabilitation assistance to project affected people etc.

b) Asset management(about 5 percent of the project cost): Technical assistance to - (i) develop and operationalize a simple Asset Management System(AMS); (ii) implement Annual Maintenance Plans (AMP); (iii) implement traffic safety action plan etc. The plan will also include training and capacity building of PWD staff.

The proposed project size, in 2004 was of US$200 million. This was done by splitting the Govt. of Assam's original request for World Bank assistance of US$500 million in phases. Accordingly 1200 km was identified earlier for improvement was reduced to 800km. However, as the time passed most of the road improvement work by PWD has been involved with significant widening and new construction instead of pavement strengthening as well as significant increase of cost involvement due to increasing number of bridges, construction of high embankments and extra work for flood protection etc, the PWD proposed to take up 300 km of road work in Stage-I keeping the balance 500km for Stage –II.

The PWD have started submission of the DPRs in batches for the stage-I roads of 300 km under the project.

ROAD TRANSPORT

Motor vehicles

The rapid increase of the number of motor vehicles on road in Assam has been observed over the past few years. The on road vehicle population in the State has reached to 1363625 as on March 2011 as against 1320867 as on March 2010. An additional of 199076 vehicles was added during the year 2010-11 as against 241247 vehicles in 2008-09. The registration of Motor vehicles recorded 17 percent decrease during the year 2010-11 over the previous year. During 2008-09, the registration of motor vehicle was 241247 and recorded 102 percent increase over the motor vehicle registered during 2007-08.

Total number of Motor vehicle on road in the State, while recorded slightly above 3.0 percent as on March 2011(1363625) over the previous year, it indicates galloping increase around 155.0 percent when compared with the figures as on March 2001(534885).

The density of motor vehicles in Assam was slightly above 17.0 per sq. km. during 2010-11 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 evident from the Table 13.4.

TABLE-13.3

NUMBER OF MOTOR VEHICLE REGISTERED AND MOTOR VEHICLE ON-ROAD IN ASSAM

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
2010-11	199076	253	65	1363625	1738	4484

Source: Office of the Commissioner of Transport, Assam and Directorate of Economics and Statistics, Assam

The Commissionerate of Transport has proposed/intended to construct driving track in every district in a phased manner in order to have a sound Transport System to check road accidents throughout the State. Meanwhile the Transport Department has acquired a plot of land measuring six (6) bighas for construction of Driving Track adjacent to the Driving Training & Research Institute located at Betkuchi (Guwahati City) and work is in progress. District Administrations of Nalbari and Barpeta have also made available a plot of land measuring four (4) bighas and eight (8) bighas respectively for their respective districts for construction of driving track.

Apart from providing fast and comfortable services to the commuters as well as to create self-employment avenues among the unemployed youths, Trekkers services have been introduced in the State, which became not only very popular in the greater Guwahati and in adjoining areas but also in various parts of the State.

The collection of transport revenue by the Department of Transport during the year 2010-11 was ₹248.78 crore as against ₹213.79 crore in 2009-10. During the year 2008-09, the amount of revenue collected by the department was ₹171.88 crore. The collection of transport revenue during the year 2010-11 was about 45 percent 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. Earlier, 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. With the changing scenario, both the ASTC and private operators are providing transport services equally in the interest of passenger traffic. The ASTC has been providing efficient, smooth, economic and dedicated services to the people especially in the rural and other backward areas since its inception and have earned the appreciation of the people of the State. 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. For providing better passenger amenities, it is proposed to construct new Bus Terminuses at Guwahati City (City Service), Bongaigaon, Halflong, North Lakhimpur and Nalbari. The ASTC has also proposed to reconstruct all the major stations.

To improve its performance and for better transport connectivity, as a part of the Public Transport Policy of the Govt. of India, the ASTC needs to purchase new Buses every year for replacing the old and over-aged ones as well as to augment its fleet position to further mobilize its earnings. The performance of ASTC during the last two years may be evident from the table below.

TABLE-13.4

PERFORMANE OF ASSAM STATE TRANSPORT CORPORATION (ASTC)

Year	Average nos of own vehicle held	Av. No of own Vehicle on road	Fleet utilisation (%)	Total km operated during the year (₹ in lakh)	Monthly Av. Net income from own buses (₹ In lakh)	Staff-Bus ratio	No of Private Buses operated under ASTC	Monthly Av. Income from Privately operated buses (₹ in lakh)
2009-10	312	271	87	148.92	70.42	8:01	1317	103.92
2010-11	357	299	84	159.45	85.30	6:01	1189	95.12

Source: Assam State Transport Corporation.

At present, ASTC is having a fleet of 334 no. of vehicles out of which 100 no. are old and over-aged and is due for replacement. For replacing these old and over-aged vehicles and for augmenting the fleet position of the Corporation, it is proposed to purchase 300 no. of new vehicle during 2011-12 at an estimated cost of ₹7200.00 lakh.

The ASTC is having a substantial area of un-utilised land within its Station Complexes which can be utilised for commercial purposes, such as, construction of market complexes, parking yard for small segment vehicles etc., which can be let-out to educated un-employed youth of the State, thereby, generating employment opportunity as well garnering additional revenue for the Corporation. Therefore, the ASTC proposed to construct/improve market complexes and parking yards at an estimated cost of ₹100.00 lakh.

Railways

As per information available from the N.F. Railway, Headquarters, Maligaon, Guwahati, the railway route length in Assam at the end of 2010-11 was 2433.99 km comprising of 1443.03 km under Broad Gauge and 990.96 km Metre Gauge compared to 2433.34 kms total railway route length in 2009-10 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 59.27 percent, it shares only 2.64 percent of the country's total broad gauge railway route length. Taking into account of the total railway route length of 64215 kms for the country as on March 2011, Assam's share in the country's railway route length turns out to be around 3.8 percent at the end of the March 2011.

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, Bhairabi–Sairang projects are declared as national projects and the works are on progress. The survey work of proposed construction of new line connecting Azara–Tetelia–Byrnihat, also a National Project has been completed and land acquisition proposal has been submitted to the Govt. of Assam for the portion fall within Assam. The construction of 19.75 km stretch connecting Dudhnoi (Assam) – Mendipathar (Meghalaya) is under progress and expected to be completed by March 2013. Construction of new Broad Gauge lines connecting Harmuti (Assam) and Naharlagun (Arunachal Pradesh)–20 km, New Mainaguri to Jogighopa (257 km) are under progress.

In addition, the survey work for construction of new lines connecting Jogighopa – Guwahati vis Barpeta–Sarthebari–Hajo–Sualkuchi, North Lakhimpur–Along–Silapathar, Misamari–Tawang, Pasighat–Tezu–Rupai are under various stages of 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 targeted to be completed by December 2014. The rail link connecting north and south bank across the Bridge is also under various stages of completion. The Moranhat-Chawlkhowa (44 km) rail link on South Bank of Bogibeel Project commissioned on 8-12-2009 and handed over to open line on 29-01-2010.

During the year 2010-11 following works have been completed in Assam under the North–East Frontier Railways –

- New Guwahati–Digaru Patch doubling Phase-I: Doubling work of Thakurkuchi–Digaru(15.30 km) section has been completed and commissioned for passenger traffic on 30-1-2011.
- New Guwahati-Narangee (5 km) section has already been commissioned on twin single line system for passenger traffic on 19-12-2010.
- Narangi-Thakurkuchi (9.8 km) section except 1.0 km (settled portion) work is completed.

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. The Northeast Frontier Railway authority has also started plying direct train service between Lumding(Assam) and Agartala(Tripura).

A **"Rail Heritage Park"** having railway museum was established in New Tinsukia Railway Station to showcase ancient memorials ranging from ancient turntable built during British period of 1892, railway wheels used by British Army during the Second World War to narrow gauge Steam Engine built in 1889. With the theme dedicated to Dibru-Sadyia Railways and Assam – Bengal Railways, the heritage park was developed at approximate cost of ₹2.0 crore.

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 seven years. This increase was 80 percent percent and 170 percent respectively during the year 2009-10 over 2003-04. The freight of cargo has also shown 12 percent increase during the year 2009-10 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	2009-10
Air Traffic Movement (No.)	19492	20334	21218	26699	32903	34855	35270
Passenger Handled (No.)	739507	828640	947798	1371105	1664404	1693319	1997506
Freight loaded /Unloaded (Tonne)	5137	5199	5349	4520	2810	2404	5829
Mail loaded/ unloaded (Tonne)	863	1320	820	555	433	453	469
Average number of flight per day	55	57	57	73	90	196	97
Average number of passenger handled per day	2026	2270	2597	3756	4563	11921	15513
Average Cargo Handled per day (Tonne)	16	18	17	14	8	9	17

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. The number of aircraft movement recorded 54 percent decrease during the year 2009-10 compared to 2008-09. Similarly passenger handled also recorded about 26 percent fall during the same period. During the year 2008-09, aircraft movement and passenger handled in the airport recorded 2.0 percent and 256 percent increase over the previous year. While the loads of cargo handled in the airport recorded decline of 88 percent during 2008-09 over the previous year, no loads of cargo handled in the airport during the year 2009-10. The number of aircraft movement, passengers as well as freight handled in the airport during the period from 2003-04 to 2009-10 detailed in the Table 13.6.

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
2009-10	46	5421	0	0

Source: Directorate General of Civil Aviation Statistical Division, New Delhi.

Inland Water Transport

Inland water transport is generally accepted as the most efficient mode of transportation from the point of energy consumption, labour intensive, lower cost of transportation and environment friendly. 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 in the year 1988 and afterwards the proposals to activate the Commercial service have been moved for overall economic development of the North-eastern Region.

A protocol on Inland water Transit and Trade exists between India and the People's Republic of Bangladesh since 1980. It has been renewed every 2(two) years since than [last renewal was done in October, 1999]. In pursuance of Article VIII of the Trade Agreement, both the Governments agreed to use their waterways for passage of goods between two places in one country through the territory of the other in accordance with the Laws of the Country the territory of which goods are moving. To implement the process of action as well as to promote activities on International Trade of North-East India connectivity via Bangladesh (waterways) it is necessary to take up the following –

- Up-keepment of Transit and Trade through the river Brahmaputra and Barak through Bangladesh is most necessary for development of the North-eastern Region. It is also felt that, there are obstacles in some areas of protocol routes, development /maintenance of which may be looked into by the Inland Waterways Authority of India (IWAI) in National Waterways.
- Renewal of the existing Protocol in between Indo-Bangladesh with some alteration/modifications to boost mutual economic interest of the two countries.

For effective exploitation of the waterways, being the cheapest mode of transport and in order to cater to the growing need for goods and passenger movement , two Government owned organisations of Assam viz, Central Inland Waterways Corporation and Directorate of Inland Water Transport (IWT), are operating the water transport services on the river Brahmaputra and Barak on commercial basis. These services are used for the transportation of passengers and goods alike. However, there is need to augment the IWT fleet by suitable type of vessels to ensure adequate cargo support.

Currently, the Directorate of Inland Water Transport is operating 98(ninety-eight) ferry services under IWT Divisions on the river Barak, Brahmaputra and its tributaries for the purpose of public utility, out of which 74 ferry services are plying in the Brahmaputra valley and 24 in the Barak valley. The IWT Department has introduced 61 nos. of cargo cum passenger service also 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.

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 604 telephone exchanges functioning in the State (as on December 2010).

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 December 2010 was 35.88 percent as against the national average of 66.17 percent. 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 114.11 percent, the rural tele-density was only 22.16 percent. However, the tele-density of urban and rural segments of Assam was marginally below the national average (urban-147.52 percent and rural-31.22 percent).

TABLE-13.7

TELECOM FACILITIES IN ASSAM

Item	2007-08	2008-09	2009-10	2010-11#
Direct Exchange Lines	1348990	1324128	1449647	1623735
Rural Telephone Connections	443150	436504	481092	551016
Village Public Telephones (VPTs)	22407 (89.2%)	23369 (93.0%)	23992 (95.49%)	24032 (95.65%)
Total Telephones	4343409	6161988	9064392	10944175
A)Wire line Phones=Fixed DELs	430310	351030	308339	257002
Ai)PSU Operators	430310	351022	307725	255182
Aii)Private Operators	0	8	614	1820
B)Wireless Phones (GSM+CDMA)	3913099	5810958	8756053	10687173
Bi) PSUs Operators	918680	973106	1141922	1368553
Bii)Private Operators	2994419	4837852	7614131	9318620
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	35.88 Urban-114.11 Rural-22.16
Public Call Offices [Local+STD+Highway]	34518	33862	33862	30561

#Information upto 31-12-2010

Source: Annual Report-2008-09, 2009-10&, 2010-11 of Department of Telecommunication, Govt. of India.

The subscriber base basic services provided by the BSNL in the State was 1623735 as on December 2010 as against 1449647 as on March 2010 which included fixed line subscribers, WLL subscribers and CMTS subscribers. Out of the total BSNL subscribers, 551016 (33.94 percent) were rural. The number of telephone connections as on December 2010 was 12.0 percent more than that of March 2010. There were 1324128 number of telephone subscribers in the State as on March 2009.

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 one crore as on December 2010 which was 22.0 percent above the figure of March 2010. While BSNL alone provides around 13 percent of the total mobile connections in the State the private mobile service operators' share 87 percent with more than 93 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 24032 villages or above 95 percent of the total inhabited villages of Assam by providing Village Public Telephones (VPTs) as on December 2010.

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APPENDIX – 13.1

DISTRICT-WISE LENGTH OF PWD ROADS BY TYPE IN ASSAM 2010-11

(in Km.)

Sl. No.	District	Black Topped	Earthen/ Gravelled	Total
1.	Barpeta	889	347	1236
2.	Bongaigaon	425	376	801
3.	Cachar	622	441	1063
4.	Darrang	651	400	1051
5.	Dhemaji	475	864	1339
6.	Dhubri	570	427	997
7.	Dibrugarh	853	765	1618
8.	Goalpara	545	502	1047
9.	Golaghat	831	860	1691
10.	Hailakandi	292	181	473
11.	Jorhat	699	1352	2051
12.	Kamrup (R+M)	1709	1510	3219
13.	Karbi-Anglong	1481	2828	4309
14.	Karimganj	476	460	936
15.	Kokrajhar	629	341	970
16.	Lakhimpur	511	563	1074
17.	Morigaon	507	643	1150
18.	Nagaon	1530	1588	3118
19.	Nalbari	579	386	965
20.	Dima Hasao	866	970	1836
21.	Sivasagar	1011	1012	2023
22.	Sonitpur	960	1568	2528
23.	Tinsukia	536	755	1291
24.	Udalguri	405	1053	1458
25.	Baksa	423	508	931
26.	Chirang	278	345	623
Total		**18753**	**21047**	**39800**
NH		**2841**	**-**	**2841**
Assam Total		**21594**	**21047**	**42641**

Source : P.W.D. , Assam.

APPENDIX – 13.2

DISTRICT-WISE LENGTH OF ROADS ACCORDING TO DIFFERENT CLASSES UNDER PWD IN ASSAM, 2010-11

(in Km.)

Sl. No.	District	State Highway	Major District Road	Rural Road	Urban Road	Total
1.	Barpeta	158	171	875	31	1236
2.	Bongaigaon	41	16	708	36	801
3.	Cachar	107	165	748	42	1063
4.	Darrang	143	119	770	20	1051
5.	Dhemaji	45	42	1167	86	1339
6.	Dhubri	56	53	850	38	997
7.	Dibrugarh	155	163	1237	63	1618
8.	Goalpara	137	48	851	10	1047
9.	Golaghat	160	157	1342	33	1691
10.	Hailakandi	17	99	351	6	473
11.	Jorhat	162	89	1713	86	2051
12.	Kamrup	89	230	2444	457	3219
13.	Karbi-Anglong	337	561	3341	70	4309
14.	Karimganj	35	343	539	19	936
15.	Kokrajhar	61	131	762	16	970
16.	Lakhimpur	121	97	811	44	1074
17.	Morigaon	142	86	909	13	1150
18.	Nagaon	297	327	2407	88	3118
19.	Nalbari	119	45	779	22	965
20.	Dima Hasao	380	199	1197	60	1836
21.	Sivasagar	100	310	1573	40	2023
22.	Sonitpur	55	402	2013	59	2528
23.	Tinsukia	63	171	1005	52	1291
24.	Baksa	97	43	791	0	931
25.	Chirang	0	223	392	8	623
26.	Udalguri	56	125	1269	9	1458
Total		**3134**	**4413**	**30844**	**1409**	**39800**

Source : P.W.D. , Assam.

APPENDIX – 13.3

LENGTH OF ROADS PER LAKH OF POPULATION, 2010-11

District	District wise Road length	Road length per lakh of population	Road length per '00' Sq. Km. of geographical area
Baksa	931	97.65	46.40
Barpeta	1236	73.00	46.17
Bongaigaon	801	109.39	46.45
Cachar	1063	61.21	28.07
Chirang	623	129.28	31.54
Darrang	1051	115.76	56.80
Dhemaji	1339	194.61	41.37
Dhubri	997	51.18	59.93
Dibrugarh	1618	121.85	47.85
Goalpara	1047	103.79	57.41
Golaghat	1691	159.77	48.30
Hailakandi	473	71.68	35.61
Jorhat	2051	187.92	71.93
Kamrup	3219	115.90	78.31
Karbi-Anglong	4309	446.40	41.30
Karimganj	936	76.91	51.74
Kokrajhar	970	109.41	30.66
Lakhimpur	1074	103.23	47.18
Morigaon	1150	120.06	74.15
Nagaon	3118	110.34	78.49
Nalbari	965	125.34	95.59
Dima Hasao	1836	860.02	37.57
Sivasagar	2023	175.83	75.81
Sonitpur	2528	131.27	47.88
Tinsukia	1291	98.02	34.06
Udalguri	1458	175.08	87.10
Total	39800	127.69	50.74
NH	2841	9.11	3.62
Total including NH	42641	140.21	54.36

Note ;- Rounding off.

APPENDIX – 13.4

COLLECTION OF REVENUE (TARGET AND ACHIEVEMENT) BY TRANSPORT DEPARTMENT IN ASSAM

(Rupees in crore)

SL. No.	Name of D.T.O & Check Gate	2007-08	2008-09		2009-10		2010-11	
		Revenue Realised	Target	Revenue Realised	Target	Revenue Realised	Target	Revenue Realised
1.	Kamrup (R & L)	46.62	48.30	45.02	49.52	58.24	70.00	73.97
2.	Kamrup (R.T.A)	0.47	0.48	0.41	0.45	0.81	1.00	1.17
3.	Kamrup(Enforcement)	1.00	1.05	1.26	1.39	1.49	2.00	1.61
4.	Barpeta	2.51	2.56	2.69	2.87	3.68	4.50	4.97
5.	Nalbari	2.18	2.22	2.93	3.13	3.05	3.40	3.27
6.	Goalpara	2.76	2.14	2.45	3.13	3.58	4.00	4.48
7.	Dhubri	2.09	2.82	2.92	2.62	3.49	4.10	4.72
8.	Sonitpur	4.86	5.09	5.93	6.52	7.48	8.50	8.74
9.	Mangaldoi	1.35	1.38	1.61	1.70	2.35	3.00	3.07
10.	Lakhimpur	2.61	2.66	2.94	3.24	3.87	4.50	5.26
11.	Dibrugarh	7.96	8.36	8.46	9.28	11.11	12.00	13.77
12.	Tinsukia	7.79	7.54	8.47	9.30	11.37	11.00	12.60
13.	Dhemaji	1.19	1.22	1.55	1.63	1.88	2.50	2.79
14.	Sivasagar	7.81	8.20	8.06	8.85	9.34	9.00	10.02
15.	Jorhat	7.28	7.64	7.76	8.52	8.96	10.00	12.16
16.	Golaghat	2.75	2.88	2.94	3.23	3.44	4.75	4.43
17.	Nagaon	5.41	5.66	5.81	6.40	7.64	9.00	10.10
18.	Morigaon	1.73	1.76	1.58	1.66	2.50	2.70	3.06
19.	Dima Hasao	0.46	0.51	0.42	0.44	0.35	0.55	0.35
20.	Karbi-Anglong	1.66	1.66	2.05	2.16	2.83	3.00	3.54
21.	Karimganj	1.52	1.55	1.58	1.66	1.95	2.00	2.09
22.	Hailakandi	1.34	1.36	1.56	1.65	2.08	2.40	2.72
23.	Silchar	5.30	5.57	5.60	6.17	6.96	9.00	9.03
24.	Srirampur M.V. Check gate	15.01	15.30	6.07	6.68	6.33	4.00	2.83
25.	Boxirhat M.V. Check gate	12.98	13.62	16.08	17.69	16.84	11.00	8.95
26.	Kokrajhar	2.03	2.01	2.47	2.72	2.90	3.40	4.14
27.	Bongaigaon	2.77	2.82	3.40	3.63	4.25	4.60	5.11
28.	S.T.A.	11.35	11.58	14.33	15.76	18.59	10.00	24.36
29.	Digharkhal M.V. Check gate	3.31	3.48	3.84	4.22	3.85	2.00	1.22
30.	Udalguri	0.19	0.36	0.71	0.75	1.11	1.30	1.36
31.	Chirang	0.38	0.45	0.77	0.81	0.99	1.50	1.74
32.	Baksa	0.02	0.15	0.21	0.22	0.48	1.00	1.15
	A s s a m	**166.69**	**172.38**	**171.88**	**188.00**	**213.79**	**221.70**	**248.78**

Source : Office of the Commissioner of Transport, Assam.

APPENDIX- 13.5

DISTRICT-WISE NUMBER OF MOTOR VEHICLE REGISTERED IN ASSAM

Sl. No	District	Total Number of Vehicles Registered					
		2005-06	2006-07	2007-08	2008-09	2009-10	2010-11
1.	Dhubri	972	1125	1292	1681	3428	4884
2.	Kokrajhar	1601	1764	1574	1857	2599	4242
3.	Bongaigaon	2523	3070	2822	21755	21879	6430
4.	Goalpara	1105	1186	980	1306	2238	3478
5.	Barpeta	3056	3556	3628	4096	5490	8410
6.	Nalbari	1786	2133	2229	1852	2230	2864
7.	Kamrup	33755	35599	28224	29291	43457	57509
8.	Darrang	926	1187	1309	2139	31430	4472
9.	Sonitpur	6837	5669	4851	5889	55514	10041
10.	Lakhimpur	3235	4042	2953	3157	4808	7250
11.	Dhemaji	1427	1211	1329(P)	2915	1958	3664
12.	Morigaon	1434	1445	1088	1286	1470	2980
13.	Nagaon	5008	5544	5017	5552	7948	12156
14.	Golaghat	2699	2924	8738	2144	4603	4342
15.	Jorhat	7335	8168	7575	6909	8568	14576
16.	Sivasagar	5723	6188	4604	4806	13080	8654
17.	Dibrugarh	6771	8007	7383	7780	9945	11434
18.	Tinsukia	6160	7020	4978	5428	5925	10375
19.	KarbiAnglong	1404	1449	1251	1788	2342	4154
20.	Dima Hasao	463	586	408	505	136	229
21.	Karimganj	859	929	951	1048	1332	1814
22.	Hailakandi	845	1047	1097	1363	1555	2018
23.	Cachar	2973	2817	2515	3214	5952	6599
24.	Baksa	-	-	-	324	362	2095
25.	Chirang	-	-	-	1041	1373	2442
26.	Udalguri	-	-	-	1625	1625	1964
A S S A M		**98897**	**106666**	**96796**	**119126**	**241247**	**199076**

Source : Office of the Commissioner of Transport, Assam.

APPENDIX – 13.6

DISTRICT-WISE NUMBERS OF MOTOR VEHICLE ON ROAD IN ASSAM

Sl. No.	District	Total No. of Vehicles on Road					
		2005-06	2006-07	2007-08	2008-09	2009-10	2010-11
1.	Dhubri	8464	9587	10816	12233	22437	18443
2.	Kokrajhar	9127	9885	11723	8917	9573	5520
3.	Bongaigaon	19109	24783	2665	19338	40816	32573
4.	Goalpara	11300	12548	13447	14729	17606	19992
5.	Barpeta	19163	22630	26250	30289	30669	36263
6.	Nalbari	23404	5152	5382(P)	22079	23664	23609
7.	Kamrup	298540	333828	392769	421332	423943	532933 (p)
8.	Darrang	22532	25143	28183	29951	35393	34489
9.	Sonitpur	49974	55754	60605	65505	121019	18736
10.	Lakhimpur	19153	29113	34019	37409	42360	43868
11.	Dhemaji	9332	8440	8702(P)	3920	4403	5036 (p)
12.	Morigaon	8039	9275	9968	11055	2304	16023
13.	Nagaon	49267	54771	59821	63391	64538	80044
14.	Golaghat	11980	14687	15278	12359	16842	10167
15.	Jorhat	79730	87337	99716	104252	116677	131467
16.	Sivasagar	102722	108663	113209	118554	120348	89084
17.	Dibrugarh	48379	55843	59657	70526	80952	91770
18.	Tinsukia	45212	47202	50009	53514	55034	66314
19.	Karbi-Anglong	13407	14278	14464	14371	15716	18787
20.	Dima Hasao	4028	4887	5082	5434	5165	5079
21.	Karimganj	10054	10807	11529	12725	14006	12725
22.	Hailakandi	6053	7060	8208	9496	9880	9006
23.	Cachar	29957	31815	33261	35299	40905	47121
24.	Baksa	-	-	-	978	1059	3255 (p)
25.	Chirang	-	-	-	2521	3882	6284
26.	Udalguri	-	-	-	1676	1676	5037
A S S A M		**898926**	**983488**	**1074763**	**1180177**	**1320867**	**1363625**

Source : Office of the Commissioner of Transport, Assam.

CHAPTER – XIV

INSTITUTIONAL FINANCE

Banking

The financial institutions are playing an important role in economic development by mobilizing deposits and credits. With the spread of banking network the dependence per bank branch has been considerably decreased over the years. The dependence per bank offices in Assam has reduced from 59.6 Sq.km as on March 2008 to 52.2 Sq.km as on March 2011. The number of reporting Bank Offices of all Scheduled Commercial Banks in Assam stood at 1504. As regards to average population covered per bank branch office in Assam, according to the "Quarterly Statistics of deposits and credit of Scheduled Commercial Banks of Reserve Bank of India, March, 2011" was around 20 thousand (based on the projected mid-year population) compared to All India average of 14 thousand 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 period of past eight years.

TABLE-14.1

GROWTH OF SCHEDULED COMMERCIAL BANKS IN ASSAM AND INDIA

(As on March)

Year	Number of Offices*		Deposits (Rs. in Crore)		Credit (Rs. 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
2011	1504	89110	59101	5426510	21053	4076868

**Reporting Offices only*

Source: (1) 2004–2006, Basic Statistical Return of Scheduled Commercial Banks in India, Reserved Bank of India (Various issues).

(2) Quarterly Statistics on Deposits and Credit of Scheduled Commercial Banks, March 2007 to March, 2011 RBI.

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) Private Sector Banks. These Groups of Bank have a distinctive role to play in the economic scenario of the State. A comparative status of performance of the Bank Groups in Assam and India may be evident from the Table 14.2.

Majority of the Bank Branch Offices in the State are located in rural areas. Out of the total 1504 reporting offices (as on March-2011), 802 bank branch offices (53 percent of the total bank branch offices) are located in the rural areas of Assam and share more than 17 percent of the total bank deposits in the State. On the other hand, the bank branch offices in semi-urban and urban areas with 390 and 312 branch offices shared 31 percent and 52 percent of the total bank deposits respectively. The credit –deposit ratio of rural bank branch offices was 45 percent compared to semi-urban branches with 33 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, 2011]

Bank Group	Assam/ India	No. of offices*	Deposits (Rs. in crore)	Credit (Rs. in crore)
State Bank of India and its Associates	Assam	265	24556	8766
	India	17899	1171917	902979
Nationalised Banks	Assam	734	26974	8612
	India	43908	2875049	2153335
Foreign Banks	Assam	2	109	48
	India	298	236405	197959
Regional Rural Banks	Assam	409	4650	2230
	India	15658	163928	98244
Old Private Sector Banks	Assam	10	629	216
	India	4779	250638	187375
New Private Sector Banks	Assam	84	2184	1181
	India	6568	728574	536976
All Scheduled Commercial Banks	Assam	1504	59101	21053
	India	89110	5426510	4076868
*Reporting Offices only				

Source: Quarterly Statistics on Deposits and Credit of Scheduled Commercial Banks March, 2011, Reserve Bank of India.

Growth of Deposits and Credit

The expansion of banking facilities in the State over the years augmented not only in respect of volume of deposits but also in respect of disbursement of credit. The aggregate deposit with Scheduled Commercial Banks in Assam, which was ₹31666 crore in March 2008, has increased to ₹59101 crore in March 2011. The volume of deposits has been increased above 86 percent in March 2011 over March 2008. The per capita deposit in the State has also been increased from ₹10808 in March 2008 to ₹19441 in March, 2011. Thus, the per capita deposit in the State has recorded an increase of about 80 percent during the last four years.

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 the banks has been increased to ₹21053 crore in March 2011 from ₹13057 crore in March 2008 thereby recorded a growth of 61.12 percent during the last three years period. The credit disbursement by the Scheduled Commercial banks in Assam shared only 0.52 percent of the total credit disbursement in the country as a whole during March, 2011. The per capita credit has been increased to ₹6925 in March 2011 compared to ₹4456 in March, 2008.

Credit – Deposit Ratio

The Credit-Deposit ratio of all Scheduled Commercial Banks in Assam has been worked out at 35.6 percent as on March, 2011 as against All India Ratio of 75.1 percent. The following table shows the 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 →	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Assam	32.0	31.7	29.3	31.8	35.2	41.9	43.3	41.2	38.3	37.0	35.6
India	56.7	58.4	59.2	58.2	65.9	72.5	75.0	74.2	72.6	72.7	75.1

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 2011, 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 ₹13242.59 crore in 2010-11. Thus, the volume of aggregate advances recorded 115.37 percent growth during the last five years. This growth was recorded as 324.44 percent in 2010-11 when compared with the credit extended to the priority sector during the year 2004-05. During the period from 2004-05 to 2010-11, the priority sector advances have been above the bench-mark of 40 percent 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 of 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 disbursement of advances to agriculture & allied activities, during 2010-11, was ₹4557.40 crore [19.11% of the total priority sector advance] according to the report published by the State Level Bankers' committee.

The per capita priority sector advances has significantly increased to ₹4968.00 from ₹1170.00 (about 325 percent increase) during the period 2004-05 to 2010-11.

TABLE-14.4

ADVANCES OUTSTANDING UNDER PRIORITY SECTOR

(Rupees in Crore)

Sectors	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11
Aggregate Advances	6497.59	9811.15	12989.44	16081.43	17750.99	20910.97	23843.62
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]	13242.59 [55.54]
Agriculture & 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]	4557.40 [19.11]
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]	2490.30 [10.44]
Per capita Priority Sector Advances [Figure in Rupees]	1170	1594	2307	3122	4016	4245	4968

* *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 [AGVB] and Langpi Dehangi Rural Bank [LDRB]. While the Assam Gramin Vikash Bank is operating both in the Brahmaputra Valley and Barak Valley covering 25 districts with 362 bank branches, the service area of the Langpi Dehangi Rural Bank is confined within the two hill districts of Assam with 46 bank branches as on March 2011.

The aggregate deposit of RRB was ₹4653.08 crore at the end of March 2011 compared to ₹3691.39 crore at the end of March 2010 thereby registering a growth of 26 percent. The aggregate deposit of RRBs was ₹3044.07 crore at the end of March 2009. The volume of credit disbursed by these banks was also increased to ₹2230.87 crore as on March 2011 compared to ₹1753.55 crore as on March 2010 indicating an increase of 27.2 percent. Credit-Deposit ratio of these banks also recorded a little increase to 47.9 as on March 2011 from 47.5 as on March 2010. 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
31.3.2011	354847.18	289468.82	70261.61 [24.27]	39.71*	47.94

Figure in bracket shows the percentage share of achievements of RRBs to All Banks.
**Lending by NEDFi and under RIDF by NABARD 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. Within the priority sector, while the share of agriculture advances in the State had been the highest with 34.41 percent as on March 2011 compared to 34.19 percent as on March 2010, the agricultural credit constitutes 19.11 percent of the total bank credit as on March 2011[according to the figures published by the State Level Bankers' Committee, Assam] i.e., the agricultural credit surpassed the All India Bench Mark of 18.0 percent as on March 2011. According to the State Level Bankers' Committee Report, banks operating in the State have disbursed ₹876.76 crore during the year 201-11 to the Agriculture sector against the annual commitment of ₹1309.75 crore which was 67.0 percent of the targeted amount.

While the annual growth rate of advances to agriculture & allied activities during the year 2009-10 was 7.62 percent over the previous year, the growth of crop loans recorded only 3.96 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 (Rs. 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
2010-11	876.76	373.63	43	139.94	*1359
@CAGR (%) 2005-2011	23.78	29.43	-	29.40	29.14
(%) Growth 2010-11 over 2009-10	7.62	3.96	-	3.80	3.98

@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

Government of Assam's Interest Subvention Scheme

In view of severe drought like situation experienced in the State during the year 2006-07, Government 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. As many as 106127 crop loan account holders were benefited under the scheme during the year 2009-10. The State Government has decided to continue the 3 percent interest subvention scheme for the year 2011-12 also with an enhanced limit of up to ₹35000 per farmer loan account. With the implementation of the State Government's 3.0 percent interest subvention scheme in addition to the Government of India's 3.0 percent interest subsidy, the final interest burden of crop loans on the farmers of Assam is reduced to 4.0 percent only.

The achievements under the Government of Assam's interest relief scheme during the period 2006-07 to 2008-09 shown in table 14.7 below-

TABLE: 14.7

SETTLEMENT OF CLAIMS UNDER GOVT. OF ASSAM'S INTEREST RELIEF SCHEME

Year	Total Loan Disbursement		Total Relief Settled	
	Account(Nos)	Amount (Rs in lakh)	Account(Nos)	Amount (in Rs)
2006-07	39832	7267.85	39832	6504829.00
2007-08	53448	10466.70	52986	10792470.00
2008-09	82225	16269.03	80954	14419765.00
2009-10#	NA	24565.09	106127	28282936.00

 # Interest relief @3%

Source: Finance (Institutional Finance) Department, Assam.

Financing Under Kishan Credit Card Scheme

The Kishan 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 2010-11, 163063 numbers of KCCs were issued and ₹50495.87 lakh was sanctioned by the banks as against 1498822 numbers of KCCs were issued and ₹430.56 crore was sanctioned by the banks during 2009-10. During the year 2008-09 as many as 103361 numbers of KCCs were issued and ₹375.89 crore was sanctioned by the banks in Assam. Since inception of the scheme, cumulatively about 7.94 lakh KCCs have been issued in the State up to March 2011. The Scheme, thus, covered around 29.0 percent of the total farmer family (there are 27.50 lakh farmer families as per Agriculture Census 2005-06) of the State.

TABLE-14.8

ADVANCES UNDER KISHAN 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
2010-11	163063	50495.87	793801	209071.23

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 2011, all total 433954 SHGs have been bank linked in the State out of which 193922 SHGs were credit linked.

Cumulative position of bank linked SHGs presented in the Table –14.9

TABLE-14.9

SELF-HELP GROUPS FINANCED BY BANKS

(Rupees in lakh)

Year	Total bank linked SHGs		Deposit linked		Credit Linked	
	Number	Amount	Number	Amount	Number	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
2010-11	433954	118051.17	240032	11195.29	193922	106855.88

Source: Reports of State Level Bankers Committee, Assam.

Micro-Finance Promotion by NABARD

The NABARD, Assam Regional Office has played a vital role by extending grant assistance of ₹416.06 lakh to 119 NGO-SHPI projects for promotion and credit linkage of 16409 SHGs in the State upto 31st October 2011 as against ₹358.06 lakh grant assistance provided to 119 NGOs for promotion of 14259 SHGs 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 an 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 [AGVB and LDRB] and SBI in the State. NABARD has sanctioned a grant assistance of ₹135.18 lakh to utilize the services of 751 IRVs in all the 27 districts for promotion and credit link 7510 SHGs with banks.

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 in respect of small loans. However, for larger loans, the financing institutions may prescribe security as per their practice. The JLG lending was introduced on a pilot basis in the State of Assam with grant assistance of ₹3.00 lakh each to RRBs for promotion of the concept. 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 mid-segment clients. JLG mode of financing production credit and handloom weaving activities. As a part of promotional efforts, NABARD, Regional Office had sanctioned an amount of ₹45.86 lakh and ₹40.60 lakh each to AGVB and LDRB for formation and credit –linkage of 2293 JLGs and 2030 JLGs over a period of three years. Apart from this the NABARD Regional Office also sanctioned ₹1.80 lakh to UCO Bank for promotion and credit linkage of 90 JLGs in Barpeta District.

SHG-Bank linkage under SGSY

Swarnajayanti Gram Swarojgar Yojana is the mother programme of all poverty alleviation programmes. The objective of the programme 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 2011, 1.94 lakh SHGs have been covered under the ambit of bank credit in the State out of which 1, 02,166 SHGs have been covered SGSY programme. During the period at the end of March 2010, as many as 1.64 lakh SHGs have been covered under bank credit out of which only 84678 SHGs were given loans by banks under the afore-mentioned programme. Cumulative progress of SHG-Bank linkage programme under SGSY shown in the Table -14.10 below:

TABLE -14.10

SHG-BANK LINKAGE UNDER SGSY

(Rupees in lakh)

Year	Total Credit Linked SHGs		Credit linked SHGs under SGSY	
	Number	Amount	Number	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
2010-11	193922	106855.88	102166	74784.79

Source: Reports of State Level Bankers Committee, Assam.

National Bank for Agriculture and Rural Development (NABARD)

During 2010-11, the NABARD disbursed refinance to banks in the State to the tune of ₹172.85 crore as against ₹66.84 crore refinance disbursed to the banks during 2008-09 which was 158.6 percent more than the previous year. Agency wise, purpose wise and activity wise refinance disbursed by the NABARD shown in the Table below-

TABLE-14.11

AGENCY WISE, PURPOSE WISE AND ACTIVITY WISE REFINANCE DISBURSED BY NABARD

(*Rupees in lakh*)

Purpose	2009-10			2010-11		
	Commercial Banks	RRBs	Total	Commercial Banks	RRBs	Total
Minor Irrigation	0.000	9.220	9.220	0.000	0.000	0.000
Land Development	0.000	0.000	0.000	0.000	0.000	0.000
Farm Mechanisation	0.000	92.309	92.309	744.123	83.824	827.947
Plantation & Horticulture	11.000	40.670	51.670	84.800	115.823	200.623
Animal Husbandry (Dairy, Poultry, Sheep, Goat & Piggery)	4.705	329.620	334.325	1053.543	386.196	1439.739
Fisheries	2.990	1.760	4.750	46.810	27.810	74.620
SGSY	9.309	585.347	594.656	0.000	0.000	0.000
NFS(i/c Rural Housing)	5.796	1520.000	1525.796	10524.693	0.000	10524.693
SC/ST Action Plan	0.000	0.000	0.000	0.000	0.000	0.000
PMRY	0.000	0.000	0.000	0.000	0.000	0.000
Others (SHG, SRTO-Truck etc)	3225.975	845.151	4071.126	3959.944	257.927	1803.960
Total	3259.775	3424.077	6683.852	16413.913	871.580	17285.493

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. Since the inception of RIDF during 1995-96, NABARD has sanctioned 1349 projects involving RIDF loan of ₹2130.66 crore under RIDF II to XVI in the State. Out of the total loans sanctioned ₹2130.66 crore, ₹1371.45 crore has been disbursed to the State Government as on 30.11.2011. As against 1349 projects sanctioned, 673 projects have been completed and remaining projects are under various stages of implementation.

The activity wise number of projects and amount sanctioned including amount released under RIDF - II to XVI are given below:

TABLE-14.12

PROJECT WISE INFRASTRUCTURE DEVELOPMENT LOANS SANCTIONED AND DISBURSED BY NABARD UNDER RIDF (II to XVI)

(Rupees in crore)

Activity	No. of Projects	Loan sanctioned	Loan disbursed (as on 30.11.2011)
Rural Bridges	1003	1239.58	810.81
Rural Roads	159	292.91	187.18
Irrigation	73	191.80	123.46
Flood Control	52	217.11	177.18
MA & AH Project	8	31.88	12.30
Small Hydel Project	2	46.14	44.22
Marketing Infrastructure	14	90.86	10.20
Beel Fisheries Projects	17	12.07	3.62
Pay & use toilets (50 units)	21	8.30	2.49
Total	**1349**	**2130.66**	**1371.45**

Source: NABARD Regional Office, Guwahati.

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.

Over the past sixteen years, growth momentum of the Corporation has accelerated and with cumulative loan sanctions of ₹2049.11 crore at the end of March 2011, it has been able to make a noticeable mark, synchronizing development across all the North East States. In Assam alone, NEDFi has sanctioned an amount of ₹1320 crore to 918 projects and disbursed of ₹835 crore.

The Government of India in the Budget of 1998-99 appointed NEDFi as the Nodal Agency for disbursement Central Government subsidies under its Industrial Policies for the North-eastern Region. Cumulative disbursement of the subsidies as on March, 2011 stood at ₹1997.43 Crore. The Corporation is also a nodal agency for disbursement of Central Subsidies under NEIP 1997 and NEIIPP 2007, which is administered by the Department of Industrial Policy & Promotion, Ministry of Commerce, Government of India. The Corporation thus facilitating disbursement of subsidies under the Central Transport Subsidy Scheme, Central Capital Investment Subsidy, Central Interest Subsidy Scheme and Central Insurance Subsidy Scheme to all the 8 NER States.

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 states 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.

NEDFi's Initiative on Designer Candles

While initiative on Water Hyacinth craft was taken up for the plain belts of the North Eastern Region a parallel programme on making of Designer Candles was initiated with an intention to benefit the hilly parts of the North Eastern States. This initiative was taken up as candles have significant importance in the social events such as birthdays, anniversaries, funerals etc.; religious events such as Christmas, Easter, Deepawali, Chhat Puja etc. Candles have its aesthetic value and are used in Resort, Spa, Hotels, etc. General Candles have its own demand in the region. Also, it was observed that the initial investment required for taking up the profession was very less.

During the year 2010-11, NEDFi conducted three training programmes on Designer Candle Making at Haflong in Assam; Namchi and Gangtok in Sikkim taking the total numbers of training conducted to fifteen (15). An exhibition was organized at NEDFi Haat, Guwahati from 1st to 4th November 2010, wherein, designer candles made by these artisans were displayed. The fair was organized as a Pre-Dipawali Fair-2010. Thereafter, a 3-days advance training programme on designer candle making was organized at NEDFi R&D Centre, Khetri from 23rd to 25th November 2010. Twenty entrepreneurs from the region participated in the training programme.

NEDFi's Initiative on Hand Made Paper

Exposure Visit to Munnar

A team of nine entrepreneurs from the North Eastern Region were selected and sent to Athulya, Munnar, Kerala for an exposure visit on Handmade Paper Industries. The training was held from 7th to 9th February 2011. The programme was a joint initiative of NEDFi and Tata Tea.

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 by the NEDFi in August 2008.Over the period NEDFi experimented with different product and production techniques and have also helped in skill building capacity of artisans in the North East. NEDFi with the support of the North Eastern Council has taken up the initiative to develop water hyacinth based craft in the North Eastern Region.

- 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. The centre is presently running 3 research projects and various extension and training activities. 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. During the year 2010-11, the centre undertook 8 training programmes both on-campus and off-campus for the officers of various Govt. departments, Entrepreneurs, Farmers and NFOs. More than 3 lakh seedlings of MAPs were supplied to the farmers, besides offering technical guidance to the entrepreneurs, farmers and other stakeholders.
- Centre for Practical Livelihood Training (CPLT), a RUDSETI type institute at Nalbari (Assam) was set up by the Corporation to directly help rural unemployed youth to get trained, to avail bank finance and eventually become self-employed. Till date, CPLT has conducted 21 training programmes where 397 rural youth were imparted training. The institute has tied-up with local NGOs to facilitate the forward and backward linkages.
- Apart from these, the NEDFi also introduced following special need based schemes-
    - (i) Women Entrepreneur Development Scheme (WEDS): To assist women entrepreneurs for taking up business ventures.
    - (ii) Jute Enterprise Development Scheme (JEDS): To provide financial assistance to new/existing tiny units engaged in the jute sector.
    - (iii) Scheme for North East Handloom & Handicrafts (SNEHH): To help the manufacturers, designers/exporters engaged in handloom & handicraft products.

Micro Finance Scheme

The **Micro Finance Scheme**, an effective instrument for financial inclusion, was launched to meet the needs of smaller entrepreneurs in the remote areas, 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. During the financial year 2010-11, aggregated loans sanctioned under the scheme were ₹33.35 Crore covering 21 projects and 51304 beneficiaries.

Till the end of March 2011, the Corporation succeed to reach out to 159983 beneficiaries [of which 83% are women] in the NE Region through 421 NGOs/MFIs (Micro Finance Institutions)/CBOs of 8 North Eastern States with cumulative sanctions and disbursements amounting to ₹101.19 crore and ₹95.45 crore respectively. **In Assam, total cumulative sanctions and disbursements figures are over ₹80 crore and ₹77 crore.**

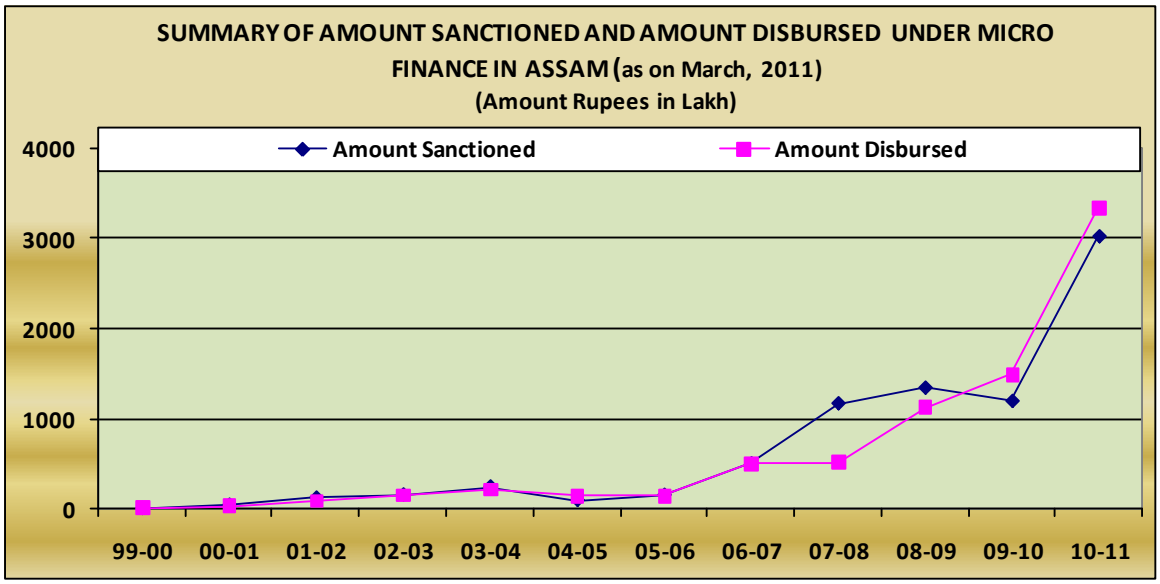
TABLE-14.13

SUMMARY OF AMOUNT SANCTIONED AND AMOUNT DISBURSEMED UNDER MICRO FINANCE IN ASSAM (as on March, 2011)

(Amount Rupees in Lakh)

Item	1999-2000	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-008	2008-009	2009-010	2010-011	Total
Amount Sanctioned	3	40	119	154	243	93	150	501	1170	1344	1196	3031	8025
Amount Disbursed	3	26	82	145	204	140	140	499	515	1120	1490	3346	7710

Source: Annual Report 2010-11, NEDFi.



Business Development Initiatives

As a development finance institution of the North East for the North East, NEDFi sees itself not as a mere project financing institution but also as a facilitator for promoting private investment in the emerging sectors and development of entrepreneurship in the Region. The Corporation has initiated various business development programmes, promotional activities, research & development programmes and other socially relevant activities. Some of them are mentioned below:

- NEDFi with the support of the Ministry of Development of North Eastern Region (DoNER) organized an Investment meet entitled Opportunity North East at Ahmedabad, Gujarat on 13th January 2011. The programme was organized in line with the Vibrant Gujarat event. Investors from different sectors and officials from all the states of the NER participated in the event.
- NEDFi organized a Seminar on Development of Manufacturing & services Sector in the NER at Gangtok in the month of September 2010. The Seminar was attended by the Hon'ble Union Minister of Mines & DoNER, Shri B. K Handique as Chief Guest, as well as by Sri. Pawan Chamling, Hon'ble Chief Minister of Sikkim, Dr. J P Sharma, Jt. Secretary, Ministry of DoNER, Chief Secretary & Addl Chief Secretary of Sikkim and other senior government officials.
- On request from the Govt. of Manipur, NEDFi arranged a training programme on the "NEIIPP 2007" for their senior officials from the Department of Industries at the NEDFi conference hall on 11th and 12th November, 2010. The training programme dealt with all the aspects of the policy.

NEDFi has also taken initiatives to reach out to the young generation by organizing business/ entrepreneur meets, with the objective of helping and encouraging entrepreneurs of the Region. These business meets are organized to educate people about the Corporation, its role and functions and the different schemes provided by the Corporation under which entrepreneurs can receive financial assistance. As a part of this initiative, the Corporation organised 10(ten) such business meets in the Region including three in Assam (Kokrajhar, Goalpara and Silchar).

PROVIDING MARKETING LINKAGES

NEDFi Haat

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.

Year	Item		Participants					
	No of Fairs held	Sales (in lakh)	NGO	SSI	Co-Op	SHGs	Others	Women
2010-11	37	469.26	80	158	12	81	677	785
Cumulative Total	**246**	**2151.51**	**661**	**1474**	**283**	**1943**	**1548**	**4746**

During the year 2010-11, NEDFi organized a number of fairs like the Pre-Rongali, Pre-Diwali, Pre-Bhogali melas, water hyacinth craft exhibition, handloom & handicraft fair, etc at NEDFi Haat. The Pre-Dipawali Mela at NEDFi haat facilitated the participation of nine entrepreneurs involved in designer candle making. The fair also gave an opportunity to the artisans of Rangthali Village in Nagaon District of Assam to showcase their art of age old customary traditional jewellery making. Three prominent NGOs of Guwahati also participated by showcasing varieties of products made by the differently disabled children.

Marketing Support through facilitating participation of entrepreneurs in different Exhibitions

Type of Fair	Date	Particulars
N.E. Expo 2010, Itanagar	29th Sept. to 1st October 2010	NEDFi facilitated the participation of 3 NGOs from the State of Arunachal Pradesh to participate in the fair.
Indian Handicraft and Gift Fair- Autumn 2010	17th to 20th October 2010	NEDFi facilitated the participation of 29 entrepreneurs of the region to the IHGF Autumn 2010 at Greater Noida.
21st Industry & Commerce Fair, Agartala	28th Jan to 8th February 2011	NEDFi participated in the event by facilitating 8 (eight) units from the region apart from participants from the State of Tripura. NEDFi also presented 2 trophies for the best display in different categories.
Indian Handicraft and Gift Fair-Spring 2011	19th to 22nd February 2011	NEDFi facilitated the participation of 28 entrepreneurs of the region to the IHGF Spring 2011 at Greater Noida.

NEDFi's Performance in Assam and NER

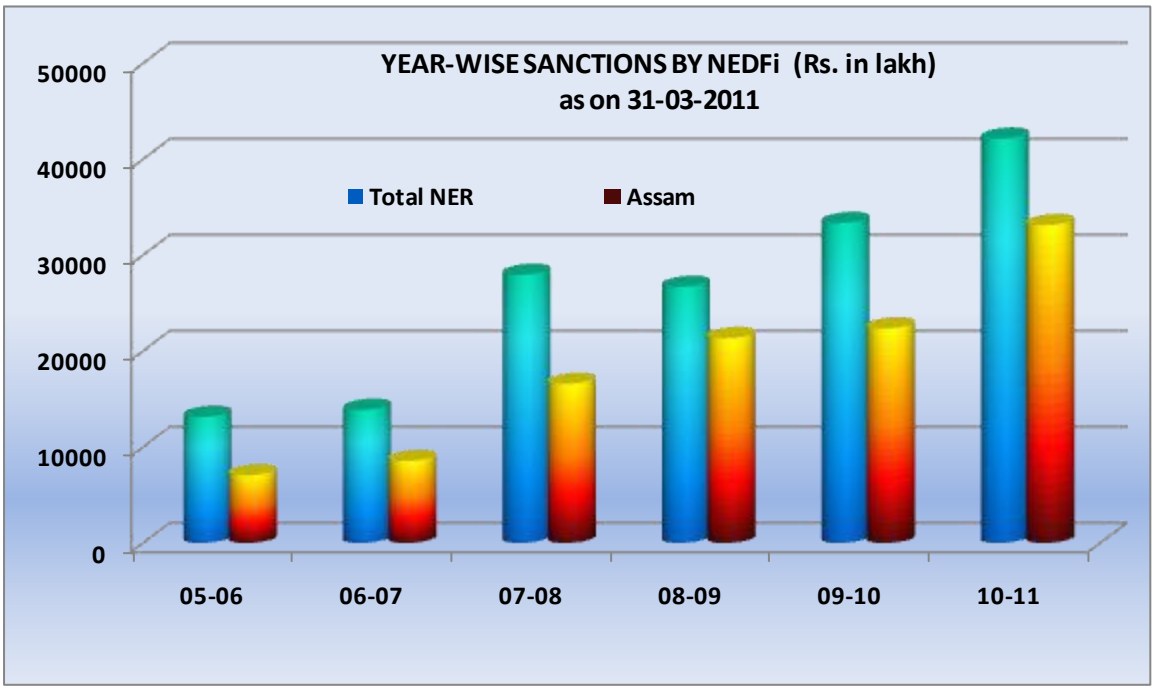
Loan sanctioned and disbursed by the NEDFi to the North-Eastern States including Assam during the last six years may be evident from the table below:

TABLE-14.14
YEAR-WISE SANCTIONS AND DISBURSEMENTS BY NEDFi
(As on March 2011)

(Rupees in lakh)

Year	Sanctions		Disbursements	
	Total NER	Assam	Total NER	Assam
2005-06	13132	7053	10431	5342
2006-07	13872	8545	9424	6680
2007-08	27945	16588	11643	8872
2008-09	26689	21351	18409	13071
2009-10	33341	22370	20808	13512
2010-11	42138	33135	28138	19963

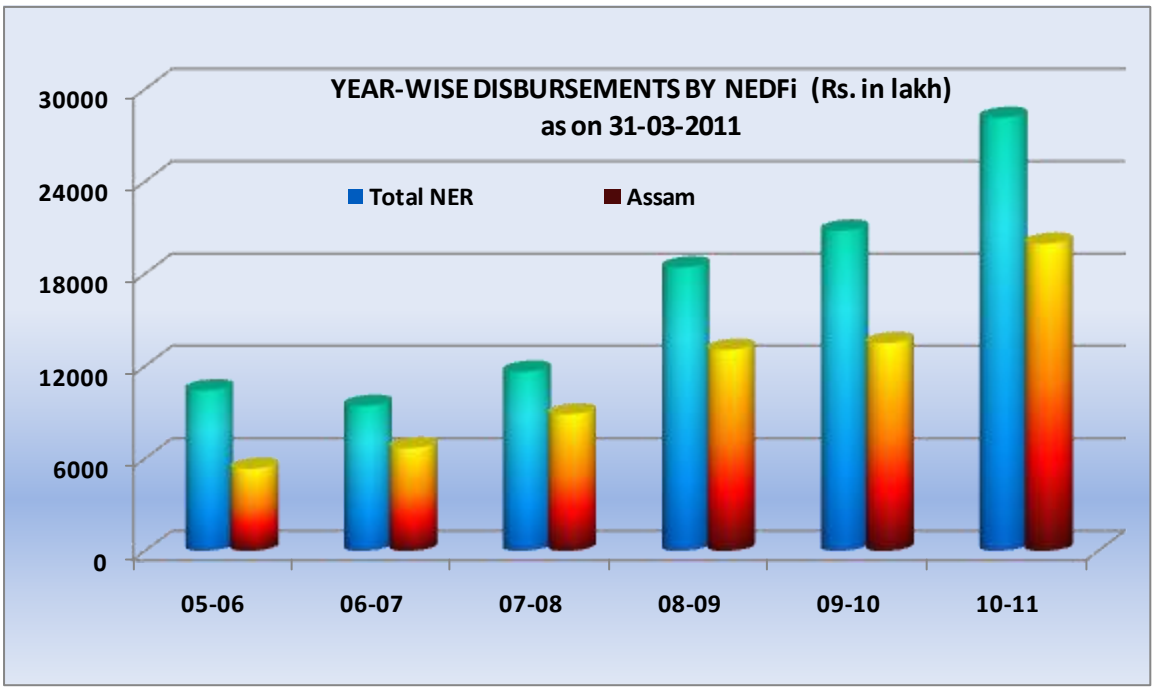
Source: NEDFi



Year-wise No. of Projects Sanctioned (as on March 2011)

States	05-06	06-07	07-08	08-09	09-10	10-11
Assam	110	98	66	73	72	72
NER	285	300	169	173	211	198

Source: NEDFi



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. At present the Corporation has 2 nos. of DGM level branches, 4 nos. of Manager level branches, 4 nos. of Assistant Manager level branches and 4 nos. Field Offices to provide need based customer service.

During the Financial year 2010-11 the total sanction of loan by the Corporation was ₹1438.62 lakh and disbursement was ₹704.67 lakh corresponding to the total sanction of loan of ₹728.19 lakh and total disbursement of ₹377.70 lakh during the financial year 2009-10. Thus, the year-on-year growth of total loan sanctioned and total loan disbursed was calculated as 97.5 percent and 86.6 percent respectively. During the year 2008-09, the total loan sanctioned by the Corporation was ₹318.24 lakh and a total disbursed was ₹350.51 lakh.

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 could sanction an amount of ₹415.00 lakh and disbursed ₹371.00 lakh to 7 nos. of units during 2010-11 as against ₹411.00 lakhs sanctioned and disbursed ₹235.00 lakh to 9 nos of eligible NBFC/NGO/MFI for on-lending to deserving SHGs and JLGs etc. during the Financial Year 2009-10.

Under MSME Sector, the Corporation received 40 nos. of applications involving an amount of ₹1253.34 lakh and sanctioned an amount of ₹1023.62 lakh to 35 nos. applicants during the year 2010-11 as against 35 nos. applications involving an amount of ₹317.19 lakh in the previous year.

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 Government 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. The Corporation, apart from its normal activities, has also planned to generate its business through streamlined Non-Fund Business activities during the financial year 2011-12 with active support of Govt. of Assam, SIDBI and out of fund to be generated by way of recovery of loans and non-fund business activities.

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APPENDIX – 14.1

DISTRICTWISE DISTRIBUTION OF THE NUMBER OF REPORTING OFFICES, AGGREGATE DEPOSITS AND GROSS BANK CREDIT OF SCHEDULED COMMERCIAL BANKS IN ASSAM (March, 2010)

(Amount in Rupees 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.	Dima Hasao	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).

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 right shape to the socio-economic structure of Rural Assam in particular and for achieving the much needed overall economic growth and social transformation of the State. In Assam, the co-operative sector failed to achieve its desired objective due to its limited impact and existence of uneconomic and dormant cooperatives.

TABLE-15.1

STATISTICS OF CO-OPERATIVE SOCIETIES IN ASSAM

Year	Number of Societies	Membership (in '000 nos)	Share Capital (Rs. in Crore)	Working Capital (Rs. in Crore)
2005-06	10134	4499	106.84	1393.30
2006-07	10028	4473	120.90	1390.96
2007-08	10150	4482	123.91	1394.54
2009-10	7696	4608	112.56	2186.37

Source: Registrar Co-operative Societies, Assam.

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. The Government of Assam proposed to strengthen the cooperative societies by giving logistic support in terms of better regulation, better facilitation and by closing the sick cooperatives and nurturing the good and economically viable cooperatives.

The 11th Five Year Plan was prepared with the objectives of making the Cooperatives more member oriented, democratically governed autonomous organizations so that the Cooperatives may function freely without any outside interference. 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 2010-11 is placed in the table 15.2.

TABLE-15.2

CREDIT FLOW TO VARIOUS COOPERATIVE SOCIETIES

Year	Rupees in lakh
2006-07	701.66
2007-08	1557.04
2008-09	2981.16
2009-10	2071.29

Source: Draft Annual Plan, Assam 2010-11 & 2011-12.

Revival of various Cooperative Societies

The Cooperation Department has taken various schematic programmes for revival of various sick cooperatives in the State.

Multipurpose Rural Co-operatives (Strengthening of Primary Agricultural Credit Co-operatives)GPSS :

There are 709 nos. of Gaon Panchayat level Samabai Samitees (GPSS) in the State that deals in Agricultural produces, distribution of essential commodities etc. The main objectives of these cooperatives are (1) Production, (2) Procurement and (3) Distribution of essential commodities. Financial assistance of ₹15.00 lakh was provided to 90 nos. of GPSS in the year 2008-09. An amount of ₹5.00 lakh has been provided as financial assistance to 8 nos. of GPSS in the year 2009-10. An amount of ₹23.00 lakh is proposed to be provided to such cooperatives during the year 2011-12.

Credit Co-operatives

There are three types of Cooperative Bank in the State viz.: 1) ASCARD Bank, 2) Assam Cooperative Apex Bank and 3) Guwahati Urban Cooperative Bank with their branches spread all over the State. These Societies are providing credit to local entrepreneurs for undertaking various types of business activities thus providing employment to unemployed youths. ASCARD Bank is the only pioneer organisation to provide long-term credit in the cooperative sector in the State. The State Government has taken several steps to revive the bank by implementing the revival package formulated by the Government of India. The State Government 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. To further encourage the activities, it is proposed to provide ₹57.00 lakh to the Bank in the year 2011-12.

In addition, Government of Assam proposed to provide financial assistance to Assam Cooperative Bank and Guwahati Urban Cooperative bank amounting to ₹11.50 lakh each during the year 2011-12.

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 Polyester 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 Government 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 Samabai Sutakal Samitee Ltd located at Golaghat District and Assam Co-operative Spinning Mill located at Boitamati under Bongaigaon District by the Government of Assam.

The Government of Assam proposed to provide financial assistance amounting to ₹80.00 lakh to APOL, ₹1077.00 lakh to Assam Cooperative Spinning Mill, Boitanmari and ₹4.00 lakh to the Swahid Kushal Konwar Samabai Sutakal Samitee Ltd, Golaghat during the year 2011-12.

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. These Cooperative Societies extended yeoman service to the urban population and in maintaining price line. During the financial year 2008-09, an amount of ₹40.00 lakh was released @₹1.00 lakh each to 40 nos. of such Cooperative Consumers Societies. It was decided to provide financial assistance to six nos. of such Consumer Cooperative Societies during the year 2009-10. Now it is proposed to provide ₹23.00 lakh as financial assistance to these Societies in 2011-12.

Co-operative Sugar Mill

There were two cooperative Sugar Mills in Assam - Assam Cooperative Sugar Mill at Dergaon and Nagaon 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. Now both the Mills have been sent in liquidation. The closure liabilities of the Assam Cooperative Sugar Mills have been released by the Government and are being disposed off. The closure of Nagaon Co-operative Sugar Mills Ltd. has been assessed at ₹2146.65 lakh. The State Government has decided to provide 25 percent of the total liability during the financial year 2011-12.

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 Government 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. The State Government proposed to provide ₹115.00 lakh to this Society during the year 2011-12.

Revival of Dairy Co-operatives

There are three Regional Level Milk Co-operative Unions, viz. - the West Assam Milk Producers Cooperative Union Ltd. (WAMUL); the East Assam Milk Producers Cooperative Union Ltd. (EAMUL) and the Central Assam Milk Producers Cooperative Union Ltd. (CAMUL) and 320 Primary Milk Unions in the State and out of these CAMUL is in a defunct stage. The other two are providing good quality Milk at reasonable to the consumers and providing remunerative returns to the producers. The State Government has decided to revive the WAMUL by handing over its management to NDDB. During the year 2007-08, the State Government released an amount of ₹164.00 to WAMUL 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 Government of India assistance to cooperatives.

Similarly, the State Government 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.

The State Government has decided to provide financial assistance of ₹218.50 lakh to these two diary co-operative societies in the year 2011-12.

Assam Cadre Management Co-operative Society Ltd

The Assam Cadre Management Co-operative Society Ltd was registered under the Assam Co-operative Societies Act, 1949 to look after the establishment matters of the Secretaries of the GPSS. Though the Secretaries were provincialised, the society is still involved in settlement of dues to societies. Secretaries and other allied matters are yet to be settled by the Society. Therefore, the State Government proposed to provide an amount of ₹2.50 lakh to the society to meet the establishment expenditure during the year 2011-12.

Women Cooperatives

There are more than 2700 Women Co-operative Societies including 2486 Gaon Panchayat Level Women Multipurpose Women Cooperatives in Assam with membership exclusively confined to women. The State Government has been providing financial assistance to these societies for activating women multipurpose co-operative societies in the State in a phased manner. 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 ₹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 was provided to 229 nos. of such cooperative societies for taking up women oriented schemes suitable for their local situation. The State Government proposed to provide an amount of ₹115.00 lakh as financial assistance to the multipurpose Women Cooperative Societies during the year 2011-12.

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. The financial assistance to these societies will go a long way in enabling economically weaker section of the society to achieve their economic upliftment. In the year 2008-09, an amount of ₹16.00 lakh was given to 32 nos. of such type of Societies. During the financial year 2009-10, the State Government decided 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. In 2011-12, the State Government proposed to provide financial assistance amounting to ₹70.00 lakh to the above societies.

PERFORMANCE OF STATE LEVEL COOPERATIVE SOCIETIES:

The performance of some of the State Level Credit and Non-Credit co-operative institutions elaborated below:

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 78 thousand in 2010-11. The share capital has increased to ₹8.13 crore in 2010-11 from ₹5.94 crore in 2005-06. The working capital is also increased to ₹1775.03 crore in 2010-11 from ₹812.20 crore in 2005-06.

The performance of the Assam State Co-operative Apex Bank during the last six years may be evident from the table below.

TABLE-15.3

THE PERFORMANCE OF ASSAM STATE CO-OPERATIVE APEX BANK LTD

Particulars	Unit	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11
Bank Branches	No	68	68	68	68	68	68
Members	'000 No	59	64	68	72	76	78
Paid up Share Capital	Rs. crore	5.94	6.32	6.69	7.20	7.80	8.13
Reserve	-do-	23.19	22.55	22.76	23.54	23.82	96.84
Deposits	-do-	552.38	587.21	641.67	823.57	118.88	1544.51
Working Capital	-do-	812.20	586.68	643.93	846.78	1225.06	1775.03
Borrowing outstanding	-do-	2.62	1.85	1.26	2.13	Nil	Nil
Investments	-do-	211.92	251.02	284.97	230.85	781.12	1144.95
Loans Advances	-do-	146.44	163.13	142.44	186.21	150.23	215.50
Loan Outstanding	-do-	283.62	266.93	288.94	311.75	322.82	313.44
Loan Overdue	-do-	142.57	-	95.16	24.39	101.22	99.83
Profit (+) / Loss(-)	-do-	+5.18	+2.78	-11.85	-1.40	+6.44	+45.66

NB. Total may not be equal due to rounding off.

Source: Registrar of Cooperative Societies, Assam.

Assam Cooperative Agricultural and Rural Development Bank Ltd. (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 Govt. of Assam has decided to revive the bank by correcting all deficiencies and to implement the revival package rules formulated by the Govt. 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 2011, the bank has 28 branches throughout Assam with more than 30 thousand members. The paid up share capital of the bank has decreased to ₹636.95 lakh in 2010-11 from ₹647.28 lakh in 2008-09. The deposit also decreased to ₹30.35 lakh in 2010-11 from ₹48.67 lakh in 2008-09. The working capital, on the other hand, increased to ₹1702.32 lakh in 2010-1110 from ₹4913.83 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 ₹5.68 lakh in the year 2010-11. The loan outstanding with the bank recorded continuous fall from ₹1196.77 lakh in 2005-06 to ₹922.16 lakh in 2010-11.

The data containing important indicators of bank performance are presented in the Table below.

TABLE-15.4

PERFORMANCE OF A.S.C.A.R.D. BANK

Particulars	Unit	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11
Bank branches	No	33	33	32	30	28	28
Membership	No	34286	34286	34340	34390	37372	30056
Paid up Share Capital	Rs. Lakh	660.40	656.18	652.53	647.28	641.67	636.95
Working Capital	-do-	2711.57	2605.92	4596.12	4913.83	4993.18	1702.32
Deposits	-do-	59.95	97.45	72.02	48.67	37.81	30.35
Loans and Advances	-do-	26.09	Nil	Nil	11.53	7.65	5.68
Loan Outstanding	-do-	1196.77	1192.57	1124.23	1028.44	965.42	922.16

Source: Registrar of Cooperative Societies, Assam

Urban Cooperative Banks

The State has a presence of 13 Urban Cooperative Banks (UCBs) as on March 2010. Out of the 13 UCBs, only 9 banks are functioning with 16 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 about 15 thousand in 2009-10 as against 37 thousand in 2005-06. The paid up share capital of UCBs has been decreased to ₹5.06 crore in 2009-10 from ₹6.72 crore in 2008-09. The working capital of the banks, on the other hand, increased to ₹348.24 crore in 2009-10 from ₹253.83 crore in the previous year. The loans and advances also increased to ₹275.24 crore from ₹101.00 crore in 2008-09.

TABLE-15.5

STATISTICS RELATED TO PERFORMANCE OF URBAN COOPERATIVE BANKS

Particulars	Unit	2005-06	2006-07	2007-08	2008-09	2009-10
Bank Branches	No	21	15	15	15	16
Membership	'000' No	37	24	25	23	15
Paid up Capital	Rs.Crore	3.93	3.40	3.76	6.72	5.06
Working Capital	-do-	244.82	240.80	289.46	253.83	348.24
Deposits	-do-	197.80	202.56	231.28	280.50	315.04
Loans/Advances	-do-	299.36	155.67	94.49	101.00	275.24
Loan Outstanding	-do-	111.40	112.03	130.29	98.50	163.27
Loan Overdue	-do-	16.44	6.40	6.58	7.25	45.83

NB. Total may not be equal due to rounding off.
Source: Registrar of Cooperative Societies, Assam

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-15.6

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
	2010-11	1	8262	333.01	1151.83	3324.14
FISHFED	2008-09	1	217	218.35	180.66	16.78
	2009-10	1	241	253.35	369.81	16.27
	2010-11	1	496	97.36	1423.14	1643.20
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
	2010-11	1	418 Member Societies	1550.19	12572.99	330 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
	2010-11	1	496	97.36	1423.14	1643.20
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
	2010-11	1	4591	1608.13	170.00	1748.07

Source: Registrar of Cooperative Societies, Assam.

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CHAPTER – XVI

PRICES AND PUBLIC DISTRIBUTION SYSTEM

The changes in commodity prices have great impact on economic activities as well as on the purchasing power of the people of a country. Rising prices also lead to increase in income inequality. It also affects the fixed income groups of the society. For the last few years the state in particular and the country as a whole is experiencing price rise at varying degree. The movement of the price level at all India level and in Assam as evident in different price indices is briefly analysed in the following paragraphs.

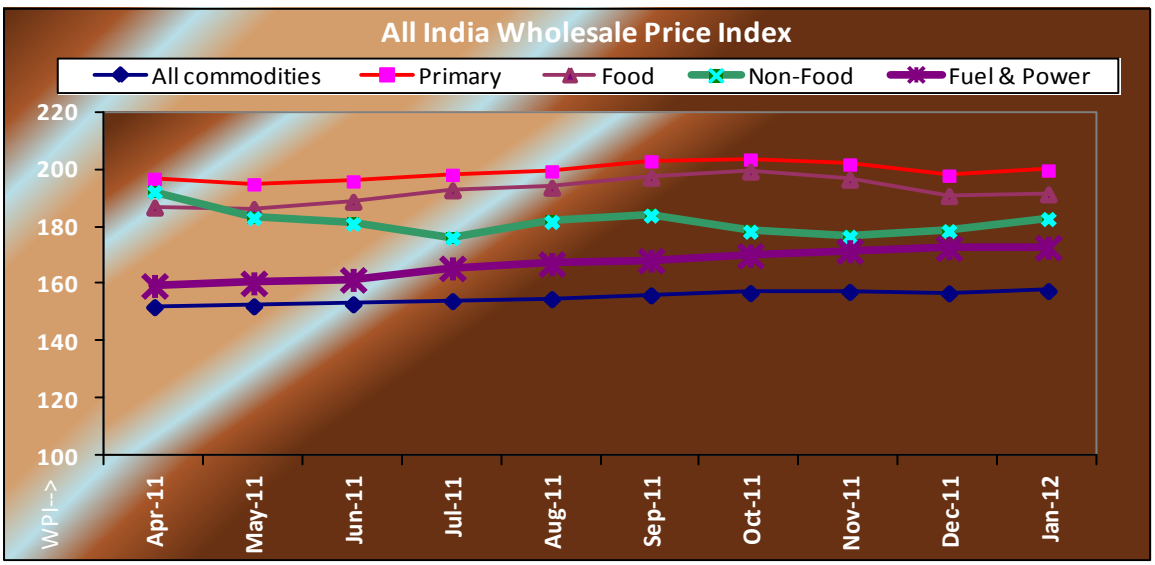
Average retail prices of some essential commodities recorded an erratic trend of price rise during the year 2011. For assessing the price situation in the State, the Directorate of Economics and Statistics collects retail prices of essential commodities from different centres of the State. The point to point price rise during the month of November 2011 over Nov' 2010 are observed as follows.

PRICE RISE OF SELECTED ESSENTIAL COMMODITIES DURING THE MONTH OF NOV'2011 OVER NOV'2010

Commodities	Range of Price rise (in percent)
Rice, Atta, Major Pulses, Potato & Onion	(-) 40.0 to (-) 0.5
Mustard Oil, Salt, Sugar, Tea, Milk	(+) 5.0 to (+) 40.0

Wholesale Price Index (WPI)

The Wholesale Price Index (WPI) is used by the Government to assess the price situation in various sectors. It is released on weekly basis by the Office of the Economic Advisor, Ministry of Commerce and Industries, Government of India. The year on year inflation rate in 2011-12 is 6.55 which depict a decrease from 9.47 in 2010-11. The rate of inflation, based on monthly WPI, stood at 6.55 percent (Provisional) for the month of January, 2012 (over January, 2011) as compared to 7.47 percent (Provisional) for the previous month and 9.47 percent during the corresponding month of the previous year. The all India WPI with base 2004-05 for all Commodities increased from 130.81 in 2009-10 to 143.32 in 2010-11 showing an increase of 9.56 percent in WPI. During the same period the WPI for Primary Articles increased by 17.75 percent, Food Articles 15.60 percent and 22.33 percent & 12.28 percent increase recorded for Non-Food Articles and Fuel and Power respectively. WPI (with Base 2004-05) increased from 152.1 in April, 2011 to 157.7 in January, 2012. During the same period, the index for 'Food' subgroup among 'Primary Articles' group increased from 186.8 to 191.4, whereas 'Non-Food' group decreased from 192.2 to 182.8. The index for 'Fuel & Power' group was increased from 159.5 for April, 2011 to 172.8 for January, 2012.



The Wholesale Price Index of Agricultural Commodities in Assam (Base 1993-94=100) is compiled by the Directorate of Economics and Statistics, Assam reveal that the annual average Index stood at 272 in 2010-11 as against 249 in 2009-10 and 221 in 2008-09. The Index thus displayed an increase of 9.24 percent in 2010-11 over 2009-10 as against 12.67 percent in 2009-10 over 2008-09 and 8.33 percent increase in 2008-09 over the previous year. Table at 16.1 shows the movement of Wholesale Price Index of Agricultural Commodities in Assam for last ten 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
2010-11	272	9.24

Source: Directorate of Economics and Statistics, Assam.

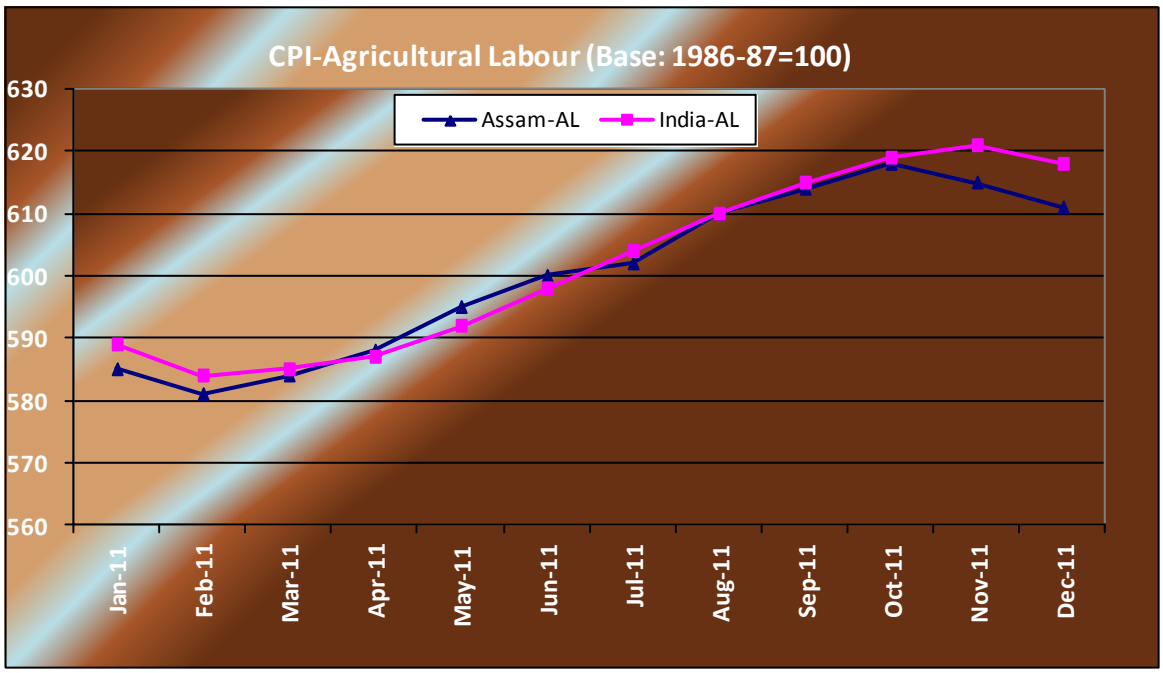
Consumer Price Indices (CPI)

The analysis of different Consumer Price Indices is presented in the paragraphs given below.

Agricultural Labour (CPI-AL)

The Consumer Price Index number for Agricultural Labour with base 1986-87 is compiled by the Labour Bureau, Government of India. During April to December, 2011, the average

CPI-AL (General) for the State was 606 showing an increase of 8.6 percent over the corresponding period of the previous year where the average CPI-AL for the State was 558. The trend of CPI-AL during 2011 in Assam and India is reflected in the graph below.



Rural Population

The Consumer Price Index for Rural Population (Plain District) is compiled by the Directorate of Economics and Statistics, Assam with base 1999-2000. The Index for 2010-11 was 205 against 194 during 2009-10 which shows an increase of 5.67 in 2010-11 percent over the previous year. During April, 2011 to September, 2011, the average CPI for Rural Population was 215 against 203 during the same period of 2010, thus showing an increase of 5.9 percent.

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 centres 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)
2011 (upto Oct.)	168 (8.39)	186 (5.68)	169 (6.96)	174 (7.41)

(Figures in bracket indicate the percentage change over the previous year.)

Source: Directorate of Economics and Statistics, Assam

During the first ten months of 2011, the average CPI for Working Class Population was 174 against the average 162 of the corresponding period of 2010. During the same period Silchar had a high average index of 186 in 2011 compared to 176 of the previous year amongst the three centres.

CPI- Industrial Workers (CPI-IW)

CPI-IW is mainly used for the determination of Dearness Allowance (DA) being paid to millions of public sector employees besides fixation and revision of minimum wages in scheduled employment. It is based on retail prices of essential commodities and services in industrially developed 70 selected centres in the country. In Assam, 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, namely Guwahati, Doomdooma(Tinsukia), Labac(Silchar), Morioni (Jorhat) (and Rangapara(Tezpur). During the year 2011 the CPI for Industrial Workers in Assam increased 6.21 percent as against 9.09 percent at all India level over 2010. The rate of increase of the Index in different centres in 2011 was recorded higher by 8.23 percent in Morioni, followed by 7.69 percent in Guwahati, 6.25 percent in Doomdooma, 5.84 percent in Rangapara and 4.49 percent in Labac 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
2011	168	171	170	186	163	171	192

Source: Directorate of Economics and Statistics, Assam and Labour Bureau, GOI

The point to point rate of inflation in Consumer Price Index for Industrial Workers (Base:2001=100) is 6.49 in the month of December 2011 against 9.47 in the corresponding month of 2010.

Public Distribution System

Public Distribution System is a major instrument of the Government's economic policy for ensuring availability of food grains at affordable prices as well as to provide food security to the poor. It is an important component for poverty eradication and is intended to serve as a safety net for the poor whose number is more than 330 million in the country and are nutritionally at risk. Public Distribution System with a network of about 4.99 lakh fair price shop in the country is perhaps the largest distribution of its type in the world.

Public Distribution System is operated under the joint responsibility of the Central and the State governments. The Central Government has taken the responsibility for procurement, storage, transportation and bulk allocation of food grains etc. The responsibility of distribution to the consumers through the network of fair price shop rests with the State governments. In Assam, the Food and Civil Supplies Department looks after the allocation and distribution of food grains, identification of families below poverty line, issue of ration cards and supervision and monitoring of the fair price shops. The department is also entrusted with the responsibility of procurement of paddy and rice under 'Minimum Support Price' scheme under the 'The Food Management Policy' of the Ministry of Food and Public Distribution of Govt. of India to ensure remunerative price to the producers for their agricultural produce and to provide the procured food grains to the consumers fairly at reasonable and affordable price.

Fair Price Shops

The fair price shop is opened taking into consideration the convenience of the card holders and topography of the area. There are 34,536 Fair Price Shop operating in the State as on 31st March 2011. During the year 2010-11 the scheme with the brand name and logo of "Amar Dukan" and "Jagok Grahok Jagok" was introduced through selected Fair Price Shops. The scheme has facilitated distribution of PDS and MRP based items at subsidised rates throughout the State. The number of AAY and BPL card holders for the last three years is given below.

TABLE- 16.4

NUMBER OF CARD HOLDERS

Year	Type of card		
	AAY	BPL	Total
2008-2009	7,04,000	12,02,000	19,06,000
2009-2010	7,04,000	12,02,000	19,06,000
2010-2011	7,04,000	12,02,000	19,06,000

Source: Directorate of Food & Civil Supplies, Assam.

The Food Corporation of India (FCI) is responsible for procurement of food grains and their allocation to the States for distribution under Public Distribution System. The present quantity of commodities distributed to the BPL, AAY and APL families per month and their rates in Assam is shown in the table-16.5.

TABLE- 16.5

QUANTITY AND RATES OF COMMODITIES DISTRIBUTED PER MONTH UNDER DIFFERENT SCHEMES IN ASSAM, 2011

Commodities	Schemes	Quantity (per month)	Rates (Rs. Per Kg/L)
Rice	BPL	35 kg	6.27-7.00
	AAY	35 kg	3.00
	APL	8-10 kg per card	9.17-10.00
Wheat (Atta)	APL	3-4 kg per card	7.75-8.00
Sugar	APL	0.686 Kg per head	13.50-14.00
K. Oil	APL	4-5 litre per card	12.00-13.00

Source: Directorate of Food & Civil Supplies, Assam.

Targeted Public Distribution System

The Targeted Public Distribution System (TPDS) is introduced to provide food grains to the poor families of the State under Minimum Common Need Programme of Govt. of India. Under TPDS the states are required to identify the poor families and to distribute food grains at the Fair Price Shop in a transparent and accountable manner. During the year 2010-11, total allocation for APL, BPL and AAY under TPDS was 17.52 lakh tonnes of cereals for Assam of which 14.43 lakh tonnes were Rice and 3.09 lakh tonnes were Wheat. The present monthly requirement, allocation and release of commodities for Public Distribution System for the State are shown in table-16.6.

TABLE- 16.6
QUANTITY AND RATES OF COMMODITIES DISTRIBUTED PER MONTH UNDER DIFFERENT SCHEMES IN ASSAM, 2011

Commodities	Schemes	Monthly Requirement (In MT/KL)	Average Monthly Allocation (In MT/KL)	Average Monthly Release (In MT/KL)
Rice	BPL	42,070	39,602	39,602
	AAY	24,641	24,641	24,641
	APL	1,02,850	34,248	34,248
Wheat (Atta)	APL	-	18,697	18,697
Sugar	APL	24,080	18,337	18,337
K. Oil	APL	54,180	21,441 (or 27552 Kl)	21,441 or (27552 Kl)

Source: Directorate of Food & Civil Supplies, Assam.

Presently the following schemes are being implemented by the department for welfare of the masses.

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, Sugar and Iodized salt as per quantum of allocation in each month. During the year 2010-11, out of the total allocation under TPDS, the share of wheat was 3.09 lakh tonnes and rice was 5.66 lakh tonnes for APL families of the State.

The Below Poverty Line (BPL) Schemes

The State has achieved the target of selecting 19.06 lakh beneficiaries from BPL families and provide distinct ration cards for issuance of 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 brought under AAY category families as per directions and guidelines of the Central Government. Under TPDS, total allocation of rice for BPL families of the State was 5.81 lakh tonnes.

The Antyodaya Anna Yojana (AAY)

The Scheme is in implementation in the State since November 2001as 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 ₹3.00 per Kg. The transportation charge @ ₹30.00 per quintal for carrying AAY Rice from the food storage depots of FCI to the various outlets for distributing of Rice amongst the selected beneficiaries is provided by the State Government. Total allocation of rice for the AAY category of the State was 2.96 lakh tonnes during 2010-11.

Village Grain Banks (VGB) 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 affected 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.

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 has already been completed covering 8,726 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 11,235 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 through 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.

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 District Fora receive complaints up to Rupees Twenty lakh, the State Commission undertakes the complaints from Rupees Twenty lakh to Rupees One crore and National Commission takes complaints of value 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.

Mukhya Mantrir Anna Suraksha Yojana

Under the Targeted Public Distribution System (TPDS), a total of 19.06 lakh 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 has been launched under the leadership of Hon'ble Chief Minister of Assam.

At present the scheme is envisaged to cover 18,90,000 families amongst the poorest and most economically backward of the APL families. Such identified families will be provided 20 kgs of subsidized rice @ ₹6.00 per kg to each beneficiary 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.

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APPENDIX – 16.1
WHOLESALE PRICE INDEX NUMBER OF AGRICULTURAL COMMODITIES IN ASSAM
(Base 1993 - 94 =100)

Year	Annual Average
2006 – 2007	185
2007 – 2008	204
2008 – 2009	221
2009 – 2010	249
2010 – 2011	272
2011, January	277
February	278
March	281
April	286
May	288
June	290
July	295
August	296
September	292
October	283

Source: Directorate of Economics and Statistics, Assam.

APPENDIX – 16.2
CONSUMER PRICE INDEX NUMBER FOR WORKING CLASS POPULATION IN ASSAM
(Base 1982 = 100)

Period	Guwahati	Silchar	Tinsukia	Assam
2001 Annual Average	471	372	384	415
2002 Annual Average	480	374	398	424
2003 Annual Average	496	383	416	439
2004 Annual Average	516	411	430	459
2005 Annual Average	531	415	450	473
2006 Annual Average	551	442	470	495
2007 Annual Average	575	476	504	525
2008 Annual Average	615	521	536	563
2009 Annual Average	684	565	592	621
2010 Annual Average	748	648	644	686
2011, January	782	675	667	715
February	778	668	654	707
March	778	661	659	707
April	787	664	663	712
May	778	668	663	710
June	802	679	695	733
July	830	686	699	747
August	835	686	707	752
September	840	690	715	758
October	830	694	715	755

Source: Directorate of Economics and Statistics, Assam.

APPENDIX – 16.3
CONSUMER PRICE INDEX NUMBER FOR WORKING CLASS POPULATION IN ASSAM

(Base 2001 = 100)

Period	Guwahati	Silchar	Tinsukia	Assam
2006 Annual Average	115	121	116	117
2007 Annual Average	120	130	125	125
2008 Annual Average	128	143	133	134
2009 Annual Average	143	155	147	148
2010 Annual Average	156	178	160	164
2011, January	163	185	165	171
February	162	183	162	169
March	162	181	163	168
April	164	182	164	170
May	162	183	164	168
June	167	186	172	174
July	173	188	173	178
August	174	188	175	179
September	175	189	177	180
October	173	190	177	180

Source : Labour Bureau, Govt. of India.

APPENDIX – 16.4
CONSUMER PRICE INDEX NUMBER FOR INDUSTRIAL WORKERS IN ASSAM AND INDIA

Period	Base 1982 = 100						
	Guwahati	Doomdooma	Labac	Rangapara	Mariani	Assam	All India
2001 Annual Average	471	384	372	419	411	415	458
2002 Annual Average	480	398	374	417	411	420	477
2003 Annual Average	496	416	383	427	432	435	496
2004 Annual Average	516	430	411	433	441	450	514
2005 Annual Average	531	450	415	439	449	461	536
2006 Annual Average	551	470	442	476	464	485	569
2007 Annual Average	575	504	476	526	509	522	605
2008 Annual Average	615	536	521	548	532	554	656
2009 Annual Average	684	592	565	600	591	611	727
2010 Annual Average	748	644	648	643	635	667	815
2011, January	782	667	675	676	670	698	870
February	778	654	668	667	662	690	857
March	778	659	661	667	662	690	857
April	787	663	664	680	674	698	861
May	778	663	668	663	678	694	866
June	802	695	679	667	682	709	875
July	830	699	686	680	690	722	894
August	835	707	686	684	698	727	898
September	840	715	690	688	698	731	912
October	830	715	694	688	706	731	917

Source : Labour Bureau, Govt. of India.

APPENDIX – 16.5

CONSUMER PRICE INDEX NUMBER FOR INDUSTRIAL WORKERS IN ASSAM AND INDIA

Period	Base 2001 = 100						
	Guwahati	Doomdooma	Labac	Rangapara	Mariani	Assam	All India
2006 Annual Average	115	116	121	114	116	116	123
2007 Annual Average	120	125	130	126	127	125	131
2008 Annual Average	128	133	143	131	133	133	142
2009 Annual Average	143	147	155	144	147	147	157
2010 Annual Average	156	160	178	154	158	161	176
2011, January	163	165	185	162	167	168	188
February	162	162	183	160	165	166	185
March	162	163	181	160	165	166	185
April	164	164	182	163	168	168	186
May	162	164	183	159	169	167	187
June	167	172	186	160	170	171	189
July	173	173	188	163	172	174	193
August	174	175	188	164	174	175	194
September	175	177	189	165	174	176	197
October	173	177	190	165	176	176	198

Source : (i) Directorate of Economics & Statistics, Assam.
(ii) Labour Bureau, Govt. of India.

APPENDIX – 16.6

CONSUMER PRICE INDEX NUMBER FOR WORKING CLASS POPULATION IN ASSAM

(Base 1982 = 100)

Period	Guwahati	Silchar	Tinsukia	Assam
2001 Annual Average	471	372	384	415
2002 Annual Average	480	374	398	424
2003 Annual Average	496	383	416	439
2004 Annual Average	516	411	430	459
2005 Annual Average	531	415	450	473
2006 Annual Average	551	442	470	495
2007 Annual Average	575	476	504	525
2008 Annual Average	615	521	536	563
2009 Annual Average	684	565	592	621
2010 Annual Average	748	648	644	686
2011, January	782	675	667	715
February	778	668	654	707
March	778	661	659	707
April	787	664	663	712
May	778	668	663	710
June	802	679	695	733
July	830	686	699	747
August	835	686	707	752
September	840	690	715	758
October	830	694	715	755

Source : Directorate of Economics and Statistics, Assam.

APPENDIX – 16.7

CONSUMER PRICE INDEX NUMBER FOR WORKING CLASS POPULATION IN ASSAM

(Base 2001 = 100)

Period	Guwahati	Silchar	Tinsukia	Assam
2006 Annual Average	115	121	116	117
2007 Annual Average	120	130	125	125
2008 Annual Average	128	143	133	134
2009 Annual Average	143	155	147	148
2010 Annual Average	156	178	160	164
2011, January	163	185	165	171
February	162	183	162	169
March	162	181	163	168
April	164	182	164	170
May	162	183	164	168
June	167	186	172	174
July	173	188	173	178
August	174	188	175	179
September	175	189	177	180
October	173	190	177	180

Source : Labour Bureau, Govt. of India.

APPENDIX – 16.8

CONSUMER PRICE INDEX NUMBER FOR INDUSTRIAL WORKERS IN ASSAM AND INDIA

Period	Base 1982 = 100						
	Guwahati	Doomdooma	Labac	Rangapara	Mariani	Assam	All India
2001 Annual Average	471	384	372	419	411	415	458
2002 Annual Average	480	398	374	417	411	420	477
2003 Annual Average	496	416	383	427	432	435	496
2004 Annual Average	516	430	411	433	441	450	514
2005 Annual Average	531	450	415	439	449	461	536
2006 Annual Average	551	470	442	476	464	485	569
2007 Annual Average	575	504	476	526	509	522	605
2008 Annual Average	615	536	521	548	532	554	656
2009 Annual Average	684	592	565	600	591	611	727
2010 Annual Average	748	644	648	643	635	667	815
2011, January	782	667	675	676	670	698	870
February	778	654	668	667	662	690	857
March	778	659	661	667	662	690	857
April	787	663	664	680	674	698	861
May	778	663	668	663	678	694	866
June	802	695	679	667	682	709	875
July	830	699	686	680	690	722	894
August	835	707	686	684	698	727	898
September	840	715	690	688	698	731	912
October	830	715	694	688	706	731	917

Source : Labour Bureau, Govt. of India.

APPENDIX – 16.9

CONSUMER PRICE INDEX NUMBER FOR INDUSTRIAL WORKERS IN ASSAM AND INDIA

Period	Base 2001 = 100						
	Guwahati	Doomdooma	Labac	Rangapara	Mariani	Assam	All India
2006 Annual Average	115	116	121	114	116	116	123
2007 Annual Average	120	125	130	126	127	125	131
2008 Annual Average	128	133	143	131	133	133	142
2009 Annual Average	143	147	155	144	147	147	157
2010 Annual Average	156	160	178	154	158	161	176
2011, January	163	165	185	162	167	168	188
February	162	162	183	160	165	166	185
March	162	163	181	160	165	166	185
April	164	164	182	163	168	168	186
May	162	164	183	159	169	167	187
June	167	172	186	160	170	171	189
July	173	173	188	163	172	174	193
August	174	175	188	164	174	175	194
September	175	177	189	165	174	176	197
October	173	177	190	165	176	176	198

Source : (i) Directorate of Economics & Statistics, Assam.
(ii) Labour Bureau, Govt. of India

APPENDIX – 16.10

CONSUMER PRICE INDEX NUMBER FOR RURAL POPULATION IN ASSAM

(Plain Districts)

Period	(Base 1944=100)
1991 Annual Average	1735
1992 Annual Average	1962
1993 Annual Average	2112
1994 Annual Average	2309
1995 Annual Average	2505
1996 Annual Average	2709
1997 Annual Average	2748
1998 Annual Average	3046
1999 Annual Average	3278
	(New Base 1999-2000=100)
2000-01	104
2005-06	130
2006-07	139
2007-08	158
2008-09	177
2009-10	194
2010-11, April	201
May	201
June	202
July	204
August	204
September	205
October	206
November	207
December	204

Source : Directorate of Economics and Statistics, Assam.

CHAPTER – XVII

LABOUR, EMPLOYMENT AND WAGES

The generation of productive and gainful employment, on a sufficient scale, to absorb the growing labour force is one of the main strategies of achieving inclusive growth. The State Government 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. The population census, different quinquennial rounds of National sample Survey on employment data and Economic Census provides us data on human resource, employment structure and workforce. The data available from the Employment Exchanges does not give a clear picture on unemployment as a large number of unemployed people 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.

Employment Scenario

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. The result of the 66th round of the NSSO survey conducted during the year July 2009-June 2010 is presented in the table 17.1. The table gives the distribution of population for 1000 person in the age group of 15-59 with rural, urban and both at all India and at State level.

TABLE NO. 17.1

DISTRIBUTION OF POPULATION PER 1000 PERSON IN THE AGE GROUP 15-59 AS PER 66TH ROUND NSS (JULY 2009-JUNE 2010)

	Rural		Urban		Rural+Urban	
	Male	Female	Male	Female	Male	Female
Assam	607	642	661	713	613	649
India	589	607	656	660	608	622

The population in the age group 15-59 years, which is considered to be active for discharging different types of activities, comprised about 61 percent of males and 64 percent of females in rural areas of Assam as against 59 percent of males and 61 percent of females in rural areas at all-India level. Similarly, the population in the same age group comprises of 66 percent of males and 71 percent of females in urban areas of Assam compared to at all-India level of 66 percent males and 66 percent females.

The Labour Force Participation Rate i.e. number of persons in the labour force per 1000 person in the age group 15-59 years according to usual status (both principal and subsidiary status) approach is 865 male, 243 female and 542 both for male and female in Assam and at all-India level is 836 male, 345 female and 596 for male and female taken together.

The study of the 66th round reveals that the unemployment rate i.e. the number of persons unemployed per 1000 persons in the labour force (which includes both the employed and unemployed) according to the usual status (adjusted) approach also shows that as against 20 males, 23 females and 20 males and females combined together at all-India level there is 35 males, 61 females and 40 males and females in Assam.

The findings of sex-wise rural and urban distribution of workers (per 1000) according to usual status (both principal and subsidiary status) approach by broad employment status in Assam and at all-India level during the year July 2009-June 2010 of the survey are shown in the Table 17.2.

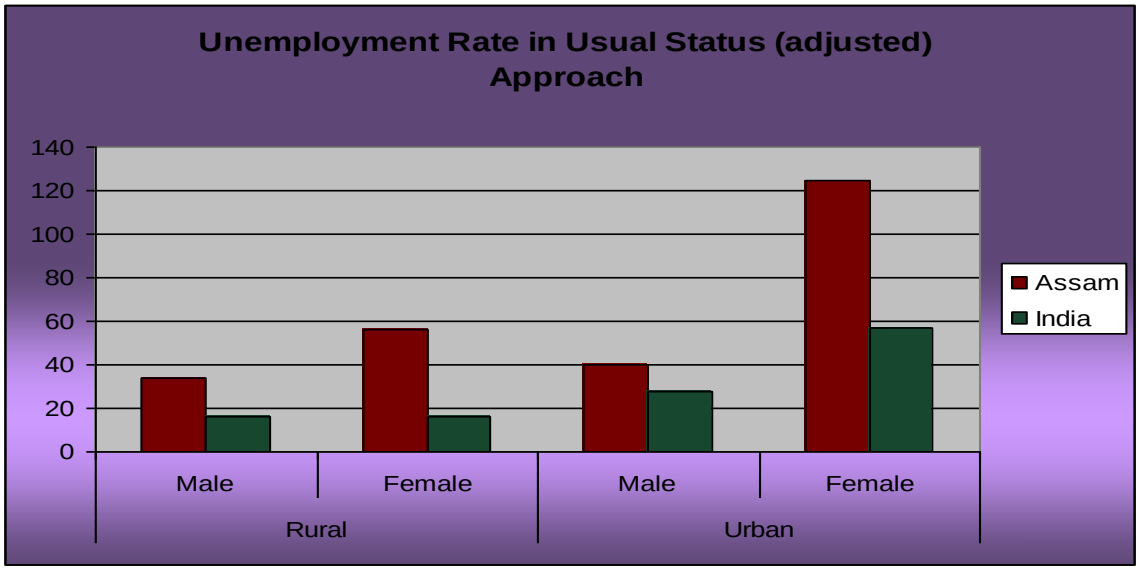


TABLE NO. 17.2

DISTRIBUTION OF WORKERS (PER 1000) BY BROAD USUAL ACTIVITY STATUS

	Assam			India		
	Rural	Urban	Rural+Urban	Rural	Urban	Rural+Urban
Self employed	705	490	685	542	411	510
Regular wage/ Salaried employees	94	438	127	73	414	156
Casual labour	201	72	189	386	175	335
All	1000	1000	1000	1000	1000	1000

N.B. Total may not be equal doe to rounding off.

Source: Key Indicators of Employment and Unemployment in India, 2009-10, NSSO.

Census of Assam Government Employees

As per the Assam Government Employees Census, 2004, 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 recorded a decrease of (-) 0.61 percent during the period from 01.04.99 to 31.03.04. The Table 17.3 shows the distribution of Government Employees according to the status/caste/tribes and sex as per Employees Census, 2004.

TABLE No.-17.3

DISTRIBUTION OF ASSAM GOVERNMENT EMPLOYEES ACCORDING TO THE 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/Consoli-dated 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. 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 6.6 percent, 10.2 percent, 2.1 percent and 29.2 percent respectively.

Economic Census

The findings of the 5th Economic Census, 2005 pertaining to Assam State reveals that there were 2208169 persons engaged in economic activities in the State. Out of the total, 1442854 persons were engaged 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 indicates that there were 36952(1.67 percent of the total worker) child workers engaged in various establishments in the State out of which 4048 were female child.

It is also evident from the results of the 5th Economic Census that 49.1 percent of the total workers were engaged as hired workers of which rural/urban divide was 59.7 percent and 40.3 percent respectively. Among the total hired workers, the percentage of adult female and children, constitute 17.5 percent and 2.3 percent respectively.

TABLE NO. 17.4

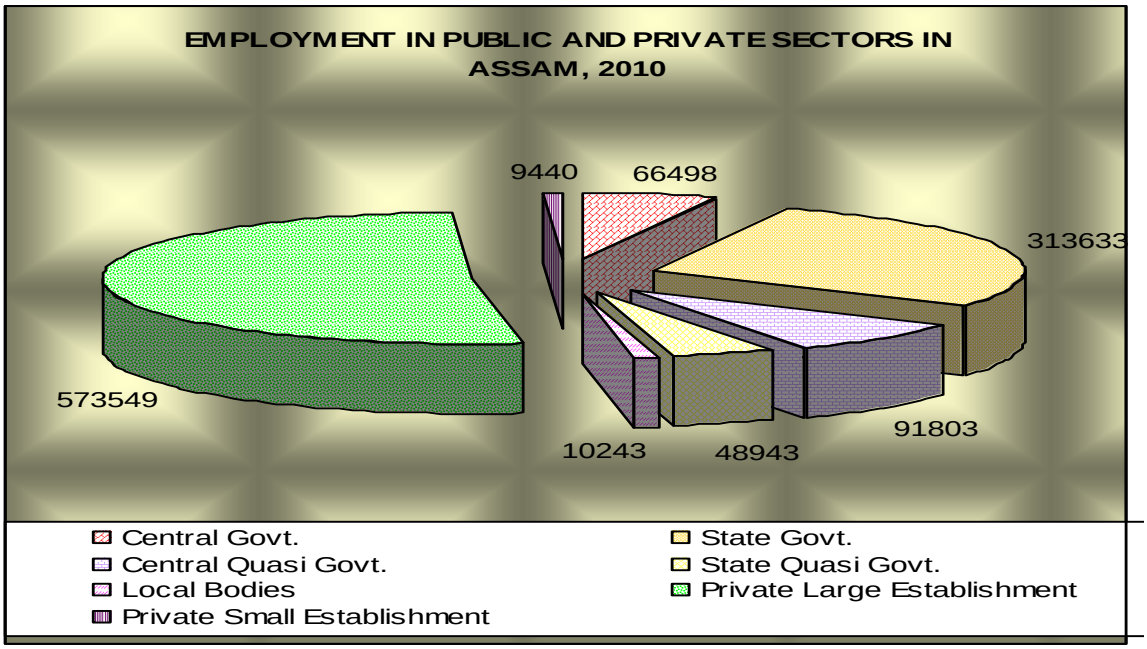
NUMBER OF EMPLOYMENT IN ESTABLISHMENTS

Sl 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 about 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 under EMI programme in 2010 was 11.14 lakh (in public sector 5.31 lakh and in private sector 5.82 lakh) compared to 11.03 lakh (in public sector 5.32 lakh and in private sector 5.71 lakh) in 2009 and thus stands 1.00 percent more than in 2009. In these sectors, female employment was 32.9 percent of the total employment. Out of the total 5.31 lakh employment in public sector, share of local bodies was 0.92 percent and share of State Quasi Government was 4.39 percent during the year.

Employment of Women in Organised Sector

The employment of women in organised sector of the State was 366.7 thousand during 2010 which is 32.9 percent of the total employment. In the year 2009 the number of women employee was 360.3 thousand showing a share of around 32.7 percent to total employment.

TABLE NO. 17.5
EMPLOYMENT OF WOMEN IN ORGANISED SECTOR

(In thousand nos.)

Year	Public Sector		Private Sector		Public and Private Sector		Percentage Share of Women 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
2010	87.0	531.1	279.7	583.0	366.7	1114.1	32.9

Source: Directorate of Employment and Craftsmen Training, Assam.

Un-Employment Scenario in the State

The table below shows that the number of unemployed as per Live Register decreased by 0.08 percent in 2010 over 2009. According to the records of the Employment Exchanges of Assam, the total job seekers in the Live Register recorded fall during 2010 with 1911431 numbers compared to 2079558 numbers in 2009. This may perhaps be due to non-renewal of registration by the job-seekers or non-reporting by the job-seekers about their engagement in services. However, percentage of placement is not encouraging against the number of notified vacancies through Employment Exchanges.

TABLE NO. 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
2010	1911431	(-)0.08	2606	455

Source: Directorate of Employment and Craftsmen training, Assam.

The size of the educated job seekers is considerably high, which is a challenge to the growing economy of the State. From the records of the live register of Employment Exchanges, the registered educated job seekers stood at 1433218 during 2010 and recorded decrease by 5.73 percent over 2009. The percentage of educated job seekers constitute about 75 percent of the total job-seekers and out of the total educated job seekers 46 percent was H.S.L.C. passed, 30 percent was H.S.S.L.C. passed, 20 percent was Graduate and the rest consist of Technical Graduate (Engineering, Medical, Agriculture and Veterinary etc.) and Post-Graduate job seekers. Though there is a decline in registration of Agriculture Graduate, Veterinary Graduate, Post Graduates and Diploma Holders (Engineering) in 2010 over the previous year, the overall registration of educated job seekers as per record of Employment Exchanges has increased by 17.25 in 2010. Increase of registration in Engineering Graduates during 2010 (42.07%) is a matter of concern in the context of socio-economic profile of the state. The detail distributions of the educated job seekers are shown in the table below.

TABLE NO. 17.7

DISTRIBUTION OF EDUCATED JOB-SEEKERS

Level of Education	Registration		Percentage Increase/ Decrease in Registration	Placement		Numbers in live register	
	2009	2010		2009	2010	2009	2010
Engineering Graduate	271	385	42.07	18	0	3007	2839
Medical Graduate	165	197	19.39	6	0	721	681
Agriculture Graduate	186	156	(-)16.13	10	0	1231	1167
Veterinary Graduate	69	53	(-)23.19	7	0	543	512
Passed out Trainees							
a) Engineering Trade	1319	1574	19.33	60	78	17233	16212
b) Non- Engineering Trade	751	893	18.91	10	13	4090	3858
Post Graduates	4780	3002	(-)37.20	29	0	24946	21352
Graduates	28598	34012	18.93	148	106	299402	283471
H.S.S.L.C.	39999	47681	19.21	109	142	452537	427451
H.S.L.C.	78005	93054	19.29	64	69	700518	661155
Diploma Holders(Eng.)	293	249	(-)15.02	25	33	11609	10431
Others	563	487	(-)13.50	15	14	4473	4089
Total	154999	181743	17.25	501	455	1520310	1433218

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 skilled, unskilled and other agricultural labours shows a more or less steady upward trend. The trend of the wage rate in rural areas shows that the skilled labour wage rate grew in between 6 and 9 percent during the period 2002-03 to 2010-11. During the same period the average growth of un-skilled male labour wage rate is between 9 and 13 percent while growth of female wage rate is 8 to 9 percent.

TABLE NO. -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	Black-smith	Field Labour Ploughman	Herds-man	Reaper and Harvester			
	Man	Man	Man	Man	Man	Women	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
2010-11	149.54	131.11	119.58	116.66	111.66	87.21	136.66	92.11

Source: Directorate of Economics and Statistics, Assam.

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 of skill needs support to earn. Keeping this in mind the Central Government and the State Government has initiated and implemented many programmes for generation of self and wage employment and also for creation of production of assets through various organisations 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 Swarojgar Yojana (SGSY)

The objective of the Swarnajayanti Gram swarojgar Yojana is to uplift the economic status of rural people by providing sustainable income generating activities to the people living below poverty line with bank loan and Government subsidy. Since inception up to 2010-11 a total of 235648 number of SHG's were formed of which 80216 number of SHG has taken up economic activities. Total women SHG's formed up to 2010-11 in the State is1,50,336.During the year 2010-11 number of women SHG's formed in the State was 13934. During the year 2010-11 a total of 9592 women SHGs were provided with interest subsidy @ Rs.5000/- per woman SHGs against 9028 women SHGs during 2009-10.

Mahatma Gandhi National Employment Guarantee Act (MGNREGA):

The National Rural Employment Programme introduced during 6th Plan have undergone several round of modifications to Jawahar Rozgar Yojana (JRY) EAS, JGSY, SGRY, NREGA and finally MGNREGA in the 11th five year Plan. All these programmes/schemes were implemented for giving wage employment opportunities to the rural poor during the lean agricultural season when they require wage employment for boosting their purchasing power to supplement their income requirement for livelihood. There are two broad divisions of expenditure under wage employment programme. The presently implemented MGNREGA has 60% wage component and 40% material component. MGNREGA is being implemented in all the 27 districts with the

objective to provide 100 days employment to the job card holders in a financial year. Under this programme 37.7 lakh job cards were issued upto the year 2010-11. Out of 14.43 lakh no. of household who demanded for employment, 14.3 lakh no. of households were provided with employment during the year 2010-11. During the same year, 22497 number of household were provided with 100 days employment and number of disabled persons provided with employment under this programme was 2152. Under this programme in the year 2010-11, 358.29 lakh man days were generated of which mandays generated for SC, ST and women was 19.78, 69.94 and 83.84 lakh man days respectively.

Prime Minister Employment Generation Programme (PMEGP)

The Prime Minister Rojgar Yojana (PMRY) was a Centrally Sponsored Scheme. The programme was effective up to March 2008 and thereafter a new scheme under the nomenclature, 'Prime Minister Employment Generation Program' (PMEGP) has been introduced by merging the PMRY and REGP 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 with a limited amount of Bank loan with subsidy on the recommendation of Task Force Committees constituted for the purpose. The KVIC is the nodal agency for implementing the PMEGP scheme 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 Centers and Banks. The Government subsidy under the scheme is being routed through the KVIC to the identified Banks.

TABLE NO. 17.9

TARGET AND ACHIEVEMENT OF PMRY/PMEGP DURING THE YEAR 2006-07 TO 2010-11

Year	Physical target (in nos.)	Financial Target (margin Money) (₹ in Lakh)	Total Cases sanctioned (₹ in Lakh)	Physical achieve-ment (in no.)	Financial achieve-ment (₹in lakh.)	P.C. of Physical achieve-ment	P.C. of Financial achieve-ment
2006-07 (PMRY)	10300	-	7873	5930	4305.98	57.57%	-
2007-09 (PMRY)	8600	-	6742	5581	5354.97	64.9%	-
2008-09 (PMEGP)	685	820.22	861	617	676.95	90.07%	82.53%
2009-10 (PMEGP)	1292	1550.00	2440	2440	1899.71	189%	122.56%
2010-11 (PMEGP)	3193	4469.66	4756	4756	4801.10	148.95	107.42

Source: Directorate of Industries and Commerce, Assam.

TABLE NO. 17.10

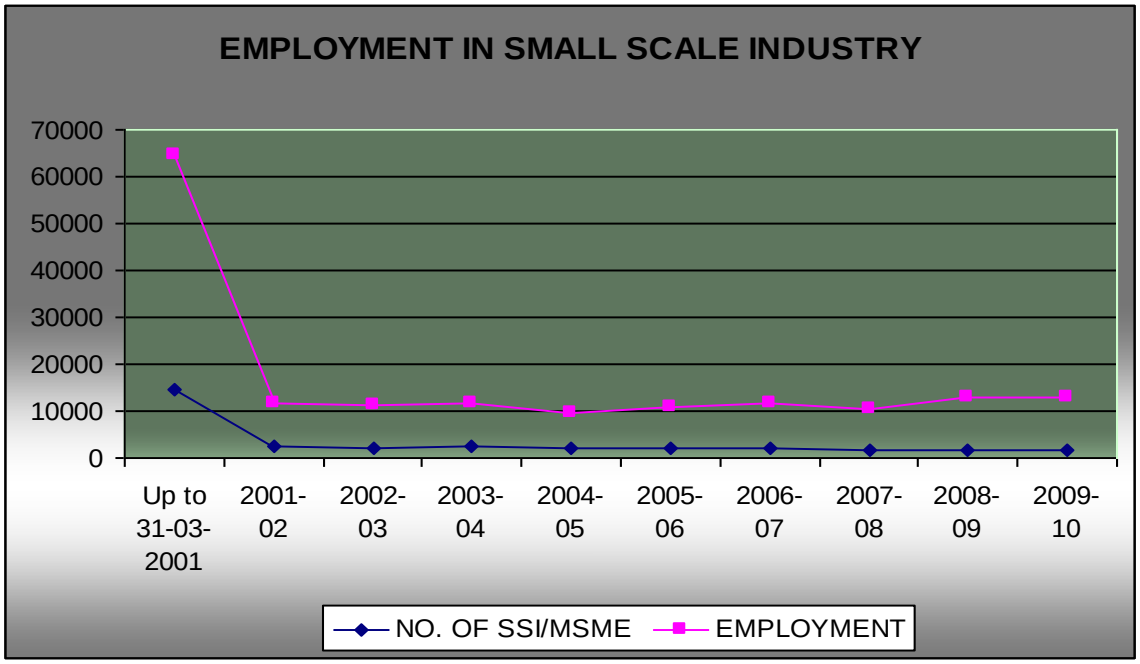
PHYSICAL AND FINANCIAL TARGET OF PMEGP FOR THE YEAR 2011-12

Name of implementing agency	Physical Target (in nos.)			Margin money target (Rs.in lakh)
	Rural	Urban	Total	
KVIC	1508	-	1508	2111.20
KVIB	1508	-	1508	2111.20
DI&CC	1004	1005	2009	2812.60
Total for the state	4020	1005	5025	7035.00

Source: Directorate of Industries and Commerce, Assam.

Small Scale Industries/Micro, Small and Medium Enterprise (MSME)

The small scale industries sectors have a vital contribution towards the process of industrialization of the state. Presently the small-scale industries have been sub-divided into Micro, Small and Medium Enterprise under the Micro, Small and Medium Enterprises Development (MSMED) Act 2006. There are 34327 numbers of SSI/ MSME units in Assam providing employment to 178054 of persons till the end of 2010-11 compared to 32984 units giving employment to 167216 persons in 2009-10.



Chief Minister self Employment Scheme (CMSS) and Vocational Training under Assam Bikash Yojana

Government of Assam has launched a unique self-employment scheme called 'Chief Minister Self Employment and Vocational Training' from the year 2008-09.

There are two sector of the scheme one is CMSS and other is Vocational training. Under the CMSS sector the educated unemployed youth are sent for 6 months apprenticeship training to reputed industrial unit and commercial houses throughout the country. During the period of the training stipend @ ₹4500/- are paid to each of the trainee's per month from the Government of Assam. While the accepting 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, one and half month, 3 months, 6months, 9months and upto one year industrial training within the state on their interested field. The State Government fully bears the cost of training.

For the year 2009-10, for implementation of CMSS and vocational training, Government of Assam has sanctioned and released ₹50.00 lakh for CMSS and ₹151.05 lakh for vocational training. During the year 2010-11, for implementation of CMSS and Vocational Training, Govt. of Assam has sanctioned and released ₹30.00 Lakh for CMSS and ₹120.00 Lakh for Vocational Training.

The Table 17.11 shows some statistics on physical achievement of CMSS and Vocational training under Assam Bikash Yojana for the year 2008-09, 2009-10 and 2010-11.

TABLE NO. 17.11

STATEMENT SHOWING ACHIEVEMENT UNDER ASSAM BIKASH YOJANA

Year	Name of Scheme	Total Target	Amount Sanctioned by Govt. (₹ in lakh)	Trainees Sponsored (No.)	Trainees Completed Training (No.)	Trainees Absorbed (No.)	Remarks
2008-09	CMSS	160	50.00	165	130	70	
	Vocational Training	2200	50.00	2200	2200	-	Sponsored from district
2009-10	CMSS	160	50.00	176	127	50	
	Vocational Training	3200	151.05	3200	3200	-	Sponsored from district
2010-11	CMSS	100	30.00	43	18	5	Undergoing training
	Vocational Training	2610	120.00	2610	2610		Sponsored from district

Source: Directorate of Industries and Commerce, Assam.

Mukhyamantrir Karmajyoti Aachani

The basic objective of the scheme is to uplift the economic status and skill development of traditional artisans through financial assistance from the Government. Traditional trade like manufacturing of decorative textile, black smithy, pottery, carpentry, toy making etc will cover under the scheme. The scheme is under implementation from the year 2005-06 under the sponsorship of the Government of Assam. During the year 2010-11, 640 artisans were benefited with a financial assistance of ₹113.82 lakh. The scheme is still in progress with a physical target of 660 SHG's and 1000 individual with a financial target of ₹835.00 lakh for the year 2010-11.

Udyogjyoti Achani

Udyogjyoti Achani was launched by the Department of Industries & Commerce, Government of Assam since 2005-06, to motivate the student community of the state towards entrepreneurship. The idea behind the scheme was to give exposure to young TDC level college students of the state to a variety of industrial activities at industrial centers like EPIP, CIPET, CTRTC, Guwahati Refinery, Industrial Estates etc alongwith other training institutes available in the state. So that, after completion of this study they can also start their own ventures or get employed in such industries.

To make the programme more effective the procedure for implementation 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.

The scheme is implemented in four phases. In the first phase training programme is held at District level with 50 participants per district and the second phase training is conducted at State level with 5 participant of phase-1 of each district. After completion of the second stage some selected youths are sent outside the state for high level exposure on the field of entrepreneurship as the third phase. At phase-IV, the participants of phase-3 are given margin money of 90 percent of the promoter's contribution or ₹1.00 lakh per participant or which ever is less against Bank loan sanction letter. The scheme is running under the sponsorship of the Government of Assam.

TABLE NO. 17.12

IMPLEMENTATION OF THE UDYOGJYOTI ACHANI DURING THE YEAR 2005-06 TO 2010-11

Year	Target		Achievement		Remarks
	Financial (₹ in lakh)	Physical (in Nos.)	Financial (₹ in lakh)	Physical (in Nos.)	
2005-06	100.00	2700	88.89	2449	
2006-07	100.00	2700	75.00	2062	
2007-08	100.00	Ph I=1350 Ph II=135	Ph. I & Ph II 26.17	Ph. I=1350 Ph. II=118	Ph. III= Under process
2008-09	100.00	Ph. I=1350 Ph. II=135	Ph. I & Ph II 20.34	Ph. I=1350 Ph. II=63	-do-
2009-10	100.00	Ph. I=1350 Ph. II=135	Ph. I & Ph II 19.70	Ph. I=1350 Ph. II=84	-do-
2010-11	30.00	Ph. I=657 Ph. II=81	Ph. I=5.40	-	Under process

Factory Employment

During 2010, there was 4262 number of factories (registered under Factory Act, 1948) in the State employing 150485 number of persons that shows an increase of 7 percent in the number of factories employing 10 percent more than that of 2009. The maximum number of workers were engaged in manufacturing of food and beverages (46.0%) followed by manufacturing of other non-metallic mineral products (20.1%), manufacturing of wood and products of wood and cork, except furniture, manufacturing of articles of straw and plaiting materials (5.2%), manufacturing of chemicals and chemical products (4.9%) and manufacturing of coke, refined petroleum products and nuclear fuel (3.6%).

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CHAPTER – XVIII

RURAL DEVELOPMENT

There has been planning for multi-dimensional development of rural areas in India since the beginning of planning era after independence.

For uplifting the quality of life of rural people so many schemes have been sponsored both by the Central & the State Govt. The Panchayat & Rural Development Department, Govt. of Assam executes mostly the poverty alleviation programmes along with some co-related schemes covering the rural and the urban areas which directly help in the development of quality of life both in urban & rural. While implementing the schemes under Rural Development Programme special attention has been given for-

a) SC/ST:-upliftment of the socially backward community like SC & ST. Out of the total target 50 percent target is fixed for SC/ST under Swarnajayanti Gram Swarojgar Yojona (SGSY), a self employment scheme, under housing scheme Indira Awas Yojona (IAY) 60 percent of the allocation is earmarked for SC/ST.

b) Minorities:- From the year 2006-07, as per recommendation of the Sachar Committee for minorities, special provision in rural development programmes has been given for welfare of the religious minority communities. 15 percent of the total national budget for IAY and SGSY is allocated for minorities.

c) Women:-Development of women is equally important as for the male counterpart of the population. 40 percent of the total target under SGSY is fixed for women beneficiaries for self employment. In case of wage employment, equal wage is provided for women and men worker.

d) Disables:-For providing assistance to the disables, 30Percent of the target is kept reserved in all the programme like IAY, SGSY, and MGNREGA.

Accordingly, under rural development sector some programmes/schemes were introduced which were of the following nature. (1) Self employment programme, (2) Wage employment programme, (3) Social-Welfare schemes.

Self Employment Programme

Self employment programme for the rural poor living below poverty line under which self-employment is provided through bank loan and subsidy after selecting the interested rural youths providing training etc. The IRDP has undergone a series of changes with the evolvement of time and at present it is named as SGSY. However, The SGSY is under further modification stage to National Rural Livelihood Mission to provide better services to the rural people. The SGSY is a centrally sponsored scheme of 90:10 cost sharing. This programme emphasise more on Group approach than individual approach. Under this programme, the self help groups are developed through series of activities and then graded and arrangements are made for their bank loan with subsidy. The comparative position of number of SHGs formed and number of SHGs taken up economic activity to increase their purchasing power under SGSY for the last few years is given below.

Year	No. of SHGs Formed		No of SHGs taken up Economic activity	
	Total	Women	Total	Women
2005-06	21066	10914	5572	3380
2006-07	8282	4937	_	2718
2007-08	14333	9740	11334	6048
2008-09	21869	15754	12304	8073
2009-10	22327	13993	13673	9028
2010-11	25197	13934	14498	9592

Since inception of the concept in 1.4.99, 235648 number of SHG was formed upto the year 2010-11. From the year 1999-2000 to 2010-11, 80216 SHG have been provided with bank loan and subsidy to taken up economic activity. All these SHGs have been taken up self employment venture under different schemes of Primary, Secondary and Tertiary sectors. The completion period of the schemes are varied from 3 to 5 years. Out of the total 235648 number of SHGs, number of women SHG formed since 1999-2000 was 150336. The women SHGs are assisted by the interest subsidy from Chief Ministers Special Schemes from time to time. During the year 2010-11, women SHGs 9592 numbers were provided with interest subsidy @ ₹5000/- per woman SHGs against 9028 women SHGs during 2009-10.

Wage Employment

The National Rural Employment Programme introduced during 6th Plan have undergone several round of modifications to Jawahar Rozgar Yojana (JRY), EAS, JGSY, SGRY, NREGA and finally Mahatma Gandhi National Rural Employment Generation Act (MGNREGA) in 11th Plan. All these programmes/schemes were implemented for giving wage employment opportunities to the rural poor during their lean agricultural season when they require wage employment for boosting their purchasing power to supplement their income requirement for livelihood. There are two broad divisions of expenditure under wage employment programme. The presently implemented MGNREGA, has 60Percent wage component and 40Percent material component. The material is spent for purchase of material which also comprise with the profit share of the suppliers what generally come from the rural areas giving them indirect employment. The wage portion is 100Percent paid to the job-card holders through their bank/post-office account. To minimize the leakage of misuse/misutilisation of fund under NREGA management information system (MIS) is made compulsory.

During the year 2010-11 numbers of Job Card issued and numbers of household provided employment under MGNREGA, were 37.69 lakh and 14.32 lakh respectively. In 2010-11, an amount of ₹382.22 Crore has been spent for wage under MGNREGA, against ₹637.36 crore during 2009-10.The low performance during 2010-11 is due to various reasons as given in short as below.

(i) Unprecedented heavy rainfall with extended monsoon.

(ii) Engagement of block officials in beneficiary oriented schemes of other departments.

(iii) Imposition of model code of conduct due to Assembly Election.

The wage portions of fund not only increase in purchasing power of the rural poor, but also directly adds to the GDP of the State.

FUND RECEIVED FROM GOVT. OF INDIA DURING 2010-11 AS CENTRAL SHARE AGAINST THE CENTRALLY SPONSORED PROGRAMME

(Rupees in Lakh)

Programme	Central Allocation	Fund Received	Remarks
SGSY	17988.00	20301.85	Addl. Fund received
IAY	74575.72	71031.77	
MGNREGA	No Allocation	61083.40	
IWDP/Hariyali	No Allocation	1335.55	
NSAP (ACA)	19776.00	117180.00	It is earmarks scheme of GOI's funded under ACA

ALLOCATION AND EXPENDITURE OF STATE PLAN FUND (STATE SHARE)
WITH PHYSICAL TARGET AND ACHIEVEMENT 2010-11

State Plan Fund (State Share)

(Rupees in Lakh)

Name of the Scheme/Programme	Annual Plan Outlay 2010-11	Expenditure incurred upto 31.03.2011	Target Unit	Achievement
SGSY	2500.00	2172.88	a) 118980 Nos. of SHG	a) 141073 Nos.
			b) 20656 Nos. of Ind. Swarojgaries	b) 10319 Nos.
IAY	11538.00	11538.00	170849 Nos. of houses to be constructed	156911 Nos.
MGNREGA	14762.00	7996.15	No target	358.30 Lakhs Mandays
IWDP/Hariyali	300.00	191.45		
SIRD	500.00	264.00		
AVY	100.00	50.00 (Under Process)	1041 Nos. of Sewing Machine	1041 Nos. (Under Process)
State Rural Housing	500.00	350.00	721 Nos. of houses to be constructed.	721 Nos.
Enhance wage of NREGA	500.00	Surrendered		
Addl. Allocation of CM's JeevanJyotiSwaniyojanYojana	50.00	50.00		
Skill Dev. And Employment generation programme	95.00	95.00	12500 Nos. of beneficiaries	15545 Nos.
CM's JeevanJyotiSwaNiyojanYojana (SIRD)	3550.00	3550.00	27917 No. of beneficiaries	27917 Nos. of beneficiaries
Study Tour Expouser visit of farmers	95.00	95.00 (Kept in RD)	1000 Nos. of Farmers	-
Financial assistance for providing Two bundles of CI Sheet with ₹2000/- cash to poor/BPL & Erosion affected families (1000 per LAC)	11340.00	11340.00	125000 Nos. of beneficiaries	125000 Nos. of beneficiaries
Cash assistance to Women SHG	5000.00	5000.00	100000 Nos. of beneficiaries	100000 Nos. of beneficiaries
Cash assistance to Marginal entrepreneur	5000.00	5000.00	50000 Nos. of beneficiaries	50000 Nos. of beneficiaries

(Contd…)

Name of the Scheme/Programme	Annual Plan Outlay 2010-11	Expenditure incurred upto 31.03.2011	Target Unit	Achievement
NSAP (ACA)	19776.00	11718.00		
NSAP (MMC)	1402.00	1399.00		
IGNOAPS			629949 Nos. of beneficiaries	629949 Nos. of beneficiaries (Upto Mar, 11)
NFBS			25299 Nos. of family assisted	25299 Nos. of family assisted (One time assistance)
Annapurna			26640 Nos. of family assisted	26640 Nos. of family assisted. (Upto June, 11)
IGNWPS			91826 Nos. of person provided with pension	Achievement 28855 (Upto October, 11)
IGNDPS			26955 Nos. of beneficiaries	Achievement 4656 (Upto June, 11)
Dist. Development Plan (DDP)	12204.00	11786.35		
BRGF	18501.00	6534.00	2481 Nos. of Schemes	1154 Nos. of Schemes
Const. of HQ office building	20.00	-	1 No.	-

The another objective of the MGNREGA programme is to create rural infrastructure. A comparison of physical achievement under MGNREGA during the past two years is given below:-

Infrastructure created	During 2009-10 (in Nos)	During 2010-11 (in Nos)
Rural connectivity	5661	564
Flood control Project	1309	38
Water conservation & Water harvesting	492	44
Drought proofing	540	439
Micro irrigation	248	35
Provision of irrigation Facilities to land development	28	2
Renovation of traditional Water bodies	28	39
Land development	839	177
Rajiv Gandhi Seva Kendra	----	-----
Others	3	62

Other Social Welfare Schemes

Indira Awaas Yojana (IAY)

Under IAY, house is provided to the rural shelter less/houseless families living below poverty line. For the purpose, a permanent wait list of the BPL families, requiring housing assistance, has been prepared in 2007. All IAY beneficiaries are being selected from this **wait list**. During the year 2010-11, the target was fixed at **170849** nos of houses against which **156911** nos of houses were completed and the remaining houses were under construction. The achievement is **91.84 percent** and it is higher than the 2009-10. Besides the normal provisions of 60 percent reservation for SC and ST, special target of **15 percent** is given to the minorities communities as per the directions of the Govt. of India under this programme. During the year 2010-11, **99834** nos of houses were allotted to the SC/ST and **30289** nos to the minority communities against 102880 to SC/ST and 29807 to Minorities respectively during 2009-10.

National Social Assistance Plan (NSAP)

The old age persons, disables, widows living below poverty line along with the families whose head earner died, are assisted with one time assistance @ ₹10000.00 under National Family Benefit Scheme.(NFBS). Previously the person of the age of 65 and above and living below poverty line were assisted under IGNOAPS and from the year 2011-12 the age limit has been lowered to 60 years. The comparative achievement under different schemes of NSAP during the 2009-10 and 2010-11 is given below.

ACHIEVEMENT OF SCHEMES UNDER NSAP

Name of the scheme	2009-10 (in nos)		2010-11 (in nos)	
	Target	Achievement	Target	Achievement
Indira Gandhi National Old Age Pension Scheme(IGNOAPS)	629949	629949	629949	629949
Indira Gandhi National Widow Pension Scheme(IGNWPS)	201557	Nil	159473	Nil
Indira Gandhi National Disable Scheme(IGNDPS)	86839	Nil	47068	Nil

NSAP is a central sector (Earmarked fund) scheme. Fund of which is borne by the Govt. of India on 100 percent basis. However, the State Govt. is to pay the Minimum Mandatory Provision (MMP) under IGNOAPS @ ₹50 per month against the Govt. of India's share of ₹200 per month. There is no such MMP provision for rest of the schemes. Govt. of India has taken decision for providing ₹500/-pm under IGNOAPS for those who have attained the age of 80 and above.

Backward Region Grant Fund (BRGF)

It is a scheme of 100 percent grants by Govt. of India. Under BRGF the following districts have been covered in the State viz, Kokrajhar, Bongaigaon, Goalpara, Barpeta, Morigaon, Dhemaji, Lakhimpur, Cachar, Karbi-Anglong & Dima-Hasao (N.C.Hills). The fund under this scheme is flexible for taking up any scheme to meet the critical gaps for development of the backward areas both in rural and urban areas. During the year 2010-11, ₹65.34 crore was released to different districts of which ₹38.26 crore was spent.

IWDP/Hariyali

The objective of the programme is to-

(a) Develop the wasteland/degraded lands, drought prone and desert areas on watershed basis, keeping in view the capacity of land, site conditions and local needs.

(b) Promote the overall economic development and improving the social condition of the poor and disadvantaged section inhabiting the programme area.

(c) Restore ecological balance by harnessing, conserving and developing natural resources in land, water and vegetative cover.

(d) Employment generation, poverty alleviation, community empowerment and development of human and other economic resources.

Out of the total 149 sanctioned projects 135 nos of incomplete projects are now in implementation in the State during the year 2010-11. The modified Integrated Wasteland Management Schemes have now been entrusted with the Soil Conservation Department for implementation.

State Plan Schemes

District Development Plan (DDP)

It has been implemented in all the 21 PRI districts of the State since 2007-08. During the year 2010-11, **₹117.86** crore was allocated and released to different Zilla Parishads of the State for taking up schemes approved by District Planning Committee. Schemes of all 12 sectors/sub-sectors have been taken up under DDP for creation of development infrastructure both in rural and urban areas. The fund is now being utilised through the Urban Local Bodies and Rural Local Bodies. Previously, the schemes were implemented through line departments. The schemes are flexible under the DDP for economic growth and development of the undeveloped areas. From the year 2011-12 funding pattern will be changed for implementing agencies. The rural areas fund will be shared by Gaon Panchayat (50 percent), Anchalic Panchayat (30 percent) and Zilla Parishad (20 percent). The 100 percent fund for urban areas is utilised by the municipality bodies and town committees.

Chief Minister Assam Vikash Yojana

Under this schemes fund released for providing Rickshaw and Goods Carriers to the BPL Families of rural areas who are willing to undertake the activities of Rickshaw and Goods Carrier pullling. The Department has fixed the target for 2010-11 to provide **4414** nos of Rickshaw and **6334** nos of Goods Carrier, designed by Indian Institution of Technology, Guwahati.

Chief Minister's Special Programmes implemented during 2010-11

(i) Providing 2 bundles of CI Sheets with ₹2000/- as cash to the BPL/Poor houseless/shelterless people/erosion effected landslide affected and wild animal depredation. Total beneficiaries were 125000.

(ii) Assistance to 5000 Marginal Entrepreneurs @₹10000/- for upgrading their entrepreneurship.

(iii) Chief Minister's Special Employment Generation Scheme benefited 27917 unemployed youth through State Institution of Rural Development.

Achievement by SIRD

During the year 2010-11, the State Institute of Rural Development trained 4065 nos of beneficiaries under skill development. Under Chief Minister's Jeevan Jyoti Swaniyojan Yojana, 3473 numbers of beneficiaries and 8148 numbers of unemployed youths were trained and assisted respectively against the total beneficiaries and unemployed youth trained under same scheme was **10065** numbers during 2009-10.

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APPENDIX – 18.1

DISTRICT WISE PHYSICAL ACHIEVEMENT UNDER SGSY IN ASSAM, 2010-11

District	No. of SHG formed		No. of SHG taken up economic activity		No. of women SHGs formed		No. of women SHGs takenup Economic activities during this year
	Total since 1.4.99	During the current year	Total since 1.4.99	During the current year	Total since 1.4.99	During the current year	
Dhubri	13919	1604	5771	934	6849	769	403
Kokrajhar	4060	346	3038	337	2757	190	126
Bongaigaon	6132	1512	2159	509	3143	907	309
Goalpara	7353	1264	2434	477	5145	390	280
Barpeta	11730	678	4956	780	6678	479	501
Nalbari	8950	578	2486	229	5702	374	263
Kamrup	12110	1128	3957	867	8807	760	562
Kamrup (M)	1618	47	314	64	1370	39	57
Darrang	8868	151	1922	496	2530	99	297
Sonitpur	23550	848	10600	1024	17379	545	699
Lakhimpur	10569	1101	1671	272	6180	625	158
Dhemaji	6270	690	1695	330	3950	460	158
Morigaon	8140	1459	3696	706	5751	635	260
Nagaon	20590	2331	5592	1160	12630	1233	336
Golaghat	6997	320	1878	300	4870	190	653
Jorhat	10850	811	5164	650	7940	488	263
Sivasagar	9075	859	4667	1025	8213	729	624
Dibrugarh	10394	1703	2903	358	9253	1516	619
Tinsukia	6466	1277	2059	450	2876	178	322
Karbi Anglong	4690	150	992	161	4215	131	430
Dima Hasao	1101	47	499	58	630	25	59
Karimganj	7934	1649	3546	1555	3236	1245	46
Hailakandi	4459	870	1287	287	1933	535	176
Cachar	9010	1901	2418	625	3635	422	495
Baksa	10338	1292	1483	263	7844	486	1130
Udalguri	6888	138	1681	347	4165	124	325
Chirang	3586	443	1348	234	2655	360	164
Assam	**235648**	**25197**	**80216**	**14498**	**150336**	**13934**	**9592**

Source : Directorate of Panchayat and Rural Development, Assam.

APPENDIX – 18.2

DISTRICT WISE PERSONDAYS UNDER MGNREGA 2010-11

(in Lakh)

Name of the District	SC	ST	Others	Total	Women
Bongaigaon	0.44624	0.23664	11.55535	12.23823	4.42035
Dhemaji	0.52505	5.88528	17.83514	24.24547	7.26897
Goalpara	0.63124	4.537	10.83344	16.00168	5.27555
Karbi Anglong	0.55043	11.57574	4.4725	16.59867	5.66361
Kokrajhar	0.32837	6.85143	6.1759	13.3557	4.73086
Lakhimpur	0.76984	4.91473	11.55015	17.23472	3.84728
Dima Hasao	0.03744	2.23707	0.17657	2.45108	0.74659
Barpeta	0.44826	0.22713	13.94949	14.62488	4.22433
Cachar	0.5673	0.11488	7.36087	8.04305	1.21369
Darrang	0.46269	0.0469	16.24318	16.75277	1.99607
Hailakandi	1.21328	0.31768	12.34502	13.87598	2.38523
Morigaon	2.36438	3.23948	17.75101	23.35487	2.87538
Nalbari	0.51521	0.42741	9.34553	10.28815	1.26405
Baksha	1.45846	6.27807	8.18344	15.91997	4.83697
Chirang	0.56696	4.19107	5.19891	9.95694	3.37097
Dhubri	0.27609	0.04091	19.33124	19.64824	4.63628
Dibrugarh	0.28831	0.9979	8.39761	9.68382	2.47138
Golaghat	0.71754	1.39754	10.30572	12.4208	2.77581
Jorhat	0.70817	1.18648	4.75574	6.65039	1.00586
Kamrup	1.44096	2.44866	13.62856	17.51818	3.0277
Kamrup (M)	0.38656	0.30617	0.86309	1.55582	0.72222
Karimganj	1.86478	0.14142	8.27222	10.27842	1.19921
Nagaon	0.76744	0.4622	11.67693	12.90657	1.43468
Sivasagar	0.17574	0.27298	6.71915	7.16787	1.47523
Sonitpur	0.99802	1.41866	12.63204	15.04872	4.35186
Tinsukia	0.13614	0.63382	6.60625	7.37621	1.58448
Udalguri	1.13108	9.55379	12.41622	23.10109	5.0368
Total	**19.78**	**69.94**	**268.58**	**358.30**	**83.84**

Source : Directorate of Panchayat and Rural Development, Assam.

APPENDIX – 18.3

DISTRICT-WISE JOB CARDS ISSUED AND EMPLOYMENT PROVIDED IN ASSAM 2010-11

District	Total nos.Job Cards Issued	No. of households demanded employment	No. of Household priovided employement	No. of household provided 100 days employment	No. of Disabled persons privided employment
Dhubri	188991	71885	71697	471	14
Kokrajhar	169713	39155	38051	2302	108
Bongaigaon	112386	46344	46000	1498	101
Goalpara	157211	79263	79059	879	50
Barpeta	250235	57989	57620	1137	274
Nalbari	95442	44013	43917	329	24
Kamrup	195335	62123	62080	747	70
Kamrup(M)	36606	10921	10735	51	1
Darrang	147133	55545	55468	1084	38
Sonitpur	208267	85371	81453	89	573
Lakhimpur	171190	63524	62961	1067	104
Dhemaji	108267	60378	59817	6491	223
Morigaon	129016	65826	65818	496	15
Nagaon	195605	64355	64153	118	44
Golaghat	126098	60951	60882	316	36
Jorhat	97592	31828	31812	365	2
Sivasagar	101610	38406	38288	164	63
Dibrugarh	114251	48060	47711	163	31
Tinsukia	113465	34468	34466	178	32
Karbi-Anglong	190120	98901	98239	220	70
Dima-Hasao	39534	13906	13810	24	2
Karimganj	168969	44170	44093	163	44
Hailakandi	117513	71285	70512	135	52
Cachar	179483	42710	42431	127	13
Baksa	141389	59259	58527	1346	129
Udalguri	109073	57999	57796	1745	18
Chirang	105065	35054	35028	792	21
ASSAM	3769559	1443689	1432424	22497	2152

Source : Directorate of Panchayat and Rural Development, Assam.

CHAPTER-XIX

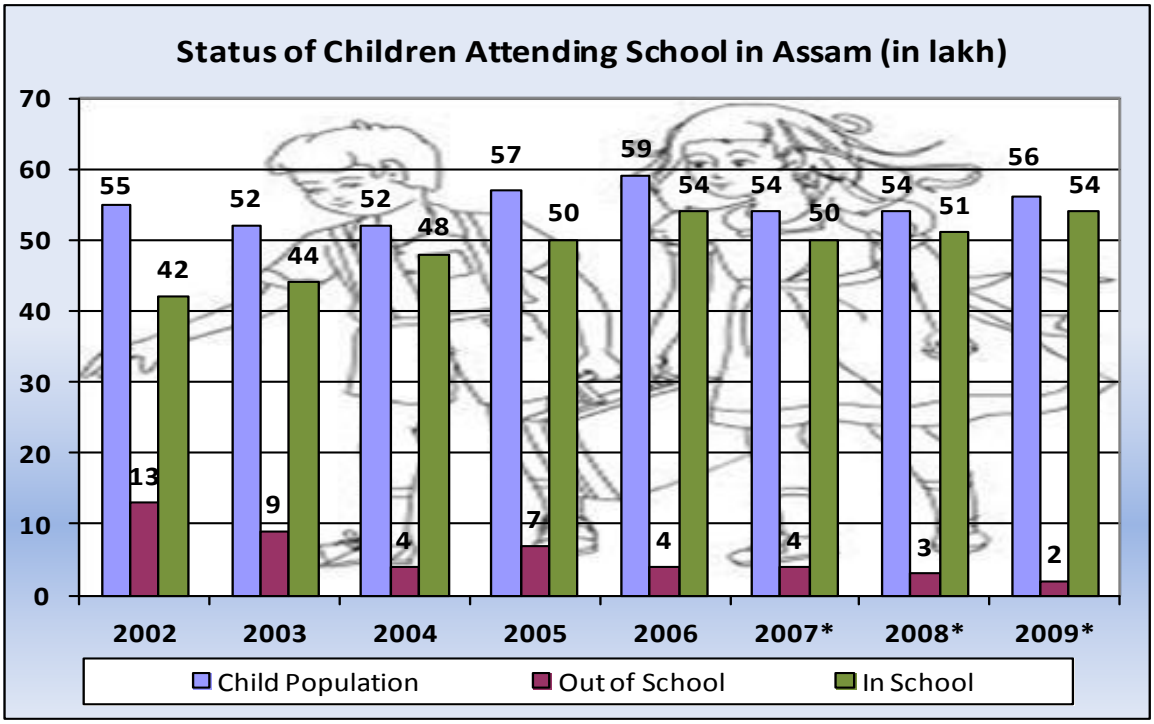
SOCIAL SECTOR

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. The Right To Education (RTE) Act is also implemented in the State for overall improvement of elementary education.

Educational Progress

Literacy rate of Assam is 73.18 percent, as per Census 2011, which is behind the national average of 74.04 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 institutions 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. The status of child population, school going and out of school children in Assam from 2002 to 2009 is shown in the table-19.1. The percentage of out of school during 2009 was 4 which was an improvement over 6 percent in 2008 and a remarkable achievement over 24 percent in 2002.



2002 to 2006 : Child Population 5-14 years

*Child population 6-14 years

Source: District Information System on Education, Sarva Siksha Abhijan (SSA)

Elementary Education

The Sarva Sikhsa Abhijan (SSA) is responsible to provide education upto the age of 14 years, a fundamental right of every child. The framework of Sarva Sikhsa 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.

During 2010-11, the number of children in the School has increased as compared to the previous year. The number of primary schools has increased due to upgradation of EGS and opening of new schools in 2010-11.

TABLE-19.1
SCHOOL FACILITATED UNDER SARVA SIKSHSA ABHIJAN (SSA), 2010-11

Category	Govt/ Provincialised			
	School	Teacher	Enrolment	PTR
	2010-11	2010-11	2010-11	2010-11
Primary	35065*	81554	2655582	32.6
Middle Schools	13985	100477	2156110	21.5

* Includes 5015 EGS upgraded to Primary Schools.
PTR: Pupil Teacher Ratio
Source: Sarva Siksha Abhijan.

It has been the constant effort of the State Government to improve the elementary education system in Assam. The Table below shows a significant increase in the number of Primary schools in 2010-11 over the decades. Effort has been put to increase the number of teachers and enrolments in Primary and middle Schools through education for all. The trend of the number of teachers at Primary & Middle Schools and enrolments at both the levels of elementary education since 1951-52 is reflected in the Table 19.2.

TABLE-19.2
STATISTICS OF ELEMENTARY EDUCATION IN GOVT/ PROVINCIALISED SCHOOL IN THE STATE

Year	Primary				Middle School			
	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
2010-11	35065	2655582	81554	33	12985	2156110	100477	22

PTR: Pupil Teacher Ratio.
Source: State Education Department, Assam & Sarva Siksha Abhijan.

The Pupil-Teacher ratio at Primary and Middle School in the State has been found satisfactory but statistics reveals that there is still a good number of Primary and middle schools run by a single teacher. Initiative has been taken by the Education Department for uniform distribution of teachers through new appointments and other administrative measures. To make the appointment process more transparent the State Government has decided to recruit more teachers through Teacher Eligibility Test (TET).

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 children 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 – 19.3

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 Government 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 ₹13395.00 lakh has been received in the Annual Plan 2010-11 for implementation of the development schemes under elementary education, Assam. The State share to Sarva Siksha Abhijan is ₹6000.00 lakh. The total amount for elementary education in the Annual Plan 2011-12 is ₹23721.32 lakh which includes the State share of ₹6000.00 lakh to Sarva Siksha Abhijan. The table 19.4 shows the pattern of budget allocation, amount received and utilised from 2001-02 to 2009-10 under elementary education.

TABLE – 19.4

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	11590.00	11590.00

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.

The programme covered all Government and Provincialised Primary schools and Upper Primary schools receiving financial assistance from Education Guarantee Scheme (EGS) and Alternative Innovative Education (AIE) centres. It has been proposed to cover all the aforementioned schools/centres as well as their enrolment from class I to VIII. During 2010-11 number of days provided Mid day Meal in Primary School was 210 and Upper Primary 220 days. Total number of meal provided during 2010-11 to children attending Primary school is 32,54,840 and Upper Primary 17,97,213. The State Government 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 has decided for giving honorarium to cook cum helper @ ₹1000.00 per month and the 10 percent of the total honorarium is to be borne by the State as State share. 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 Government of India.

In Assam**, t**he 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 strategic primary focus of the programme is on women, Scheduled Castes, Scheduled Tribes, Backward Communities, Char Areas, Hill Areas and Tea Tribes to achieve 80 percent literacy within 2012 as stipulated in Saakshar Bharat Mission. 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). The scheme of literacy Centre for working child labour started during 2009-10 has been continued and an amount of ₹10.00 lakh is proposed in the Annual Plan 2011-12 for the purpose.

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 Institutions 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.

An outlay of ₹10474.00 lakh has been proposed for the Annual Plan (2011-2012) under the State Plan.

TECHNICAL EDUCATION:

Engineering Colleges

Assam at present have two State Engineering College along with another two Engineering College under society act, nine Polytechnics and two Junior Technical School under the Directorate of Technical Education.

In comparison to all India the ratio of degree level and Diploma level institutions are very less in the State. To boost technical education in the State, Assam Government has decided to establish an Women University, one University of Science and Technology, three new Engineering colleges and three polytechnics in the State. The State Government has also proposed to upgrade some branches of existing two Polytechnics to Degree level and upgrade the two Junior Technical Schools to Diploma level institution during the Eleventh Five Year Plan.

The main objective of the Eleventh Five Year Plan are as follows:

- Consolidation and qualitative improvement programme.
- Infrastructural development.
- Improvement of overall institutional efficiency.
- Diversification of courses.
- Completion of Tezpur Polytechnic.
- Release of existing and due liabilities to Dibrugarh University.
- To establish three new State Engineering College.
- Establishment of a University of Science and Technology.

To achieve the above mentioned goals during the Annual Plan 2011-12 an outlay of ₹4542.00 lakh is proposed.

Centrally Sponsored Schemes

- P G Course in Watershed Management and Flood control at Assam Engineering College with 100 percent 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 percent Central Share;

- MCA at Assam Engineering College, Guwahati and Jorhat Engineering College, Jorhat with 100 percent Central Share;
- Community Polytechnic Scheme with 100 percent Central Share;
- Post Diploma Course in Computer Application with 100% Central Share;
- NEC Scholarship & Book-grant to the meritorious students with 90 percent Central Share.

An outlay of ₹263.00 lakh is proposed to provide during the Annual Plan 2011-12 under Centrally Sponsored Scheme.

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. The JTS, Sivasagar is presently functioning temporarily at the Sivasagar Boys' H S School. It is therefore, proposed to construct a permanent building in the allotted plot during the Eleventh Five Year Plan.

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 ₹500.00 lakh is proposed to achieve these goals in the Annual Plan 2011-2012.

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 2009. 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 Guwahati Medical College.

Srimanta Sankardeva University of Health Sciences has been established to monitor and to suitably strengthen the medical education in the State. The University has started functioning.

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 Ayurveda College in the State under medical education.

Health Education & School Health Services:

These schemes are functioning in all the districts of Assam and have to be strengthened during the Eleventh Five Year Plan. School Health Services are being carried out by 23 School Health Service units in the State. The main objective of the scheme is to carry out Health examination of School students from Primary to High Schools.

HIGHER EDUCATION :

Status of Institutions under Higher Education in 2009-2010

1. Gauhati 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. Assam 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.

Public 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. Some of the major health facilities are shown in the Table-19.5

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 and 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 -19.6

TABLE – 19.5
HEALTH INFRASTUCTURE IN THE STATE
(Figures in number)

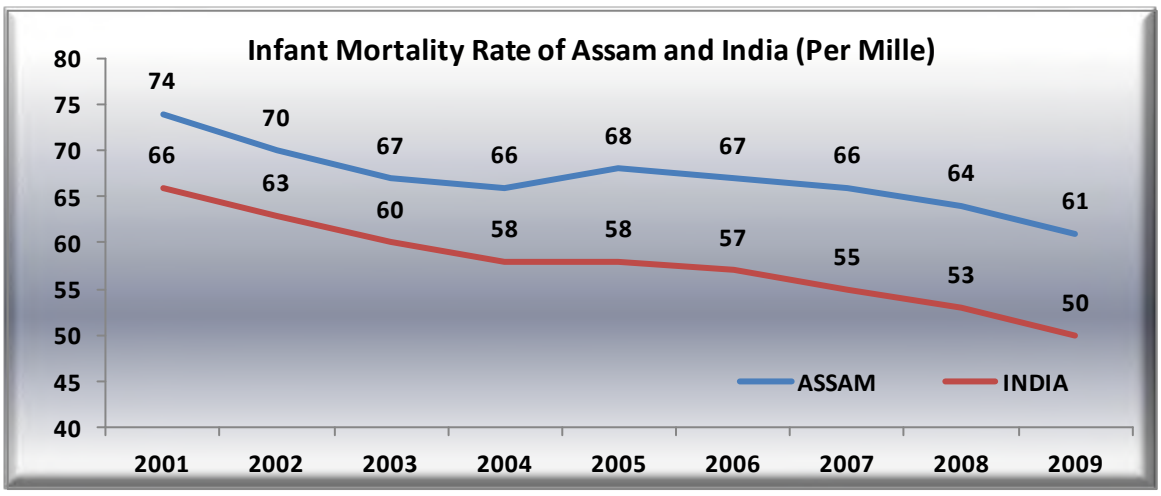
Public Health Facility	Number
State Level Hospital	1 (MMC Hospital in Guwahati)
District Hospital (DH)	22
Sub Divisional civil Hospital	13
Primary Health Center	844
Community Health Center	106
Block PHC	924
State Dispensary (SD)	261
First Refferal Unit (FRU)	38
Mini PHC	2104
Sub-Centre	4592
Regional Nursing College	1
GNM Training Cenre	15
ANM Training Centre	18
Ayurvedic college Hospital	1
Homeopathic Hospital	3
Cancer Hospital	1
Regional Dental College	1
Tuberculosis Hospital	3
Leprosy Hospital	3
Private Health Facility	
Nursing Home	205
Clinic/Poly Clinic	26
No. of Diagnostic Centre	212

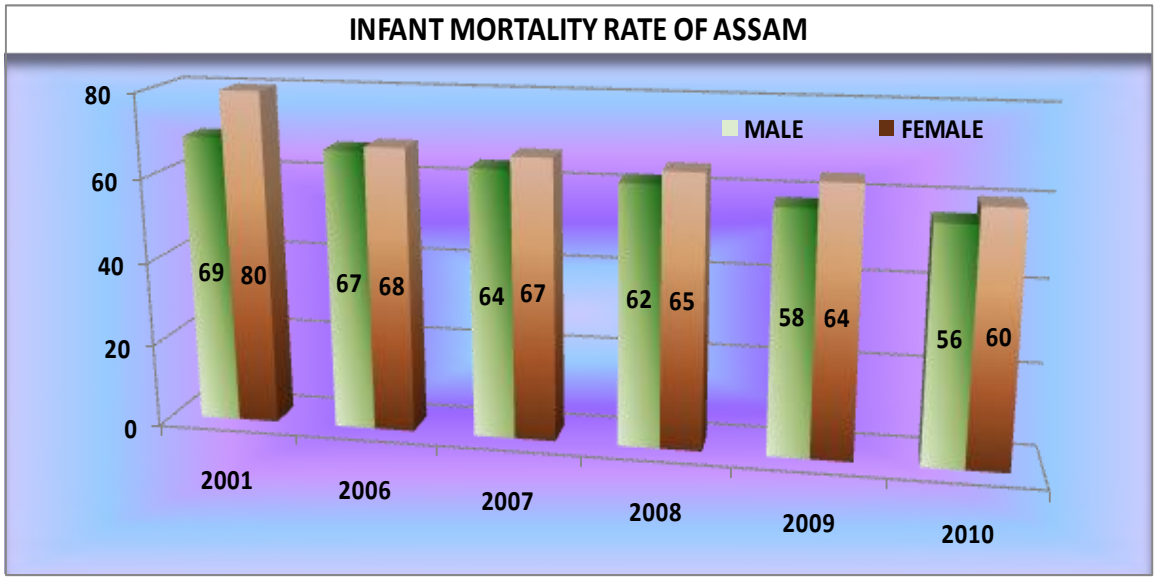
Source: Directorate of Health Services, Assam.

TABLE – 19.6
STATUS OF SELECTED HEALTH INDICATORS

Health Indicators	Target under XI Five Year Plan	2001	2008	2009	2010
Crude Birth Rate	18	27.0	23.9	23.6	23.2
Crude Death Rate	6.4	9.6	8.6	8.4	8.2
Infant Mortality Rate	25	74	64	61	58

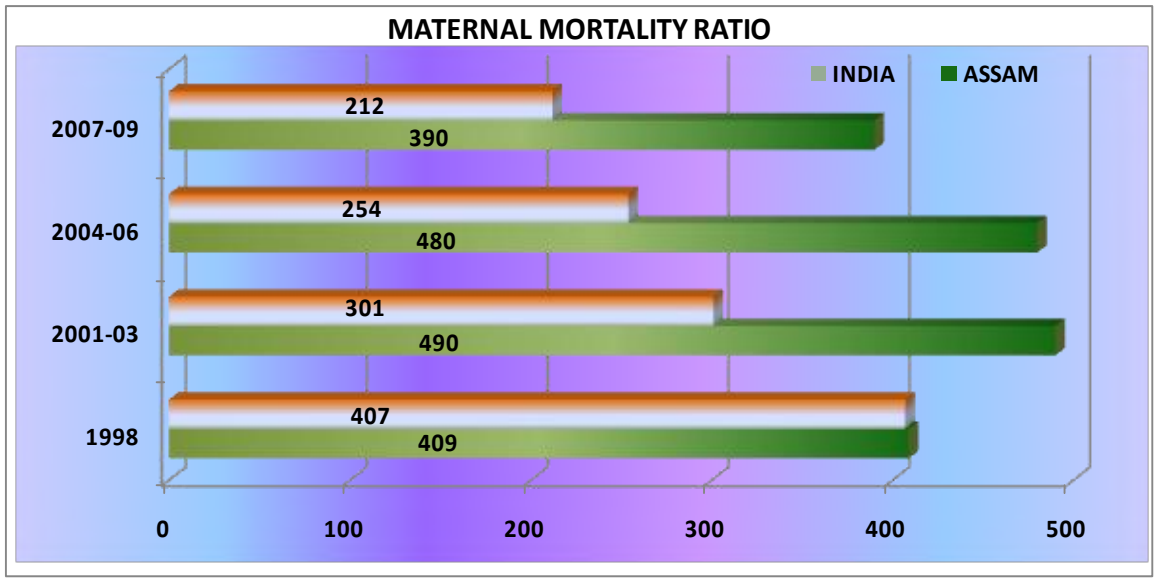
Source: Sample Registration Bulletin, R.G.I. New Delhi.





The Infant Mortality Rate (IMR) is a very serious indicator to judge the health status of a society. In Assam IMR has been declining in a very positive way but the IMR of the State is still higher than the national average 47 in 2010.

Reduction of women mortality in child birth is an area of serious concern for the Governments across the globe. The Millennium Development Goals (MDG) of the United Nations has set the target of achieving 200 maternal deaths per lakh live births by 2007 and 109 per lakh of live births by 2015. The Maternal Mortality Ratio (MMR) is the highest in Assam in all over the country.



The State Government Have taken various Steps to curtail the MMR by implementing various schemes, as in the following:

- 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
- 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.
- To improve the manpower in rural areas a Diploma course in Medical and Rural Health Care has been introduced to provide promt and easy heaith services at door step in rural area.

- 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.
- 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.

Achievement during Eleventh Five Year Plan

Eleventh Five Year Plan is prepared with a view to provide Health care facilities to people living in rural, urban and semi –urban areas at an affordable cost and at door-step.

Community Health Centres (CHCs) and District Civil Hospitals will be provided with modern diagnostic facilities in phased manner. Trauma Centres will be set up to provide Accidents and Emergency care services in Civil Hospitals situated on National Highways.

For a healthy society the number of of PHS, CHC, Sub-Centre, etc are still less than the requirement. During the Eleventh Five Year Plan these requirement of health institution in the State are trying to cover up. The requirement and achievement of Sub-Centre, PHC and CHC are as follows:

INSTITUTION	TOTAL REQUIREMENT FOR THE STATE	ACHIEVEMENT MADE UP TO 31-03-2010
Sub-Centre	5133	5109
Primary Health Centre (PHC)	855	610
Community Health Centre (CHC)	214	100

Primary Health Care

For providing Primary Health Care facilities at the grass-root level, PHCs will be provided with better diagnostic and treatment facilities. In order to bridge the gape deficiency, more PHCs and sub-centres are proposed to be constructed.

Secondary Health Care

Community Health Centres (CHCs) are being upgraded to First Referral Units (FRUs) with facilities for Surgery and Maternaty Health Care. Reasonable amount of capital expenditure for PHCs and CHCs will be incurred as part of the spill-over work of the 10th Five Year Plan.

Training

Training will be imparted to Medical and Para- Medical personnel in a phased manner.

Some Proposals for Annual Plan -2011-12

The Annual Plan 2011-12 has a proposed allocation of ₹43446.00 lakhs. This allocation will be utilized for carrying out programmes under General Area.

Control of Communicable Diseases

(i) Communicable diseases include Malaria and other vector-borne diseases. It is a 100 percent Centrally Sponsored Scheme (CSS) and launched under societies.

(ii) Facilities at Infectious Diseases Hospital in Kalapahar, Guwahati are being developed for treatment of Diarrhoeal and other water borne diseases.

Tuberculosis and Leprosy

Revised National Tuberculosis Control Programme (R.N.T.C.P.) and Leprosy Control Programme are being carried out with fund from Govt. of India These two schemes are normalized.

Control of Non- Communicable Diseases.

Control of Blindness:

Incidence of Blindness:

The National Programme for Control of Blindness was launched in 1976 as 100 percent Centrally Sponsored Scheme (CSS). District Blindness Control Societies have been established in all districts of Assam.

Incidence of Cancers:

Cancer Control Programme has been launched in the State considering the rise in the incidence of cancers as by Govt.of India's guideline. In the 1st phase, early cancer Detection Centres has been set up in Jorhat, Dhubri and Cachar. Two more Centres will be started in Darrang and Barpeta.

Other Programme:

Health Education & School Health Services:

These two schemes are functioning in all districts of Assam. The existing units need to be strengthened during the 11th Five Year Plan.

Schools Health Services are being carried out by 23 school Health Service Units in the State. The main objective of the Scheme is to carry out Health Examination of School students from L.P. school stage up to High schools run by Govt. Private Schools.

Family Welfare:

The Family Welfare Programme. is being implemented in the State since 1956 to reduce the birth rate to stabiles the population, and to improve the health of mothers and child. At present Family Welfare Programme is implemented under National Rural Health Mission (NRHM) a centrally sponsored programme . 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.. Performance of Family Welfare programme is shown in the following table. The proposed outlay (State share) for NRHM is ₹16474.00 lakh for Annual Plan 2011-12.

TABLE-19.7

Name of Scheme	2009-10		2010-11		2011-12 upto Nov.	
	Target	Achievement (in %)	Target	Achievement	Target	Achievement (in %)
Sterilization	127000	63.89	127000	34.21	NA	NA
I.U.D.Insertion	90000	44.52	90000	57.20	90000	52.51
C.C Users	90000	55.84	90000	77.95	90000	66.88
O.P.Users	90000	75.07	90000	94.62	90000	84.10

Immunization Programme:

Immunization of children against 6 (six) vaccine preventable diseases (TB, Diphtheria, pertusis, Poliomyelitis and Measles) has been carried on in our State also on a priority basis. Children (below one years of age) who have received BCG, Measles and three doses each of DPT & Oral Polio Vaccine are considered to be Fully Immunized. Besides expectant mother are vaccinated with Tetanus Toxoid (TT) these activities are covered under the Universal immunization Programme (UIP).

During the year 2010-11, the state has achieved 86.67 percent with full Immunization of 5861.35 children (below 1 year of age) out of its annual target. During the year 2009-10, the state has achieved 81.54 percent, i.e.566,172 number children (below 1 year) with full immunization, out of the annual target set for 694349 children (below 1 year of age) and TT coverage was 73.71 percent, i.e. 601,482 ,the annual target was set for 816012 Pregnant women. It is found that during the year 2010-11, the State has shown improvement on Immunization Activities over the achievement of the previous year 2009-10.

In the current year, i.e. 2011-12 the State has achieved 51.84 percent (up to Nov' 11) fully Immunized children (Below 1 years of age) and TT Coverage was 58.78 percent (up to Nov' 11) out of its annual target. The state is trying to extend the services of immunization Programme for the Hepatitis-B vaccine to infant children all over the state which was being prevalent only in two districts of Assam i.e. Jorhat and Sivasagar. After, Completion of Measles Supplementary Immunization Activity Campaign during the year 2010-11 in Morigaon district the 2nd dose has been introduced in Routine Immunization.

JE Vaccination is also being carried out in 9 districts in Routine Immunization programme with inclusion of 2 (two) new districts during 2011-12 i.e. Nagaon and Udalguri districts.

The Pulse Polio Immunization Programme has also been implemented in the state in successful manner. It may be stated that the Universal Immunization Programme in the State is taking a positive step to bring down the Infant Mortality Rate. The target and achievement in last three years can be seen from the following table.

TABLE-19.8

THE ACHIEVEMENT OF IMMUNIZATION PROGRAMME IN THE STATE

Year	Antigen	Target	Achievement	Percent
2009-2010	DPT 3	710332	614009	86.44
	OPV 3	710332	611994	86.16
	BCG	710332	657555	92.57
	Measles	710332	598334	84.23
	Fully Imm	710332	579217	81.54
	TT (PW)	808001	595597	73.71
	HEP-B (JORHAT & SIVASAGAR)			
	HEP-B 1	54827	39698	72.41
	HEP-B 2	54827	39934	72.84
	HEP- B 3	54827	39094	71.30
2010-2011	DPT 3	676265	614202	90.82
	OPV 3	676265	612723	90.60
	BCG	676265	665172	98.36
	Measles	676265	601018	88.87
	Fully Imm	676265	586135	86.67
	TT (PW)	754892	609247	80.71
	HEP-B (JORHAT & SIVASAGAR)			
	HEP-B 1	52333	39273	75.04
	HEP-B 2	52333	38936	74.40
	HEP- B 3	52333	38634	73.82
2011-2012 (Up to Nov.2011)	DPT 3	694349	393902	56.73
	OPV 3	694349	365450	52.63
	BCG	694349	453003	65.24
	Measles	694349	447252	64.41
	Fully Imm	694349	359961	51.84
	TT (PW)	816012	479632	58.78
	HEP-B (JORHAT & SIVASAGAR)			
	HEP-B 1	465217	51747	10.91
	HEP-B 2	465217	32027	6.88
	HEP- B 3	465217	25963	5.58

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 percent) are covered by goods number of water supply schemes due to quality problem and sustainability of sources as well as lack of people's 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

Annual Plan- 2011-12

A Physical target is set to render water supply benefit to 4500 nos. of uncovered habitations and 5500 nos. of quality affected habitations during 2011-12 under rural water supply sector and for achieving this target ₹21482.00 lakh under State plan in general areas and ₹58425.00 lakh under central sector is proposed.

Again, under Rural Sanitation Sector it is targeted to construct 1063000 nos. of Individual Household Latrine and 113 nos. of community sanitary complex at a projected cost of ₹5600.00 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.

Achievement

The achievement of National Rural Water Supply Programme on rural drinking water availability may be seen from the following:

Year	Habitation covered		School covered	
	Target	Achievement	Target	Achievement
2010-11	8157	6467 (79%)	2725	630 (23%)

The Achievement of Total Sanitation Campaign (TSC) during the year 2010-11 are as follows:

Year	Individual Household Latrine				School Toilets		Anganwadi Toilets	Community Sanitary	Expenditure incurred
	Sanction Target		Achievement		Sanction Target	Achieve-ment			(₹ in lakh)
	BPL	APL	BPL	APL					
2010-11	414742	84107	414742 (100%)	84107 (100%)	3345	4528 (135%)	1004	8	10161.15

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APPENDIX – 19.1

DISTRICT-WISE NUMBER OF EDUCATIONAL INSTITUTE IN ASSAM, 2010-11

Sl. No.	District	Number of Institute				
		Primary School	Middle School	High School	Higher Secondary School	Junior College
1	Dhubri	1312	346	190	38	4
2	Kokrajhar	1051	139	128	12	5
3	Chirang	582	67	80	10	1
4	Bongaigaon	555	136	151	25	10
5	Goalpara	941	213	198	30	2
6	Barpeta	1514	296	374	40	21
7	Nalbari	834	154	194	46	21
8	Baksa	1115	203	202	15	3
9	Kamrup (Rural+Metro)	2025	405	578	74	19
10	Darrang	678	96	192	40	10
11	Udalguri	841	112	266	44	5
12	Sonitpur	1313	203	137	30	0
13	Lakhimpur	1366	338	333	27	12
14	Dhemaji	847	168	246	35	15
15	Morigaon	815	179	141	22	6
16	Nagaon	2008	438	377	130	3
17	Golaghat	1002	235	274	23	4
18	Jorhat	1566	322	280	65	8
19	Sivasagar	1184	237	195	40	11
20	Dibrugarh	1710	318	251	28	2
21	Tinsukia	839	154	243	31	10
22	Karbi-Anglong	1405	205	225	11	2
23	Dima Hasao	691	108	89	9	6
24	Karimganj	1244	240	89	24	6
25	Hailakandi	1609	299	55	15	11
26	Cachar	1003	238	226	69	21
Assam		**30050**	**5849**	**5714**	**933**	**217**

Source: Directorate of Secondary Education, Assam.

APPENDIX – 19.2

DISTRICT-WISE NUMBER OF HOSPITAL, S.D.C.H., P.H.C., F.R.U., C.H.C. & SUB-CENTRE

Sl. No.	District	Hospital	S.D.C.H.	P.H.C.	F.R.U.	C.H.C.	Sub-Centre
1	Dhubri	1	1	34	1	5	246
2	Kokrajhar	1	1	42	1	2	163
3	Chirang	0	0	21	0	2	76
4	Bongaigaon	0	0	27	2	3	58
5	Goalpara	1	0	33	1	1	151
6	Barpeta	1	1	36	2	6	264
7	Nalbari	1	0	40	2	6	121
8	Baksa	0	0	40	0	5	159
9	Kamrup Metro	1	0	54	1	1	52
10	Kamrup	1	1	21	5	9	298
11	Darrang	1	0	25	1	3	163
12	Udalguri	0	0	23	0	3	142
13	Sonitpur	1	2	47	2	4	281
14	Lakhimpur	1	1	26	1	5	156
15	Dhemaji	1	0	19	0	3	98
16	Morigaon	1	0	26	1	2	125
17	Nagaon	1	0	58	6	9	368
18	Golaghat	1	1	38	1	5	144
19	Jorhat	1	2	39	3	5	142
20	Sivasagar	1	2	33	3	2	222
21	Dibrugarh	0	0	26	2	5	240
22	Tinsukia	1	0	19	3	4	164
23	Karbi-Anglong	1	1	46	0	5	103
24	Dima Hasao	1	0	10	0	2	65
25	Karimganj	1	0	22	0	1	217
26	Hailakandi	1	0	12	0	4	105
27	Cachar	1	0	27	0	4	269
Assam		**22**	**13**	**844**	**38**	**106**	**4592**

Source :Directorate of Health Service, Assam.

APPENDIX – 19.3

DISTRICT WISE BIRTHS & DEATH REGISTERED DURING 2010

Sl. No.	District	Current Year Registration		Delayed Registration		Total	
		Birth	Death	Birth	Death	Birth	Death
1	Dhubri	33344	5736	3732	348	37076	6084
2	Kokrajhar	19356	3031	1104	382	20460	3413
3	Chirang	5340	1238	912	804	6252	2042
4	Bongaigaon	13670	2314	2604	564	16274	2878
5	Goalpara	18928	2064	1152	336	20080	2400
6	Barpeta	31278	6112	4113	489	35391	6601
7	Nalbari	16450	2345	2041	312	18491	2657
8	Baksa	12430	3456	104	37	12534	3493
9	Kamrup (Rural+Metro)	30117	3867	16742	3621	46859	13488
10	Darrang	18670	4123	2146	410	20816	4533
11	Udalguri	11276	2354	1164	156	12440	2510
12	Sonitpur	28726	6017	2096	319	30822	6336
13	Lakhimpur	18699	2617	1964	211	2063	2828
14	Dhemaji	12340	1089	2004	384	14344	1473
15	Morigaon	16832	2520	904	372	17736	2892
16	Nagaon	49626	8613	5629	672	55255	9285
17	Golaghat	17989	3908	1672	503	19661	4411
18	Jorhat	20056	3744	4560	804	24616	4548
19	Sivasagar	19778	2767	1862	401	21640	3168
20	Dibrugarh	20643	3119	3686	336	24329	3455
21	Tinsukia	19916	3256	4872	396	24788	3652
22	Karbi-Anglong	16786	2348	1284	219	18070	2567
23	Dima Hasao	3648	654	532	516	4180	1170
24	Karimganj	20782	3611	3605	412	24387	4023
25	Hailakandi	12560	1848	996	432	13556	2280
26	Cachar	30042	5117	6781	682	36823	5799
Assam		**519232**	**93868**	**78261**	**14118**	**597543**	**107386**

Source :Directorate of Health Service, Assam.

APPENDIX – 19.4

ACHIEVEMENT IN FAMILY WELFARE PROGRAMME IN ASSAM, 2010-11

District	Sterilization		I.U.D.	
	Target	Percentage of achievement	Target	Percentage of achievement
Dhubri	6060	22.76	4900	80.45
Kokrajhar	3690	19.76	3220	64.07
Chirang	1530	0.59	1200	66.67
Bongaigaon	3550	33.69	2110	48.90
Goalpara	3570	65.80	3080	68.15
Barpeta	8130	35.40	5180	51.56
Nalbari	5510	47.99	3230	33.25
Baksa	2900	6.17	1800	40.50
KamrupMetro	4730	164.12	3000	148.57
Kamrup	7990	53.80	4610	78.16
Darrang	3880	51.03	3280	32.01
Udalguri	3230	39.47	1800	42.39
Sonitpur	7750	67.03	5380	37.58
Lakhimpur	4760	112.08	3550	60.76
Dhemaji	2660	173.53	2380	84.54
Morigaon	3410	64.31	3300	34.48
Nagaon	10730	49.31	5770	47.09
Golaghat	4310	65.24	3390	63.39
Jorhat	4900	115.41	3410	73.02
Sivasagar	5680	64.17	3950	43.87
Dibrugarh	5540	91.26	3800	73.55
Tinsukia	5250	74.04	3740	30.03
Karbi-Anglong	3300	7.73	2940	66.63
Dima Hasao	730	19.32	940	26.17
Karimganj	4450	41.57	3020	28.38
Hailakandi	2300	108.00	2200	53.23
Cachar	6460	93.19	4820	54.54
Assam	**127000**	**63.89**	**90000**	**57.20**

Source :Directorate of Health Service, Assam.

APPENDIX – 19.4 (Contd..)

ACHIEVEMENT IN FAMILY WELFARE PROGRAMME IN ASSAM, 2010-11

District	C.C.Users		G.P.Users	
	Target	Percentage of achievement	Target	Percentage of achievement
Dhubri	4700	108.30	4700	94.21
Kokrajhar	2800	87.18	2800	113.04
Chirang	1900	15.11	1900	51.53
Bongaigaon	3200	47.81	3200	59.88
Goalpara	3700	95.30	3700	99.92
Barpeta	4900	129.61	4900	158.24
Nalbari	3700	63.92	3700	72.11
Baksa	1200	98.08	1200	173.50
KamrupMetro	3600	33.10	3600	33.50
Kamrup	5000	98.96	5000	104.38
Darrang	3200	62.41	3200	79.38
Udalguri	1800	59.06	1800	112.61
Sonitpur	4200	77.52	4200	186.10
Lakhimpur	3400	52.47	3400	94.03
Dhemaji	2800	19.93	2800	80.96
Morigaon	2900	50.45	2900	96.83
Nagaon	5300	54.55	5300	43.72
Golaghat	3300	138.55	3300	235.42
Jorhat	3700	88.54	3700	62.89
Sivasagar	3700	89.95	3700	108.65
Dibrugarh	3400	54.12	3400	68.53
Tinsukia	3350	18.06	3350	62.99
Karbi-Anglong	2800	126.04	2800	95.86
Dima Hasao	1400	38.86	1400	47.64
Karimganj	3050	61.11	3050	49.54
Hailakandi	2200	98.50	2200	62.64
Cachar	4800	135.50	4800	89.06
Assam	**90000**	**77.95**	**90000**	**94.62**

Source :Directorate of Health Service, Assam.

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