

Chapter – IX

INFRASTRUCTURE DEVELOPMENT IN MANIPUR

9.1 Introduction

Manipur is faced with the challenge of providing infrastructural facilities conducive to social and economic development. According to the XIth Finance Commission, Manipuri's index of economic and social infrastructure was 75.39 while that of Goa was 200.57. Even among the northeastern states only Tripura (74.87) and Arunachal Pradesh (69.71) had indices lower than that of Manipur. The CMIE index of relative development of infrastructure for 1991-92 shows that Manipur lags behind the national average by one-fifth.

The problem lies in the establishment, maintenance, outreach and access in all sectors — power, roads, telecom, hospitals, etc. Infrastructure of an economy may be classified into (i) economic infrastructure, (ii) social infrastructure and (iii) institutional infrastructure. In this chapter, we will discuss economic infrastructure. Social infrastructure is discussed in the concerned chapters.

9.2 Sectoral Scenario

(I) The Power Sector

Till 1970, the development of power was the responsibility of the PWD. Thereafter, it was vested with the Electricity Department, which is responsible for generation, transmission and distribution of electricity in the entire state.

Table 9.1: Growth of Per Capita Consumption of Electricity in Manipur

Year	Installed capacity in Kw	Electricity generated in lakh Kwh	Electricity consumed in lakh Kwh	Per capita consumption of electricity in Kwh
1972-73	7600	128.83	89.23	
1975-76	9390	148.50	111.00	8.77
1980-81	20779	253.85	108.91	7.68
1985-86	24270	29.40	540.17	34.00
1990-91	12070	15.30	1756.32	98.00
1995-96	12371	21.66	2473.15	120.00
1997-98	12622	6.80	3221.80	148.00
1998-99	11845	7.57	1798.89	81.00
1999-00	11845	8.29	1730.66	69.90
2000-01	11845	4.29	1769.36	70.30
2001-02	11845	6.67	1675.62	64.60
2002-03	47252	35.77	1656.45	68.60
2003-04	47052	42.80	1653.38	68.48
2004-05	47252	14.32	1767.75	73.21

Source: CEP, SAM 2004, p. 186 & 189, SAM 2005, p. 199-201

After 1982-83, Manipur was connected to whereby power could be drawn from the NER grid. This was accompanied by a falling trend in the production of power in the state sector. There was a fall in the installed capacity after the mid 1980s, which is somewhat inexplicable.

In 2001-02, the per capita consumption of electricity in Manipur was 68 Kwh (Table 9.1). The average level is dismally low and reflects the slow pace of industrialization in the state (Table 9.2 & 9.3). The gap between Manipur and the all-India average is widening.

Table 9.2: Per Capita Consumption of Electricity in The North Eastern Region (in Kwh)

State	1980-81	1984-85	1989-90	1999-00
Arunachal Pradesh	15	32	58	68.60
Assam	34	46	78	95.46
Manipur	6	26	80	69.50
Meghalaya	31	61	108	95.46
Mizoram	7	24	57	
Nagaland	32	65	70	8470
Tripura	13	25	51	69.60
India	135	167	236	354.70

Source: CEP, SHM 2002, pp.334-7.

The Indian per capita consumption of electricity at 379 kwh is also exceedingly low in comparison with the levels attained by developed countries, with Norway at 24248 kwh, USA at 11994 and China at 758 kwh.

Table 9.3: Distribution of Power Generating Capacity in Manipur (at the State and in The Central Sector)

State Sector	Capacity in Mw
A. Diesel:	
Imphal	5.29
J.N.Hospital	0.10
State Assembly	0.40
Raj Bhavan	0.14
Lamphel	0.14
Khuman lampak Stadium	0.37
Thanlon	0.20
Parbung	0.20
Others at dist and sub-divisional HQ's	1.79
Sub total	8.65
B. Hydro:	
Leimakhong stage I:	0.60
Leimakhong stage II	0.30
Leimakhong stage III	1.00
Nungshangkhong	1.50
Lokchao	0.40
Gelnel	0.40
Sub- total	3.20
C. Heavy fuel:	
Leimakhong	36.00
Total state sector	47.85
Central sector:	
Loktak HE Project	105.00
Installed capacity in Manipur	152.85

Source: Electricity Department, Manipur, Annual Plan 2006-07, p.52.

Manipur has a power generation capacity of about 48 mw at the state level (Table 9.3). The diesel and micro-hydel projects owned by the state are run as a standby during peak load hours. Most of these power stations are lying idle and serve as a standby to the regional grid. These power stations are not economical in operation as cost of electricity generation is very high due to high fuel cost and high maintenance cost due to the age factor. Some of these diesel power stations could be abandoned in a phased manner once the micro-hydel projects are completed. The utilization of installed capacity in the state has declined substantially after the introduction of the grid system. In the case of the

heavy fuel-based project at Leimakhong the installed capacity cannot be fully utilized due to the non-availability of a transmission line for the evacuation of the power generated. Thus, an immediate priority of the state government in the power sector is the full utilization of the installed capacity. While coal has been identified as the primary fuel for power generation in India till 2012, Manipur does not have any reserves of this fuel and is dependent on hydropower.

The focus should be to promote small hydro power projects with support from the Central Government through the Ministry of Non-conventional Energy Sources (MNES) and the Ministry of Power. The small hydro projects in the North Eastern Region (including Manipur) are given support by MNES to the extent of 90% to 75% of the project cost for the projects of capacity in the range of 500 kW to 5MW. In Manipur, 96 small hydropower projects sites (upto 25 MW) have been identified having capacity of 105.63 MW. Out of these sites 8 projects (having capacity of 5.45 MW) have been set up and 3 projects (having capacity of 2.75 MW) are under construction. Therefore, 97.43 MW small hydropower potential is still untapped which should be tapped on a priority basis. The Centre has set up seven micro-hydel projects in collaboration with private companies with a total capacity of 37.75 mw., namely, Ngeha, Inhu-I ,Inhu-II, Bualkot, Chakpi, Sanalok and Makokching. On their completion the projects will be handed over to the state. Unfortunately, no action for implementation of the seven Micro Hydel Projects has been taken up so far. The state is pinning its hopes on the completion of the Loktak Downstream Hydroelectric Project (HEP) and Tipaimukh HEP.

Table 9.4: Energy Drawn By Manipur From Different Sources

Name of organization	Energy drawn in million units
<i>NEEPCO:</i>	
Kopili –Khandong HEP	77.47
Agartala gas turbine power project	42.11
Assam gas based power project	120.24
Doyang HEP	4.52
Ranganadi HEP	89.54
Sub –total	333.91
<i>NHPC (Loktak HEP):</i>	
Free power:	59.43
Purchased	96.74
Sub-total	156.17
Eastern regional grid	0.41
Total	490.50

Source: 'AAR 2003-04.

Manipur depends mainly on the free power available from the Loktak hydro station of NHPC located in the state and the power purchased from central generating stations. In effect, the state is dependent entirely on the share of power allocated from central sector power plants, viz Loktak HEP, Kopili HEP, Khandong HEP, Assam Gas Based Power Project at Kathalguri and Agartala Gas Turbine Power Project at Ramchandranagar, Eastern Regional Electricity Board, Meghalaya State Electricity Board, Ranganadi HEP and Doyang HEP in Nagaland (Table 9.4). The state's own generation is practically negligible. In 2002-03, out of 496.408 mu of energy available only 3.577 mu were produced by the state. Though the eastern grid has a surplus, there is a mismatch between demand for and supply of power with periods of peak demand coinciding with low reservoir levels and lean supply in the pre-monsoon period. The Eastern Grid can supply

more to Manipur. For this, the laying of transmission lines from the Eastern Grid to Manipur through Nagaland is essential. There is a provision of installing a 400 KV line under the Tipaimukh project, which can transmit 400 MW. At the moment, the requirement of power was is 140 MW, whereas the state only got 40 MW. This results in shortages and load shedding, often affecting vital services like hospitals. Manipur has a hydro potential of 1350 mw at 60 per cent load factor.

Table 9.5: Hydro Potential of The Northeast

State	Assessed potential (in mw)	Units in operation (in mw)	Units under construction (in mw)
Manipur	1784	105.00	90.00
Sikkim	4286	84.00	510.00
Meghalaya	2394	185.20	0.00
Mizoram	2196	0.00	60.00
Nagaland	1574	75.00	24.00

Source: BPSD 2001.

The state of Manipur is currently engaged in taking up necessary action for the generation of 1654.50 MW with the following projects:

Table 9.6 Potential Electricity Generation in Manipur

Projects	Potential Electricity Generation
Loktak Downstream HE Project	90MW
Tipaimukh HE Project	1500MW
Irang HE Project	60MW
Tuivai Hydel Project	51 MW
Microhydel Project at Leimakhong(Stage-III), Gelnel(Stage-I) and Tuipokpi, Haipei, Maklang, Iring, Ijai & Tupul	4.50MW
Total	1705.50MW

Source: Electricity Department, Manipur.

The demerits of large hydroelectric projects include dislocation of people, submergence of valuable resources including forests, loss of estuaries and endangered species and adverse impacts on downstream hydrology and siltation. These have made the people oppose the setting up of the Loktak HEP as well as 1500mw Tipaimukh project.

Demand Scenario (Table 9.7): Taking all sources of the demand for electricity into account, the 16th Electric Power Survey of India assessed the year-wise demand for electrical energy and power in Manipur since 1999. It shows that the state is unable to meet an increasing proportion of its energy requirement each year, and as a result the power deficit in the state has been growing continually over the last six years. This has resulted in load shedding, especially during peak hours.

Table 9.7: Energy Demand in Manipur

Energy need/availability	1999-00	2000-01	2001-02	2002-03	2003-04
Energy requirement (MU)	529.00	584.00	643.00	708.00	780.00
Energy available (MU)	453.86	421.57	448.21	496.40	494.50
i. Energy purchased(MU)	392.74	355.62	379.82	427.18	431.07
ii. Free energy from Loktak HE project(MU)	60.29	65.53	67.75	65.64	59.43
iii. Energy generated by the state (MU)	0.82	0.41	0.63	3.57	3.99
Deficit in MU (as % of energy requirement)	75.14 (14.20)	162.42 (27.81)	194.78 (30.29)	211.59 (29.88)	285.49 (36.60)

Source: AAR 2003-04

The State Power Department has been consistently in the red. The following table shows that the loss per kwh has been increasing inspite of the several upward revisions in electricity tariffs since 1983 — the average tariff rose from 36 paise/kwh in 1971 to 315 paise /kwh in 2002. During 1998-2002 the average tariff was revised three times rising from 163 paise/kwh in 1998 to 315 paise /kwh in 2002. Though adequate power was available in the NE region, the state was not able to pay for the power purchased from the central agencies. The total outstanding due as on 31/3/04 for purchases of power was Rs 247.87 crores. The Department has now cleared also said that all outstanding dues.

Table 9.8: Account of the Electricity Department Government of Manipur

	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04
Energy sale (MU)	179.95	173.06	176.94	198.96	166.86	165.28
Operating deficit (Rs. Crores)	69.92	106.35	99.29	113.88	126.83	141.22
Average revenue (Rs/ Kwh)	1.26	1.63	1.67	2.50	2.80	2.94
Average cost of supply (Rs/Kwh)	5.15	7.77	7.28	8.22	10.40	11.48
Loss (Rs/Kwh)	3.89	6.14	5.61	5.72	7.60	8.54

Source: AAR

The loss of energy is unevenly distributed through the state.

Table 9.9: District-wise Use of Energy (2003-04)

District	Energy available for sale (MU)+	Energy sold (MU)	% of available energy lost
Imphal East	109.31	49.91	54.34
Imphal West	120.55	57.66	52.17
Thoubal	26.52	20.54	22.54
Bishnupur	27.62	9.54	65.44
Churachandpur	19.21	7.37	61.65
Ukhrul	9.064	4.41	51.28
Senapati	17.19	11.75	31.62
Tamenglong	5.17	0.86	83.22
Chandel	6.44	3.30	48.83
Manipur	341.12	165.38	51.52

Note: + Figures are after deduction of technical loss of 20 per cent

Source: 'Annual Administrative Report 2003-04; Department of Power, Government of Manipur

The districtwise consumption of energy (Table 9.9) in the state shows that Imphal East and West account for 67 per cent of the total energy available and 70 per cent of the energy lost in the state. Table 9.10 gives an idea of the power sector economics in the state vis-à-vis all India. The higher cost of power supply, higher T&D losses, higher staff strength per MKwh of electricity sold together with lower average tariff in Manipur all contribute to the higher costs of the system in the state.

Table 9.10: Comparative Power Economics: Manipur & India

	Manipur	India
Cost of power supply	581.10 paise/Kwh	349.90 paise/Kwh
Average tariff	220.00 paise/Kwh	239.00 paise/Kwh
T & D loss	50.00 %	26.45 %
No. of employees per MKwh of electricity sold	21.62	2.60
Per capita consumption of electricity	69.50 Kwh	354.75 Kwh

Source: Electricity Department, Government of Manipur

According to the guidelines provided by the Central Electricity Authority for reducing T&D losses, the energy losses in the Indian power system could vary between 19 per cent and 15 per cent in different states.

The energy losses reported in Manipur and the Northeast region in 2001-02 are:

- Energy loss in regional system 4.18 per cent
- Energy loss in Manipur EHV&33kV system including step down to 11kV 16.07 per cent
- Loss in distribution system (11kV & LT) 42.27 per cent
- Total 62.52 per cent

Source: ASCI Report, p 20

Inadequate investment in capacity utilization and maintenance are an important cause of energy losses in Manipur. Table 9.11 shows the pattern of consumption of electricity in the state *vis a vis* all India. In Manipur, domestic consumption dominates the matrix, while the share of industries, irrigation and agriculture remains stagnant at a low level. The use pattern is essential to understand the likely impact of any reform in the power sector. It also indicates the limitation and scope of the measures aimed at reducing energy losses. Table 9.12 shows the evolution of the use matrix during the period, 1971-2003.

Table 9.11: Pattern of Electricity Consumption (Mkwh)

Sector of use	India (2004-05*)	Manipur (2004-05)
Domestic	24.80	64.16
Commercial	8.10	6.96
Industry	35.60	4.55
Traction	2.50	0.00
Agriculture/irrigation	22.90	0.12
Others +	6.10	24.22

Notes: *: Provisional, + Others include public lighting, public water works, bulk supply and temporary sources of supply.
Source: (i) India Economic Survey 2005- 06, S-27 and (ii) SAM 2005, p. 201

Table 9.12: Evolving Pattern of Electricity Consumption in Manipur in %

Sector	1970-71	1980-81	1990-91	2000-01	2002-03	2003-04	2004-05
Domestic	84.96	73.00	45.24	52.67	58.52	62.69	64.16
Commercial	1.77	5.80	6.80	8.00	6.88	7.10	6.96
Industrial	9.05	8.50	19.23	6.86	5.76	4.84	4.55
Irrigation & agriculture	NA	8.50	1.60	0.43	0.27	0.37	0.12
Street lighting	3.86	3.70	4.19	1.95	4.28	1.84	1.79
Public water work & sewage pumping	0.36	0.50	2.95	4.71	4.22	4.56	4.86
Bulk supply	NA	NA	20.00	25.37	19.99	18.51	17.47

Source: SHM 2002 & SAM 2005 p.201

Table 9.13: District-wise Consumption of Power by Users (2000-01)

Item	Unit	Senapati	Tamenglong	Chura-chandpur	Chandel	Ukhrul	Imphal East	Imphal West	Bishnupur	Thoubal	Manipur
Domestic	%	62.94	73.23	64.31	68.10	58.64	59.21	46.70	75.52	63.31	55.51
Commercial	%	3.44	13.08	8.71	20.85	12.95	3.26	9.62	3.69	2.76	6.95
Industrial	%	12.51	0.15	8.14	0.07	0.35	9.87	4.35	3.96	5.51	6.49
Public lighting	%	0.12	0.75	1.21	1.52	0.66	2.24	4.33	0.77	0.43	2.69
Irrigation & agriculture	%	0.00	0.00	0.00	0.00	0.00	0.32	0.02	0.59	1.63	0.22
Public water works	%	0.76	0.00	0.60	2.29	0.00	8.03	2.34	5.15	17.58	4.70
Temporary	%	0.00	1.35	0.00	0.00	0.00	0.09	0.00	0.14	0.00	0.04
Bulk supply	%	20.23	11.42	17.02	7.16	27.39	16.97	32.64	10.18	8.76	23.38
Total	MU	15.44	0.66	5.45	4.02	4.80	47.53	78.53	9.51	10.95	176.93
% of state total	%	8.73	0.37	3.08	2.27	2.72	26.86	44.39	5.38	6.19	100.00
Villages electrified	No.	485.00	173.00	391.00	284.00	213.00	206.00	117.00	45.00	87.00	2001.00

Source: Electricity Department, Government of Manipur.

The domestic sector accounted for the highest share over the years; both at the state and district levels, while that of the industrial sector remained exceedingly low. The growing unreliability of power supply was an important factor that hindered the growth of the industrial sector.

Industries have installed captive power plants, due to the uncertain power situation. These comprise very cheap generators and invertors made in China and other Southeast Asian countries, which are readily available from Myanmar. The increasing tariffs, in turn, led small scale and unorganized household industries to resort to tapping power from domestic lines. Table 9.14 shows that even though the number of industrial connections has almost doubled during 1990-2002, both the total consumption of power by industrial units and per industrial units has declined drastically.

Table 9.14: Industrial Use of Electricity

Years	Total consumption by Industrial units (MKwh)	Consumption per Industrial unit (Kwh)	No. of industrial electricity connections
1990-91	33.78	30991	1090
1995-96	48.02	30258	1587
2000-01	11.48	6066	1893
2001-02	11.49	5948	1932
2002-03	9.53	5071	1881

Source: Electricity Department, Government of Manipur.

The technical losses, which mainly account for the inefficiency in the system, can be attributed to:

- Inadequate sub-transmission system
- Overloading of the system
- Long sub-transmission and LT lines
- Poor voltage
- Inadequate reactive compensation

The transmission and distribution lines are not only very long, but also laid across long stretches of forest. Very often, trees, branches and bamboo fall on these lines resulting in low voltage and interrupted supply.

Thus, the main problems that plague the power sector in Manipur are: (a) high T&D losses, (b) severe underutilization of capacity, (c) inadequate resources to purchase power from the central sector, (d) non-availability of reliable and proper power voltage for industry and trade, (e) inequality in power supply and consumption between districts (f) the presence of very few rural households with even single point connections, and (g) high cost and price of power in relation to the paying capacity of consumers. Manipur has given up metered supply of power. All domestic consumers in the municipality area are charged a flat rate of Rs. 195 per month.

The recent prescription of corporatisation of the power department/SEBs may not be adequate to address these problems since the private sector is unlikely to be seriously interested in investing in these areas.

Rural Electrification: The government launched a programme in 1961 (under the Third Plan) to take electricity beyond the confines of the present capital city. During the Fifth Plan, the state government took a loan from the Rural Electrification Corporation Ltd. for launching of its power development programme, which began in real earnest in 1980 coinciding with the purchase of power from Assam. The Loktak HEP was commissioned in 1984. Though the project had set an ambitious target of 91 per cent coverage of villages (in 1999) we need to

bear in mind the fact that the definition of 'village electrification' was very narrow: 'A village will be deemed to be electrified if electricity is used in an inhabited locality, within the revenue boundary of the village, for any purpose whatsoever.'¹ Thus, many households were often excluded from the programme. Their inability to pay the economic cost of supply remained a roadblock in the expansion of domestic connections. Therefore, the state needs to offer financial support to poor rural consumers at least for single point connections.

In Manipur, 1912 (82.59 per cent) villages have been electrified as on March 2006 and 52.53 per cent of rural households have actually been electrified. The rural electrification scheme on household electrification at the National level viz. Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY) under the Ministry of Power has been launched in April 2005. The objective of this scheme is to electrify all left out villages and habitations including remote areas, provide access to electricity to all households and give electricity connection to BPL families free of charge. Under RGGVY the Government of India provides up to 90% subsidy to the States to build the required infrastructure that ensures electricity access to all households in the country, balance 10 % of the cost of the scheme has to be arranged by the States. Manipur must utilize this more substantially.

The following remedial measures are recommended:

(i) In the short and medium-term the distribution network should be made more efficient by reducing high T&D losses and improving capacity utilization. Investing in equipment and damaged lines to reduce T & D losses is an important part of this strategy. (We hesitate to recommend cross-subsidisation because the industrial sector is very small and uses little power. In any case, higher power costs would serve as a disincentive for industrialisation. The bitter pill of absorbing some losses on account of the specificities of the state has to be swallowed).

(ii) As sufficient power will be available in the eastern and northeastern grid, power may be purchased from central generating stations.

(iii) One very important requirement is the laying of transmission lines from the Eastern Grid to Manipur through Nagaland.

(iv) Most of the capacity created in the state is lying idle and serves as a standby to the regional grid. These idle plants should be made operational. There are also nonfunctional plants, which need to be reactivated.

(v) The recommendations of the Shukla Committee and the Administrative Staff College of India (ASCI) reports to corporatise the power sector must not be implemented without caution. It will be more appropriate to keep in mind the prevailing social reality of inadequate paying capacity.

(vi) There has to be a fine balance between the recovery of costs and the encouragement of the use of power because the use of electricity in industries and agriculture has remained exceedingly low. The inter district differential is also large. Higher tariffs should not strangle the emerging need to use more power in non-domestic applications. To a certain extent the

¹ Professor N. Mohendro Singh, *Development Experience in Manipur*, Institute of Development Studies – Imphal, 2002, p.178.

loss may be acceptable in the interest of promoting industrialization and energisation of water pumps in hill agriculture.

(vii) The social and environmental issues with hydropower development should be discussed thoroughly to ensure transparency and public participation. Big dams should be the exception when alternatives like a series of medium and small dams does not exist. This applies to both ongoing projects and those in the pipeline.

Central financing of a state power project is equivalent to waiving of the amount the state owes to the central power project. Full funding must be provided to on-going power projects to avoid any further cost and time over-runs.

(viii) The demand for power in Manipur has always been highly constrained by its low availability. Due to huge arrears outstanding against central power projects the state has not been able to buy as much power as was needed to meet its requirements. What must also be noted is the scale effect of activities, which can emerge once adequate power is available. The first imperative is to ensure that the present system becomes more reliable and consumers including industrialists are provided quality power on a sustained basis, thereby eliminating the need to invest heavily in captive power generation.

(ix) Programmes to provide free single point connections to all rural households should be hastened and expanded.

(x) There must be early implementation of the seven approved Micro Hydel Projects

(xi) Some of the non-viable diesel power stations could be abandoned in a phased manner once the micro-hydel projects are completed.

(II) Connectivity and Roads

One of the major objectives of the Tenth Plan is the development of roads in the Northeast.

Table 9.15: Comparative Road Statistics: NER (as on 31st March, 2002 (P))

State	Road length per 100 sq.Km	% of surfaced road to total road length
Arunachal Pradesh	21.93	30.98
Assam	114.08	14.39
Manipur	51.21	33.78
Meghalaya	42.64	68.58
Mizoram	22.98	56.69
Nagaland	126.79	30.68
Tripura	155.41	29.96
All India	74.73	57.82

Source: Min. of surface transport website.

Table 9.15 shows the status of roads in Manipur vis a vis the remaining six states in NER and all India in terms of both, density and quality. The road length per 100 sq. km and percentage of surfaced roads for Manipur are far below the all India figures — a fact that was pointed out by an Expert Committee as far back as 1963².

Based on a techno-economic survey for Manipur initiated by NCAER, a highly ambitious 20-year road development plan was conceived for 1961-81. It envisaged an outer ring road along

² Planning Commission (1963) Regional transport Survey summary, The Technical Group for Transport Planning, Government of India, New Delhi, July, p- 79

the border of about 489 miles in length, and an inner ring road in the valley of about 89 miles. The plan provided for a 230-miles long link roads connecting the sub-divisional headquarters with the ring roads.

Railways, which are the cheapest form of travel, have only a token presence of 1.5 km. Inland water-ways are practically nonexistent even though at one time the small rivers criss-crossing the valley were used for transporting goods and people by boats. In Churachandpur district, goods are transported from Jiribam to the southernmost subdivision of Tipaimukh mainly on the river Barak.

The state is connected with the rest of India by daily air flights to Delhi, Kolkata, Guwahati and Silchar. In spite of the provision for subsidies on air transportation in the Northeast in general, it remains very costly. Thus, all the development activities of the state have come to depend heavily on road transport facilities. The entry of INDIGO Airlines in Manipur has led to a dramatic reduction in the cost of air travel from the region.

There are three national highways in Manipur viz National highway — 39 Numaligarh-Dimapur-Kohima-Imphal-Moreh (429.07 km); (b) National highway 53 — Badarpur-Silchar-Jiribam-Imphal (279.5 km) and (c) National Highway150 — Tipaimukh to Jessami via Imphal (523 km). NH 150 was formerly a state highway. NH 39's Imphal–Dimapur segment (215 km) links Imphal with Dimapur, the railhead in Nagaland. From Imphal it runs in the south-east direction to Moreh for another 110 km. NH 53, locally known by its earlier name of New Cachar Road, links Imphal with Silchar in Cachar District of Assam. The total length of national highways in Manipur is 968 km. out of which only a small part (283 km.) is under the PWD.

Table 9.16: National Highways in Manipur, 2003

National highway	Border Road Organisation	Public Works Department	Total
NH -39	26	194	220
NH 53	222	3	225
NH-150	437	86	523
Total	685	283	968

NEC roads, March 2004

Thanlol- Sinzawl Khazawl road	51 km.
Jiri- Tipaimukh road	103 km.
Tamei- Tenning road	21 km.
Saitual- Daido- Tuivai- Bukpi Road	58 km.
Tamenglong-Khongsang road	40 km.
Tadubi- Pfutsero road	8 km.
Singhat- Sinzawl road	114 km.
<u>Total</u>	<u>395 km.</u>

The Tamenglong Tousem Haflong road and the Mahadev Tolo Pfutsero road have been transferred to the Border Roads Organisation.

Under the state road plan the total length of PWD roads constructed upto March 31, 2004, was 7599 km. and that of surfaced roads was 3622 km. The total length of roads constructed in Manipur by the end of March 2003 including national highways, NEC, Border Roads Transport Forces (BRTF) and roads under rural development was 10760 km. Recently, the Manipur Road Infrastructure Development Technical Assistance Project was launched as part of a major plan prepared by the Government of India in collaboration with the World Bank, for upgrading the states' roads, and their maintenance and rehabilitation. The study,

unfortunately, gives undue weightage to the congestion criterion, which immediately gives it an urban bias with a focus on heavily populated elite areas having a high concentration of vehicles. The bias is also reflected in concentration of resources on the already developed areas. The report warned that the roads would deteriorate rapidly unless basic remedial measures were introduced to counter their decay. It predicted a dramatic decline in roadway performance over the next two monsoon seasons. The poor condition of roads in Manipur is mainly due to the lack of sufficient routine maintenance, poor quality of materials used in construction, inadequate drainage, etc. In the valley area, high ground water table and lack of water outlets saturate the roads resulting into subsidence. In the hills, run off from denuded forests floods the roads. In Tamenglong, the district with the heaviest rainfall, the roads are invariably washed away. Landslides are also a very common feature on most of the routes resulting in the frequent disruption of hill roads.

Table 9.17: Plan Expenditure on Transport and Communication in Manipur

Plan	Expenditure in Lakh Rs	% of total expenditure
First Plan (1951-56)	74.17	72.32
Second Plan (1956-61)	208.90	35.00
Third Plan (1961-66)	503.25	39.27
Rolling Plan (1966-69)	316.86	44.01
Fourth Plan (1969-74)	1260.00	40.65
Fifth Plan (1974-78)	1480.60	22.22
Rolling Plan (1978-80)	1092.10	17.86
Sixth Plan (1980-85)	3706.51	15.25
Seventh Plan (1985-90)	7466.83	14.79
Eighth Plan (1992-97)	20111.14	16.42
Ninth Plan (1997-2002)	25669.30	12.86
Tenth Plan (2002-07)*	13001.00	4.64
Annual Plan (2006-07) (Approved)	6753.00	4.97

Note : * Agreed outlay , Source : Department of Planning, Government of Manipur, **: Anticipated

Table 9.17 shows that Manipur accorded top priority to transport and communication in the First Plan and the percentage allocated to this area gradually declined in the subsequent plans. Table 9.18 shows how road mileage has been added over the five-year plans. The negative entry for others in the Ninth Plan is due to conversion of state highways into NH 150.

Table 9.18: Addition to Roads Under Five Year Plans

Plan	NH (Km)	Others (Km)*	Total (Km)	Plan expenditure on transport & communication (Rs. Lakhs)
Fifth Plan	Nil	25.90	25.90	1480.60
Sixth Plan	222.30	40.20	262.50	3706.51
Seventh Plan	Nil	52.50	52.50	7466.83
Eighth Plan	Nil	5.70	5.70	20111.14
Ninth Plan	519.00	-3.50	515.50	25669.30
Tenth Plan Target	NA	NA	1769.00	13001.01

Notes: * other than NH. For 74-79 the fig. Refers to 31st March 1975 and 1979.

** Anticipated

Source: Five Year Plans

Table 9.19 shows the changes in various types of roads in Manipur after it attained statehood. These changes can be better understood in the light of changes in the structure and growth rate of the state's economy. The elasticity of growth of the real NSDP consequent to the growth in road length is positive, though its magnitude is determined by the availability of complementary infrastructure and transport systems.

Table 9.19: Development of Roads in Manipur (in km)

As on 31 st March	National Highways	State Highways	Major District roads	Other District roads	Inter Village roads	Total
1973	212.30	650.10	574.30	247.90	1029.10	2907.50
1983	434.30	524.00	620.00	332.00	1986.00	4090.10
1993	434.00	1158.00	1010.00	744.00	2428.00	5896.00
1999	957.00	675.00	964.00	1013.00	3563.00	7172.00
2002	957.00	675.00	964.00	1013.00	3563.00	7172.00
2005	967.00	668.00	964.00	1013.00	5036.00	8648.00

Note:* inclusive of other district and inter village roads

Source: PWD, SAM 2005, p. 205

Table 9.20 shows that a 1 per cent change in road length in Manipur has been accompanied by 1.33 per cent change in real NSDP indicating a positive relationship. The picture is not uniform across the districts — ranging from 3.68 in Imphal to (-) 18.2 in Churachandpur. The time period of study has been dictated by the availability of data on net district domestic product. The negative co-efficients are a bit perplexing at first, which must be explained. One possible explanation is that connectivity resulted in a greater influx of goods from outside, resulting in a fall in production. It might also be a result of the peculiar composition of roads: the increase might be purely of highways with most districts being a mere transit point with little local multiplier effects..

Table 9.20: District Wise Elasticity of Real NDDP With Per Cent Change in Road Length (1992-2001)*

Dist	IMP	THO	BISH	SPT	CCP	UKH	TMG	CHN	MAN
Elasticity	3.68	0.51	-2.16	0.85	-18.20	0.22	0.53	0.77	1.33

Note: * Road lengths as on 31st March 1992 and 2001, NDDP in 1991-92 and 2000-01 at 1993-94 prices, IMP- Imphal, THO- Thoubal, BISH-Bishnupur, SPT-Senapati, CCP-Churachandpur, UKH-Ukhrul, TMG-Tamenglong, CHN- Chandel, MAN- Manipur.

Source: SHM 1992 and 2002

Table 9.21 shows the differences in road density and the compound annual growth rates across districts during the period 1984-2002. The valley districts are definitely better served by roads than the hill districts, indicating that the development of road infrastructure for hills should be given more weightage to unleash the latent potential for development.

Table 9.21: Inter-District Road Density (km per 100 sq.km)

District	1984	2002	CAGR in %
Senapati	13.44	23.73	3.45
Tamenglong	14.15	22.09	2.50
Churachandpur	6.58	21.23	6.72
Chandel	11.84	19.32	2.76
Thoubal	91.61	143.97	2.54
Bishnupur	44.13	84.67	3.68
Imphal *	72.67	120.60	2.85
Ukhrul	14.47	24.47	2.96
Manipur	18.75	32.12	3.03

Note: * Imphal East and Imphal West

Recently the Centre cleared the Northeast Express Highway project proposed by the NEC that would interlink the capitals of the eight northeastern states. The 6907 km long road will consist of 4464 km of NH, 2060 km of newly declared NH and 393 km of NEC roads. It will have four lanes in the plains and two lanes in the hills. Another significant development is the proposal for a Transnational Highway linking India, Myanmar and Thailand, which will link Moreh to Mae Sot in Thailand through Bagan in Myanmar. Besides, the return of peace in the South Asian region may mean that the Northeast will regain its access to the sea and Kolkata via Bangladesh. It is hoped that it will restore to a large extent the disruption in

infrastructure that occurred at the time of Independence and Partition. By December 2007, the 7300 kms. long NH or the north–southeast–west corridor linking Kashmir to Kanyakumari and Silchar to Porbandar will be completed. Since NH 53 connects Silchar with Imphal, Manipur should also benefit.

The road density in the State at the end of Ninth Five Year Plan was 45.69 km (including all roads under BRO, NEC, NH and Panchayat roads) per 100 sq.km. as against 62 kms for all India. There is a wide gap for equalization with the level of the other States of India.

Table 9.22: District Wise Length of Extra Municipal Roads In Manipur (Km)

1. Imphal *

As on 31 st March	NH	SH	MDR	ODR	IVR	Total
1975	71.87	238.74	115.25	73.90	885.47	1385.23
1983**	83.57	138.80	44.75	144.34	516.00	892.46
1995	53.00	152.00	113.00	328.00	746.00	1392.00
2002	109.00	183.00	185.00	253.00	751.00	1481.00

Notes: * Imphal East and Imphal West

** upto 83 inclusive of Thoubal and Bishnupur

2. Thoubal

As on 31 st March	NH	SH	MDR	ODR	IVR	Total
1984	35.00	35.00	30.00	21.86	349.00	470.86
1995	35.00	49.00	29.00	75.00	298.00	486.00
1997	35.00	94.00	21.46	202.91	468.58	821.95
2002	35.00	49.00	15.00	168.00	473.00	740.00

3. Bishnupur

As on 31 st March	NH	SH	MDR	ODR	IVR	Total
1984	NA	31.00	21.00	17.90	149.00	218.90
1992	NA	31.00	112.00	84.00	290.00	517.00
1997	NA	39.00	50.64	95.95	261.08	446.67
2002	39.00	NA	54.00	66.00	261.00	420.00

4. Senapati

As on 31 st March	NH	SH	MDR	ODR	IVR	Total
1975	78.00	51.00	48.00	19.00	67.00	263.00
1984	93.83	106.20	7.25	54.25	178.00	439.53
1995	115.00	128.00	35.00	180.00	235.00	693.00
2002	106.00	107.00	20.00	54.00	522.00	809.00

Note: * upto 79 known as Manipur North

5. Ukhrul

As on 31 st March	NH	SH	MDR	ODR	IVR	TOTAL
1975	NA	57.60	275.40	109.00	116.00	558.00
1985	NA	77.60	245.00	87.00	255.00	664.00
1995	NA	232.00	274.00	36.00	243.00	785.00
2002	165.00	137.00	30.00	188.00	592.00	1112.00

Note: * upto 79 known as Manipur East

6. Churachandpur

As on 31 st March	NH	SH	MDR	ODR	IVR	Total
1975	NA	50.40	106.00	150.00	87.30	393.70
1985	NA	50.00	63.00	2.60	192.00	991.10
1992	NA	340.00	438.10	2.00	211.00	863.00
2002	272.00	60.00	222.00	17.00	399.00	970.00

Note: * upto 79 known as Manipur South

7. Tamenglong

As on 31 st March	NH	SH	MDR	ODR	IVR	Total
1975	NA	252.40	NA	20.00	26.60	299.00
1979	NA	107.20	16.00	5.23	60.00	188.43
1985	192.50	70.80	181.00	10.00	178.00	632.30
2002	167.00	108.00	251.00	167.00	307.00	1000.00

8. Chandel

As on 31 st March	NH	SH	MDR	ODR	IVR	Total
1977	62.40	50.60	45.00		360.00	518.00
1985	64.40	17.60	32.00	2.35	283.00	399.35
1995	64.00	157.00	134.00	42.00	232.00	629.00
2002	64.00	31.00	187.00	100.00	258.00	640.00

Note: * upto 79 known as Tengnoupal

Source: SHM 1992 & 2002

Table 9.23: Types of Roads Districtwise in Manipur, 2001

District	Percentage Surfaced					Total
	National Highway	State Highway	Major District Road	Other District Road	Inter-Village Road	
Imphal East	100.00	100.00	96.11	92.08	33.56	60.78
Imphal West	100.00	100.00	88.40	94.13	71.08	84.13
Thoubal	100.00	100.00	100.00	70.89	33.48	45.41
Bishnupur	100.00	*0.00	100.00	87.72	35.45	60.90
Ukhrul	100.00	80.29	63.93	3.20	3.22	29.09
Chandel	100.00	100.00	84.76	32.38	2.80	44.76
Churachandpur	100.00	90.00	93.51	100.00	4.42	58.69
Tamenglong	100.00	100.00	57.64	14.21	0.99	43.28
Senapati	100.00	100.00	53.29	13.57	6.64	38.02
Manipur	100.00	95.11	80.18	47.69	19.53	49.59

Note: * no road in this category

Source: Worked out from PWD data

National highways and state highways. Significant differences, however, emerge in the case of MDR, ODR and IVR. In the hill districts, a large proportion of the IVR are not surfaced. The same is true of ODR except for Churachandpur. Since unsurfaced roads can be used only for a short period largely during the dry season, all weather roads are required in the hill districts in order to improve connectivity and transport around the year.

Table 9.24 shows the connectivity of villages with all weather roads across districts. There is a big divide between the valley and the hills in this respect: The absence or pathetic condition of existing roads in the hill districts has always been detrimental for development. As a result issues of integrity have continually rocked the state. Clearly, the extent of connectivity determines to a large extent the nature of interaction and dialogue among the people.

Table 9.24: Village Connectivity In Districts In Manipur 2001

District	Villages Connected With All Weather Roads (In Percentage)					Total
	(Levels of Population)					
	<500	500-1000	1000-1500	>1500		
Valley						
Bishnupur	100	88	100	100		98
Thoubal	75	88	100	93		91
Imphal East	93	100	93	100		96
Imphal West	100	100	100	100		100
<i>Valley total</i>	<i>93</i>	<i>97</i>	<i>97</i>	<i>98</i>		<i>96</i>
Hill						
Tamenglong	30	62	90	100		41
Senapati	39	71	65	83		47
Ukhrul	20	48	73	100		32
Chandel	44	68	100	*		46
Churachandpur	27	78	100	100		34
<i>Hill Total</i>	<i>33</i>	<i>66</i>	<i>77</i>	<i>91</i>		<i>41</i>
State	38	75	86	97		52

Note: * no village in this category

Source: PWD

The Pradhan Mantri Gram Sadak Yojana (PMGSY) was launched in Oct. 2000 to provide connectivity by way of all weather roads to the unconnected habitations in rural areas. Bharat Nirman, a major intervention for rebuilding rural India has rural roads as one of the six components, was announced by the Government and is under implementation from 2005. A target for providing connectivity to all habitations in the region with a population of 250 and above has been set in the Tenth Plan.

Table 9.25: Bharat Nirman Programmes in Manipur (Rs. in lakh)

S. No.	Name of Items/Programme	Annual Plan 2005-06		Annual Plan 2006-07
		Agreed Outlay	Anticipated Expenditure	Proposed Outlay
1.	Irrigation	8678.00	8678.00	12770.00
2.	Rural Roads	11600.00	6825.00	10000.00
3.	Rural Housing	803.34	603.34	302.19
4.	Rural Electrification	200.00	200.00	500.00
5.	Rural Water Supply	1003.00	1003.00	3000.00
Total		22284.34	17309.34	26572.19

Source: Annual Plan (2006-07) Proposals, Volume II, p. 76

Recommendations:

(i) Inter-village roads must be given priority in the hill areas. Construction of roads through labour-intensive works will also improve livelihood security.

(ii) The use of labour intensive technology would be ideally suited for tackling the problems of transporting heavy equipment, especially in the hills, besides providing employment and promoting participation of the people in the project. The issue of law and order in the hills can in part be addressed by creating a groundswell of public support for the project.

(iii) Unlike in the valley, land acquisition in the hills could involve a long drawn out legal process. As such, it is far better to activate the hill councils for settling the issue of land rights and working out the amount of compensation to be given to the affected persons.

(iv) The entire road network needs to be supported by a sustainable road maintenance policy. This includes adequate drainage, slope stabilization, pavement reinstatement and resurfacing. New construction should involve geometric correction and provision of necessary earth retaining structures to counteract potential land slips and building or replacement of certain bridges on priority routes. Local bodies like municipalities, panchayats and village authorities may be entrusted with this responsibility.

(v) PHED and Telecom Departments routinely dig up recently laid stretches of roads to lay water pipes and cable lines. A better coordination among them will lead to substantial savings in maintenance expenditure.

(vi) One of the major reasons for the slow movement on Manipur's national highways has been the provision for checks by the customs, police, army and the underground outfits on vehicles moving on the NH. This needs to be rationalized. Strict checks should also be imposed on the extortion by underground outfits.

(vii) The Border Road Organization should take over all highways and there should be no private contractors. In particular, the BRO should take over the Churachandpur to Tipaimukh road from PWD. (b) When bids are invited for road construction by the NHAI, they should include a defect liability period of 5 years, as is the case in the PMGSY. This will improve

maintenance. (c) The allocation for maintenance is too low, and in the last Annual Plan Rs 15 crores was sanctioned against an estimate of Rs 57 crores. (d) Bridge construction over Barak and Mailern is underway. In addition, 40 kms of NH 53 will be submerged once the Tipaimukh dam is built. Alternate alignment and bridges are required. Finally, NH 150A is essential to join Jiribam.

(viii) The slow progress of construction and works and consequently a higher than permissible sanction to allocation ratio is a big problem. There are two ways of addressing this. These were the blacklisting and penal action against defaulting contractors, and the second is to further relax the norm of 3.5.

(ix) The use of adulterated bitumen was identified as an important cause of poor road quality and there should be strong regulation and penal action for defaulters.

(III) Transport

The Manipur State Transport (MST) was established in August 1945 with a fleet of seven buses, three trucks, and two station wagons. It was converted into Manipur State Road Transport Corporation (MSRTC) in March, 1976. During the 1970s and 1980s MSRTC was the dominant bus service provider in the state. Over the years, however, the Corporation came to be characterized by poor quality of service, poor maintenance and lack of coordination leading to a decline in its operations. In the late 1980s, several private entrepreneurs started operating passenger and goods services. The State Government has decided to wind up the Corporation because of losses sustained by it over a period of time, yielding a negative return on investment. With its functions having been entirely replaced by private owners of buses and trucks, the MSRTC today exists only in name.

Table 9.26: Comparative Physical Performance Of States (2001-2002)

State	Fleet utilization % of buses on road	Vehicle productivity Revenue earning Km per bus per day	Bus staff ratio on fleet operated	Staff productivity Revenue earning Km per worker per day	Fuel efficiency Km/litre
Arunachal	68	136	5.20	23.90	2.94
Assam	51	96	31.00	6.00	4.00
Manipur	10	6	17.00	31.00	3.50
Meghalaya	39	60	17.10	9.10	3.50
Mizoram	54	60	5.00	6.200	3.15
Nagaland	63	63	11.70	13.10	3.50
Tripura	50	81	18.20	8.90	3.55
Sikkim	80	61	3.20	18.80	3.25
All India	90	290	7.20	45.40	4.61

Source: Tenth Plan document

Year	No. of registered vehicles
1975	3797
1980	6828
1985	14955
1990	42461
1995	58577
1997	64547
1998	68671
1999	71772
2000	76375
2001	82005
2002	90063
2003	96626
2004	105761
2005	113351

Source: SAM 2005, p.203.

Type of Vehicles	1975	2005	CAGR %
Bus	268	1822	6.60
Truck	1108	7804	6.72
Auto-Rickshaw	105	2592	11.28
Mini-Bus	16	653	13.16
Tractor	52	1348	11.46
Car	316	9632	12.06
Jeep	1207	8269	6.62
Two Wheeler	533	80557	18.21
Taxi	15	369	11.27
Others	33	267	7.22
<i>Total</i>	<i>3653</i>	<i>113313</i>	<i>11.99</i>

Source: SAM 2005, p.203

The number of two wheelers in the state has registered a rapid growth. 71 per cent of motor vehicles are two-wheelers and only 6.9 per cent are goods vehicles. The spurt in this category of vehicles is mainly due to the failure of public transport and availability of quick finance from various financial agencies. However, this has led to an increase in the level of air and noise pollution, road congestion, fuel consumption and the number of road accidents. Today, motorcycles have largely replaced the ubiquitous bicycles as an urban mode of transport.

Some of the recommendations for developing a viable people-oriented transport policy are:

(i) Revitalising the public sector is a priority. There is no escaping the fact that transport will be expensive, and since cross-subsidisation is not possible nor even desirable as this would act as an impediment to primary and secondary sector growth, the state will have to subsidize transport for all categories of users.

(ii) Transport cooperatives have mushroomed without any regulatory mechanism or quality controls. As a first step towards streamlining their operation, every cooperative may be required to have a certain number of buses or trucks.

(iii) There should be a regulatory body to ensure that the service provided by the private operators conforms to a reasonable standard in terms of efficiency, reliability, punctuality, etc. This is particularly important as tourism is expected to play a major role in the state's development in the near future.

(IV). Communication

The National Telecom Policy 1994, provided the framework for the future development of the telecom sector in India. As per this policy (a) all villages were to have telephone facilities by 2002, (b) STD facilities were to be provided every 10 kms on the national highways, and (c) Public call offices (PCOs) were to be set up for every 500 people in urban areas. However, the performance of the telecom sector leaves much to be desired. The following facts speak for themselves: on March 3, 2002 (a) 22965 DELs and 4275 were on the waiting list and among the Northeast states, Manipur had the largest waiting list in the SPL category, (b) only 27 per cent villages in Manipur had a public telephone, and (c) with the exception of urban Imphal, which had one PCO for every 321 persons, in all other urban centers the corresponding number of persons was much higher — in Thoubal and Bishnupur, for instance, the number of persons who had access to just one PCO was 7721 and 10467, respectively, and (d) the quality of service both of fixed line and mobile phones is still unreliable.

Table 9.29: Growth of Communication Sector in Manipur

Year	No. of Post Offices	No. of combined Post & Telegraph offices	No. of telephone connections
1955-56	80	NA	NA
1960-61	154	6	117
1970-71	252	15	996
1980-81	486	37	2123
1990-91	605	37	5026
2000-01	692	47	29453
2001-02	691	47	33945
2002-03	694	47	41468
2003-04	NA	47	44192
2004-05	NA	47	46417

Note: NA: Not available

Source: SHM, various issues & SAM 2005 p.211

Table 9.30: Comparative Teledensity in the NER as on 31-10-99

State	Telephones DEL per 1000 population*
Arunachal Pradesh	23.85
Assam	10.52
Manipur	10.00
Meghalaya	14.83
Mizoram	31.30
Nagaland	12.16
Tripura	11.72
India (March 2006)	12.74

Note: * Population on 31/10/99 have been interpolated for each state by using the CAGR for the period 1991 and 2001.

Source: NEC (2003) Basic statistics of the NER

The teledensity of India at 32 is also dismally low in comparison to developed countries like the USA (700) and the UK (589). It has of course grown rapidly over the 1990s at a 433 % decadal growth rate.

Table 9.31: District wise Profile of Teledensity in Manipur

District	No. of connections		CAGR	Teledensity	
	1991-92	2001-02		1991-92	2001-02
Imphal*	5208	25223	17.09	7.30	30.30
Bishnupur	145	2112	30.72	0.80	10.00
Thoubal	197	2071	26.52	0.70	2.00
Chandel	148	731	17.32	2.10	15.00
Churachandpur	237	1844	22.77	1.30	8.00
Senapati	140	1241	24.38	0.70	3.30
Tamenglong	34	304	24.49	0.40	2.70
Ukhrul	98	419	15.64	0.90	3.00
Manipur	6207	33945	18.52	3.40	14.80

Notes: * Imphal East and Imphal West

Source: SHM, various issues

It is only Imphal that has reached somewhere near the national level.

Telecommunication has to play an important role in facilitating connectivity. Some specific recommendations aimed at improving the quality of communication services in the state are: (i) BSNL should examine all factors that account for the poor quality of service, and initiate prompt remedial measures and (ii) Priority should be given to inter district connectivity, particularly to areas which frequently suffer from seasonal loss of road connectivity (iii) The Ministry of Home Affairs should remove restrictions on provision of cellular services in border areas. Broadband services must be provided/improved in all districts. (iv) Each village should have a tower

(V). Banking and Credit

The development of an economy depends, inter alia, on the existing banking and credit system. Under the present system, credit is advanced through a network of banks and other non-banking institutions e.g. co-operative societies, the informal credit market, etc. We will first discuss the existing infrastructure and then take up the issue of credit advancement. Finally, we will look at the credit recovery scenario.

The number of state cooperative banks (SCBs) in Manipur decreased from 85 in 1991, to 77 in March 2001. The Manipur Regional Rural Bank has the highest number of branches (30). In 1991, one bank office served about 21000 persons, while in 2001 it served about 31000 persons (Table-9.33). While the number of rural branches declined from 57 in 1992 to 42 in 2002, the urban concentration of banks increased from 19 to 21 during the same period. Thus, the period, 1991-2001, witnessed a deterioration of services offered by the banking sector, especially in the rural areas.

The provision of credit through Non-banking institutions is by co-operative societies and the informal sector or largely expensive moneylenders. The first co-operative credit society, the Manipur State Co-operative Bank Ltd., was registered in 1938. The Post-Independence period saw the growth of the cooperative movement under the leadership of Krishna Mohan Singh. Primary agricultural societies known as LAMPS in the areas and as GPLMPCS in the valley were set up in rural areas. The co-operative movement in Manipur has been instrumental in promoting the social and economic development of the state. Over the years it diversified into the areas of agro-processing, agro-marketing, rural industries, consumer stores, social services, etc. The number of cooperative societies and their membership increased from 2921 and 294840 respectively in 1980-81 to 5029 and 487223 respectively in 2000-01. The number of non-industrial cooperatives rose from 2495 in 1992 to 2854 in 2001 (Table 9.33) and that of industrial cooperatives from 1780 to 2155 in the corresponding years, indicating that the growth rate of the latter was higher than that of the former. However, the

number of people served by each cooperative society in 2001, was practically the same as in 1992 (97) (Table 9.32). Out of the existing 4746 Cooperative Societies, the number of defunct and dormant societies is 753 and 1458 respectively.

Table 9.32: Increase in Loans Advanced by Cooperative Societies/Banks During 1980-81-2000-01

	1980-81	1991-92	2000-01
Gross Loans Advanced by the Co-operative Societies (Loans in '000 Rs.)	24123.00	78317.00	328455.00
Scheduled Commercial Bank Loan (Loans in '000 Rs)		8680000.00	15723000.00
Population	1420953.00	1837149.00	2388634.00
Per Capita Loan of Scheduled Commercial Bank		4724.71	6582.42
Members of Co-operative Societies	294840.00	415486.00	487223.00
Per Capita Loans to Members	0.08	188.49	674.14
Number of Co-operative Societies	2921.00	4275.00	5029.00
Number of Industrial Co-operative Societies		1780.00	2155.00
Number of Non-industrial Co-operative Societies		2495.00	2854.00
Scheduled Commercial Bank		85.00	77.00
Number of Rural Scheduled Commercial Banks		57.00	42.00
Number of Urban Scheduled Commercial Banks		19.00	21.00
Members per Co-operative Societies	100.94	97.19	96.88
Population per Scheduled Commercial Banks		21613.52	31021.22

Table 9.33b shows the growth in advances and per capita disbursement of credit by SCBs and cooperative societies. The distribution of bank branches was marked by a wide disparity between the hilly areas and the valley. The total credit disbursed to the hill districts in Manipur fell from 25.81 per cent in 1991 to about 20.83 per cent in 2001. This clearly shows that credit advancements were highly skewed in favour of the valley, which constitute the urban areas.

During 1992-2002 deposits in all scheduled commercial banks in the state rose from Rs. 10916 lakhs to Rs 61100 lakhs, registering a growth of 459.73 per cent while credit rose from Rs. 7925 lakhs to Rs 15500 lakhs, registering a growth of 95.58 per cent only, lowering the credit deposit ratio from 72.6 per cent to 25.37 per cent for Manipur. The rural CDR is consistently higher (though falling) than the urban CDR (which too declined). Over time the former actually declined from 152 per cent in 1992 to 64 per cent in 2001 (Table 9.33a). This reflects in part the substantial reduction in access to banking services in rural areas, resulting in low deposits. The higher rural CDR is thus not due to higher credit but lower deposits due to acute poverty and the inability of the people to save. On the other hand, as against 73.5 per cent of total credit advanced to the valley districts in 1999, the total deposits from the valley were as high as 87 per cent. Thus the hill areas account for far lower deposits as well as credit in relation to the valley districts. Notably in 1995 the CDR in the hilly districts was only 37.2 per cent, as against 93.43 per cent in the valley at the same time.

Table 9.33a: Credit Deposit Situation of Scheduled Commercial Bank in Rural and Urban Areas From 1992-2001 (Rs. In Lakhs)

Year	Rural			Urban		
	Credit	Deposit	Credit Deposit Ratio	Credit	Deposit	Credit Deposit Ratio
1992	2653	1741	152.38	4127	7001	58.95
1993	2709	1785	151.76	4235	6989	60.60
1994	3021	2685	112.51	4380	9269	47.25
1995	3181	3136	101.43	4564	11746	38.86
1996	4458	3602	123.76	5014	15380	32.60
1997	5689	4104	138.62	5696	17751	32.09
1998	5807	4598	126.29	6728	18958	35.49
1999	5746	5939	96.75	6704	28956	23.15
2000	5175	5218	99.18	7887	27496	28.68
2001	3953	6097	64.84	8047	31716	25.37

Source: SHM 1992 & 2002, BSQH

Table 9.33b: District-wise Bank Deposit, Advance and Credit Deposit Ratio in Manipur as on 31-3-2004 (Rs.in Crores)

District/State	No. of Bank/Branches	Total Deposit	Total Advance	Credit Deposit Ratio
Senapati	12	32.71	12.63	39
Tamenglong	4	5.03	2.05	41
Churachandpur	5	38.26	12.14	32
Chandel	5	12.44	7.58	61
Ukhrul	4	12.97	1.75	13
<i>Hill Total</i>	<i>30</i>	<i>101.41</i>	<i>36.15</i>	<i>36</i>
Imphal East	11	41.80	22.11	53
Imphal West	32	714.46	221.59	31
Bishnupur	8	10.66	13.88	130
Thoubal	10	19.58	12.40	63
<i>Valley Total</i>	<i>67</i>	<i>786.50</i>	<i>269.98</i>	<i>34</i>
Manipur	91	887.91	306.13	34

Source: SAM 2004 (p. 220)

Table 9.33c: Recovery Ratio of the Co-operative Societies

Year	Bank Loan Recovered	Government Loan Recovered	Total Loan Recovered	Bank Loan Advanced	Government Loan Advanced	Total Loans Advance	Percentage of Recovery
1992	22573	7509	30082	72464	5853	78317	38.41
1995	24455	170	24625	11379	15678	27057	91.01
1996	24300	322	24622	45000	8213	53213	46.27
1997	25000	445	25445	46000	5544	51544	49.37
1998		555	555		22566	22566	2.46
1999	62551	830	63381	250452	23869	274321	23.10
2000	69052	152	69204	409012		409012	16.92
2001	34040	9009	43049	286922	41533	328455	13.11

Source: SHM 1985, 1992 & 2002, BSQH

Infrastructure Development in Manipur

District/State	No. of Commercial Banking Offices
Senapati	12
Tamenglong	4
Churachandpur	5
Chandel	5
Ukhrul	4
<i>Hill Total</i>	<i>30</i>
Imphal East	11
Imphal West	32
Bishnupur	8
Thoubal	10
<i>Valley Total</i>	<i>67</i>
Total	91

Source: SAM 2004 (p. 216-217)

Districts	No. of Bank/ Branch	Agriculture & Allied Activities		Small Scale Industries		Services & others		Grand Total		Total Advance (Rs. In Lakhs)	Percentage of Priority Sectors to total Advance
		Account	Amount of Advance (Rs. In Lakhs)	Account	Amount of Advance (Rs. In Lakhs)	Account	Amount of Advance (Rs. In Lakhs)	Account	Amount of Advance (Rs. In Lakhs)		
Senapati	12	1219	413	104	40	443	353	1766	806	1263	64
Tamenglong	4	57	4	47	12	412	178	516	194	205	95
Churachandpur	5	305	97	127	83	735	609	1167	789	1214	65
Chandel	5	605	106	137	87	197	55	939	248	758	33
Ukhrul	4	70	86	64	9	72	11	206	106	175	61
<i>Hill Total</i>	<i>30</i>	<i>2256</i>	<i>706</i>	<i>479</i>	<i>231</i>	<i>1859</i>	<i>1206</i>	<i>4594</i>	<i>2143</i>	<i>3615</i>	<i>59</i>
Imphal East	11	1335	259	890	586	944	614	3219	1459	2211	66
Imphal West	32	3745	1549	2333	1648	7504	8625	13582	11822	22159	53
Bishnupur	8	1124	450	1226	441	985	319	3335	1210	1388	87
Thoubal	10	1516	419	518	91	1169	491	3203	1001	1240	80
<i>Valley Total</i>	<i>61</i>	<i>6720</i>	<i>2677</i>	<i>4967</i>	<i>2766</i>	<i>10652</i>	<i>10049</i>	<i>23339</i>	<i>15492</i>	<i>26998</i>	<i>57</i>
Total (Hill+Valley)	91	9276	3383	5446	2997	12511	11255	27933	17635	30613	58

Source: SAM 2004 (p. 218)

Table 9.36: District-wise Bank Performance in Lending Financial Assistance to Different Categories of Beneficiaries in Manipur as on 31-3-2004

District/State	No. of Bank/ Branches	Weaker Section	SC/ST		Minority Community		Different rate of Interest Scheme		Women Entrepreneurs	
		Amount (Rs. In Lakhs)	No. of Beneficiaries	Amount (Rs. In Lakhs)	No. of Beneficiaries	Amount (Rs. In Lakhs)	No. of Beneficiaries	Amount (Rs. In Lakhs)	No. of Beneficiaries	Amount (Rs. In Lakhs)
Senapati	12	579	1640	534	1340	435	4	0.07	511	145
Tamenglong	4	107	562	205	562	205	48	0.53	246	95
Churachandpur	5	522	1045	688	1045	688	6	0.07	105	49
Chandel	5	136	912	229	461	100	15	0.65	112	39
Ukhrul	4	74	355	74	355	74	15	0.75	91	23
<i>Hill Total</i>	<i>30</i>	<i>1418</i>	<i>4514</i>	<i>1730</i>	<i>3763</i>	<i>1502</i>	<i>88</i>	<i>2.07</i>	<i>1065</i>	<i>357</i>
Imphal East	11	639	1062	441	78	46	171	0.93	799	183
Imphal West	32	4470	225	230	324	200	9	1	3961	1602
Bishnupur	8	225	68	35	9	4	NA	NA	468	196
Thoubal	10	373	53	67	116	71	155	2	1207	227
<i>Valley Total</i>	<i>67</i>	<i>5707</i>	<i>1408</i>	<i>773</i>	<i>527</i>	<i>327</i>	<i>335</i>	<i>3.93</i>	<i>6435</i>	<i>2208</i>
Manipur	91	7125	5922	2503	4290	1823	423	6	7500	2559

Source: SAM 2004 (p. 219)

Table 9.37: Agriculture's Share in Total Loans

Dist/State	Total Loans		Loans to Agricultural as Percentage of Total Loans	
	1998	1999	1998	1999
Senapati	917.97	1157.47	43.50	34.86
Tamenglong	429.11	452.72	12.09	12.35
Churachandpur	1473.24	1404.57	15.88	14.42
Chandel	130.26	628.71	23.84	20.01
Imphal (U)		8490.90		17.08
Bishnupur	697.53	1454.01	26.36	28.01
Thoubal	291.49	2242.95	48.54	33.67
Ukhrul	956.99	929.83	40.11	42.84
Manipur	12836.45	16761.16	22.02	22.66

Source: SAM 2001, pp. 164-5.

Table 9.37 shows that the agricultural loans advanced by the SCBs are very small in relation to industrial loans. The hilly districts, which are largely dependant on agriculture, thus account for a very small share of total loan advanced, except in Ukhrul and Senapati.

The problems that afflict the banking services in Manipur include long delays in sanction and disbursement of loans, lack of term finance, ineffective government policies to ensure loans for green field activities, non-traditional horticulture, herbal farming, etc. Furthermore, the community ownership of the land makes it difficult for the farmers to use plots for which they have usufructory rights as an effective collateral for agricultural loans.

There is wide disparity in the regional development of the banking system, with most of the banks concentrated in the urban areas. The government has been unable to put in place a viable alternative to the informal credit sector. Nor has it been able to increase the levels of awareness about the availability of credit from the co-operative societies.

One major factor for such a situation is the prevailing law and order situation. In fact, even those few branches of some nationalized banks operating in smaller towns had to close down

their operation & shift their base to the state capital. Thus feasibility and viability of operation of bank branches in rural & small towns in Manipur is not being dictated by potential business transactions or social needs but by security & safety questions of the operation.

Recommendations

Some of the important recommendations for improving the banking services in the state are:

- i). Introduction of an incentives packages for investors in the form of interest rate concessions, etc. This should induce prospective investors to enhance their investments, thereby improving the credit deposit ratio.
- ii). Adequate funding of the recently established North-East Development Finance Corporation: This would be a major step forward towards making the Corporation the nodal agency for the economic development of the region.
- iii). Further, since land ownership is community-based, the cooperative credit system should be strengthened whereby credit is made available on a cooperative basis. The formal banking system should have some provision for advancing credit against the community land to the entire group of landholders.
- iv). Adequate attention to the needs of the hilly and rural areas in terms of easy access to banks, better out reach of co-operative societies, etc.
- v). Integrated approach of the credit policy so that agro-processing industry may develop along with the expansion of horticulture, etc.
- vi). The foundations of the Banking Sector need building. (a) There is some unbanked area in the state. 12 development blocks and 2 districts have no banks. Banks should be opened here, if required next to army posts or police posts. (b) Furthermore, the cost of credit in the informal system is very high, between 36 and 60 per cent per annum. Most of those who go to the private moneylender are outside the formal banking system due to lack of collateral. Therefore, the state government can act as an intermediary between the banks and the people through a special purpose vehicle. The state government can take the risk and facilitate macro and cottage industry borrowings by small scale industries. At the moment, the heavy interest rate is a disincentive.

(VI). Cooperation

The thrust areas for Co-operation should be:

- i) Agricultural credit flow to farmers.
- ii) Development of pisciculture, poultry, piggery, horticulture, sericulture, dairy farming, etc in order to promote employment, especially for the educated unemployed.
- iii) Handloom, handicrafts and processing industries.
- iv) Diversification of business activities for marketing of agricultural produce and supply of consumer articles to the farmers and general public.
- v) Value addition, processing and marketing of minor forest produce.

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