

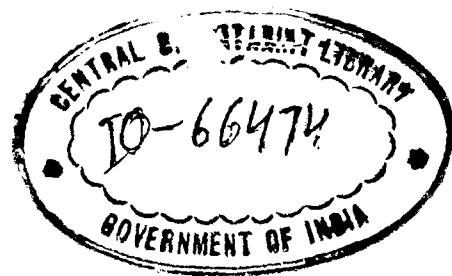
**GOVERNMENT OF ARUNACHAL PRADESH**



**ECONOMIC REVIEW  
OF**

**ARUNACHAL PRADESH  
2003**

**DIRECTORATE OF ECONOMICS AND STATISTICS  
GOVT. OF ARUNACHAL PRADESH  
ITANAGAR - 791113**



## P R E F A C E

*The publication entitled "Economic Review of Arunachal Pradesh – 2003 is the 15<sup>th</sup> issue of its kind annually published by the Directorate of Economics and Statistics, Govt. of Arunachal Pradesh. The publication portrays the economic situation of the state. Efforts are also made to review and analyse the current year's data with that of the past years to highlight the trend of achievement in different sectors of the economy of the state.*

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*Suggestions for improvement of the subsequent issue of the publication will be gladly accepted.*

*Place -Itanagar*

*Date 10th June 2004.*

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# CONTENTS

Description	Page No.
1. General appraisal	1-3
2. Population	4-7
3. State Domestic Product	8-12
4. Agriculture	13-18
5. Horticulture	19-20
6. Veterinary and Animal Husbandry	21-23
7. Fishery	24-25
8. Environment and Forest	26-29
9. Soil and Water Conservation	30
10. Irrigation and Flood Control	31
11. Rural Development and Panchyatraj	32-34
12. Co-Operation	35-36
13. Public Distribution System	37-38
14. Transport and Communication	39-42
15. Tourism	43
16. Power	44-45
17. Industry and Mining	46-49
18. Education and Human Resources Development	50-52
19. Medical and Public Health/ Family Welfare.	53-55
20. Water Supply and Sanitation	56
21. Social Welfare.	57-58
22. Manpower and Employment	59-60
23. Banking and Financial Institution	61-62
24. Economic Census- 1998	63-68
25. Appendix	

## GENERAL APPRAISAL

Arunachal Pradesh has made a remarkable progress in all sectors of the economy during the successive five year plans. The outlay approved for the 10<sup>th</sup> plan (2002-2007) was Rs. 3888 crores as compared to 9th Five Year Plan outlay of Rs.3570 crores. The outlays for 8th, 7<sup>th</sup>, 6<sup>th</sup>, 5<sup>th</sup>, 4<sup>th</sup>, 3<sup>rd</sup>, 2<sup>nd</sup> and 1<sup>st</sup> Five Year Plans of the state were Rs 661 crores, Rs. 522 crores, Rs. 223 crores, Rs. 63 crores, Rs. 18 crores, Rs.7 crores, Rs.5 crores and Rs.3 crores respectively. The annual outlay approved for 2002-2003 was Rs.67600 lakhs and actual expenditure incurred was Rs. 52836.73 lakhs.

The Net State Domestic Product (NSDP) at current prices increased to Rs. 174747 lakhs during 2002-2003 from Rs.162779 lakhs in 2001-2002. At constant prices NSDP has slightly increased from Rs.95365 lakhs during 2001-2002 to Rs.100245 lakhs in 2002-2003. Thus, the overall economic growth in the total NSDP during 2002-2003 was 7.74 percent at current prices and 5.05 percent at constant prices.

The per capita income also rose by 5.72 percent at current prices as it increased to Rs.15616 from Rs.14771 during 2002-2003. At constant prices per capita NSDP marginally increased from Rs 8654 in 2001-2002 to Rs.8958 in 2002-2003 showing an increase by 3.51 percent.

The economy of the state is largely dependent upon agriculture as it has the largest share in the total domestic product. The share of agricultural sector in NSDP at current prices was 30.30% in 2001-2002 which has marginally increased to 30.92% in 2002-2003. Food grain production during 2002-2003 increased to 2.34 lakh MT from 2.10 lakh MT in 2001-2002. Production of non-cereal crops also increased by 27.5%.

The state has made an impressive progress in the development of horticulture. The total area under horticulture is estimated at 60732 hectares. During 2002-2003, 131330 MT of fruits/spices were produced in the state. In recent years plantation of a new fruit "KIWI" and coconut has been taken up in some of the suitable areas of the state. There are ample scope to bring more area under horticulture. The region is also suitable for cultivation of ancillary horticultural products like, mushroom, flowers, medicinal plants, honey etc.. Of late the Govt. has launched TECHNOLOGY MISSION for integrated development of horticulture in the state.

Live stock plays an important role in an agrarian economy. As per latest Livestock Census (1997-98) there were 11.87 lakh livestock in Arunachal Pradesh. Of these cattle population accounts for 38% of the total livestock population followed by Pig accounting for 20%. Due to various development measures initiated by the Govt., production of livestock products like Milk, Egg, Wool etc. has marginally increased over the years.

Pisciculture is gradually gaining acceptability among the farmers as a subsidiary occupation. The existing water area under fish culture is reported to be about 2165 hectares. Of these 893 hectares of water area was developed under private fish farming. The total inland fish production during 2002-2003 stood at 2600 Tonnes as against 2500 Tonnes during 2001-2002. However, production of fish & fish seeds remained unchanged.

Arunachal Pradesh has vast area of forest covering 51540 Sq.km. which forms about 62% of the total geographical area of the state. Of the total forest area, reserved forests, protected forests, Anchal reserved forests, village reserved forests, National Parks and Wild Life Sanctuaries account for 20574.60 sq.km. and remaining 30965 sq.km. is treated as unclassified forests. The important forest products are timber, bamboo, cane, thatch etc. Forests also supports a large variety of wild life. Total forest revenue earned during 2002-2003 was Rs.1560 lakhs and timber production was reported to be 2600 cum. A steep fall in revenue generation and production of timber has been noticed due to restrictions imposed by the Govt. of India on timber operation.

Arunachal Pradesh continues to remain industrially backward due to many factors. Lack of good transport and communication, dearth of local skilled technical personnel, poor literacy among the local people, absence of industrial climate etc. are some of the major handicaps. The state has at present 15 medium scale industries which are mostly wood based . In the absence of big industries, small and tiny industrial units play a vital role in the economic development of the state. Up to March,2003, total of 471Nos. registered SSI units were functioning. The govt. is also running 88 numbers of weaving and craft training cum production centres to promote and popularise traditional handloom and handicraft products.

Rearing of silk worm is gaining popularity among the villagers. The number of rearers at the end of March,2003 was 2735 and total production of raw silk and cocoons were 14829 kg. and 34750 kg. respectively.

Shortage of power supply particularly in the district continues to be a matter of great concern for the state. The total installed capacity of power remained more or less same as compared with previous years. However, annual generation of power has increased to 62.52 MU during 2002-2003 from 60.00 MU generated during 2001-2002. It is observed that total availability of power is far below the state's actual requirement of 95.00 MW and as such, short fall has to be met by importing from outside. Under Rural Electrification programme, about 64% of the total inhabited villages have been electrified till March,2003.

The total length of road in the state stood at 14450.47 km. forming the road density of 17.67 km. per 100 sq. km. of area by the end of March, 2003. Out of total road length 5805.41 km. is black topped, 2498.64 surfaced while un surfaced road constitutes about 43% of the total road length.

To connect villages with the main roads 2276 km. Rural Link Roads were constructed till the end of 9<sup>th</sup> plan. The number of post offices during 2002-2003 was 305 showing an increase of 0.32% over previous year. In the field of telecommunication the progress is found to be slow but steady. The total number of working telephone connections which was 44388 during 2001-2002 soared up to 53862 by the end of March, 2003 registering an increase of 21% over the year.

The total number of bank branches has remained same, i.e. 99 branches but the volume of deposits has increased to Rs.99741 lakhs during 2001-2003 from previous year's amount of Rs. 87894 lakh, thereby registering growth of 13.47%. The total credit disbursed also moved upward to Rs. 22546 lakhs during 2002-2003 from Rs. 17383 lakhs during 2001-2002.

According to 2001 census (provisional) there are altogether 482,206 workers of which 293,549 are males and 188,657 are female workers. Out of total workers 413,521 are main workers and 68,685 marginal workers. Among the category of workers cultivators registered the highest being 58.44% of the total working force.

The number of job seekers registered in the Live Register stood at 23952 during 2002-2003 as against 23160 during 2001-2002.

As per 4<sup>th</sup> Economic Census, 80536 persons were usually working in 20694 different enterprises. Out of the total of 80536 workers, 83.28% were males, 16.10% female and rest 0.62% were child workers. The number of workers engaged in agricultural enterprises were 733 persons while non agricultural enterprises employed a total of 79,803 persons.

Various centrally sponsored schemes are implemented under rural development programme for upliftment of the socio-economic conditions of rural masses and the families living below poverty line. Some of the important schemes are SGSY, JGSY, EAS, PMGY, PMGSY etc. All these programmes are implemented through the net work of 83 blocks and DRDA's in the districts.

On the basis of factual positions outlined above, it is observed that in spite of lot of constraints in recent years due to stringent financial position, the overall economic condition of the state and its steady growth are encouraging.

## CHAPTER – 2

### POPULATION

According to 2001 census, Arunachal Pradesh has a population of 1097968 persons consisting of 579941 males and 518027 females as against 1991 Census population of 8,64,558 comprising 4,65,004 males and 3,99,554 females. It shows an increase of 26.85% in total population, as compared to 1991 Census. The number of children population in age group of 0-6 years was 200,055 which constitute 18.33% of the total population. Arunachal Pradesh has 0.11 percent of the All India Population of 10252.51 lakhs. The decennial growth rate of the population between 1991-2001 shows that the population of the State increased by 26.85% as against an increase of 21.34 % at All India level.

The density of population in Arunachal Pradesh as per 2001 census is 13 as against 10 in 1991 Census showing an increase of 30%. However, density is found to be the lowest among the States.

The sex ratio i.e. number of females per thousand males is found to be 894 in 2001 Census which is much lower than the All India average of 933. The sex ratio for urban areas is 848 females per thousand males in 2001.

According to provisional population of 2001 census, percentage of literacy to total population in the State is 54.74 as against 65.38 at All India level. Of the total literate population, 64.07% are males and 44.24% are females. The literacy rates were 20.79% and 41.59% in 1981 and 1991 census respectively. A significant increase in literacy rate implies that the educational amenities are being reached to the people gradually. Table below shows some important features of the population of Arunachal Pradesh and India.

#### **GROWTH OF POPULATION, DENSITY AND LITERACY IN ARUNACHAL PRADESH AND INDIA**

Table No. 2.1

Particulars	1981 CENSUS		1991 CENSUS		2001 CENSUS (Provisional)	
	India	AP	India	AP	India	AP
1. Population (in lakhs)	6833.29	6.32	8463.03 *	8.65	10252.51	10.97
2. Decennial Growth Rate	24.66	35.04	23.50	36.87	21.34	26.85
3. Density (per sq. km)	216	8	267	10	324	13
4. % of urban Population to total population	23.34	6.56	25.72	12.80	27.78	20.34
5. Literacy Rate	43.56	20.79	52.11	41.59	65.38	54.74
Sex Ratio (females per 1000 males)	933	862	929	859	933	894



District - wise population with sc/st population given below:-

Table No.2.2

Sl no	District	Total Population			Scheduled Caste			Scheduled Tribe		
		Total	Male	Female	Total	Male	Female	Total	Male	Female
0	1	2	3	4	5	6	7	8	9	10
1	Tawang	38924	21846	17078	128	106	22	29191	14241	14950
2	W/Kameng	74599	42542	32057	372	239	133	36951	18712	18239
3	E/ Kameng	57179	28802	28377	97	60	37	49585	24346	25239
4	Papumpare	122003	64184	57819	1397	801	596	69007	34157	34850
5	L/Subansiri	98244	49542	48702	197	126	71	88512	43491	45021
6	U/Subansiri	55346	28240	27106	99	67	32	49552	24547	25005
7	W/Siang	103918	54349	49569	379	238	141	84922	42478	42444
8	E/ Siang	87397	45265	42132	531	294	237	60420	30178	30242
9	U/Siang	33363	18057	15306	124	93	31	26094	13133	12961
10	D/ Valley	57720	31442	26278	507	297	210	26832	13521	13311
11	Lohit	143527	77314	66213	1815	987	828	54801	27765	27036
12	Changlang	125422	65821	59601	372	194	178	45351	22993	22358
13	Tirap	100326	52537	47789	170	88	82	83940	42455	41485
14	Arunachal Pradesh	1097968	579941	518027	6188	3590	2598	705158	352017	353141

Till 1961 census the state was entirely rural. From 1971 only urban centres came into being after the declaration of Bomdila, Along, Pasighat and Tezu as census Towns. In 1981 Naharlogun and Itanagar were added to the previous list raising the number of Town to six. Ziro, Roing, Namsai, and Khonsa were added to the earlier list increasing the number of urban centres to ten in 1991. In 2001 census seven more places, namely, Tawang, Seppa, Daporijo, Changlang, Jairampur and Deomali were declared as urban areas raising total census towns to seventeen. These seventeen towns of the state have 20.34% of the total population of the state.

The decennial urban growth rate in the state has been recorded as 139.63 between 1971-81, 167.04 between 1981-91 and 101.64 in 1991-2001. The table below shows urban population and its decennial growth:-

**POPULATION AND GROWTH RATE OF CENSUS TOWNS.**

Table No. 2.3

Sl. No.	Census Town	1991 Census	2001 Census (Provisional)	Percentage of decadal Growth (1991-2001)
1	Tawang	-	4456	NA
2	Bomdila	5655	6685	18.21
3	Seppa	-	14965	NA
4	Naharlagan	14369	26987	87.81
5	Itanagar	16545	34970	111.36
6	Ziro	8862	12289	38.67
7	Daporijo	-	15773	NA
8	Along	13238	16834	27.16
9	Basar	-	3834	NA
10	Pasighat	14639	21973	50.09
11	Roing	6966	10106	45.08
12	Tezu	15271	15014	(-) 1.68
13	Namsai	7975	11582	45.23
14	Canglang	-	6394	NA
15	Jairampur	-	5918	NA
16	Deomali	-	6060	NA
17	Khonsa	7079	9229	30.37
Total	17 (Towns)	110628	223069	101.64

The total number of workers according to 2001 census was 482,206 persons. The percentage of different categories of workers to the total workers were- cultivators 58.4%, Agricultural labourers 3.85%, Workers in Household industry 0.86% and other workers 36.88%. With the increase in population of the state from 864,558 to 1096702 during the last decade of 1991-2001, the number of workers also increased from 390,976 to 482,206 showing an increase of 91,230 workers. The proportion of workers to total population is 43.9' in 2001 as against 46.24 in 1991. The table below shows percentage distribution of total workers in the state and districts.

PERCENTAGE DISTRIBUTION OF TOTAL WORKERS ( Main + Marginal) AS CULVATORS, AGRICULTURAL LABOURERS, WORKERS IN HOUSEHOLD INDUSTRY AND OTHER WORKERS IN THE STATE AND DISTRICTS BY SEX AS PER 2001 CENSUS.

Table No.2.4

District	Persons Males Females	Total Workers (Main+Mar ginal)	Percentage to total workers(Main + Marginal)			
			Cultivators	Agiculture Labourers	Workers in household Industry	Other Wor- kers
1	2	3	4	5	6	7
1. Tawang	Total	22,099	43.00	2.10	0.45	54.45
	Males	14,254	28.34	1.52	0.45	69.69
	Females	7,845	69.64	3.17	0.45	26.74
2. W/Kameng	Total	34353	35.42	3.99	1.03	59.56
	Males	24870	25.07	2.90	0.59	71.44
	Females	9483	62.58	6.83	2.19	28.40
3. E/Kameng	Total	25917	70.95	2.74	0.33	25.98
	Males	13976	58.38	2.69	0.30	38.63
	Females	11941	85.67	2.81	0.36	11.16
4. Papum Pare	Total	44214	24.36	3.35	1.41	70.88
	Males	29909	17.14	2.49	1.04	79.63
	Females	14305	39.46	5.17	2.24	53.13
5. L/ Subansiri	Total	45032	72.24	3.36	0.62	23.78
	Males	23467	60.10	2.76	0.66	36.48
	Females	21565	85.46	4.01	0.57	9.96
6. U/Subansiri	Total	22263	68.68	2.05	0.50	28.77
	Males	12444	55.35	1.85	0.54	42.26
	Females	9819	85.57	2.31	0.46	11.66
7 W/Siang	Total	42860	63.24	2.01	1.37	33.38
	Males	25587	51.47	2.11	1.32	45.10
	Females	17273	80.66	1.87	1.44	16.03
8. E/ Siang	Total	33578	52.23	5.78	1.92	40.07
	Males	20494	43.73	5.48	1.33	49.46
	Females	13084	65.54	6.24	2.85	25.37
9. Uper Siang	Total	17110	65.08	2.39	0.17	32.36
	Males	10346	51.47	2.71	0.18	45.64
	Females	6764	85.89	1.91	0.15	12.05
10. D/Valley	Total	25496	53.99	7.19	0.60	38.22
	Males	16433	43.93	6.35	0.75	48.97
	Females	9063	72.21	8.72	0.33	18.74
11. Lohit	Total	60323	57.64	6.53	0.69	35.14
	Males	39689	48.99	5.62	0.65	44.74
	Females	20634	74.28	8.28	0.76	16.68
12. Changlang	Total	60,009	69.94	5.40	0.98	23.68
	Males	34733	61.82	5.01	0.82	32.35
	Females	25276	81.10	5.93	1.21	11.76
13. Tirap	Total	48952	75.35	0.72	0.32	23.61
	Males	27347	62.71	0.76	0.26	36.27
	Females	21605	91.35	0.67	0.40	7.58
<b>Arunachal Pradesh</b>	<b>Total</b>	<b>482206</b>	<b>58.44</b>	<b>3.85</b>	<b>0.86</b>	<b>36.85</b>
	<b>Males</b>	<b>293549</b>	<b>46.77</b>	<b>3.44</b>	<b>0.73</b>	<b>49.06</b>
	<b>Females</b>	<b>188657</b>	<b>76.61</b>	<b>4.49</b>	<b>1.05</b>	<b>17.85</b>

## CHAPTER – 3

### STATE DOMESTIC PRODUCT

State Domestic Product(SDP) popularly known as State Income is one of the most important indicators to measure economic growth of a state. It shows the level of Macro-Economic aggregates of the economic activities of the state valued in economic terms.

The estimates of Gross and Net State Domestic Product of Arunachal Pradesh and their per capita at current and constant (1993-94) prices are presented in the following tables:-

#### **GROSS STATE DOMESTIC PRODUCT OF ARUNACHAL PRADESH AT FACTOR COST BY ECONOMIC ACTIVITY AT CURRENT PRICES.**

Table No.3.1

(Rs. In lakhs)

INDUSTRY	2000-01 (R)	2001-02 (P)	2002-2003 (Q)
<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>
1. Agriculture	54064	51430	56320
2. Forestry and Logging	7522	8119	7992
3. Fishing	1536	1730	1730
4. Mining and Quarrying	3445	3547	3871
<b>SUB TOTAL: PRIMARY SECTOR</b>	<b>66567</b>	<b>64826</b>	<b>69913</b>
5. Manufacturing	5894	6517	6974
5.1 Registered	-	-	-
5.2 Un-Registered	5894	6517	6974
6. Construction	23209	22135	25137
7. Electricity, Gas and Water Supply	4795	4785	6273
<b>SUB TOTAL : SECONDARY SECTOR</b>	<b>33898</b>	<b>33437</b>	<b>38384</b>
8. Transport , Storage and Communication	10716	11376	11784
8.1 Railways	1	1	1
8.2 Transport by Other Means	9063	9540	9948
8.3 Storage	4	4	4
8.4 Communication	1648	1831	1831
9. Trade, Hotel & Restaurant	7032	8424	8611
10. Banking & Insurance	3977	4455	4455
11. Real Estate, Ownership of Dwellings & Business Services.	4764	5265	5946
12. Public Administration	30597	34011	36975
13. Other Services.	20566	21873	23550
<b>SUB TOTAL : TERTIARY SECTOR</b>	<b>77652</b>	<b>85404</b>	<b>91321</b>
<b>GROSS STATE DOMESTIC PRODUCT</b>	<b>178117</b>	<b>183667</b>	<b>199618</b>
Population : (in lakhs)	10.85	11.02	11.19
Per Capita GSDP (in Rupees)	16416	16667	17839
<b>ALL INDIA GNP(Rs.in crores)</b>	<b>1900310</b>	<b>2078871</b>	<b>2230272</b>
Population (in crores)	101.95	103.79	105.50
Per capita GNP (in Rs.)	18640	20030	21140

**NOTE :** R for Revised Estimates. P for Provisional Estimates. Q for Quick Estimates.

**GROSS STATE DOMESTIC PRODUCT OF ARUNACHAL PRADESH AT FACTOR COST BY ECONOMIC ACTIVITY AT CONSTANT (1993-1994) PRICES**

Table No.3.2

(Rs in lakhs)

<b>INDUSTRY</b>	<b>2000-2001 (R)</b>	<b>2001-2002 (P)</b>	<b>2002-2003 (Q)</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
1. Agriculture	31476	27688	30344
2. Forestry & Logging	3997	4483	4333
3. Fishing	1228	1277	1277
4. Mining & Quarrying	1835	1746	1917
<b>SUB TOTAL : PRIMARY SECTOR</b>	<b>38536</b>	<b>35194</b>	<b>37871</b>
5. Manufacturing	4157	4513	4741
5.1 Registered	-	-	-
5.2. Un- Registered	4157	4513	4741
6. Construction	16853	15489	16807
7. Electricity, Gas & Water Supply	2670	2713	3406
<b>SUB-TOTAL: SECONDARY SECTOR</b>	<b>23680</b>	<b>22715</b>	<b>24954</b>
8. Transport, Storage & Communication	7158	7550	7660
8.1 Railways	1	1	1
8.2 Transport by Other Means	5351	5502	5612
8.3 Storage	2	2	2
8.4 Communication	1804	2045	2045
9 Trade, Hotel & Restaurant	5288	5941	5887
10. Banking & Insurance	2685	2775	2775
11. Real Estate, Ownership of Dwellings & Business Services.	3013	3282	3609
12. Public Administration	18649	19042	20140
13. Other Services	12580	12830	13305
<b>SUB TOTAL : TERTIARY SECTOR</b>	<b>49050</b>	<b>51420</b>	<b>53376</b>
<b>GROSS STATE DOMESTIC PRODUCT</b>	<b>111266</b>	<b>109329</b>	<b>116201</b>
Population (in lakhs)	10.85	11.02	11.19
Per-capita GSDP (in Rs)	10255	9921	10384
<b>ALL INDIA GNP(Rs.in crores)</b>	<b>1186246</b>	<b>1259829</b>	<b>1306811</b>
Population (in crores)	101.95	103.79	105.50
Per capita GNP (in Rs.)	11636	12138	12387

**NET STATE DOMESTIC PRODUCT OF ARUNACHAL PRADESH AT FACTOR COST BY ECONOMIC ACTIVITY AT CURRENT PRICES**

Table No.3.3

(Rs in lakhs)

<b>INDUSTRY</b>	<b>2000-2001 (R)</b>	<b>2001-2002 (P)</b>	<b>2002-2003 (Q)</b>
1	2	3	4
1. Agriculture	53102	50506	55308
2. Forestry & Logging	7125	7690	7570
3. Fishing	1358	1529	1529
4. Mining & Quarrying	2680	2680	2925
<b>SUB TOTAL: PRIMARY SECTOR</b>	<b>63424</b>	<b>62405</b>	<b>67332</b>
5. Manufacturing	3622	4067	4352
5.1 Registered	-	-	-
5.2 Un-Registered	3622	4067	4352
6. Construction	22410	21324	24202
7. Electricity, Gas & Water Supply	(-) 133	(-) 1369	(-) 2721
<b>SUB-TOTAL:SECONDARY SECTOR</b>	<b>25899</b>	<b>24022</b>	<b>25833</b>
8. Transport, Storage & Communication	9527	10040	10428
8.1. Railways	1	1	1
8.2 Transport by Other Means	8721	9184	9572
8.3 Storage	4	4	4
8.4 Communication	801	851	851
9. Trade, Hotel & Restaurant	6820	8207	8389
10. Banking and Insurance	3787	4252	4252
11. Real Estate, Ownership of Dwellings & Business Services	4189	4630	5228
12. Public Administration	27047	30308	32920
13. Other Services	17778	18915	20365
<b>SUB TOTAL: TERTIARY SECTOR</b>	<b>69148</b>	<b>76351</b>	<b>81582</b>
<b>NET STATE DOMESTIC PRODUCT</b>	<b>159312</b>	<b>162779</b>	<b>174747</b>
Population (in lakhs )	10.85	11.02	11.19
Per Capita NSDP(in Rupees )	14683	14771	15616
<b>ALL INDIA NNP(Rs.in crores)</b>	<b>1702454</b>	<b>1861117</b>	<b>1995229</b>
Population (in crores)	101.95	103.79	105.50
Per Capita NNP (in Rs.)	16699	17932	18912

**NET STATE DOMESTIC PRODUCT OF ARUNACHAL PRADESH AT FACTOR COST BY ECONOMIC ACTIVITY AT CONSTANT (1993-1994) PRICES**

Table No.3.4

(Rs in lakhs)

<b>INDUSTRY</b>	<b>2000-2001 (R)</b>	<b>2001-2002 (P)</b>	<b>2002-2003 (Q)</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
1. Agriculture	30883	27161	29767
2. Forestry & Logging	3780	4240	4098
3. Fishing	1111	1155	1155
4. Mining & Quarrying	1339	1274	1399
<b>SUB TOTAL: PRIMARY SECTOR</b>	<b>37113</b>	<b>33830</b>	<b>36419</b>
5. Manufacturing	2624	2886	3032
5.1 Registered	-	-	-
5.2 Un-Registered	2624	2886	3032
6. Construction	16251	14487	16144
7. Electricity, Gas & Water Supply	(-) 496	(-) 1690	(-) 2905
<b>SUB TOTAL : SECONDARY SECTOR</b>	<b>18379</b>	<b>15683</b>	<b>16271</b>
8. Transport, Storage & Communication	6387	6728	6830
8.1. Railways	1	1	0
8.2 Transport by Other Means	5114	5264	5366
8.3 Storage	2	2	2
8.4 Communication	1270	1461	1461
9. Trade, Hotel & Restaurant	4809	5766	5713
10. Banking and Insurance	2546	2633	2633
11. Real Estate, Ownership of Dwellings & Business Services	2649	2886	3173
12. Public Administration	16524	16904	17866
13. Other Services	10703	10935	11340
<b>SUB TOTAL: TERTIARY SECTOR</b>	<b>43618</b>	<b>45852</b>	<b>47555</b>
<b>NET STATE DOMESTIC PRODUCT</b>	<b>99110</b>	<b>95365</b>	<b>100245</b>
Population (in lakhs )	10.85	11.02	11.19
Per Capita NSDP (in Rupees )	9135	8654	8958
ALL INDIA NNP(Rs.in crores)	1050177	1117282	1156714
Population (in crores)	101.95	103.79	105.50
Per Capita NNP (in Rs.)	10301	10765	10964

At current prices, GSDP is estimated at Rs.199618 lakhs and at constant (1993-94) prices GSDP is estimated at Rs 116201 lakhs in 2002-2003. In 2002-03, Net State Domestic Product (NSDP) is estimated at Rs.174747lakhs at current prices and Rs.100245 lakhs at constant (1993-94) prices.

The per capita income (per capita NSDP) for the year 2002-03 is estimated at Rs.15616 at current prices and Rs.8958 at constant (1993-94) prices as against per capita NNP of Rs.18912 at current prices and Rs.10964 at constant (1993-94) prices for the year 2002-2003.

The per capita GSDP of Arunachal Pradesh for the year 2002-03 is estimated at Rs.17839 at current prices and Rs.10384 at constant (1993-94) prices as against per capita Gross National Product (GNP) of Rs. 21140 at current prices and Rs.12387 at constant (1993-94) prices for the year 2002-2003.

**PERCENTAGE DISTRIBUTION OF GSDP/NSDP :**

It reveals from the estimates at current prices for the year 2002-03 that the contribution of Primary, Secondary and Tertiary sectors to total GSDP is 35.02%, 19.23% and 45.75% respectively and their contribution to total NSDP is 38.53%, 14.78% and 46.69% respectively. The estimates at constant prices for the year 2002-03 reveal that the contribution of Primary, Secondary and Tertiary sectors to total GSDP is 32.59%, 21.47% and 45.94% respectively and their contribution to total NSDP is 36.33%, 16.23% and 47.44% respectively. The contribution of Agriculture in GSDP / NSDP is found to be the highest. The highest contribution in Secondary and Tertiary Sectors is from Construction and Public Administration respectively.



**CHAPTER – 4****AGRICULTURE**

AGRICULTURE occupies an important place in the economy of Arunachal Pradesh and forms a major occupation of the people of the state. According to 2001 Census about 79.66% of the state's population are living in rural areas and 58.44% of the total workers are cultivators. The share of this sector in SDP of Arunachal Pradesh at current price was 32.07% in 2000-2001 which has decreased to 30.30% in 2001-2002 due to fluctuation in production of agricultural commodities. Keeping in view the importance of this sector the state government has always given priority to various agricultural programmes in development plans for attaining self sufficiency in food grains. But the progress/improvement in this sector has not been up to the expectation. The main reason for this are its topography which is hilly one, predominance of shifting cultivation, lack of irrigation facilities, lack of technical know-how etc. However, efforts are being made to motivate the farmers to take up permanent cultivation and proper utilisation of available cultivable land.

**LAND UTILIZATION :-**

As on 31<sup>st</sup> March 2003 the State has an estimated gross cropped area of 2.53 lakh Hect. of which net area sown is about 2.01 lakh Hect. accounting for about 2.39% of the total geographical area of 83743 sq. km .The following table shows the classification of land utilisation in the state.

**AREA UNDER DIFFERENT LAND USES IN 1990-91 AND 1995-96 AGRI CENSUS**

Table No.4.1

(Area In Hect.)

Sl no.	Particulars	1990-91	1995-96	Percent Changed
0	1	2	3	4
1	Total area under operation	349891	343719	(-)1.76
2	Land not available for cultivation			
	(i) Land put to non-agriculture use		4590	
	(ii) Barren and uncultivable	42553	20946	(-)39.99
3	Other uncultivated land excluding fallow land			
	(i) Permanent pasture and other grazing land	Nil	3949	-
	(ii) Land under Misc. tree crops & groves not in net are sown	44437	35980	(-)19.03
	(iii) Culturable waste	33099	36645	10.71
4	Fallow Land			
	(i) Other than current fallows	36254	47024	29.70
	(ii) Current fallows	28376	30431	7.24
5	Net Area sown	144819	164194	13.37
6	Area sown more than once	28376	18972	(-)33.14
7	Total gross cropped area	193193	183166	(-)5.19
8	Cropping Intensity	133.00	111.55	(-)0.16

Crop production is closely related to behaviour of the monsoon. Due to absence of irrigation facilities in many areas of the state the farmers are to depend on timely rainfall. The state receives adequate rainfall with high degree of humidity. The table below gives a general picture of the pattern of rainfall in the state.

**RAINFALL IN DIFFERENT RAINGAUGE STATIONS OF ARUNACHAL PRADESH**

Table No.4.2

( In mm )

Sl. No	Raingauge Station	Year				
		1998	1999	2000	2001	2002
1	2	3	4	5	6	7
1.	Tawang	2760.10	2862.10	NA	1291.40	NA
2.	Bomdila	711.40	1538.60	1433.30	1384.60	2362.60
3.	Seppa	2596.00	1444.83	3106.00	2641.30	1703.00
4.	Itanagar	5171.60	3738.20	NA	2289.20	2921.60
5.	Ziro	NA	1007.50	934.88	522.41	878.56
6.	Daporijo	NA	1558.40	1437.20	1208.90	1839.60
7.	Along	2608.10	1987.38	2319.30	1628.00	2374.40
8.	Pasighat	5570.60	5591.40	NA	405.00	NA
9.	Yingkiang	2810.20	2909.60	NA	3116.76	2241.89
10.	Roing	NA	3851.00	3212.90	4723.70	3484.00
11.	Tezu	4258.50	3033.50	3207.40	1482.20	1678.00
12.	Changlang	2083.00	3783.40	3789.80	3194.40	2775.20
13.	Khonsa	6208.70	3723.90	4191.20	2327.60	2142.10
14	Anini	NA	NA	NA	2659.62	3711.20

*NA = Not available*

**PRODUCTION OF IMPORTANT CROPS :**

The major crops grown in the state are Rice, Maize, wheat, Millet, potato, pulses and oil seeds. During the year 2002-2003 production of food grains was recorded 2.34 lakhs MT which has increased by 11.43% over the previous year of 2001-2002. During the same year the over all production of non-cereal crops also increased from 69000 Mt to 98000 Mt. The following table shows the trend of main crop production in the state for the last 2 years.

**AREA AND PRODUCTION OF MAJOR CROPS**

Table No 4.3

(Area In 000 Hect. Production in '000 MT)

Sl. No.	Crop/Crops group	2001-2002		2002-2003	
		Area	Production	Area	Production
1	2	3	4	5	6
<b>Cereal Items</b>					
1.	<b>Rice</b>	119	134	125	153
2.	<b>Maize</b>	39	53	41	56
3.	<b>Wheat</b>	03	05	04	06
4.	<b>Millet</b>	20	18	21	19
<b>Total Food grains</b>		181	210	191	234
<b>Non- Cereal Items</b>					
1	<b>Potato</b>	05	33	04	30
2	<b>Pulses</b>	07	07	07	08
3	<b>Oil Seeds</b>	28	29	28	30
4	<b>Ginger</b>	NA	NA	04	32
<b>Total Non cereal Items</b>		40	69	43	98

It follows from the above data that during 2002-2003, production of food crops substantially increased while in the case of non-cereal crops production of pulses and oil seeds remain unchanged. However, production of potato declined by 9%.

The main thrust of agricultural programmes is to increase food production. As such emphasis has been given on area specific activities. Under the programme, seeds / plants, production materials and agricultural tools are distributed to the farmers on subsidy basis. Besides, efforts are being made to enhance the production by introducing compact area project, community nursery demonstration garden on HYV and double and multiple cropping etc.

**HIGH YIELDING VARIETIES :**

Production and area of all the crops of high yielding varieties have increased during the year 2002-2003 over the previous year. The following table gives the over all picture of area and production of HYV rice, maize and wheat.

**AREA AND AVERAGE PRODUCTION PER HECT. OF HYV CROPS**

Table No.4.4 (Area in' 000 Hect. Production In Qtl.)

Sl. No.	Crops	2001-2002		2002-2003		% of variation over previous year	
		Area	Production	Area	Production	Area	Production
1	2	3	4	5	6	7	8
01	Rice	36.50	14.55	37.20	15.50	1.91	6.52
02	Maize	21.75	18.00	22.30	17.30	2.52	(-)3.88
03	wheat	3.50	15.10	3.70	15.60	5.71	3.31

**YIELD RATES**

As in the last year the production of important crops in the state was a mixed outcome during 2002-2003. The yield rates of rice, maize, wheat, millets, pulses, oilseeds and potato have slightly increased over the previous year. However, the yield rate of sugarcane was 132. Qtl. per hector during the year 2002-2003 as against 182 Qtl. per hector in 2001-2002 showing a decline by more than 27%. The yield rate of important crops for few years is given below :-

**AVERAGE YIELD RATES OF IMPORTANT CROPS**

Table No.:4.5 (Yield rate in Qntl/Hect)

Sl. No.	Crops	1999-2000	2000-2001	2001-2002	2002-2003
1	2	3	4	5	6
1.	Rice	10.90	10.98	11.26	12.20
2.	Maize	13.50	13.56	13.60	13.90
3.	Wheat	13.00	13.01	14.03	15.20
4.	Millet	08.60	8.64	9.00	19.20
5.	Pulses	10.01	10.12	10.53	10.70
6.	Oilseeds	09.80	9.81	10.63	10.50
7.	Sugarcane	200.40	200.48	182.62	132.00
8.	Potato	65.40	65.39	70.24	69.60
9	Ginger	NA	NA	NA	72.70
10	Turmeric	NA	NA	NA	37.90
11	Chilli	NA	NA	NA	14.60

## CONSUMPTION OF FERTILIZERS

Fertilizer constitute one of the most important input in the agricultural production in the State. It is distributed through the Department of Agriculture at controlled/ subsidised price. It is observed that with the introduction of H.Y.V. crops the trend of consumption of chemical fertilizers has been steadily increasing.

However, its consumption is far below the level achieved by the other states. The following table gives the actual consumption of fertilizers in the state.

### CONSUMPTION OF FERTILIZERS

Table No.:4.6

( In MT)

Year	Nitrogenous (N)	Phosphate (P <sub>2</sub> O <sub>5</sub> )	Potassic (K <sub>2</sub> O)	Total
1	2	3	4	5
1998-99	400	205	100	705
1999-2000	380	220	100	700
2000-2001	387	222	103	712
2001-2002	389	223	103	715
2002-2003	392	224	104	720

The a gro-climatic condition is also suitable for growing horticultural crops and spices. Therefore attention is also given towards implementation of schemes which may encourage the farmers to cultivate fruits like apple, walnut, kiwi, banana, pineapple etc.

## CROP ENTERPRISE

The Agriculture Department has come up with a noble scheme through which 60 nos. of educated unemployed rural youth;- one from each Assembly Constituency is provided infrastructure support to take up crop enterprise for his income generation. Each crop enterprise has been provided with 1(one) no of power tiller with a cash amount of Rs.1000/- being initial operational charges. Besides tilling own field the power tiller will be rented out to the fellow farmers so as to help them augment their efforts in intensive as well as extensive cultivation.

## **Cultivation of Tea, Coffee and Rubber:-**

Tea cultivation can occupy an important place in the economy of Arunachal Pradesh. Proper development of tea industry will not only contribute to generation of revenue but also create employment opportunity for growing population of the state. Tea cultivation in the state was started in 1978-79 by the Arunachal Pradesh Forest Corporation Limited at Kanubari in Tirap District. Since then the corporation has gradually started cultivation in other places of the state on joint venture with village welfare societies.

As stated by the Arunachal Pradesh Forest Corporation the total area under different Tea Estates in the state is more than 461.91 hectares. Production of green tea leaf from Khonsa, Deomali and Kanubari Tea Division was 15,27,852 kg. value of which was Rs.128.73 lakhs during 2000-2001. Being encouraged by success of the Forest Corporation many big and small private tea gardens have come up in recent past. However, there is no data available regarding area and production of private tea gardens. Besides growing green leaf there is also scope for setting up tea processing unit and ancillary unit at selected places as there is no processing unit in the state. Besides tea, the Arunachal Pradesh Forest Corporation is also growing Coffee, Rubber and Black pepper in Tirap, Lohit and Changlang districts. The details of production of tea, rubber, coffee and black pepper during last few years are given below:-

### PRODUCTION OF TEA, COFFEE AND RUBBER IN ARUNACHAL PRADESH

Table no.:4.7 (Quantity in Kg. / Value in Rs lakhs)

Year	Green Tea leaf		Coffee		Rubber	
	Quantity	Value	Quantity	Value	Quantity	Value
0	1	2	3	4	5	6
1997-98	1693880	110.08	57167	21.94	34750	NA
1999-2000	1928352	NA	38065	NA	35000	NA
2000-01	1801211	172.67	32686	10.87	38775	0.73
2001-02	1876913	128.73	103479	22.88	49075	12.61
2002-2003	NA	NA	NA	NA	NA	NA

### AREA AND LOCATION OF TEA GARDEN IN ARUNACHAL PRADESH AS ON 31-3-2003

Table no.:4.8

Sl. No.	Name of Tea Garden	Location / District	Year of Opening	Area (In Hect.)
0	1	2	3	4
1	Mopa Tea Garden	Kanubari, Tirap District	1978-79	104.85
2	Modo Tea Garden	Modo, Lohit District	1979-80	81.87
3	Longran Tea Garden	Longram, Changlang District	1991-92	126.69
4	Tupi Tea Garden	Tupi, Tirap District	1991-92	125.00
5	Bene Tea Garden	Bene, West Siang District	1994-95	23.50
6	Kosi Tali Tea Garden	Kosi Tali, West Siang District	-	-

## CHAPTER – 5

### HORTICULTURE

Arunachal Pradesh with its undulating topography and rich diversity of agro-climatic conditions has scope for growing wide variety of tropical and sub-tropical and temperate fruits. The region is also suitable for cultivation of subsidiary horticultural produces like flowers, mushroom, spices, cardamom, black pepper and creepers.

The Directorate of Horticulture has taken up various schemes to uplift the Rural Economy. Some of the important schemes taken up by the Department are as follows:

1. Peoples' Horticulture garden
2. Compact area plantation
3. Plant protection
4. Mushroom Development Programme
5. Spices development
6. Floriculture
7. Training and education
8. Medicinal, Aromatic Plantation Programme etc

The area under fruits has gone up from 41601 hectares in 1999-2000 to 49102 hectares in 2002-2003 and production rose from 77593 MT in 1999-2000 to 96438 MT 2002-2003. The following table shows area and production of horticultural crops during last few years.

#### AREA AND PRODUCTION OF HORTICULTURAL CROPS

Table No.:5.1

( Area in Hect./ Production in MT.)

Sl. No	Name of crops	1999-2000		2000-2001		2001-2002		2002-2003	
		Area	Production.	Area	Production.	Area	Production.	Area	Production.
<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>	<i>8</i>	<i>9</i>	<i>10</i>
1.	Apple	6601	8265	6733	8513	6852	8588	7352	8846
2.	Citrus	8593	11315	19147	24000	19626	24232	21295	25444
3.	Pine-apple	7314	31980	7329	31980	7549	32289	7749	33903
4.	Banana	3489	12270	3538	13200	3958	13302	4358	13834
5.	Walnut	2199	50	2285	51	2374	51	2654	53
6.	Other-fruits	6805	13713	6354	15357	5406	16815	5694	14358
TOTAL		41601	77593	45386	93101	45765	95277	49102	96438

Among the fruit crops citrus constitutes about 43% of the total area under fruit crops followed by pineapple which accounts for about 15% .However, pineapple is dominating fruit constituting 35% of the total production followed by citrus which shares about 26 % of total fruit production. The area and production of Apple, Banana and Walnut have also slightly increased over the previous year.

Other fruit crops grown in the state are Pears, Plum, Walnut, Pitch, Guava, Jack fruit, Mango, Papaya, Litchi etc. In recent years plantation of a new fruit "KIWI" (Chinese Gooseberry) has been taken up in West Kameng, Lower Subansiri and Dibang Valley districts.

Due to remoteness of fruit growing area of the state from market and also due to inadequate communication facilities, emphasis is given for production of low volume high value ancillary crops like spices, cardamom, black pepper ginger etc .The table below shows area and production of ancillary crops during last few years:-

#### AREA AND PRODUCTION OF SPICES

Table No.:5.2

( Area in Hect./Production in MT )

Spices	1999-2000		2000-2001		2001-2002		2002-2003	
	Area	Production	Area	Production	Area	Production	Area	Production
<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>	<i>8</i>	<i>9</i>
1.Cardamom	1981	500	2142	507	2342	512	3542	533
2.Black-pepper	555	115	635	117	820	118	1120	124
3.Ginger	-	-	-	-	6579	32295	6968	34235
TOTAL	2536	615	2777	624	9741	32925	11630	34892

The Department. has also established Mushroom Development Centres at Naharlogun/ Itanagar, Roing and Dirang. The MDC in HQ has produced 453 kg of mushroom,527 kg Spawn Pits and 323 kg of Compost during 2002-2003.

Besides, for the success of horticultural activities the department has also taken up a number of other measures which includes training of field staff and farmers, mass awareness campaign through audio-visual aids, pamphlets, booklets, organising horticultural fairs, exhibitions etc. The department trained 35 farmers during 2002-2003.



## CHAPTER – 6

### VETERINARY AND ANIMAL HUSBANDRY

Livestock rearing is an integral component of the rural economy. It plays an important role in improving the economy of the rural population. As such, for livestock development attention in the state is paid on (I) Animal and disease control (ii) Cattle Development, (iii) Poultry Development, (iv) Piggery Development (v) Dairy Development (vi) Education and Training.

The total livestock and poultry population as per 1997-98 livestock Census was 11.87 lakhs whereas in 1992-93 Livestock Census it was 9.59 lakhs. Thus, in the five years period there was a significant increase of 23.69% in the livestock population of the state. The population of all types of livestock registered a growth except Yak and Sheep population which registered a decline of 7.22% and 13.81% respectively. The number of livestock as per 1997-98 Quinquennial Livestock Census is given below:-

#### LIVESTOCK AND POULTRY POPULATION IN A.P.

Table No.:6.1

( In number)

Sl. No.	Category	1992 – 1993 livestock census	1997 – 1998 livestock census	Percentage variation
1	2	3	4	5
1.	Cattle	346535	452920	(+) 30.70
2.	Buffaloes	10241	11550	(+) 12.78
3.	Mithun	105729	124194	(+) 17.46
4.	Yak	9675	8976	(-) 07.22
5.	Sheep	32774	28245	(-) 13.81
6.	Goat	128134	183826	(+) 43.46
7.	Horse & ponies	5818	6678	(+) 14.78
8.	Pigs	239197	275372	(+) 15.12
9.	Other livestock	81317	96279	(+) 18.40
10.	<b>Total livestock</b>	959416	1186741	(+) 23.69
11.	Poultry	1172245	1218917	(+) 03.98

Production of livestock products like, Milk, Eggs and Wool have slightly increased over the years. Total production of milk during 2002-2003 was 46.50 thousand MT as against 46.00 thousand MT during the previous year. Production of eggs was 36.50 million number during 2002-2003 as against 36.00 million number during 2001-2002. However, production of Wool remained unchanged during 2002-2000. The table overleaf shows an overall picture of livestock products during last few years.

**PRODUCTION OF MILK, EGG AND WOOL**

Table No.6.2

Products	Unit	2000-2001	2001-2002	2002-2003
1	2	3	4	5
1. Milk	'000 MT	46.00	46.00	46.50
2. Eggs	Million No.	36.00	36.00	36.50
3. Wool	'000 Kg.	59.40	59.60	59.60

Source:- Director of Vety. And Animal Husbandary, Itanagar.

There are various schemes under implementation in the state which include Cattle and Buffalo development, Sheep/Goat and Wool development, Piggery development, Poultry development, Dairy development and fodder development. Under intensive cattle development programme 11 district Cattle Breeding farms are functioning to enhance production of milk and cross-breed stock. Apart from this, up gradation of local indigenous livestock through cross-breeding is also an important objective of the livestock development programme in the state.

Sheep rearing has also been one of the traditional activities of the people living in the high altitude areas. The Regional sheep breeding farm at Sangti (West Kameng) is engaged to improve the local sheep through cross breeding with exotic marino rams. This centre also imparts training periodically to the interested rural people as well as field personnel. There are 7 sheep and wool extension centers in the State.

As a tradition almost every tribal family is engaged in pig rearing. The piggery development programme emphasises on up-gradation of local stock through improved cross breeding with exotic breed such as large white Hampshire. With this objective, Central Pig Breeding Farm at Karsingsa and Regional Exotic Pig Breeding Farm at Loiliang were established by the Govt. In addition, there are 6 general Pig breeding farm functioning in the state which supply improved varieties of pigs to the interested farmers for cross-breeding and enhancing meat production.

Under poultry development programme 14 poultry farms, one central poultry farm and one central Hatchery at Nirjuli are functioning.

Emphasis is also being given on conservation and management of indigenous livestock like Mithun and yak. Considering the importance of mithun and yak, a mithun breeding farm was setup at Sagalee in Papumpare district.

The department is also maintaining one Central Fodder farm at Nirjuli, one Regional Temperate fodder farm and 11 (eleven) District fodder farms to meet the demand of fodder for cattle breeding farms located in different places. In addition, there are 2 (two) feed Mixing plant located at Nirjuli and Roing to cater demand of nutritious feed of the cattle farms.

Adequate importance is also being given for training of paraveterinarians to meet the requirement of skilled personnel in the various specialised fields of Animal Husbandry. A school of veterinary science was setup at Pasighat in 1980-81 which is presently offering various short term and regular courses for the in-service field assistants. Beside Special training in wool-grading is imparted at Sangti Regional Sheep Breeding Farm.

For effective health coverage of livestock population of the state the following veterinary institutions are functioning.

**NUMBER OF VETERINARY INSTITUTIONS IN ARUNACHAL PRADESH  
AS ON 31-3-2003**

Table No. 6.3

SI No.	Particulars	Number
1	Veterinary Hospital	1
2	Vety. Dispensary	93
3	Vety. Aid Centre	155
4	District Diagnostic Lab.	11
5	Zonal Disease Investigation Lab.	3
6	Mobile Vety. Dispensary	14
7	Cattle Up- Grading Centre	120
8	Sheep and Wool Extension Centre	7
9	Cattle Breeding Farm	11
10	Poultry Breeding Farm	14
11	Pig Breeding Farm	6

Details of Veterinary services through mass vaccination and treatment during 2002-2003 are shown below:-

Table No. 6.4

Sl. No.	Item	Number
1	General Cases Treated	3,94,080
2	Vaccinated	2,58,206
3	Castrated	47,726

## CHAPTER - 7

### FISHERIES

Pisciculture has gradually gained acceptability and confidence among the farmers of Arunachal Pradesh and fish farming has become a subsidiary occupation of the farmers for gainful employment to supplement their income from agriculture. Piscicultural activities in the state ensure three basic requirements like generating self-employment, supplementing proteineous food and a source of income.

There are a large number of beels, ponds, streams and rivers in Arunachal Pradesh . But the production of fish is very low in the state for which internal demand for fish to a great extent is met through supplies from outside the state. As per data available from the Department of Fisheries, an estimated 2600 tonnes of fish were produced in the state in 2002-2003. However, the production of fried and fingerlings remained same as previous year. The following table shows the production of fish and fish seeds in Arunachal Pradesh.

#### FISH AND FISH SEED PRODUCTION IN ARUNACHAL PRADESH

Table No.:7.1

Sl. No	Items	Units	1999-2000	2000-2001	2001-2002	2002-2003
1	2	3	4	5	6	7
1.	<b>Fish Production</b>	Tonnes	2395.00	2500.00	2600.00	2600.00
	a)Ponds & Tanks	-do-	975.00	1040.00	1060.00	NA
	b)Beels, lakes, Swamps	-do-	550.00	555.00	565.00	NA
	c)Paddy-cum-fish-culture	-do-	220.00	220.00	280.00	NA
	d)River, Canals, Streams etc	-do-	650.00	685.00	695.00	NA
2.	<b>Fish-seed Production</b>					
	a) Fry	Million No.	24.40	25.00	25.00	25.00
	i) Private	-do-	7.30	7.50	7.50	NA
	ii)Govt.	-do-	17.10	17.50	17.50	NA
	b) Fingerlings	-do-	8.00	8.50	8.50	8.50

Source: -The Director of Fisheries, Itangar.

Up to the end of 2002-2003 an area of 2165 hectares was brought under systematic fish-culture in the state against as much as 7200 hectares of estimated vast potential of culturable water area of the state. Under private fish farming altogether 893 hectares of water area was developed up to 2001-2002. Two Eco hatcheries through private fish farmers and 11 (Eleven) hatcheries through government were developed up to 2001-2002.

Paddy-Cum-Fish culture having firm footing in the Apatani Plateau of Lower Subansiri District has been extended to other districts where suitable area for paddy-cum-pisciculture is readily available.

The table given below shows achievement under pisciculture in the state for last two years.

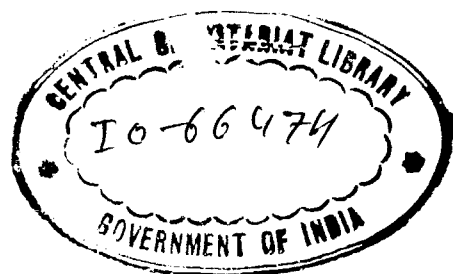
**PISCICULTURE DEVELOPMENT PROGRAMME IN A.P. AS ON 31-3-2003**

Table No.:7.2

Sl No	Items	Units	2001-2002	2002-2003
1.	Govt. fish farm/Seed farm	Hectares	32	32
2.	Peoples' fish farms/ponds	-do-	892	956
3.	Other fish farm(Govt.& Pvt.Beels/ lakes)	-do-	107	107
4.	Area under paddy-cum –fish culture	-do-	1071	1071
5.	Area under pisciculture	-do-	2102	2165

Source :-Director of Fisheries Itanagar.

It has been noticed that the total area under pisciculture has increased by 3% during 2002-2003 but production of fish remained same. The Department of Fisheries has been implementing various schemes and programmes for fishery development of which worth mentioning are (1) Fish seed production and distribution to the farmers,(2) Training of farmers,(3) Ponds/Tanks/Beels fishery development under World Bank loan components,(4) Providing substantial subsidy to the farmers to encourage Rural Aqua-culture, paddy-cum-fish culture, Integrated fish farming, Trout culture etc.



## CHAPTER – 8

**ENVIRONMENT AND FOREST**

The greatest asset, nature has gifted to Arunachal Pradesh is her forests. As per the state forest report – 1999, published by the Forest Survey of India, forest cover of Arunachal Pradesh is 68951 Sq. Km accounting for 82.21% of total geographical area of 83,743 Sq. Km. of the state. The recorded forest area of the state is 51540 Sq. Km. which is about 62% of the total geographical area. Thus the state is fortunate to have such high percentage of her area under valuable forests cover against the national percentage of 23.28. The legal status wise forest area in the state is shown below :

**LEGAL STATUS WISE FOREST AREA IN ARUNACHAL PRADESH  
AS CN 31-3-2003**

Table No.:8.1

Sl No	Legal Classification	Area (Sq.Km.)	% of Recorded Forest	%of Geographical Area.
1	2	3	4	5
1	Reserved Forest	9722.69	18.86	11.69
2	Protected Forests	694.30	1.35	0.82
3	Anchal Reserved Forests	329.38	0.64	0.39
4	Village Reserved Forests	300.24	0.58	0.36
5	National Parks	2468.24	4.79	2.94
6	Wild Life Sanctuary.	7059.75	13.70	8.43
7	Unclassified State Forests	30965.39	60.08	36.90
8	Total	51539.99	100.00	61.55

The important types of forests found in the state are Tropical Ever Green, Semi Green, Wet ever Green, Wet Temperate, Deciduous Mixed coniferous, Alpine, Bamboo brakes etc. The state is very rich in fauna and flora. It has 20% Species of country's fauna and about 4500 species of flowering plants, 400 species of pleridophytes, 23 species of coniferous, 35 species of bamboo, 20 species of canes, 25 Rhododendron species and more than 500 species of orchids. Forest creates large employment avenue and it is the single largest source of revenue for the state. However, restrictions imposed by the Supreme Court of India on timber operation has severely affected generation of state's revenue. During the year 2002-2003 revenue earned was Rs 1560.83 lakhs. The out-turn and value of forest prouduce during 2002-2003 is given below:-

**OUT TURN OF MAJOR AND MINOR FOREST PRUDUCTS DURING 2002-2003**

Table No. 8.2

Sl.No	Name of Products	Unit	Out turn	Value (Rs. in Lakh)
0	1	2	3	4
1	<b>Major Products</b>			
	(i) Sawn Timber	Cum.	Nil	Nil
	(ii) Round Timber	Cum	2600.00	364.61
	(iii) Fire wood	Cum	12349.54	7.03
2	<b>Minor Products</b>			
	(i) Bamboo	Nos	42306	0.57
	(ii) Cane	Kaps	66737	8.26
	(iii) Charcoal	Qtl.	749.50	0.41
	(iv) Pole	Nos	19368.00	1.27
	(v) Boulder	Cum.	251157.37	186.69
	(vi) Sand	Cum.	49306.36	27.97
	(vii) Shingles	Cum.	20736.89	51.86

Forest play a very important role in social, economic and religious activities of the local people. But, of late forests have been adversely affected by several factors which include rapid multiplication of human and livestock population, indiscriminate felling of trees and diversion of forest lands to other activities due to economic and political reasons. Therefore proper and effective measures must be taken to check senseless exploitation, illegal encroachment, hunting and other unlawful activities. While formulating strategy for forest management emphasis is to be given on conservation along with rational exploitation and regeneration.

However, due to financial constraint it becomes difficult on the part of Govt. to implement the schemes at desired level. The following table indicates physical achievement of forest development during 2002-2003.

**PHYSICAL ACHIEVEMENT OF FOREST DEVELOPMENT DURING 2002-2003**

Table No.:8.3

Sl No.	Schemes/ Indicator	Unit	<sup>10</sup> th plan target	Achievement
1	2	3	4	5
1	Working Plan	Sq. Km.	500.00	460.70
2	Forest Regeneration	Hect.	30000.00	5243.00
3	Plant supplied to public	Lakh Nos.	30.00	26.07
4	Area cover under APNAVAN Scheme	Hect.	2500.00	-
5	Aided Natural Regeneration	do	2397.00	-
6	Artificial Plantation	do	2846.50	-
7	Social Forestry	do	3.00	-
8	Forest Revenue earned	Rs.in Lakh	-	1560.83

Following paragraph highlights some of the Schemes implemented during 2002-2003.

**1. Aided Natural Regeneration and Afforestation.**

With a view to improve the economic value of the forest by aiding the naturally regenerated plantations duly supplemented by plating and sowing seeds according to necessity, a total area of 2397 hectares was aided under the scheme of Aided Natural Regenerating & Afforestation.

Under afforestation plantation was raised over 2846 hectares for preservation of land from soil erosion and also to conserve water in areas devoid of forest.

**Non-Timber Forest Products (NTFP)**

The scheme envisages to protect and develop non-timber forest products like bamboo, cane, medicinal plant, fodder etc. which can provide alternative source of livelihood to local people. Due to imposition of restrictions on timber activities non-timber forest products are gaining importance gradually. Till date 41 hectares of area has been brought under plantation/ development of bamboo, cane, medicinal plant etc. at an expenditure of Rs.494.44 lakhs.

The approved outlay for 2002-2003 is Rs. 265.90 lakh and target attempt to achieve is creation of 5243.50 hectares plantation ( ANR- 2397 hectares and afforestation- 2846.50 hectares) besides maintenance of plantation created between 1997-98 to 2000-2001.

**3. APNAVAN/ AVENUE & STRIP PLANTATION (SOCIAL FORESTRY)**

These two schemes are being implemented with a view to create an interest and involve local people in raising trees on private/community land and thereby ensure protection and preservation with the support of people. During 2001-2002 achievement under APNAVAN scheme was creation of plantation- 170 hectares, Nursery-3 nos. at the cost of Rs. 18.47 lakhs and under Social Forestry creation of plantation - 3 hectares and about 500,000 nos. seedlings were distributed to the people and institutions at the cost of Rs. 18.20 lakhs.

**4. RECREATION FORESTRY**

The objective of the scheme is to add beautification and land escaping in and around the state capital and other administrative headquarters of the state. Under the scheme up to date achievement is creation of Parks-82 nos, Botanical garden- 5 nos, Coffee house- 1 no, besides maintenance of existing parks and gardens.



## 5. CONSERVATION & PROTECTION OF WILD LIFE

A good forest is what Naturalists call a genetic “store house” has relevance to Arunachal Pradesh. Because of occurrence of extensive luxuriant forest cover a variety of wild life are found in the forest . Therefore objective of the scheme is to preserve the rich wildlife and also to create awareness among the people for protection and preservation of valuable wildlife. The scheme is implemented in two parts ie. (i) Protected area network management which includes management of National Parks and Sanctuaries and (ii) Management of Zoological Parks.

There are two National Parks and ten Wildlife Sanctuaries spread over 9528 Sq. Km of its geographical area. The list of National Parks and Wildlife Sanctuaries are given in the table below:-

### **LIST OF NATIONAL PARKS AND WIDLIFE SANCTUARIES IN ARUNACHAL PRADESH AS ON 31-3-2003**

Table No.:8.4

Sl No.	Name of National Parks	Area in Sq.Km.	Important Fauna	Year of Notification
1	2	3	4	5

#### **A. National Parks & Tiger Projects.**

1	Namdapha National Park ( Tiger Project)		Tiger, Hooloek gibbon Musk deer	May 1983
2	Mouling National Parks		Serow, Black Bear, Takin	December 1986

#### **B. Wild life Sanctuaries.**

1	Pakui W/ L Sanctuary	861.95	Elephant,Tiger,Bear, SambharHornbilland Bison	March 1997
2	Itanagar W/ L Sanctuary	140.30	Elephant,Tiger,Bear	June 1978
3	D Ering W/ L Sanctuary	190.00	Hog,deer,Hare	December 1980
4.	Mahao W/ L Sanctuary	281.50	Red Panda,H. Gibbon, Takin	December 1980
5.	Kamlang W/ L Sanctuary	783.00	Capped, Langur, Bear, deer,	October 1989
6.	Eggle Ness W/ L Sanctuary	217.00	Elephant,Tiger Red Panda	October 1989
7	Tele W/ L Sanctuary	337.00	CloudedLeopard,Deer,Hornbill	July 1995
8.	Kame W/ L Sanctuary	55.00	Elephant, Small Cats, Tiger	September 1991
9	Dibang W/ L Sanctuary	4149.00	Trago pan, Kalis, Takin, Pheasan, Mask deer	November 1991
10.	Ydi-Rebe-Supse W/L Sanctuary	496.15	Capped,Langur,Clouded Leopard,Horn bill,Lesser cats	February 1998
11.	Sessa Orchid Sanctuary	100.00	Orchids.	October

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CHAPTER – 9

**SOIL AND WATER COSERVATION**

In Arunachal Pradesh, almost in every year heavy rainfall causes soil erosion and devastating flood in the lower region and in the neighbouring State of Assam. Therefore, the programme on soil and water conservation, is taken up mainly to protect cultivable land from erosion and to sustain the productivity. Soil conservation works thus include land sloping, contour bunding, terrace cutting in the hill slopes, protection of agricultural land by various protective measures such as construction of bunds and embankments, spurs, and engineering structures like brush wood dams, check dams etc. in the higher regions. A State land use board has also been set-up which functions as an advisory board to the land user departments like Agriculture Horticulture and other works departments for better and scientific use of available land. The achievement on soil and water conservation during last three years is given below:-

Table No.: 9.1

Sl. No.	Particulars	Unit	Achievements during the year	
			2001-2002	2002-2003
1	2	3	5	6
1	Land Protection Eng. Method	Hect.	346.21	353.49
2	Land Protection Veg. Method	Hect.	12.60	20.00
3	Land Development	Hect.	49.71	0.50

Source:- The Chief Engineer, RWD, Itanagar

The following table shows district-wise achievement under soil and water conservation, suspension bridges and rural housing as on 31-3-2003.

Table No. 9.2

District	Soil & Water conservation		Suspension Bridges (In No.)	Rural Housing	
	Land Develoment. (hect.)	Land Protection(hect)		Constuction assistance (no.of families)	Staging huts
1	2	3	4	5	6
Tawang	772.00	1387.35	5	1306	8
W/ Kameng	4185.00	1818.25	8	1295	13
E/ Kameng	1246.00	1839.50	48	1175	14
Papum Pare	950.25	3135.73	22	967	4
L/ Subansiri	6368.50	3052.50	5	1178	15
U/ Subansiri	893.00	1134.70	4	1043	12
West Siang	10834.55	12228.90	14	1440	8
East Siang	921.00	8109.60	12	1580	10
U pper Siang	191.00	1009.00	1	1421	10
Dibang Valley	982.00	2775.45	13	1174	9
Lohit	7920.00	24496.50	45	1070	14
Changlang	2333.00	4376.65	5	716	9
Tirap	8490.00	6528.75	4	731	13
Total	46086.30	71892.88	186	15096	140

## CHAPTER - 10

### IRRIGATION AND FLOOD CONTROL

The irrigation, although essential for modernisation in agriculture, is limited in Arunachal Pradesh. The State has abundant streams rivers and ground water but it is not used adequately for irrigation purposes. In Arunachal Pradesh where shifting cultivation is prevalent, irrigation is necessary to induce the farmers to take up permanent cultivation and change their existing mono cropping pattern to double cropping with scientific method .

At the end of 9<sup>th</sup> Five year plan (1997-2002) irrigation potential created is estimated at 18373 hectares. The following table shows physical achievement as on 31<sup>st</sup> March 2003

#### PHYSICAL ACHIEVEMENT UNDER IRRIGATION AS ON 31<sup>ST</sup> MARCH 2003

Table No. : 10.1

Sl No.	Particulars	Unit	Achievement
1	Irrigation Potential Created	Hect.	105651
2	Channels	Nos	38406
3	Tube wells	„	190
4	Lift Irrigation	„	145
5	Area irrigated more than once	Hect	6092
6	Net Area irrigated	„	44443
7	Gross area irrigated	„	50505

Source:- C.E, I & FCD, Itanagar

#### FLOOD CONTROL

Almost every year, during monsoon heavy damages and losses are caused by flood to lives and property of the state. In addition to this, it also causes large scale soil erosion in many parts of the state. In order to check such large damages the Irrigation and Flood Control Department has taken up a number of flood control and anti-erosion measures in flood-prone areas which includes construction of embankments, drainage, guide bun, spurs, anti-erosion protection works etc. During 2002-2003 altogether 500 Mtrs of embankments, guide bunds, Spur, drain etc. were constructed with an expenditure of Rs 244.74 lakhs. In addition to above the department also implemented following centrally sponsored schemes.

#### ACHIEVEMENT OF CENTRALLY SPONSORED SCHEMES DURING 2002-2003.

Table No. 10.2

Name of Schemes	Unit ( In Hect.)	Expenditure incurred. (Rs.in Lakh
Flood Control Works	2827	1331.97
Anti – Erosion Works	3122	668.01

Source:- C.E, I& FCD, Itanagar.

## CHAPTER – 11

### RURAL DEVELOPMENT AND PANCHYAT RAJ

The main objectives of the rural development programme are poverty alleviation, employment generation and implementation of other development programmes in the rural areas. The following state and centrally sponsored developmental schemes and programmes were under implementation during 2002-2003.

#### **(i) SWARNJAYANTI GRAM SWAROZGAR YOJANA (SGSY)**

This yojana covers all aspects of self employment such as organisation of poor into self help groups. The beneficiaries under this scheme are called as “Swarozgaris” The objective of SGSY is to bring the assisted poor families above the poverty line by providing them income generating assets. The scheme is a credit cum subsidy programme. The maximum subsidy limit is Rs.10,000/- for individual and Rs.1.25 lakhs for self help group.(SHG).

During the year 2002-2003, 21 Self Help Groups were formed and 866 individual swarazgaris were assisted under SGSY with an expenditure of Rs 165.19 lakhs.

#### **(ii) SAMPOORNA GRAMIN ROZGAR YOJANA (SGRY)**

This new programme was launched by the govt. of India in 2001-2002 by merger of Jawahar Gram Samridhi Yojana (JGSY) and EAS. The objective of the programme is to have an integrated approach for creating of wage employment avenues as also food security for both BPL and APL families who are in need of wage employment and willing to take up manual/ unskilled works. The wage employment will be provided by way of creation of durable community assets. The wage to the workers will be paid partly in kind @ 5 Kg. of rice per man days and remaining wages will be paid in cash as per notified daily wages of the state govt.

Under this scheme, 23.69 lakh man days were generated and Rs.1416.70 lakh has been spent during 2002-2003.

#### **(iii) INDIRA AWAS YOJANA**

The objective of the scheme is to provide assistance for construction of houses by the SC/ST and bonded labourer families living below poverty level in rural areas. Out of the total fund allocation 20% is earmarked for up-gradation of kutchha houses into pucca and semi pucca. The maximum amount provided for new house construction is Rs.22000/- and for up-gradation Rs.10000/- per family. During 2002-2003, 2235 new houses were constructed and 1188 old houses upgraded by spending Rs.665.39 lakhs under this scheme.

**(iv) INTEGRATED WASTE LAND DEVELOPMENT PROGRAMME.**

The programme aims to develop non-forest waste land with active participation of the user groups, self help groups and panchayatiraj institutions. In Arunachal Pradesh so far only one project for Zimithang area in Dirang Block of West Kameng District has been sanctioned for Rs.60.00 lakhs covering 1500 hectares of land.

**(v) PRIME MINISTER'S GRAM IN SADAK YOJANA (PMGSY)**

The programme was launched by the govt. of India from 2000-2001 for establishment of rural road connectivity by construction of all weather road to connect all the unconnected villages. In Arunachal Pradesh Rural Development Deptt.is declared as nodal Deptt. to coordinate the programme with various executing agencies ie, PWD and RWD. The NERIST,, Nirjuli, will function as State Level Technical Agency (STA) for scrutiny and clearance of road projects proposed by the PWD and RWD. So far an amount of Rs.121.00 crores has been allotted by the Govt. of India under PMGSY

Table No.:11.1

(Rs. In crore)

Executing Agency	Year			
	2000-2001	2001-2002	2002-2003	Total
<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>
(i) PWD	21.15	22.75	22.00	65.90
(ii) RWD	19.15	22.25	13.00	54.00
(iii) RD	0.70	-	-	0.70
Total	41.70	45.00	35.00	121.00

**(vi) PRADHAN MANTRI GRAMODOYA YOJONA (PMGY)**

A new scheme "Rural Shelter" (Gramin Awas) under PMGY was introduced in the year 2001-2002 in replacement of BMS component. During 2002-2003 Rs.302.00 lakh as released by the Govt. of India for the scheme. For 2002-2003 Rs.604.00 was allotted for Gramin Awas scheme under PMGY. The PMGY (GA) is being implemented for providing assistance to BPL families as per IAY pattern for construction of new houses and up gradation of existing houses. A total of 1391 new houses were constructed incurring an expenditure of Rs 306.00 Lakhs while 760 houses were upgraded with an expenditure of Rs 76.00 lakhs during the reference year.

**PANCHAYAT RAJ**

The Panchayatraj institutions in Arunachal Pradesh was promulgated w.e.f.2<sup>nd</sup> Oct/1968. The system was all India pattern. It envisaged a four tier structure ,i.e; Gram Panchayat, Anchal Samiti, Zilla Parishad and NEFA Agency Council. The fourth tier was renamed as Pradesh Council in 1972, with the change of the name of the territory as Arunachal Pradesh.. Pradesh council was apex territorial panchayat body. It was later removed and replaced by the Legislative Assembly in 1975.

The existing system of Panchayat Raj in A.P. which had become operative in 1973 is a three tier system, namely, at the village level Gram Panchayat, Anchal Samiti at Block level and at District level Zilla Parishad. The duration of the office of every Panchayat unless dissolved continues for five years from the date of notification by the Deputy Commissioner.

The constitution (73<sup>rd</sup> Amendment) Act,1992 envisages to establish strong, viable and responsible Panchayat at village, block and district levels. The Act also envisages to evolve adequate powers, responsibilities and finance upon these bodies so as to enable them to prepare plans and implement schemes for economic development and social justice.

The NEFA Panchayat Act, 1967 was again replaced by promulgation of Arunachal Pradesh Panchayat Raj Act,1997.

The functioning of Panchayat Raj in A.P. remained suspended for a long period since 14<sup>th</sup> September,1997. And the election to the present Panchayat Raj was held in April,2003.

It is expected that active involvement of Panchayat Raj institutions in the process of formulation and implementation of the plans will make possible maximum utilisation of human and material resources in the rural areas. The table below shows institutional-wise number of elected Panchayat members in Arunachal Pradesh.:-

Table No.11.2

Sl.No	Panchayat Raj Institution	Number of members		
		Total	Men	Women
1	Gram Panchayat	6513	3934	2579
2	Anchal Samities	1645	1073	572
3	Zilla Parisad	138	92	46
4	District Chair Persons	14	8	6

Source:- Director of PR& RD It anagar.

## CHAPTER – 12

### CO-OPERATION

Till 1956 the Co-operative movement in Arunachal Pradesh was mainly confined to the field of consumer goods. Later, it rapidly spreads to other fields like transport, agricultural marketing/processing, industry, credit and other functional spheres to achieve the objective of economic growth and social change in the area. The movement plays a significant role in the social and economic development since the economy of Arunachal Pradesh is predominantly rural in character. The State had 339 co-operative societies with a membership around 71 thousand at the end of year 2002-2003 as against 60 societies with a membership of 10 thousand at the end of the year 1964-65. At present, there are more than 3298 personnel engaged on regular basis with different co-operative societies in the state.

A summary view of the level of attainment in terms of selected characteristics of co-operative movement in Arunachal Pradesh for last two years is reproduced below. It reveals that the number of co-operative societies of all types taken together in the State increased by 0.29% at the end of 2002-2003 in comparison to 2001-2002. The Govt. share capital of the cooperative societies of all types stood at Rs 534.85 lakhs during the year 2002-2003. The important indicators of Co-operative movement in Arunachal Pradesh for last 2 years are given below:-

**IMPORTANT INDICATORS OF CO-OPERATIVE MOVEMENT IN ARUNACHAL PRADESH**  
Table No.:12.1

Sl. No	Item	Unit	2001-2002	2002-2003
1.	Registered Co-operative Societies	No.	339	359
2.	Apex Co –operative Societies	No.	-	03
3.	LAMPS	No.	-	33
4.	Primary Membership	No.	70000	71000
5.	Individual share capital	Rs in lakh	NA	105.28
6.	Govt. share capital	do	NA	384.61
7.	Working Capital	do	1484.76	NA
8.	Loan Advanced	do	NA	781.50
9.	Annual Turnover	do	5786.75	5500.00
10.	Net Annual Trading results	do	31.05	55.00
11.	Co-operative Fair Price Shops functioning	No.	273	277
12.	Kissan Credit Cards issued by A.P. State Co-operative .Apex bank	No.	NA	406
13.	Amount disbursed under KCC Schemes.	Rs in lakh	NA	41.65

In the development of co-operative sector, departmental role besides audit and over-checks, is mainly confined to provide financial assistance to the co-operative societies in the form of loan, share capital, subsidies for infrastructure facilities as per pattern of financial assistance approved by the Govt. and participation and strengthening of management. The main thrust was to diversify the consumers activities so as to make available necessary requirements to the consumers located particularly in remote parts of the State. Thus the growth of consumer co-operatives gained popularity for retail distribution of consumer goods at reasonable rates to cater rising demands of villagers and serving personnel.

The Apex Bank and the LAMPS play significant role in the Socio-economic development of the State. The State Co-operative Apex Bank having 31 branches with the support of 33 LAMPS provides agricultural loans to the farmers. Besides, the Bank also provides procurement loan to the LAMPS and marketing societies for undertaking marketing of agricultural produces as also cash credit to the districts wholesale societies for procurement and distribution of PDS items. The LAMPS in the State provide all sorts of assistance to the agriculturists and also function as main agent of PDS.

In addition to LAMPS, some consumer co-operatives are also involved in PDS. Co-operatives shoulder the principal responsibility for the success of PDS in the State both as wholesaler as well as retailer . The involvement of the societies in the system is so deep that it is difficult to draw any distinguishing line between the Co-operative and PDS . As on 31-3-2003 there are 273 Retail FPS(Fair Price Shop) which are also being run by the co-operatives.

The functioning of co-operative super-market with self service facilities, has been widely appreciated by the consumer of the capital complex. It was set up by the Arunachal Pradesh Co-operative Marketing and Supply Federation Ltd.



## CHAPTER – 13

### PUBLIC DISTRIBUTION SYSTEM

The Public Distribution System is focused as one of the national agenda under Basic Minimum Services. The PDS has spread over the whole of Arunachal Pradesh with a network of 1289 Fair Price Shops to ensure regular supply of essential commodities to the people at an uniform and reasonable price. In addition there are 36nos.petroleum /HSD outlets, 34 SKO outlets and 22 LPG distributors in different location of the State. In the high altitude remote areas bordering International Boundary where surface communication is lacking, the supply system in those areas is maintained by air dropping through 28 CPO Stores. The State Govt. is making all out efforts to bring hitherto uncovered/partially covered areas under PDS and Govt. of India also has extended the existing 6 principal distribution centres under PDS in those areas. During the year 2002-2003, 55 more new fair price shops have been opened. Out of the total 1344 FPS by 2002-2003, 1235 are in rural areas and 109 are in urban areas, while 277 FPS are operated by co-operative societies and remaining 1067 FPS are operated by Private Entrepreneurs. The following table gives district wise number of FPS in the state as on 31-3-2003

#### NUMBER OF FAIR PRICE SHOPS IN ARUNACHAL PRADESH AS ON 31-3-2003

Table No.:13

District	Rural			Urban			Combine		
	Coop.	Other	Total	Coop.	Other	Total	Coop.	Other	Total
1. Tawang	33	32	65	-	3	3	33	35	68
2. W/Kameng	31	38	69	-	7	7	31	45	76
3. E/Kameng	21	44	65	-	-	-	21	44	65
4. P/Pare	8	68	76	22	23	45	30	91	121
5. L/Subansiri	7	133	140	7	14	21	14	147	161
6. U/Subansiri	10	154	164	-	-	-	10	154	164
7. W/Siang	7	229	336	4	8	12	11	237	248
8. E/Siang	25	46	71	3	3	6	28	49	77
9. U/Siang	9	37	46	-	-	-	9	37	46
10. D/Valley	-	1	1	-	-	-	-	1	1
11. Lohit	46	15	61	3	1	4	49	16	65
12. Changlang	12	99	111	-	-	-	12	99	111
13. Tirap	10	67	77	4	3	7	14	70	84
14. Kurung kume	-	2	2	-	-	-	-	2	2
15. L/Dibang Valley	12	39	51	3	1	4	15	40	55
A.P.Total	231	1004	1235	46	63	109	277	1067	1344

During the year 2002-2003 the Department has procured 67004.043 MT rice, 5377.167 MT wheat and 5324.491MT L/ Sugar from FCI and 12104 KL SK Oil for public distribution.

To ensure food security among the families living below poverty line Govt. of India has introduced following schemes:-

- (1) Under the Scheme of Targeted Public Distribution System (TPDS) the state govt. has been distributing 35 Kg. of rice or wheat per month for the families living below poverty line @ Rs.6.10 per kg. and Rs.4.65 per kg wheat.
- (2) The Govt. of India has introduced a new scheme called “ANNAPURNA” under which 10 kg. of rice are distributed free of cost to the Old indigent citizens of 65 years of age and above who are not getting benefit under National Old Age Pension Scheme and 4442 such families are benefited under this scheme.
- (3) The Govt. of India has introduced another new scheme called “ANTYODAYA ANNA YOJANA” under which 35 kg. of rice and wheat per month @ Rs.3/- and Rs 2/- per kg. respectively are issued to the poorest of the poor families from the existing BPL families. As many as 15100 families are benefited under this scheme.

## CHAPTER –14

### TRANSPORT AND COMMUNICATION

Transport and communication play a vital role on the over all development of an area in general and industrial development in particular. Arunachal Pradesh being a hilly state has no any other suitable and viable mode of communication like railways and waterways. Road is the principal mode of communication for movement of goods as well as movement of the passengers. Yet in this sector the state is much behind the rest of the North Eastern states. As such in the development plans the Govt. has been attaching high priority to the construction of roads and as a result the total length of roads constructed in the state stood at about 14450.47 km.(including 382.94 km.under N/Highway) giving the road density of 23 km per 100 sq. km. of area at the end of 9<sup>th</sup> Plan (1997-2002) as against the all India average of 74.9 km. Per 100 sq.km during 1997. Category wise length of road for last 5 years is given below:-

#### CATEGORY WISE LENGTH OF ROADS DURING 9<sup>TH</sup> PLAN.

Table No.:14.1

(In Km.)

Year	Black topped	Surfaced	Un-surfaced	Total length of roads
1	2	3	4	5
As on 31-3-99	5244.550	1783.095	5433.932	13402.202
As on 31-3-00	4853.930	2182.615	6945.655	13982.200
As on 31-3-01	4853.930	2182.615	6945.655	13982.200
As on 31-3-02	4853.930	2182.615	6945.655	13982.200
As on 31-3-03	5805.416	2496.648	6148.406	14450.470

The above table indicates that out of total road length of about 14450.470 km. in 2002-2003 only 40% were black topped, 17% surfaced and rest 43% were un-surfaced.

#### RURAL LINK ROADS:-

Construction of rural link roads connecting a village or a cluster of villages with the main road is yet another scheme taken up by the RWD. The total length of such link roads constructed till the end 31<sup>st</sup> March, 2003 is 2279.83 km.

#### STATE ROAD TRANSPORT

Arunachal Pradesh State Transport Services came into existence in 1975 with only two(two) buses. The department is now operating a fleet strength of 233 buses (as on 31.3.2003) on 147 routes within and outside state. The average daily passengers carried by the buses was 5479. Apart from APST

services, large volume of traffic is operated by private operators. The APST department is also operating six Railway Out Agencies to facilitate advance reservation in long distance trains.

**OPERATIONAL STATISTICS OF ARUNACHAL PRADESH STATE TRANSPORT**

Table No.:14.2

Indicator	Unit	Operational Statistics		
		2000-2001	2001-2002	2002-2003
1	2	3	4	5
Bus route coverage	No	141	147	147
Distance bus route coverage	Per bus per day (in Km.)	95	95	95
Total bus km operated .	-do-	68.9	71	NA
Strength of bus fleet(No of buses)	Nos.	228	228	233
Seat occupancy ratio	Percent	65	63	68
Traffic receipt	Rs in lakh	662	754	705
Bus fleet utiliasation	Percent	80	68.32	68
Operational Expenditure	Rs in lakh	1601	1659	2600
Net (operational) loss	-do-	939	9.72	9.72
Fuel efficiency	Km per litre	3.19	3.22	3.10
Tyre efficiency	In Km	28000	28000	28000
Bus station	In No	12	12	12
Railway out agency	-do-	6	5	5
Average daily passengers carried	-do-	5479	5479	5027
Average bus on road on any given day	-do-	195	195	141
Total passenger carried	No in lakhs	20	18.35	18.35

**RAILWAYS**

There is only one metre gauge railway line of 22 km. connecting Bhalukpong with Balipara.

**CIVIL AVIATION.**

The state of Arunachal Pradesh did not have a place in the air map of the country till 1995. In view of remoteness and long distance between the capital and district headquarters and due to absence of a good surface communication there was a long felt need for air communication for movement of passengers and for supply of ration items to the remote parts of the state. As a first step towards the effort the state govt. introduced a single helicopter service basically for passengers through Pawan Hans Helicopter Limited (A Govt. of India Enterprise) with effect from December, 1995. Govt. have acquired another aircraft in 2003 making the total strength to two. The passenger service was initially started on two routes viz; Naharlogan- Guwahati and Naharlogan- Mohanbari and subsequently extended to few other places of the state.

The helicopter service is also extended to other locations on emergency situations like lifting of stranded passengers due to disruption of road communication, lifting of VIP's etc. At present there are 13 numbers of landing grounds and 120 numbers of helipads in the state of which 11 numbers of landing grounds and 27 numbers of helipads are regularly used for operation of Pawan Hans passenger services and IFA ration sorties

**POSTAL AND TELECOMMUNICATION SERVICES.**

The postal and telecommunication services in the state are growing steadily in the recent years. There were one Head Post Office, 47 Sub-Post Offices and 257 EDBPO's functioning in the state at the end of 2002-2003. Thus during 2002-2003 the average area and population served by each post office were 207.77 sq.km. and 3675 persons respectively.

**GROWTH OF POST OFFICES IN ARUNACHAL PRADESH:**

Table No.:14.3

Indicator	Unit	Post Offices as on 31 <sup>st</sup> March				
		1999	2000	2001	2002	2003
1. Post offices	No.	294	301	303	304	305
(a) Head post office	No.	1	1	1	1	1
(b) Sub-post office	No.	45	46	46	47	47
(c) E.D.B.P.O.	No.	248	254	256	256	257
2. Telegraph office	No.	20	21	21	31	31
3. Population served per post office	Person	3626	3005	3601	3675	3675
4. Area served by one post office	Sq. km	285	278	276	207	207

Over the past years the state has been making slow and steady progress in creating telecommunication network. The state is at present divided into eight Telcom-Sub-Divisions, viz; Itanagar, Naharlagan, Bomdila, Tezu, Pasighat, Anini, Khonsa and Changlang. The number of telephone exchanges in the state at the end of 31-3-2003 was 105 as against 95 at the end of 31-3-2002. The total equipped capacity has increased from 73208 during 2001-2002 to 82868 during 2002-2003. The total number of working telephone connections which was 44388 at the end of March, 2002 has increased to 53862 at the end of March, 2003 registering a rise of about 25.6% over the year. The achievement made during 2000 to 2003 is highlighted in the table given below:-

**GROWTH OF TELECOMMUNICATION FACILITIES FOR THE PUBLIC FOR  
LAST FOUR YEARS**

Table No.:14.4

Sl. No.	Indicator	Unit	As on March			
			2000	2001	2002	2003
1	2	3	4	5	6	7
1	Telephone Exchange	No.	89	94	95	105
2	Total Capacity	No	51732	62816	73208	82868
3	STD facility	No	61	70	87	92
4	Working telephone Connection	No.	30757	39269	44388	53862
5	C.C.B connection	No	NA	NA	NA	NA
6	P.C.O Provided	No	421	695	734	942
7	Satellite V.T.V	No	2	2	NA	NA
8	Internet Connection	No	53	53	NA	NA

Radio Stations are functioning at Tezu, Pasighat, Itanagar and Tawang. Very low power transmitters (VLPT) have been set up almost in every District Headquarter and a low power TV transmitter has been set up in the State Capital at Itanagar.

## CHAPTER –15

### TOURISM

ARUNACHAL PRADESH is gifted with many basic resources necessary for tourism development, such as unique natural beauty, different species of wild life, religious places, historical sites, diverse attractive tribal culture and friendly and hospitable people. A proper development of tourism sector can provide alternative employment to the growing population in tourism activities.

Keeping in view the importance of tourism industry for economic sustenance of the state, recently the state government have established the Department of Tourism by appointing a full time Director to start tourism promotion drive. Since then in order to promote tourism the department has taken up various measures, such as, construction of Tourist Lodges, huts, View points at various selected places, construction of Trekkers hut, construction of War memorials at Tawang and Walong, development of Aero-Sports centres, refurbishment of Monasteries at Tawang and Bomdila etc.

At present important attractions for tourists in Arunachal Pradesh are Namdapha Tiger Project, Mouling National Park and 10 other Wild Life Sanctuaries for Wild Life Tourism, Tawang, Malinithan and Parasuramkund for religious/pilgrimage tourism and colourful seasonal festivals of different tribes for cultural tourism. Besides there are also other destinations of tourist interest, such as Orchid centre at Tipi, historical site of Bhisamak Nagar and Itafort, Second World War cemetery at Jairampur, Pongchao Pass to view Lake of No Return across Indo-Myanmar International border etc.

In spite of vast tourism potential, inflow of tourists in the state is not encouraging mainly due to existence of Inner Line Permit system which stood in the way of tourism development as visitors are to wait for obtaining entry permission, lack of good communication network, non availability of proper accommodations, other civic amenities etc. The volume of tourist movement for last few years is given below:-

### TOURISTS VISIT

Table No.:15

(In Number)

Sl.No	Year	Foreigners	Indians
1	2	3	4
1	2000	324	4511
2	2001	376	6676
3	2002	480	7597
4	2003	159	4200

## CHAPTER – 16

### POWER

Although, Arunachal Pradesh possessing immense potential of power in the form of hydel, oil, natural gas and coal resources, the progress in this sector in the state has not taken place on a scale proportionate to resources availability. As a result, there is a big gap between availability and requirement for power in the state. As per 2001 Census out of 2,12,615 households only 116,275 households ( 54.7% ) are having electricity facility.

The total un-exploited hydel potential of the state is -estimated to be 49,000 MW. Even if a part of the available hydro potential is harnessed the state will not only be self sufficient in meeting its own power requirement but at the same time it can earn revenue by supplying power to the other neighbouring states of the region. At present 35 nos. of micro/mini hydel projects with an installed capacity of 32.48 MW and Diesel sets with an installed capacity of 27.12 MW are the main sources of power supply in the state though the actual requirement is 95.00 MW. The 405 MW Ranganadi Hydro Electric Project under NEPCO has been completed and under trial run. One of the units of the project has started commercial generation of power in February 2002 and has generated 129 MW up to July 2002. During 2002-2003 NEPCO supplied 21.26 MU of the power to the Arunachal Pradesh free of cost. The NEPCO has also recently started the work on another mega project of 600 MW – The Kameng Hydro Electric Project.

The National Hydro Power corporation (NHPC) has undertaken survey and investigation works of Siang and Subansiri basin mega hydro power project with an estimated installed capacity of 20700 MW.

Priority has been accorded by the State Government in annual plans not only to meet increasing power demand within the State but also to bridge the gap of demand and supply in the region as a whole. But due to inadequate State's financial resources, the govt is unable to materialise its ambition of financing large hydel projects. Therefore, the govt. is encouraging participation of private sector companies in hydro power development.

At present the overall power supply position in the state is not satisfactory. The consumption of power in the state has been increasing over the recent years. The present peak demand is about 75 MW which is partially met from the existing micro/mini hydel stations and diesel generation sets with total installed capacity of 59.60 MW only and imports of state's share from central sector and purchase from Assam State Electricity Board (ASEB). The achievement made in past few years under various items of power sector is presented in the following table:-



**ACHIEVEMENT UNDER POWER SECTOR.**

Table No.: 16.1

Sl. No.	Indicators	Unit	Achievement during the year		
			2000-2001	2001-2002	2002-2003
1	2	3	4	5	6
<b>1.</b>	<b>Installed capacity</b>	MW	70.51	59.30	59.30
1.1.	Hydel	-do-	32.12	32.18	32.18
1.2.	Diesel	-do-	23.70	27.12	27.12
1.3	Stand by	do	14.69	-	-
<b>2.</b>	<b>Annual Generation</b>	MU	53.82	60.00	62.52
2.1.	Hydel	-do-	42.50	49.00	52.04
2.2.	Diesel	-do-	11.32	11.00	10.48
3	Imported from ASEB	MU	100.00	94.00	82.76
	Supplied by NEEPCO	do	-	-	21.26
<b>4</b>	<b>Annual Consumption</b>	MU	70.17	75.14	76.18
4.1.	Domestic	MU	29.35	45.69	34.72
4.2.	Commercial	-do-	4.92	5.28	5.56
4.3.	Industrial	-do-	1.51	1.72	1.64
4.4.	Public lighting and water works	-do-	5.94	4.70	5.48
4.5.	Agriculture/ Others	-do-	28.45	17.75	28.78
5	Villages electrified during the year	No.	35	113	20
6	Total Power requirement for A.P	MW	-	94	95

In the field of rural electrification programme achievement made is satisfactory. In spite of difficulties and hilly terrain the department has been able to electrify 2339 villages till the end of March, 2003, accounting for 64% of total villages.

The achievement under Central Govt./ NEC assistance during 2002-2003 is given below:-

Table No.16.2

Sl.No	Schemes Implemented	Unit	Expenditure incurred(Rs In Lakh)
1	Kathalgu – Deomali 220 K V	Km (10Km)	903.00
2	Ziro- Daporijo-Along 132KV	Km (169Km)	1268.00
3	2X5 MVA Sub- Station at Old Ziro	10MVA	93.57
4	C/O 33KV S/C, H/T Line from Geku – Along-Pasighat	-	134.16
5	C/O 2x5 MVA Sub-Station at Naharlagan	10MVA	18.66
6	C/O 33 MVA Double Circuit Transmission Line from Nirjuli to Itanagar	-	1.79

## CHAPTER – 17

### INDUSTRY AND MINNING

Arunachal Pradesh is one of the most industrially backward state in the country although endowed with abundant rich natural resources. Lack of transport and communication low capital formation, dearth of skilled technical personnel, poor literacy among the local people and more so the absence of industrial climate as the atmosphere being non conducive for setting up of industries in this hilly region are some of the major factors for industrial backwardness.

The industrial development in Arunachsal Pradesh started in 1953 by introducing cottage industries. In the beginning the departmental thrust was confined to training of local youth in different trades to promote traditional handicraft and handloom and village and cottage industries.

There is no large scale industries in the state. At present there are 15 medium scale industries which are mostly saw mill, plywood and veneer mills functioning in the state. In spite of many obstacles stood in the way of development of large and medium scale industries, significant number of small scale industrial units have come up in the state over the year due to active support and positive policy of the govt. There were 471 registered small scale industrial units functioning at the end of March 2003 mostly engaged in activities like black smithy, tin smithy, carpet making, carpentry, wool knitting, handloom and weaving , cane and bamboo works, printing press etc.

Realising the need of local technical personnel the state govt. has set up two Industrial Training Institutes at Roing and Tabarijo to impart training to local educated youth on different trades like Electrician, mechanic(Elect),Wire man, Fitter, Plumber, Surveyor, Mechanic(TV &Radio),Draughtsman (civil), Mechanic(MV),Carpenter, Welder, and Secretarial practice. During 2002-2003 altogether 189 students were admitted for ITI courses.To impart training to the rural youth under Skilled Development Programme, the Rural Industrial Development Centre (RIDC) was set up at Dirang in collaboration with HMT Limited, Bangalore. Besides DIC's also from time to time conduct entrepreneurship development programme at the district level.

To provide all facilities ,services and support required by the small entrepreneurs under single roof 13 numbers of District Industries Centres (DIC) have been opened in different places of the state. Besides, the Govt. has also adopted a number of measures to remove existing infrastructural inadequacy and to encourage establishment of new SSI units and assist existing ones. Some of these measures are mentioned below:-

(a) Local youth being sponsored to MBA and other PG course in industrial management to motivate them to set up different industrial ventures.

(b) Raw material Banks are opened in all the districts in order to assist small scale and village industrial units to meet up raw materials timely and at reasonable cost.

(c) Due to non-availability of banking facilities in many areas of Arunachal Pradesh, it is very difficult for the entrepreneurs to obtain loan from the bank. Therefore, the Department of Industries has been extending loans to the entrepreneurs for establishment of small projects of their own. APIDFC, owned by the State government is also engaged in development of industries and providing financial assistance under the refinance scheme of Industrial Development Bank of India

(d) Industrial Estates provide ready-built sheds to the entrepreneurs to start their own industrial venture at a very nominal rent where-in road communication, power supply and water supply including other required infrastructure are made available. At present, there are 15 Nos. of Industrial Estate with 196.48 acres of area acquired in the state.

(e) Four Industrial Areas (earlier indicated as Growth Centre) one at Tezu and remaining three at Dirang, Pasighat and Miao are functioning in the state.

(f) A centrally sponsored Export Promotion Industrial Park (EPIP) at Niglok Ngarlung in East Siang District has been formulated with a view to involve State Government in export efforts.

### **HANDLOOM AND HANDICRAFT :**

Handloom and Handicraft are almost household industries among the tribal people of Arunachal Pradesh. The industries receive considerable help from the state govt. in the form of finance, improved looms, accessories and raw materials at reasonable rates. To improve the design and quality of handloom and handicraft products, the Directorate of Textiles and Handicraft is running 88 numbers of weaving and craft centres and 6 numbers of Handloom Development and Quality dyeing units in the state.

With a view to popularise handloom and handicraft products being manufactured by the industrial units in the state, the department has been participating in various fairs, festivals, and exhibitions. Besides running 15 numbers of Emporia and 3 numbers of Show Rooms cum Sales Counters in the state there are 2 numbers of Emporia functioning at Delhi and Kolkata. The department has also acquired a plot of land in New Bombay for establishment of a Guest House and an Emporia to exhibit the state's traditional craft outside state. The table below shows achievement of Handloom and Handicraft during 2002-2003:-

**PHYSICAL ACHIEVEMENT OF HANDLOOM / HANDICRAFT INDUSTRIES**  
**DURING 2002-2003**

Table No. 17.1

Sl. No.	Indicator	Unit	Achievement		
			2000-2001	2001-2002	2002-2003
1	HANDLOOM INDUSTRY				
1.1	Production of cloth	000 mtr.	1,50,000	1,58,000	NA
1.2	Persons employed	No	7,000	7500	NA
2.	HANDICRAFT & OTHER VILLAGE INDUSTRY				
2.1	Value of Production	Rs in Lakhs	97.50	94.98	141.99
2.2	Persons employed	No	600	700	2049
3.	CRAFTS TRAINING-CUM PRODUCTION				
3.1	Crafts production /training centre	No	88	88	88
3.2	Persons trained	No	540	247	302
3.3	Value of Production	Rs. In lakhs	23.00	33.71	30.91
3.4	Annual sale proceed	-do-	39.60	39.80	40.09

**KHADI AND VILLAGE INDUSTRIES**

Cotton weaving is another household industry of the state. For promotion of Khadi and Village industries the state govt. has constituted KHADI AND VILLAGE INDUSTRY BOARD in 1989. The Board started functioning since 1991. The Board provides financial support received from the Khadi and Village Industries Commission (KVIC), Govt. of India, to the rural industrial units. The Board has financed 248 numbers of rural industries till date. Other than this, the KVIB has also been implementing Central sector schemes on bee keeping with funding from Ministry of Agriculture, Govt. of India. The Board also sponsor local youth for undergoing training at different training institutes of KVIC for which expenditure is borne by the KVIC, Govt. of India.

**SERICULTURE**

Rearing of silk worm is another household industry which provide scope for subsidiary occupation to the villagers in the state. Three types of silk worms are reared in some areas of the state, namely, Eri, Muga, Oak Tasar and Mulberry. According to information available with State Directorate of Textile and Handicraft there are 578 villages under coverage of sericulture activities and total area under plantation was 103.5 acres.

The state govt. is giving attention to the development of silk production in the state. 28 numbers of demonstration centres have been set up covering all the districts of the state to demonstrate proper management of the activity to the rearers. The details of sericulture activities during the year 2002-2003 is given below:-

**TYPEWISE SERICULTURE ACTIVITIES DURING 2002-2003.**

Table No.:17.2

Sl. No	Type of Silk Worm	Area brought under food plant (acr.)	Village rearers (in no.)	Seed supplied (in lys)	Production of raw silk(in kg )	Yield of cocoons (in kg)
1	2	3	4	5	6	7
1	Eri	5.50	2161	36212	12780	15000
2	Oak Tasar	2.00	-	-	21	135
3	Muga	46.50	87	12120	279	1615
4	Mulberry	13.00	487	9575	1749	18000
<b>Total</b>		<b>67.00</b>	<b>2735</b>	<b>57907</b>	<b>14829</b>	<b>34750</b>

Financial assistance are also made available from the Central Govt. to encourage sericulture development. The Ministry of Rural Development, Govt. of India, has sanctioned a project amounting to Rs.242.76 lakhs for Eri silk development in the state to be implemented by the Textile and Handicraft Department. The project envisages for sustainable development of Eri silk industry in the state by assisting three hundred beneficiaries identified as below poverty line families.

**MINING**

The most important mineral resources of Arunachal Pradesh is oil and natural gas which are being extracted in small quantity from Kharsang Oil Field in Changlang District by Oil India Limited and Geo Empro Petroleum Limited, a consortium of private and foreign industries. Survey and investigation carried out have also established presence of economic deposit of coal at Namchik-Namphuk belt of Changlang district. There is a proposal to carry out commercial extraction of the coal deposit through APMDCL.

No detail survey of other mineral resources could be taken up due to absence of infrastructure, difficult terrain and thick forest growth. However, preliminary investigations carried out in some parts of the state have confirmed economic deposits of lime stone, dolomite, graphite, granite, marble stone etc. To promote exploration and exploitation of various minerals the state govt. has created the Department of Geology and Mining in the year 1995. The table below shows production of oil, natural gas and coal during last three years.

**STATEMENT SHOWING PRODUCTION OF CRUDE OIL, NATURAL GAS AND COAL .**

Table No.:17.3

Sl. No	Item	Unit	2000-2001	2001-2002	2002-2003
1	2	3	4	5	6
A	Crude Oil	MT	78409	69040	5,04,52,630
B	Natural Gas	“000” Std. Cu.Mtrs.	27032	-	NA
C	Coal	MT	11088	8166	9,80,037

For exploitation of mineral resources, the State Govt. has created a Department of Geology & Mining in the year 1995. The Department is now functioning with small contingent of staff and has engaged itself for the development of Mineral resources.

## CHAPTER – 18

### EDUCATION AND HUMAN RESOURCES DEVELOPMENT

Education and Human Resources Development is of paramount importance to improve the socio-economic status of people. In this respect, till independence, Arunachal Pradesh lagged extremely behind with only 4 primary schools and literacy less than 1%. A modest beginning, however, could be made right from the first Five Year Plan despite formidable constraints like inaccessibility of territory, peoples' unawareness of the need of education and traditional dependence on children for domestic and field work. With increasing emphasis through successive plans, commendable progress could be made over the past few decades. The census record reveals progressive growth of literacy as 7.23% in 1961, 11.29% in 1971, 20.79% in 1981, 41.59% in 1991, and 54.74% in 2001. As per 2001 census data, male and female literacy rate in Arunachal Pradesh are 64.07% and 44.24% respectively as against All India rates of 64.13% and 39.29% respectively. Also, by the end of the fifth year (2001-2002) of 9th Five Year Plan (1997-2002), the number of general educational institutions has risen up to 1921 (excluding college and university) with enrolment of about 294 thousand students.

Efforts were made for providing facilities for primary education to achieve the constitutional objective of universalisation of elementary education. The 9<sup>th</sup> Plan strategies are also made in such a way so as to achieve the national objective of universalisation of elementary education, complete eradication of illiteracy among the people of age group 15-35 years, expansion of vocational education and youth service facilities to reduce dropout rates. Besides, efforts are being continued on higher and university education with qualitative improvement at all levels.

#### GROWTH OF EDUCATIONAL INSTITUTION

Table No.:18.1

( In numbers)

Type Educational Institutions	During last four years			
	1999-2000	2000-2001	2001-2002	2002-2003
1. Pre-primary schools	46	58	58	58
2. Primary schools	1289	1303	1315	1325
3. Middle schools	328	333	347	348
4. Secondary schools	109	116	120	130
5. Higher Secondary schools	68	68	71	74
6. College (Arts & Science)	7	7	7	7
7. University	1	1	1	1
8. School for Handicapped	1	1	1	1
9. Technical Educational Institution	-	1	1	2
10. Medical College ( Homeo )	-	-	-	1

**N B :- Figure include Govt./ Private/ autonomous institute.**

It appears from the above table that there is a steady growth of educational institutions in the state over the years. In addition to above institutions, there are six Teachers' Training institutes and one school for Handicapped persons functioning in the state. With a view to provide educational facilities in the habitations below 200 population, 266 Communities Schools have been set-up in phase manner since 1990-91. In Community schools, pre-schooling, primary education from class I, non-formal education and adult education are being provided. No regular teacher is appointed against these community schools. Each community school is run by an educational worker on honorarium basis. The educational worker is being appointed from locally available youths on the basis of recommendation of the Village and Block Education Committee. The trend of enrolment of students during last few years is shown in the table given below:-

### ENROLMENT OF STUDENTS AT DIFFERENT STAGES

Table No.:18.2

( In' 000 numbers)

Stage	1999-2000	2000-2001	2001-2002	2002-2003
1. Pre-primary	36	37	38	34
2. Primary	NA	NA	NA	166
3. Middle	NA	NA	NA	56
4. Secondary	21	22	23	24
5. Higher Secondary	9	10	11	11
6. Graduation	5	5	NA	5
7. Post graduation	0.5	0.5	0.5	0.5
<b>A. Total Enrolment</b>	-	-	-	<b>299</b>
B. Enrolment of students belonging to AP scheduled tribes	NA	193	216	<b>219</b>
C. Percentage of APST enrolment to total enrolment	NA	66.44	74.46	<b>73</b>

The enrolment of students during last three years indicates a growth from 290.5 thousand in 2000-2001 to 293.5 thousand in 2001-2002 registering 1.03 percent rise in total enrolment over the previous year.

The number of teachers and enrolment of students in the institution during 2001-2002 and 2002-2003 are reflected overleaf :-

**TEACHER-PUPIL RATIO IN EDUCATIONAL INSTITUTIONS**

Table No.18.3

Type of educational institution	Number of Teachers		Enrolment of Students in thousand		Teacher pupil Ratio	
	2001-2002	2002-2003	2001-2002	2002-2003	2001-2002	2002-2003
1 Primary School	3242	3373	38	166	1:12	1:34
2.Middle School	2676	2489	216	56	1:81	1:29
3.Secondary ,,	1718	1611	23	24	1:13	1:27
4.Higher Secondary ,,	1808	1746	11	11	1:6	1:31
5. Degree college	NA	196	5	5	NA	1:25
6. University	70	66	0.5	0.5	1:7	1: 8

Adult Education Programme has received the special attention in the state at the instance of National Literacy Mission to cover illiterates in the age group of 15-35 years with thrust on literacy, social awareness and functional literacy. The achievement of physical target under Adult Education is moderate. Efforts are continued to be made to give emphasis on area approach rather than centre based programme under Adult Education Programme.

In respect of technical education, Arunachal Pradesh is yet to have institutional facilities except the lone North Eastern Regional Institute of Science and Technology( NERIST) with limited seats for the state. Therefore, with a view to cater technical man power requirement of the state, Arunachal Pradesh Polytechnic has been set up at Itanagar in 2002-2003 under the World Bank Assisted Project. The Institute offers technical level diploma courses in Information Technology, Travel Tourism and Hotel Management, Costume Design and Garment Technology, Herbal Remedies and Cosmetology, Automobile Engineering and Electrical & Electronic Engineering. There is no college for study in medicine(except one Homeopathic College under Pvt. Sector), veterinary, forestry, agriculture, fishery etc under Govt. as well as private Sector and hence students are sent to study these disciplines in the institutions of other states of the country. On completion of their courses, most of these students return to the state catering Technical Manpower needs in various fields. The table below shows the total number of students sent for Medical, Veterinary and Engineering colleges outside the state from 1995 onwards

Table No. 18.4

Year	Medicine			Agri-culture	Veterinary	Horti-culture	Engineering		Pisci-culture	Handloom Technology and Sericulture
	MBBS	BDS	BHMS	BSC (Agri)	B.V.SC	Degree course	Degree	Diploma	Degree course	Degree course
1999	41	6	4	10	6	1	150	161	-	4
2000	34	5	5	13	10	4	154	158	-	3
2001	34	5	4	10	8	4	150	162	-	-
2002	34	5	6	8	11	9	116	111	-	-
2003	34	5	6	10	8	4	150	102	-	-



**CHAPTER-19****HEALTH AND FAMILY WELFARE**

The health and family welfare services occupy an important place in a welfare state. In Arunachal Pradesh these services include improvement of environmental sanitation, control of communicable diseases, health education, family welfare, maternity and child health care, etc. which are extended to the people through a network of 3 General Hospitals, 13 District Hospitals, 31 Community Health Centres, 78 Primary Health Centres, 376 Sub-Health Centres, 3 Health units, 12 Dispensaries, 37 Homeo Dispensaries, and 2 Ayurvedic Dispensaries and 2 T.B. Hospitals functioning in the state.

The health care institutions were shaped in conformity with National pattern. The old health units and dispensaries were restructured into Primary Health Centres, Community Health Centres and Health Sub-Centres to ensure comprehensive coverage of preventive as well as curative care.

In order to run medical institutions at present there are 506 Doctors of which 432 are Allopathic (including Specialists,) 37 Homeo, 2 Ayurvedic and 35 Dental Surgeons. moreover 158 Staff Nurses, 359 Midwives and a number of other technical and non-technical personnel are working in the state. To provide better health services to the people, the govt. is providing modern equipment, specialised services, increasing the number of medical and para-medical staff and up grading existing institutions. In addition to above there are 39 Nos Dental units and 4 Nos Hansen Disease Sanatorium functioning in the state. The table below depicts growth of medical institutions in the state:-

**STATEMENT SHOWING THE NUMBER OF MEDICAL INSTITUTIONS AND STAFF DURING LAST FIVE YEARS.**

Table No.19.1

Year	No. of Hospital/ CHC/ PHC/HSC	No. of Doctors	No. of Nursing staff	No. of beds	Population in "000" per		
					Health institution	Doctor	Bed
1	2	3	4	5	6	7	8
1998-99	468	473	488	NA	1	1	NA
1999-2000	476	527	509	2218	1	1	2.02
2000-2001	494	527	517	2218	2	2	2.02
2001-2002	518	527	517	2218	2	2	2.02
2002-2003	557	506	737	2218	1.96	2.16	0.50

N:B:-No. of Health Institutions includes Hoemopathic Ayurvedic, HDS, T. B. Hospital

It is apparent from the above table that the number of medical institutions has increased from 435 at the end on 8<sup>th</sup> Plan to 557 at the end of March, 2003. Similarly the strength of Doctors and authorised beds has also remarkably increased resulting in further reduction of population-Doctor and population –bed ratios.

Besides, there are various other centrally sponsored units functioning under health programme in the state for which achievement made are given below:-

Table No.19.2

Sl. No	Schemes /Programme	Unit	2002-2003	
			Target	Achievement
1	<b>National Programme for control of blindness.</b>			
	(i) Cataract Operation	No.	1000	532
2	<b>National Leprosy Eradication Programme</b>	No	100	126
3	<b>National T.B. Control Programme</b>			
	(i) New sputum (2001-2002)	No	3815	7769
	(ii) Sputum Smear(2001-2002)	No	382	626
4	<b>National IDD Control Programme</b>			
	(i) Salt Analysis(2001-2002)	No	5000	4299
5	<b>National Family Welfare Programme</b>			
	(i) Sterilisation(2001-2002)	No	2090	1429
	(ii) IUD(2001-2002)	No	3126	2816
	(iii) Oral pill (2001-2002)	No	2480	2093
	(iv) Condom(2001-2002)	No	1663	1227
6	<b>Immunisation</b>			
	DPT	No	25000	17979
	POLIO	No	25200	18836
	BCG	No	25200	14431
	MEASLES	No	25200	10361
	TT(PW)	No	29000	10275
	TT( 10Yrs)	No	14880	9006
	TT (16Yrs)	No	13628	6361
	DT(19Yrs)	No	24000	11986
7	<b>National Mental Health Programme</b>	No	1	1
8	<b>National AIDS Control Programme</b>			
	(i) STD Clinics	No	7	1
	(ii) Condom Procured	No	60000	60000
	(iii) Schools covered under AIDS Education	No	30	30
9	<b>National Anti Malaria Programme</b>			
	(i) DDT Spray Operation (1st Round)		803443	777998

**NEW POLICY/ACTION:-**

- (i) Eleventh Finance Commission has already sanctioned for establishment of three diagnostic centres.
- (ii) Establishment of Hospital Waste Management scheme for General Hospital, Naharlogun and Pasighat is under process.
- (iii) Establishment of Homeopathic college under private sector.
- (iv) Setting up State Level Medicinal Plant Board.

**Other important targets envisaged for 2003-2004 are:-**

- (i) Establishment of Sub-Centres      13 nos.
- (ii) Up-Gradation of PHC                      9 „
- (iii) Up-Gradation of CHC                      1 “

Despite fund constraint achievement made in the sphere of health care facilities by the state govt. with the help of dedicated medical staff is worth mentioning, It is hoped the sanction of the 500 bed State Referral Hospital by the GOI will remove a long felt need of the State.

~:: 56 ::~  
CHAPTER – 20

**WATER SUPPLY AND SANITATION**

The state has 3649 villages as per 1991 Census. In addition, there are another 365 habitations identified by the department after 1991 census. Thus there are 4014 villages/habitations to be provided with water supply in the state. Out of total 4014 villages/habitations 93 % have been fully or partially provided with drinking water supply till the end of March' 2003. Drinking water supply facilities are in existence in all the 17 urban centres but many of these are very old and as such requires augmentation and extension to cater the need of growing population. As per 2001 Census 31.9% households are having drinking water facility within the premises.

**RURAL SANITATION:-**

There is lack of awareness about the sanitation and personal hygiene among the general public in rural areas. Therefore, under rural sanitation programme construction of Low Cost sanitary latrine and garbage clearance in selected administrative headquarters are carried out. However no appreciable impact could be made on the sanitation environment due to lack of awareness among the people. The 2001 Census data reveals that 56.3% of the households having latrine facility within premises

**ACHIEVEMENT OF WATER SUPPLY AND SANITATION PROGRAMMES**

Table No.20

(Rs. in lakh)

Name Scheme	Unit	2001-2002		2002-2003	
		Target	Achievement	Target	Achievement
1.Rural Water Supply (MNP) PMGY RDW	No.of habitation	NA	NC-7 PC-23	NC-5 PC-7 Inst-3	NC-7 PC-15 Inst-8
2. Rural Water Supply ( PRP)	do	NA	NC-49 PC-83	NC-17 PC-69 Inst.-113	NC-21 PC-71 Inst.-117
3.Low cost Latrine	No	NA	NA	NA	MNP-174 CRSP-95
4. Urban Water Supply	KLD	NA	120	100	100

NC= Not covered., FC= Fully Covered, PC= Partially covered

Under the Rural Water Supply and Sanitation, two main programmes viz Minimum Need Programme(MNP) and Accelerated Rural Water Supply Programme (ARWSP) are being implemented by the Department. These schemes are also duly supported and backed by Filtration programme.

In last two decades, there has been a phenomenal growth of population in all districts both in Rural and Urban areas in Arunachal Pradesh. The existing water supply system which were installed in 1960s and 1970s are not in a position to cater the need of water supply to the inhabitants particularly in township areas. Considering the deficiency of existing water supply system, various strategies/plans have been taken up by the Department of PHED to take up the comprehensive water supply systems with elaborate arrangements for treatment of water to be supplied to the consumers. Besides, the department has taken up some more schemes like- Low Cost Sanitation Programme, Garbage Clearance Programme, lum Improvement Programme particularly in some township areas, liaisoning with the Urban Development Department.

## CHAPTER – 21

### SOCIAL WELFARE

The Social Welfare Department of the state is implementing various welfare schemes for socio- economic and educational uplift of physically handicapped, orphans, widows, destitute, poor children, women etc. The department is also engaged in removing social evils like, drug addiction, opium addiction, drinking of alcohol, child marriage etc. through publicity and organisation of seminars. The following are the schemes being implemented under social welfare programmes.

#### STATE LEVEL SCHEMES

**(i)Old Age Pension:-**Under this scheme pension @ Rs.150/- per month is provided to old and infirm persons who are above 60 years of age and below poverty level or has none to support them. The members of such pensioners in the state at the end of 31<sup>st</sup> March, 2003 was 2457.The department has kept a provision of Rs 26.00 lakhs to cover 1444 persons of age 60 to 65 years during 2002-2003 but actual achievement was 1300 persons only.

**(ii)Rehabilitation of disabled people:-** The scheme aims to provide lump-sum financial assistance @ Rs.10,000/- and Rs.5000/- for rehabilitation in the society to physically handicapped and mentally retarded persons. During 2002-2003, 75 such persons were provided assistance. The department proposes to assist 75 beneficiaries during 2003-2004. The table given below shows number of handicapped persons in the state:-

#### STATEMENT SHOWING NO.OF HANDICAPPED PERSONS IN ARUNACHAL PRADESH AS PER 1998 SURVEY.

Table No.:21

SL NO.	TYPE OF DISABILITY	NO.OF PERSONS
1	2	3
1	Orthopaedics	1847
2	Blind	1573
3	Deaf and dumb	2199
4	Mentally retarded	307
	<b>Total</b>	5926

**(iii)Children in need of care and protection:-** Under this scheme financial assistance/grants-in-aid is provided to voluntary organisations for running and maintenance of “Home” for destitute and orphan children. During 2002-2003, 150 children were provided assistance and target kept by the department for 2003-2004 is 436 children.

**(iv)Women Welfare Scheme:-** Under this scheme selected women are given vocational training and taken to various places in the country to educate about the development of rural women in those areas. During 2001-2002, 56 selected women received vocational training under the scheme.

**(v)Construction of Juvenile Home:-** A Juvenile Home is under construction at Pasighat. The scheme is Centrally Sponsored and 50% cost is to be borne by the state govt.

**(vi) Working Women’s Hostel :-** Working Women’s Hostel have been constructed in some places of the state to meet the accommodation requirement of women working away from their homes. The construction of WWH at Bomdila, Ziro and Naharlagan are expected to be completed in 2003-2004.

**(vii) Integrated Child Development Services:-** Under ICDS scheme supplementary nutrition, Immunisation, Health check up, Referral services, Nutrition and Health education and Non-formal Pre- School education services are provided to children(0-6) and pregnant/lactating mothers through network of 2339 Anganwadi centres spread over the state .During 2002-2003, 116518 children (0-6 years) and 29255 pregnant/lactating mothers were covered under ICDS.

The Department is also implementing a number of National Social Assistance schemes which are mentioned below:-

**(i) National Old Age Pension Scheme(NOAPS):-** Under this scheme pension benefit @Rs.75/- per month is given to persons above 65 years of age.

**(ii) National Family Benefit Scheme(NFBS):-** Under this scheme Rs.10,000/- is given as one time grant to next of kin in case of death of primary bread earner of the family.

**(iii) National Maternity Benefit Scheme(NMBS):-** Rs.5000/- per pregnancy upto the first two live birth is provided to the mother.

So far 3462 persons have been benefited under NOAPS,175 families benefited under NFBS and 1009 mothers benefited under NMBS.

**(i) Swayamsidha:-** This is an integrated scheme for advancement of women and at present covers only Tezu Block. So far 201 Self Help Groups of women have been formed and functioning for income generation by taking up activities, like embroidery, knitting, weaving, and cultivation of ginger, mustard, potato, goatery units etc. The govt. of India has sanctioned 5 new blocks for implementation of Swayamsidha.

**(ii) Kishori Shakti Yojana:-** The scheme aims to improve nutritional and health status of girls in age group of 11-18 years, to provide literacy and numeric skills through non-formal education and to train the girls for up gradation of vocational skills. In addition to existing Niauxa Block, the Govt. of India has sanctioned 20 new blocks. In 2002-2003 Govt. of India earmarked Rs 1.10 Lakh per block for implementation of schemes.

**(iii) Balika Samridhi Yojana (BSY):-** The Govt. of India introduced the scheme in Arunachal Pradesh in 1997-98. The scheme aims to change in family and community attitude towards the girls child and her mother, to improve enrolment of girl children in schools and to reduce incidence of girl child labour within and outside household. So far a total of 2148 girl children have been provided post birth grant of Rs.500/- each. These girls will also be entitle to scholarship for class I to IX for which necessary central grants are available.

**National Programme of Rehabilitation for persons with Disability(NPRPD):-** Under this new scheme training is to be given to community base rehabilitation workers at Rehabilitation Centre, Naharlagan. In the first phase the department has trained 31 workers and in second phase 30 more workers are proposed to be trained.

**Pime Minister Gramodaya Yojana(PMGY):-** Under this scheme nutritious food staff are served to the children (6-72 months) and pregnant/lactating mothers to improve nutritional status and to reduce mortality rate. During 2001-2002, an amount of Rs.1146.00 lakhs was spent to feed 1,14,518 children and 28,755 mothers. The department proposes to provide benefit to 119510 children and 29722 pragnent / lactating mothers during 2003-2004.

## CHAPTER - 22

### MANPOWER AND EMPLOYMENT

Utilization of manpower is closely related with developmental plans and programmes. Before the planning era, no high or middle level manpower was available in Arunachal Pradesh (erstwhile NEFA). As a result, at the initial stages of development, manpower had to be brought from outside the state for administrative and development work. But with the passage of time, in the successive plan periods, the number of educational institutions has increased considerably and thereby sufficient number of educated manpower was created during the past three decades.

A good number of students of the state are sent every year for higher studies in technical courses like Engineering, Medicine, Veterinary, Agril, etc. to colleges located outside the state. Book grant and stipend are also offered to tribal students studying in the Technical Degree and diploma courses. On completion of courses, these students use to fill up the vacuum of technical manpower need of the state and almost all the technical graduates are absorbed by the Govt. Depts. Therefore the number of students sent outside for studying Medicine need to be increased to meet the need until a medical college is opened up in the state. The out turn of Engineering graduates to employment market in the state is surplus as the NERIST passed outs are also competing with the passed-outs coming from institutions outside the state. Employment avenues in private and corporate sectors need be developed to stop wastage of skilled Engineers. The production oriented industries gradually growing up in the state which would reduce the waiting time for absorption in job to the Engineers.

### EMPLOYMENT

As per 2001 Census, about 44 per cent of the total population of Arunachal Pradesh are classified as worker and 56 per cent as non-workers. Out of these total workers, main workers constitute 86 per cent and marginal worker constitute only 14 percent.

In Arunachal Pradesh the progress of planned development started late. However, within a short period significant changes have taken place in the labour market. Spread of education and exposure to modern ways of living added another dimension in the social changes. The introduction of various employment programmes, such as IRDP, JRY, Swarnajayanti Rojgar Yojana, EAS, PMRY have resulted in providing gainful and productive employment to the people of the state. Development programmes on agriculture, horticulture, livestock, industry and construction etc. also need both skilled and unskilled labour force both in rural and urban areas. The employment assistance to job seekers is rendered through 13 District Employment Exchanges.

The consolidated number of job seekers as per live Register is given below for the past few years:

**NUMBER OF JOB SEEKERS AS ON 31-3-2003**

Table No.22

Sl. No	Items	Unit	2001-2002			2002-2003		
			Total	Male	Female	Total	Male	Female
1.	2	3	4	5	6	7	8	9
2	Candidates Registered during the year	No	6098	NA	NA	4018	2586	1432
3	Candidates sponsored	No	614	NA	NA	790	609	181
4	Placement of candidates in employment during the year	No	41	NA	NA	26	NA	NA
5	Candidates in Live Register	No	23160	NA	NA	23952	16255	7697

In Arunachal Pradesh, the State Govt. is till now, almost the sole authority for employment due to fact that private sector has not yet come up here to a reasonable extent. This situation will continue for some more years till more and more public sector and private sector enterprises are established in this State.



## CHAPTER – 23

### BANKING AND INSTITUTIONAL FINANCE

Banks play an important role in economic development by providing systematic and timely flow of credit for industries, agriculture, self employment etc. It is therefore, essential to have a sound network of financial institutions to mobilise savings from the public and meet up the financial requirement for various purposes within the state.

The total number of branches of different banks in the state was 99 as on 31<sup>st</sup> March,2003. An average population served by one bank in the state is 11078. Out of 99 branches 59 branches are located in rural areas. The number of bank branches remained same over the year. However, the volume of deposits has increased from Rs.87894 lakhs during 2001-20002 to Rs.99741 lakhs during 2002-2003 registering a growth of 13 %. The amount of loans and advances also shows an upward trend as witnessed in the case of deposits. The volume of advances granted which was Rs 17380 Lakhs in 2001-2002 has increased to Rs.32546 lakhs during 2002-2003. The credit deposit ratio has been worked out at 22.60 % in March,2003.

The bankwise position of deposit and advances as well as credit deposit ratio as on March,2002 and 2003 are given below:-

#### DEVELOPMENT OF BANKING AND INSTITUTIONAL FINANCE IN ARUNACHAL PRADESH

Table No.: 23

(Rs in Lakhs)

Bank	2001-2002			2002-2003			Credit deposit ratio(%)	
	No. of branches	Total Deposit	Advances granted	No. of Branches	Total Deposit	Advances granted	2001-2002	2002-2003
<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>	<i>8</i>	<i>9</i>
1. SBI	42	57862	6453	42	61652	7990	11.15	12.95
2. UBI	2	845	169	2	909	180	20.00	19.80
3. UCO	2	2316	515	2	5858	1447	22.23	24.70
4. VI-JAYA	2	7494	1141	2	8903	1532	15.22	17.20
5. C.B.I	1	1003	231	1	1206	267	23.03	22.13
I. Sub-total (Nationalised banks)	49	69520	8509	49	78528	11416	12.23	14.53
Arunachal Banks	19	4076	3458	19	4136	3269	84.83	79.03
a) APRB								
b) AP Co-op. Apex bank	31	14298	5413	31	17077	7861	37.85	46.03
II. Sub-Total (AP Banks)	50	18374	8871	50	21213	11130	48.29	52.46
Grand Total (I + II)	99	87894	17380	99	99741	22546	19.77	22.60

Besides normal functioning banks are also authorised to support govt. sponsored poverty alleviation programmes such as JGSY,EAS,PMGY,IWDP,PMRY, etc. Other financial institutions functioning in the state for promoting and financing developmental activities are APIDFC and SIBDI. During 2002-2003, 346 unemployed youths were assisted under PMRY Schemes.

The credit-deposit ratio is extremely poor in case of Nationalised Banks being only 14.53 % whereas in case of Arunacal Pradesh Rural /Co-op Apex Banks the ratio is about 52.46 % during 2002-2003.The Nationalised Banks have to endeavour for improving the Credit- Deposit ratios for due services to the state.

## CHAPTER -24

### ECONOMIC CENSUS – 1998

The Fourth Economic Census was carried out in Arunachal Pradesh during February-March, 1998 with joint endeavour of Central Statistical Organisation(Economic Census Division), Govt. of India, New Delhi and Directorate of Economics & Statistics, Govt. of Arunachal Pradesh. Similar to first Economic Census conducted in 1977, the Fourth Economic Census was carried out independently and not along with Population Census as was the case with other two censuses conducted in between. The Economic Census is the official count of all entrepreneurial units located in the geographical boundaries of the state, involved in any economic activities of either agricultural (excluding crop-production and plantation) or non-agricultural sectors of the economy, engaged in the production and distribution of goods or services not for the sole purpose of own consumption. Enterprises with at least one hired employment (establishment) and those without any hired employment (own account enterprise) formed the target of Economic Census . Information on nature of operation, type of operation, type of activity, ownership, social group of the owner, employment with hired component, employment by sex etc. have been collected. The result of Economic Census provides basic entrepreneurial data for the purpose of planning, development, administration and for improving the estimation of National Income and related aggregates.

Selected tables from the Final results of Fourth Economic Census with illustrations have been given below :-

#### NUMBER OF ENTERPRISES AND EMPLOYMENT THEREIN

table no.: 24.1

Sl. No.	Type of Enterprises	RURAL		URBAN		COMBINED	
		Number	%	Number	%	Number	%
1	2	3	4	5	6	7	8
<b>AGRICULTURAL ACTIVITY</b>							
1	No.of Enterprises	181	90.05	20	09.95	201	100.00
	a) OAE	105	96.33	4	03.67	109	100.00
	b) Establishments	76	82.61	16	17.39	92	100.00
2	Persons usually working in enterprises	652	88.95	81	11.05	733	100.00
	a) OAE	222	96.94	7	3.06	229	100.00
	b) Establishments						
	i) Total	430	85.32	74	14.68	504	100.00
	ii) Hired	397	85.19	69	14.81	466	100.00

Table No.:24.1 (Contd.)

1	2	3	4	5	6	7	8
<b>NON-AGRICULTURAL ACTIVITY</b>							
1	No.of Enterprises	14364	70.09	6129	29.91	20493	100.00
	a) OAE	6973	69.26	3095	30.74	10068	100.00
	b) Establishments	7391	70.90	3034	29.10	10425	100.00
2	Persons usually working in enterprises	51429	64.44	28374	35.56	79803	100.00
	a) OAE	9948	69.69	4327	30.31	14275	100.00
	b) Establishments						
	i) Total	41481	63.30	24047	36.70	65528	100.00
	ii) Hired	39333	64.26	21873	35.74	61206	100.00
<b>AGRICULTURAL &amp; NON-AGRICULTURAL ACTIVITY</b>							
1	No.of Enterprises	14545	70.29	6149	29.71	20694	100.00
	a) OAE	7078	69.55	3099	30.45	10177	100.00
	b) Establishments	7467	71.00	3050	29.00	10517	100.00
2	Persons usually working in enterprises	52081	64.67	28455	35.33	80536	100.00
	a) OAE	10170	70.12	4334	29.88	14504	100.00
	b) Establishments						
	i) Total	41911	63.47	24121	36.53	66032	100.00
	ii) Hired	39730	64.42	21942	35.58	61672	100.00

**1. Number of enterprises and total persons employed in agricultural and non-agricultural sectors.**

As per the report a total of 20,694 agricultural and non-agricultural enterprises are there in the state. Only 201(0.97%) are engaged in agricultural activities while remaining 20,493 (99.03%) are engaged in non-agricultural activities.

A total of 20694 enterprises are having 80,536 persons usually working including 61,672 (76.58%) hired persons. Out of the total of 80,536 persons usually working 60,072 (83.28%) are male, 12,966 (16.10%) are female and the rest 498 (0.62%) are child workers. In agricultural sector there are 733 persons usually working of which 656 (89.49%) are male and 74 (10.10%) are female. Besides, 3(0.41%) child workers are also engaged. In non-agricultural sector a total of 79,803 persons are working of which male participation is 66,416 (83.23%) and female participation is 12,892 (16.15%) and the rest 495 (0.62%) being children. Rural and urban participation of enterprises with number of persons engaged have been shown clearly in the table.

**2) Activity (major) –wise distribution of non-agricultural enterprises**

The table 25.1 reveals that out of the total of 20,493 non-agricultural enterprises rural portion occupies 70.09% whereas rest 29.91% are in urban areas. So far activity wise participation of enterprises is concerned the highest participation is in the activity group retail

trade i.e., 9191 (44.85%) followed by the activity group community, social & personal services having 6672(32.56%) numbers. The lowest participation is in the activity group mining and quarrying being 3 (0.11%) only. Of the total 79,803 persons engaged in non-agricultural sector 51,429 (64.44%) are engaged in rural areas and remaining 28,374 (35.56%) persons are working in the enterprises located in urban areas. It is observed from the result of Economic Census that the largest number of persons are usually working in the activity group community, social & personal services. This group has total employment of 44,385 (55.62%) followed by the activity group retail trade employing 16,463 (20.63%) workers, the employment figure registered by the activity group mining and quarrying is 240 (0.30%) workers. It may be mentioned that activity group "Others (unspecified)" has no enterprise in both sectors.

### **3) Selected characteristics of Agricultural Enterprises**

#### **a) Agricultural own-account enterprises :-**

There are 109 agricultural Own Account Enterprises (OAEs) of which 105 (96.33%) enterprises and 4 (3.67%) enterprises are located in rural and urban areas respectively. Of total agricultural OAEs, 5 (4.59%) are seasonal in nature and of which 3 (2.75%) and 2 (1.83%) are located in rural and urban areas respectively. About 36 (33.03%) agricultural OAEs with the break-up of 97.22% in rural areas and 2.78% in urban areas are operating without any premises. 100% enterprises of the total agricultural OAEs are running their entrepreneurial activities without using power/fuel. About 25 (22.94%) agricultural OAEs are owned by STs and 10(9.17%) are owned by SCs.

#### **b) Agricultural Establishments**

(Table no. 1 & 4) There are 92 agricultural establishments of which 76 (82.61%) are located in rural areas and 16 (17.39%) establishments are located in urban areas. Only 1 agricultural esttt. is found seasonal in nature, which is located in rural area. A total of 22 (23.91%) agricultural establishments are operating without premises and these are located in rural areas. It is noticed that 77 ( 83.70%) establishments. Out of the total of 92 agricultural establishments are operating without using power/ fuel of which 65 (84.42%) in rural areas and 12 (15.58%) in urban areas. As many as 49 (53.26%) and 4 (4.35%) agricultural establishments are under the ownership of private (Pvt. NPI + Pvt. Others) and co-operative respectively. 20 (21.74%) out of total agricultural establishments are owned by STs, 1(1.09%) by SCs, whereas OBCs owned only 3 (3.26%) estts.

### **4. Selected Characteristics of Non-agricultural Enterprises**

#### **Non-agricultural Own-account enterprises**

In all there are 10,068 non-agricultural own-account enterprises in Arunachal Pradesh of which 6973 (69.26%) are in rural areas and 3095 (30.74%) are in urban areas. The maximum number of non-agricultural OAE i.e., 6164 (61.22%) falls in the activity group retail trade followed by the activity group community, social & personal services which constitute 1703 (16.91%) enterprises. Only 1 enterprise is in the activity group mining & quarrying. There are 14,275 persons usually working in these non-agricultural OAEs. It is

observed that 8592 (60.19%) of the total working persons are employed in the activity group retail trade. The activity group which ranks next is community, social & personal services having total employment of 2542 (17.81%) persons. The activity group mining & quarrying provides the lowest employment of only 1 persons.

# A total of 10,068 non-agricultural enterprises are running their enterprises without any hired workers (OAE) of which a total of 6973 (69.26%) are in rural areas, and remaining 3095 (30.74%) are in urban areas. Of the 10,068 non-agricultural OAE, 278 (2.76%) are seasonal, 929 (9.23%) enterprises run without premises, 3349 (33.26%) enterprises are owned by STs, 493 (4.90%) are owned by SCs, 7942 enterprises (78.88%) are being run without using power/fuel.

# It appears from the Economic Census result that out of the total of 10,068 non-agricultural own-account enterprises, the largest number of 6164 (61.22%) own-account enterprises are in the activity group of retail trade. The second and third largest percentages are in the activity group community, social & personal services (16.92%) and manufacturing (13.62%) respectively. The remaining activity groups constitute below per cent.

# The Economic Census 1998 reveals that 278 (2.76%) non-agricultural OAE are seasonal out of which 169 (60.79%) are in the activity group retail trade, followed by manufacturing 57(20.50%), Community, social & personal services (8.99%).

# A total of 929 (9.23%) non-gricultural OAEs are carrying out their entrepreneurial activities without any fixed premises, of which the maximum number is in the retail trade activity (59.10%). The second largest activity is community, social & personal services 15.39%, followed by the transport sector (12.81%), manufacturing (7.10%).

# Out of the total 10,068 non-agricultural OAE, 3349 (33.26%) are owned by STs. The largest of such enterprises owned by STs is in the retail trade activity (56.58%), followed by manufacturing (28.84%), Community, social & personal services (6.75%).

Similarly, the number of non-agricultural OAEs owned by SCs is 493. As earlier the maximum number of such enterprises, owned by SCs, is in the activity group retail trade (66.53%). The second largest non-agricultural OAEs owned by SCs is in the activity group Community, social & personal services (21.30%), followed by restaurants & hotels (4.67%).

# Of the total of 10,068 non-agricultural OAEs, 7942 enterprises are running without using power/fuel. The activity group retail trade has the maximum of 5959 (75.03%) enterprises, which are running without power/fuel. This followed by the activity group Community, social & personal services with 1479 (18.62%) enterprises.

#### **a) Non-agricultural Establishments**

There are 10,425 non-agricultural establishments of which as many as 7391 (70.90%) are located in rural areas as against 3034 (29.10%) are located in the urban areas of the State. A total of 65,528 persons (including 61,206 hired workers) are usually

working in these non-agricultural establishments. Rural and urban participation of total employment are 41,481 (63.30%) and 24,047 (36.70%) respectively.

# It has been found that out of 10,425 non-agricultural estts. The maximum no. 4969 (47.66%) establishments are there in the activity group of community, social & personal services, having employment of 41,843 (63.86%) persons. This is followed by 3027 (29.04%) under the activity retail trade having employment of 7871 (12.01%) persons followed by 840 (8.06%) establishments under the activity group restaurants & hotels, which provide employment to 3003 (4.58%) persons followed by 640 (6.14%) establishments under manufacturing with employment of 8058 (9.24%) persons.

# As many as 417 non-agricultural establishments are running their entrepreneurial activities without premises of which the maximum percentage i.e., 37.41% falls in the activity group transport. This is followed by the activity group community, social & personal services (23.98%) and retail trade (17.99%) etc. The percentages in other groups are very insignificant.

# From a total of 10,425 non-agricultural establishments, 355 (3.41%) belong to Private NPI, 5148 (49.38%) to private others, 242 (2.32%) to co-operative and 4680 (44.89%) to Govt. sectors. Out of the total of 5148 (pvt. Others) establishments 2769 (53.79%) of the establishments are engaged in retail trade, this followed by 821 (15.95%) in the activity groups community, social & personal services, 598 (11.62%) establishments are engaged in restaurants and hotels. The activity group mining & quarrying and electricity, gas and water supply occupy the lowest percentage having 1 enterprise each.

# Under the social group of owner, 1750 (16.79%) non-agricultural establishments are owned by scheduled tribes and 194 (1.86%) establishments are owned by scheduled castes and 179 (1.72%) establishments are owned by OBCs. 799 (45.66%) establishments owned by Scheduled tribes are in the activity group retail trade. The second largest number of establishments owned by scheduled tribes is in the activity group manufacturing with 256 (14.63%), followed by the activity group community, social & personal services with 244 (13.94%). While scheduled tribes owned non-agricultural establishments are in 10 activities, the scheduled caste owned 9 non-agricultural activities.

# It appears that out of 10,425 non-agricultural establishments, 8472 (81.27%) are running without using power/fuel. The highest per centage for running the enterprises without using power/fuel is in the activity group community, social & personal services with 4547 (53.67%), followed by retail trade (33.39%) and manufacturing (2.96%).

5) The comparative picture of inter-district concentration of enterprises is given below:-

Table No.24.1

Sl. No.	District according to Area (in sq. km)	Concentration of total enterprises						Total Enterprises	% share of concentration of all enterprises
		Agriculture			Non-agricultural				
		OAE	Estt.	Total	OAE	Estt.	Total		
1	2	5	6	7	8	9	10	11	12
1	Tawang (2172)	2	7	9	331	218	549	558	2.70
2	Tirap (2362)	20	8	28	595	712	1307	1335	6.45
3	Papum-pare (2875)	1	7	8	1488	1201	2689	2697	13.03
4	East Kam-eng (4134)	1	0	1	240	527	767	768	3.71
5	Changlang (4662)	12	8	20	1204	1054	2258	2278	11.01
6	East Siang (4687)	51	8	59	669	1179	1848	1907	9.22
7	Upper Siang (6188)	0	1	1	287	277	564	565	2.72
8	Upper Subansiri (7032)	2	1	3	338	479	817	820	3.96
9	West Kameng (7422)	1	18	19	776	959	1735	1754	8.48
10	West Siang (7643)	0	3	3	1602	1107	2709	2712	13.11
11	Lower Subansiri (10135)	0	3	3	521	785	1306	1309	6.33
12	Lohit (11402)	19	23	42	1526	1398	2924	2966	14.33
13	Dibang Valley (10329)	0	5	5	491	529	1020	1025	4.95
Arunachal Pradesh (83743 sq. km)		109	92	201	10068	10425	20493	20694	100. 00



APPENDIXE :- i

**DISRTRICT/ CIRCLE- WISE POPULATION OF ARUNACHAL  
PRADESH  
AS PER 2001 CENSUS (PROVISIONAL)**

Sl. No.	District / Circle	Persons	Males	Females
<i>0</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>
<b>1</b>	<b><u>Tawang District</u></b>	<b>39,242</b>	<b>22,081</b>	<b>17,161</b>
	I Zemithang Circle	3636	2295	1341
	2.Lumla	5806	3079	2727
	3.Dudunghar	2281	1090	1191
	4.Tawang	16685	9731	6954
	5. Jang	5455	3222	2233
	6. Muktu	3446	1663	1783
	7. Thingbu	1933	1001	932
<b>2.</b>	<b>West Kameng District.</b>	<b>74,527</b>	<b>42,585</b>	<b>31,942</b>
	1. Dirang Circle	18420	10245	8175
	2. Nafra	5818	3013	2805
	3. Bomdila	7818	4205	3613
	4. Kalaktang	8616	4621	3995
	5. Rupa	7880	4697	3183
	6.Singchung	14500	9622	4878
	7.Jamiri	1539	827	712
	8. Thrizino	3198	1611	1587
	9. Bhalikpung	5514	3076	2438
	10. Balemu	1224	668	556
<b>3.</b>	<b>East Kameng District</b>	<b>57,065</b>	<b>28,743</b>	<b>28,322</b>
	1. Seijosa Circle	5194	2743	2451
	2. Pakke-kessang	5595	2791	2804
	3. Richukrong	2317	1180	1137
	4. Seppa	24245	12266	11979
	5. Lada	1930	1009	921
	6.Bameng	4583	2296	2287
	7. Pipu	3816	1876	1940
	8. Khenewa	2728	1367	1361
	9. Chayangtajo	4181	1993	2188
	10. Sawa	2476	1222	1254

0	1	2	3	4
<b>4.</b>	<b>Papume Pare District</b>	<b>121,732</b>	<b>64,028</b>	<b>57,704</b>
	1. Balijan Circle	11,576	5881	5695
	2. Itanagar	39,121	20,871	18,250
	3. Naharlagun	39,672	20,908	18,764
	4. Doimukh	9964	5209	4755
	5. Toru	2856	1497	1359
	6. Sagalee	6543	3315	3228
	7. Laporiang	2107	1009	1098
	8. Mengio	3840	1869	1971
	9. Kimin	6053	3469	2584
<b>5.</b>	<b>Lower Subansiri District</b>	<b>97,728</b>	<b>49,266</b>	<b>48,462</b>
	1. Ziro Circle	24,608	12,382	12226
	2. Yachuli	13,895	7286	6609
	3. Pistana	5785	2830	2955
	4. Palin	5757	2896	2861
	5. Yangte	1738	827	911
	6. Sangram	5745	2771	2974
	7. Nyapin	6510	3211	3299
	8. Koloriang	4797	2400	2397
	9. Chambang	4498	2220	2278
	10. Sarli	1970	1014	956
	11. Parsiparlo	2891	1436	1455
	12. Damin	2784	1425	1359
	13. Longding-Koling	2206	1098	1108
	14. Tali	3500	1787	1713
	15. Kamporijo	6399	3265	3134
	16. Dolumukh	1080	563	517
	17. Raga	3565	1855	1710
<b>6.</b>	<b>Upper Subansisi District</b>	<b>55,356</b>	<b>28,170</b>	<b>27,186</b>
	1. Taksing Circle	592	284	308
	2. Limeking	874	428	446
	3. Nacho	3766	1843	1923
	4. Siyum	4052	1963	2089
	5. Taliha	6347	3198	3149
	6. Payeng	683	335	348
	7. Giba	4436	2191	2245
	8. Daporijo	19488	10187	9301
	9. Puchi Geko	2720	1333	1387
	10. Dumporijo	8322	4295	4027
	11. Baririjo	4076	2113	1963

0	1	2	3	4
<b>7.</b>	<b>West Siang District</b>	<b>103,783</b>	<b>54,356</b>	<b>49,427</b>
	1. Mechuka Circle	4354	2306	2048
	2. Monigong	3054	1461	1593
	3. Pidi	660	327	333
	4. Payum	1456	749	707
	5. Tato	2132	1107	1025
	6. Kaying	4087	2076	2011
	7. Darak	1195	617	578
	8. Kamba	5741	2951	2790
	9. Rungong	2777	1426	1351
	10. Jomlomobuk	3920	2028	1892
	11. Liromoba	3543	1887	1656
	12. Yomcha	2225	1174	1051
	13. Along	31,659	17155	14,504
	14. Tribin	5014	2528	2486
	15. Basa	11388	5973	5415
	16. Daring	2803	1449	1354
	17. Gensi	3951	2053	1898
	18. Likabali	6273	3255	3018
	19. Kangku	2981	1539	1442
	20. Bagra Circle.	4570	2295	2275
<b>8.</b>	<b>East Siang District</b>	<b>87,331</b>	<b>45,133</b>	<b>42,198</b>
	1. Boleng Circle	4974	2566	2408
	2. Riga	3873	2014	1859
	3. Panging	4777	2535	2242
	4. Rebo	2421	1208	1213
	5. Koyu	2146	1135	1011
	6. Nari	3693	1903	1790
	7. New Seren	2547	1296	1251
	8. Bilat	4762	2404	2358
	9. Ruksin	4929	2481	2448
	10. Sile-Oyan	8661	4486	4175
	11. Pasighat	31618	16514	15104
	12. Mebo.	12930	6591	6339
<b>9.</b>	<b>Upper Siang District</b>	<b>33,356</b>	<b>18,044</b>	<b>15,312</b>
	1. Tuting Circle	3935	2150	1785
	2. Migging	1229	751	478
	3. Paling	735	374	361
	4. Gelling	741	362	379
	5. Singa	951	451	500
	6. Yingkong	8694	5099	3595
	7. Jengging	3230	1745	1485
	8. Geku	4220	2172	2048
	9. Mariyang	6777	3481	3296
	10. Katan Circle.	2844	1459	1385

0	1	2	3	4
<b>10.</b>	<b>Dibang Valley District</b>	<b>57,543</b>	<b>31280</b>	<b>26263</b>
	1. Mipi Circle	275	157	118
	2. Anini	4022	2368	1654
	3. Etalin	1439	890	549
	4. Aneli	564	285	279
	5. Kronli	805	407	398
	6. Hunli	1030	583	447
	7. Desali	822	416	406
	8. Roing	34619	18801	15,818
	9. Dambuk	10443	5501	4942
	10. Koronu	3524	1872	1652
<b>11.</b>	<b>Lohit District</b>	<b>143,478</b>	<b>77,252</b>	<b>66,226</b>
	1. Sunpura Circle	4815	2537	2278
	2. Tezu	31,302	17,194	14108
	3. Hayuliang	5149	3059	2090
	4. Manchal	3029	1509	1520
	5. Goiliang	1662	868	794
	6. Chaglagam	2412	1266	1146
	7. Kibithu	944	711	233
	8. Walong	1279	740	539
	9. Hawaii	3953	1993	1960
	10. Wakro	6809	3650	3159
	11. Chaowkham	20084	10755	9329
	12. Namsai	28561	15,444	13,117
	13. Piyong	9052	4782	4270
	14. Mahadevpur.	24427	12,744	11,683
<b>12.</b>	<b>Changlang District.</b>	<b>125,334</b>	<b>65,759</b>	<b>59,575</b>
	1. Khimiyong Circle	3505	1830	1675
	2. Changlang	14641	7850	6791
	3. Namtok	3087	1603	1484
	4. Manmao	3814	1992	1822
	5. Nampong.	4424	2417	2007
	6. Jairampur	7833	4343	3490
	7. Vijoynagar	3988	2013	1975
	8. Miao	20,261	10,449	9812
	9. Kharsang	9508	4990	4518
	10. Diyun	28,905	15,036	13,869
	11. Bordumsa.	25,368	13,236	12,132

0	1	2	3	4
13.	<b>Tirap District</b>	<b>100,227</b>	<b>52,461</b>	<b>47,766</b>
	1. Namsang Circle	12,430	6779	5651
	2. Khonsa	28,826	15,298	13,528
	3. Kanubari	11,336	5833	5503
	4. Longding	15,706	8238	7468
	5. Pumao	4310	2226	2084
	6. Pongchao	10,418	5401	5017
	7. Wakka	9244	4727	4517
	8. Laju Circle.	7957	3959	3998
	<b>Arunachal Pradesh</b>	<b>1096,702</b>	<b>579,158</b>	<b>517,544</b>

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