








Profile on State of Environment Report of Manipur

2006-07

Submitted to :

Hon'ble Union Minister
Ministry of Environment & Forests
Govt. of India

Submitted by :

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CHAPTER - 1
ENVIRONMENTAL PROFILE OF MANIPUR : in general

1.1 Introduction :

A 'soft-state' on the North-Eastern border between India and Myanmar, Manipur has a total geographical area of 22,327 Sq. Km. of which 90% are hilly regions, largely, characterised by dense forests and inaccessible terrains. The valley (Plain area) at the centre surrounded by the hills claims 10% only. The valley area is cadastrally surveyed while only some parts of the hills are surveyed. As part of peculiarity of this physical feature of the area, 61.54 of the total population(2001) is in the valley while 38.45 per cent in the hill districts. Besides the state is surrounded by equally backward states on the north and west; Nagaland and Mizoram while on the south there is Myanmar, a very less developed country. The positive "spill-over" effects of development are visibly limited. The length of international border shared by the state is 352 kms accounting for 41.21% of the total length of the border. This peculiar location has been a visible handicap on the perceptible process of development of the state.

Table: Distinctive features of Manipur

Region	Percentages to the total		Remarks
	Population	Area	
Valley	61.54	10	Cadastrally surveyed
Hills	38.45	90	Only parts of the area cadastrally surveyed

1.2 Climate :

The impact of terrain diversity, altitudinal variation and river regime has become eloquent in the seasonal variatility of climate from one place to another. The Barak basin and lower foothills of Manipur Western hills have a warmer climate than the central valley and surrounding hills. Similarly, the western part of the state is more moist than the eastern because of its location on the windward slope of the hills.

The climate of Manipur can be broadly classified into

a) Temperate prevailing in the higher altitude of hill where temperate fruits and vegetables can be grown throughout the year,
b) Sub-tropical prevailing in the lower attitudes hills and central valley plain where winter lasts from November to February and rainy season from May to September. The transition period of March, April and October can be described as spring and autumn though short,
c) Tropical prevailing in Jiri plains and foothills- during March. In this plain and foothills all the tropical crops can be raised. The temperature ranged from sub-zero to 36ºC

1.2 Rainfall:

The rainfall in the state is around 1435 mm. Monsoon confers upon Manipur a very handsome rain as seen below : -

South-West monsoon (June-Sept.)	- 825 mm
Post monsoon period (Oct. to Dec.)	- 151 mm
Winter monsoon (Jan. to Feb.)	- 52 mm
Pre monsoon (March – May)	- 407 mm
Total	- 1435 mm

Although the State receives adequate rainfall, it suffers from temporal and location variations. There are great variations of rainfall in different districts. There is scarcity of water for economic activities in some districts. Right now (April, 2006) the Imphal Districts are facing acute problem of shortage of drinking water.

1.3 Drainage :

The state is drained by various streams which belong to three river systems. The Manipur river and its tributaries - Imphal, Thoubal, Nambul, Nambol, Khuga, Sekmai, and other smaller streams with Loktak and other associated lakes form the water resources of the valley having catchment of 6,332 sq. km about 28.4% area of the state. Discharging maximum quantity of water during the monsoon months (May- September), they frequently inundate the land along their banks. Every year Manipur experiences havoc of flood.

River Barak and its tributaries Irang, Makru, Jiri and their associated streams which drain the Northern and Western hill areas, have a catchments of 9042 Sq. Km. about 40.5% area of entire State. The Eastern slope of Manipur eastern hills is connected by a number of small streams of the Chindwin river system, which have a catchment area of 6953 sq.km., about 31.1% area of the State. River Axenglox and its tributaries, – Chamu and Chingai and river Yu and its tributaries – Maklang, Tayungbi, Taretlok, Lokchao and Tuiyaag flow in sub-parallel pattern and their supply terminates in the valley of Myanmar.

1.4 Geological Features:

Geologically, Manipur is said to belong to the young folded mountains of the Himalayan system. The rocks in the state vary from upper Cretaceous to the present alluvium. The oldest rocks found in the state are mainly confined in the eastern part of the state close to Indo-Myanmar border and the rocks are grouped as cretaceous rocks consisting of chromite (Epilates), serpentine etc. Availability of Asbestos, Chromite, Copper ore, Coal, Big iron, Lignite, Lime stone, Nickel ore and petroleum is reported in some parts of the state.

In Ukhrul district limestone deposits are found which belong to upper cretaceous period. The sandstone, shale of the Disang group found over the eastern half of Manipur belong to the Eocene period. The rocks consisting of sandstone, shale, clay, etc.of the Barail group are confined to the rocks of Disang group and extend along the mid western portion of the state and they belong to the upper Eocene and Oligocene periods.

The shales and sandstone of the Tipam and Surma groups cover the western blanks of Manipur and they belong to Miocene period. Rocks of alluvial deposits found in the Manipur valley portion are of recent origin and further they can be grouped as older and younger alluvium. The state is mainly composed of tertiary rocks. In the Ukhrul area there are igneous rocks which contain quartz, sandstone, limestone, etc.

The soil of the state is of two major types – residual and transported, which cover both the hill and plain of the State. The residual soils are either laterized or non-laterized. The laterized red soils covering an area of 2,500 sq. km. in the Barak drainage on the Western slope of Manipur. It contains rich portion of nitrogen and phosphate, a medium acidity and lesser amount of Potash. The old alluvial is brought down by river Barak basin and Jiri river and their tributaries from their lateritic water ship hills. The compact and less permeable soils contain higher quantity of potash, fair amount of nitrogen and phosphorus with medium acidity.

The transported soils are of two types – alluvial and organic. The alluvial soils cover 1600 sq. km. in the valley. This soils have general clayey warm texture and grey to pale brown colour. They contain a good proportion of potash and phosphate, a fair quantity of nitrogen and organic matter and are less acidic. The organic soils cover the low lying areas of the valley. With dark grey colour and clayey loam texture, these peaty soils have high acidity, abundance of organic matter, a good amount of nitrogen and phosphorus but are poor in potash. The hill soils are more or less rich in organic carbon (1 to 3%) in the top soil, but poor in available phosphorus and potash. They are acidic in nature.

1.5 Distribution and Classification of Soils :

The soil of Manipur belongs to 4 orders, 8 suborders, 13 greatgroups and 23 subgroups. It is observed that the Inceptisols are the dominant soils followed by Ultisols, Entisols and Alfisols and occupy 38.4%, 36.4%, 23.1% of the total geographical area of the State, respectively. Lakes and marshy lands occupy 1.9 percent.The area- wise distribution of soil at order and suborder levels of Taxonomy are given below.

Table: Distribution of Soil Order and Sub-orders of Manipur

Sl. No	Soil order	Suborder	Area('000 ha)	Percent of TGA
1.	Inceptisols		858.3	38.4
		Ocrepts	654.6	29.3
		Acrepts	203.7	9.1
2.	Ultisols		811.0	36.4
		Humults	374.0	16.8
		Udults	436.9	19.6
3.	Entisols	Orthents	515.6	23.1
4	Alfisols	Udalfs	3.8	0.2
5	Miscellaneous Marshy land		42.4	1.9
		Total	2231.0	100.0

TGA: Total Geographical Area

Source : State of Environment Report of Manipur 2006

Soil erosion caused by the continuation of Jhum

1. First year of Jhum - 146.6 tonnes/ ha / year
2. Second year of Jhum - 170.2 tonnes/ ha/ year
3. Abandoned Jhum - 30.2 tonnes/ ha/ year

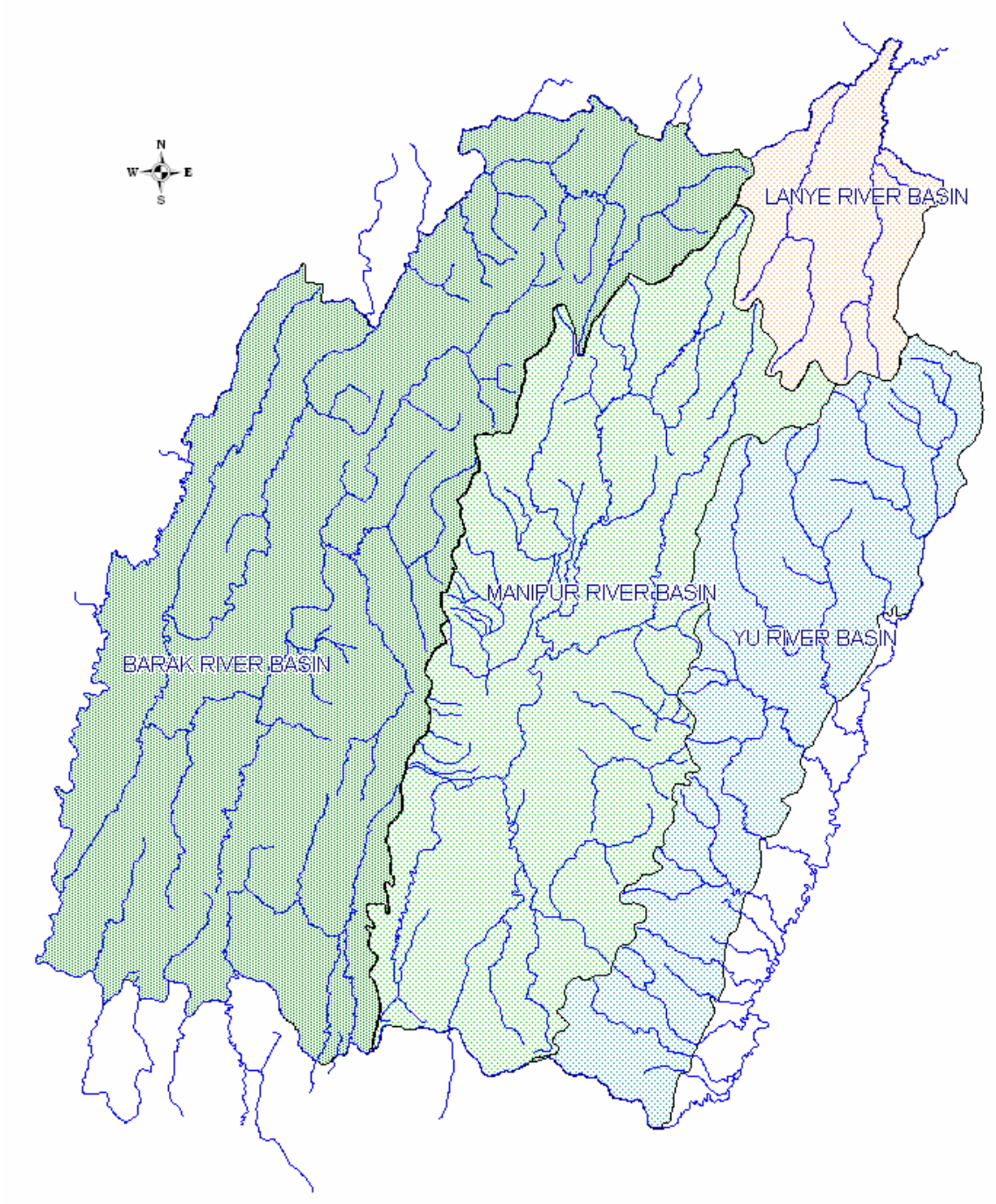
Source : State of Environment Report of Manipur 2006

1.6 State of Economy :

The Per Capita Net Income (SDP) of the State based on a quick estimate at current prices is Rs. 11,370/- for 1999-2000 as against the All India Average of Rs. 16,047/-. The average annual growth rate of the State Domestic Product is 10.52% in 1999-2000 as against 8.03% of the manufacturing sector. The table below will throw some light on the level of development in the State.

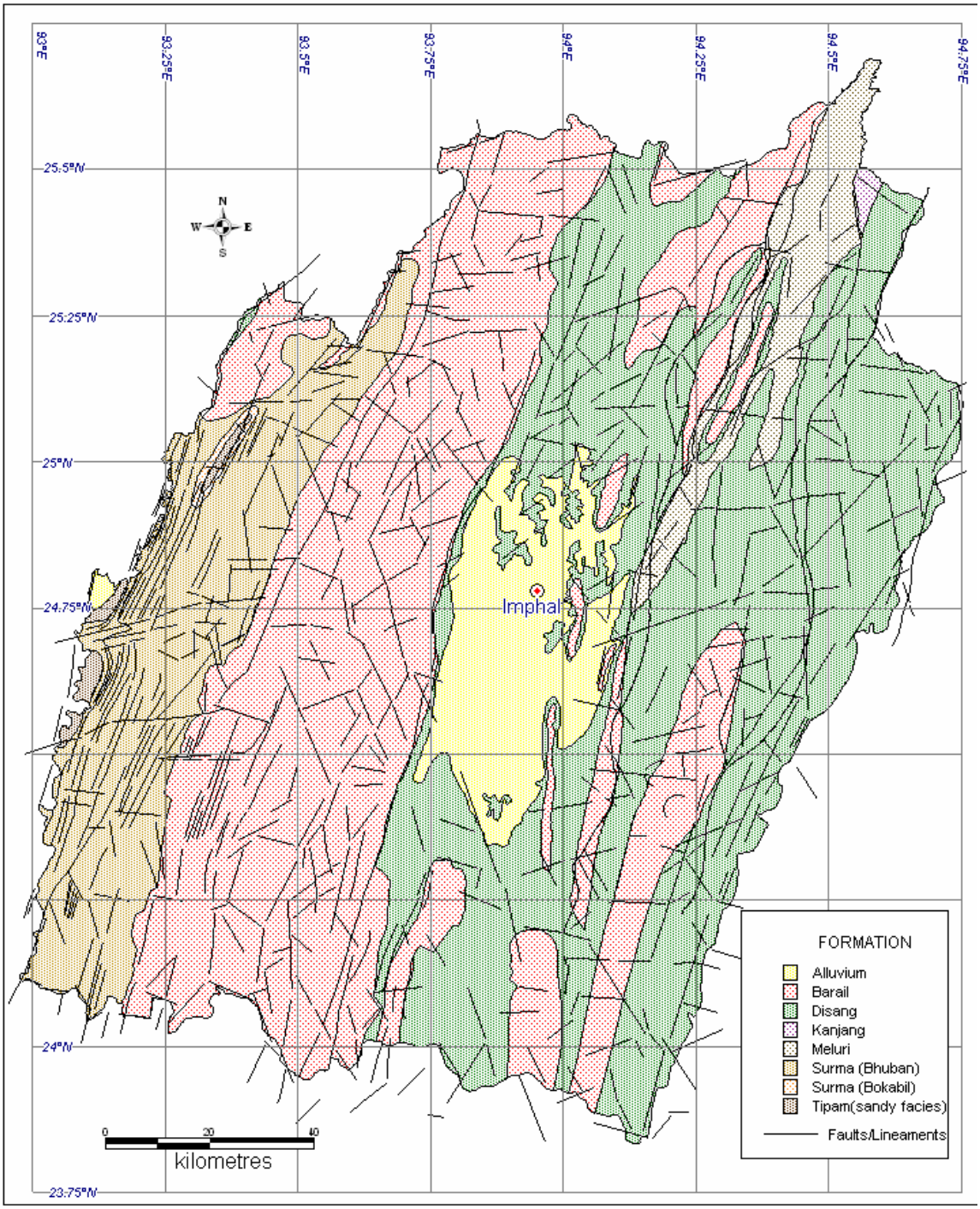
Item	Unit	Ref. Year	Quantum
Decennial growth rate of population	%	1991-01	30.02
Literacy	%	2001	68.87
Workers	%	1991	42.18
Agriculture			
i) Rice production	'000 tonnes	2000-01	381.69
ii) Fertiliser consumption	tonnes	1999-00	39,624
Fish production	'000 tonne	1999-00	15.51
Road length per 100 Sq. Km	Km	1999-00	32.12
Power			
i) Per capita consumption	KWH	1999-00	77.04
ii) Villages electrified	%	1999-00	91.70
Banking			
Banks	No.	1999	105

Source : State of Environment Report of Manipur 2006



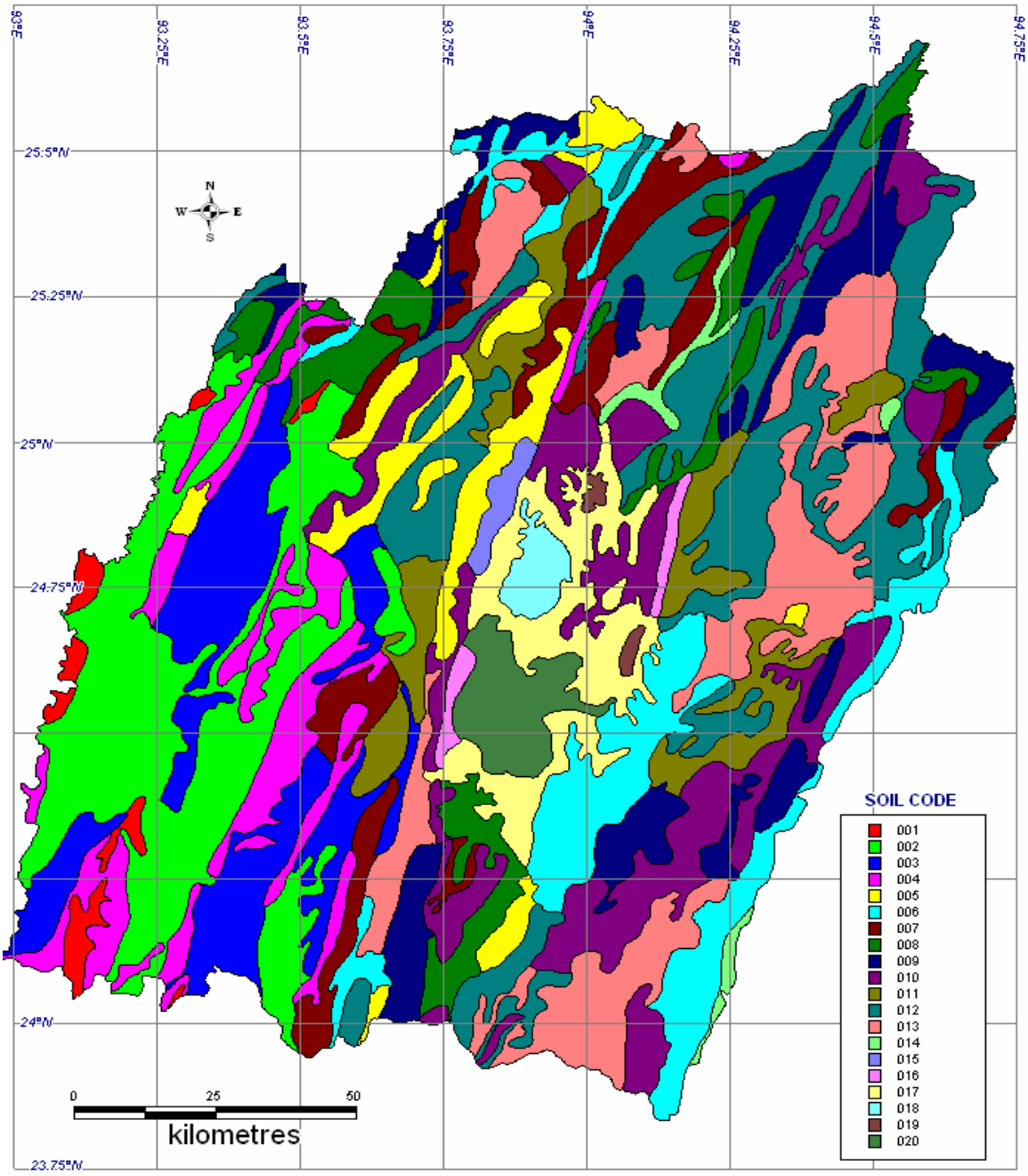
Source : Department of Earth Sciences, Manipur University, Canchipur

BASINE DELINEATION MAP OF MANIPUR



Source : Department of Earth Sciences, Manipur University, Canchipur

GEOLOGICAL MAP OF MANIPUR



Source : Department of Earth Sciences, Manipur University, Canchipur

KEY :

1.	Umbric Dystochrepts		8.	Typic Haplumbreplts		15.	Raptic Ultic Dystochrepts
2.	Typic Dystochrepts		9.	Typic Dystochrepts		16.	Umbric Dystochrepts
3.	Typic Haplaquepta		10.	Typic Paleudults		17.	Mollic Haplaquepts
4.	Typic Haplohumults		11.	Typic Palehumits		18.	Flavaquentic Haplaquepts
5.	Typic Dystochrepts		12.	Typic Udorthents		19.	Typic Haplaquepts
6.	Typic Kanhapludults		13.	Typic Udorthents		20.	Marshy Land
7.	Typic Haplohumults		14.	Typic Haplaquepta			

CHAPTER - 2
ENVIRONMENTAL STATISTICS OF MANIPUR : A PROFILE

2.1 ENVIRONMENTAL PROFILE OF MANIPUR:

Location	:	23.83^0 – 25.68^0 N Latitude and 93.03^0 – 94.78^0 Longitude West : Assam, East : Myanmar (Burma), South : Mizoram, North : Nagaland
Total Geographical Area	:	22,327 sq. km.
Revenue District	:	9 Districts (5 Hill Districts & 4 Valley Districts)
Sub-Divisions	:	37 (thirty seven) Nos.
Town	:	31 Nos.
Hill District Council	:	6 (six) Autonomous Council
Gram Panchayats	:	166 (one hundred sixty six)
Community / TD Blocks	:	31 (thirty one)
Mean Annual Precipitation	:	1200 – 1350 mm (sometimes 2000 – 2400 mm in the western part)
Mean Annual temperature	:	19 – 20^0 C as mean (0 – 12^0 C during winter & 28 – 38^0 C during summer)

		1901	1991	2001*
Total Population	:	284,465	1,837,149	2,388,634
Decadal Growth Rate	:	--	29 . 29	30 . 02
Urban Population	:	72,234	505,645	570,410
% of Urban Population	:	25.39 %	27.52 %	23.88 %


Population & Urbanization Problem

		Settlement	Agri – Land	Forest	Water Body	Scrub Land	Others
State Land use pattern	:	2 . 44 %	6 . 65 %	49 . 25 %	1 . 65 %	38 . 72 %	1. 29 %

Note : * Provisional Population, TD = Tribel Development,

Table : Growth of population, Manipur vis – a – visa India during 1951 to 2001 (P)

Census Year	Total population (in lakhs) Manipur	Decennial Growth Per cent	
		Manipur	All-India
1951	5.78	12.80	13.31
1961	7.80	35.04	21.51
1971	10.73	37.53	24.80
1981	14.21	32.46	24.66
1991	18.37	29.29	23.85
2001	22.94	24.86	21.34

(Source: Govt. of Manipur, Directorate of Eco./Stas : Economic Survey, Manipur, 2002-2003).

Table: Urbanization in Manipur, 1901-2001 Census

Census Year	Total No. of Uas/Towns	Total Population	Total Urban Population	% of Urban Population	Decennial Growth		Annual exponential Growth rate (Urban)
					Absolute	Percent	
1901	1	2,84,465	72,234	25.39	-	-	-
1911	1	3,46,222	74,650	21.56	2,416	3.34	0.33
1921	1	3,84,016	80,003	20.83	5,353	7.17	0.69
1931	1	4,45,606	85,804	19.26	5,801	7.25	0.70
1941	1	5,12,069	99,716	19.47	13,912	16.21	1.50
1951	1	5,77,635	2,862	0.50	(-) 96,854	(-) 97.13	(-) 35.51
1961	1	7,80,037	67,717	8.68	64,855	2266.07	31.64
1971	8	10,72,753	1,41,492	13.19	73,775	108.95	7.37
1981	32	14,20,953	3,75,460	26.42	2,33,968	165.36	9.76
1991	31	18,37,149	5,05,645	27.52	1,30,185	34.67	2.98
2001	33	22,93,896	5,76,410	25,12	64,765	12.81	1.21

(Source: Govt. of Manipur, Directorate of Eco./Stas : Economic Survey, Manipur, 2002-2003).

Table: Growth of Rural and Urban Population in Manipur (1961-2001)

Year	No. of Towns	Urban Population	Percentage to total population
1961	1	67,717	8.68
1971	8	1,41,492	13.19
1981	32	3,75,460	26.42
1991	31	5,05,645	27.52
2001	33	5,76,410	25.12

(Source: Govt. of Manipur, Directorate of Eco./Stas : Economic Survey, Manipur, 2002-2003).

Table: Average Annual Growth Rate of Rural – Urban Population (1951-2001)

Period	Rural	Urban	Total
1951-61	2.39	226.61	3.50
1961-71	3.07	10.89	3.75
1971-82	1.25	16.54	3.25
1981-91	2.74	3.47	2.93
1991-2001	3.66	1.28	3.00

(Source: Govt. of Manipur, Directorate of Eco./Stas : Economic Survey, Manipur, 2002-2003).

Table: Poverty Profile of Manipur.

Year	Number (in lakhs)	Poverty ratio
1973-74	5.86	49.96
1983-84	5.65	37.02
1987-88	5.29	31.35
1993-94	6.80	33.78
1999-2000	7.19	28.54

(Source : Planning Commission Quoted by the Indian Economic Survey, 2001-2002

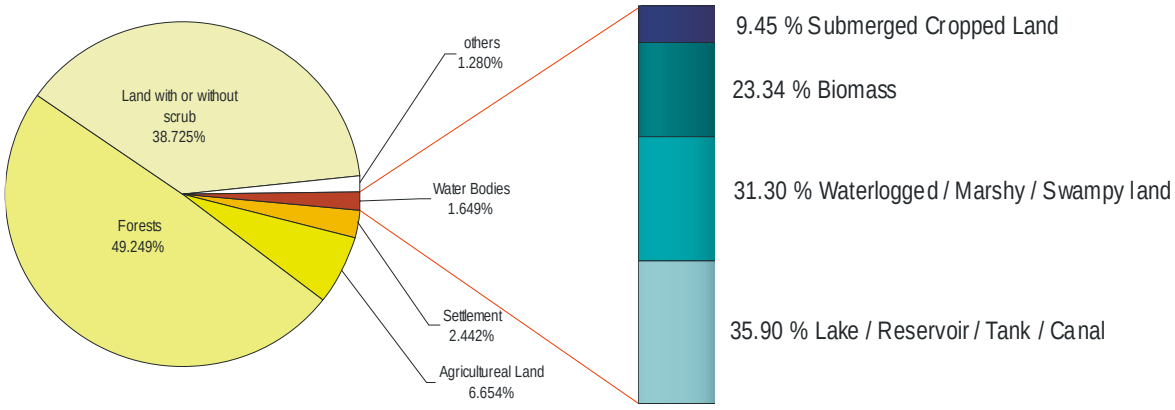
CHAPTER – 2
ENVIRONMENT & NATURAL RESOURCES

3.1 WATER RESOURCES :

The water resources in Manipur are from both the **surface water** (like Lake, River, Ponds, etc) & **sub – surface** (underground) water. As per land use data, total water bodies of the state is about 1.65% of the total land coverage.

TABLE: Land Use Pattern of Manipur & Imphal District (1989-90)

Sl. No.	Particular	Manipur	
		Absolute Area in Hac.	%
01.	Settlement :	54520.00	2.44
02.	Agricultural land	148572.00	6.66
03.	Forests	1099590.30	49.25
04.	Land with or without scrub	864612.80	38.72
05.	Water Bodies	36824.63	1.65
06.	Others	28579.75	1.29
	Total	2232700.00	100.00



Land Use Pattern of Manipur

SURFACE WATER in Manipur includes all the water resources from **wetland, lakes, ponds & rivers**. Wetland is one of the major character of the State. However, the nature and demographic pattern over the last 1 or 2 centuries should spectacular change that numerous wetlands had been lost with same as only remains for evidence. They are having wide variation in water spread during pre monsoons and post monsoons showing distinct hydro periods (exception for Loktak Lake in which water level is kept constant to run the existing hydro-electric project).

Drainage & River System : Manipur leis in the catchment area of two river system, namely Ganga - Brahamaputra and Chindwin – Irrawaddi river system. Rivers have narrow "V" shaped. The main rivers including Barak, the biggest river of the state draining into Ganga – Brahamaputra river system. Imphal River, Nambul River, Iril River, Thoubal River, etc are some of the major rivers in the state, of which Nambul River has been identified for conservation under the National River Conservation Programme since 2003-04.

Wetlands & Lakes :

	No.	Wetland Area (in Ha)	Water Spread (in Ha)		Aquatic Vegetation (in Ha)	
			Post-monsoon	Pre-monsoon	Post-monsoon	Pre-monsoon
A: Natural :						
Lake :	21*	43,358	14,548	105,84	295,32	33,708
Ox-bow Lake :	2	35	35	20	35	35
Waterlogged :	130	9,466	8,563	-	8,726	9,466
B: Man - Made:						
Reservoirs :	2	100	100	57	-	43
Total	155	52,959 Ha	23,246 Ha	10,661 Ha	38,293 Ha	43,252 Ha
		529.6 km^2	232.5 km^2	106.6 km^2	382.9 km^2	432.5 km^2

Source : Wetlands of Manipur (1997) : Space application Centre (ISRO) & Manipur Repote Sensing Application Centre

Ha = Hacter (100 Ha = 1 k m^2)

Out of these identified natural fresh water lakes, only the Loktak Lake (24,672 Ha) has been identified under National Lake Conservation Programme (NLCP) by the Ministry of Environment & Forests, Govt. of India so far & also being one of the Ramsar Site for International Importance since 1996. Further, 12 Lakes more are also proposed for further identification under NLCP, as

Sl. No.	Name of the propose Lakes	District	Area
01.	Pumlen / Khoidum Pat	Thoubal	8,022 Ha
02.	Ikop /Kharung Pat	Thoubal	6,520 Ha
03.	Loushi Pat	Thoubal	1,064 Ha
04.	Waithou / PunnemPat	Thoubal	455 Ha
05.	Aongbikhong Pat	Thoubal	225 Ha
06.	Ushoipokpi Pat	Thoubal	65 Ha

07.	Sanapat	Bishnupur	282 Ha
08.	Utrapat	Bishnupur	185 Ha
09.	Tankha Pat	Imphal West	65 Ha
10.	Karam Pat	Imphal West	185 Ha
11.	Lamphel Pat	Imphal West	5 Ha

Underground Water : The continuous rain system in the state plays an important role for underground water recharge, which percolates into rock strata and having rich potential in underground water resources. Water table in the state varies from 2 to 4 meter.

Forests Resources :

		Total Area in km²	% to total Forests Area	% to total State Geographical Area
A. Forests Classification :				
Reserved Forests Area	:	1,467 sq. km.	8 . 4 %	
Protected Forests	:	4,171 sq. km.	24 . 0 %	
Other Forests	:	11,780 sq. km.	67 . 6 %	
Total Forests Area (FSI 1997)	:	17,418 sq. km.	100 %	78 . 01 %
B. Forests Type (Broadly) :				
Wet Temperate Forests	:	1,451 . 0 sq. km.	8 . 23 %	
Pine Forests	:	2,442 . 8 sq. km.	13 . 86 %	
Wet Hill forests	:	9,057 . 6 sq. km.	51 . 40 %	
Semi-Evergreen Forests	:	644 . 9 sq. km.	3 . 66 %	
Teak Gurjan Forests	:	610 . 7 sq. km.	3 . 48 %	
Bamboo Brakes	:	3,268 . 0 sq. km.	18 . 6 %	
Grass Brakes	:	146 . 0 sq. km.	0 . 82 %	

Ikop Lake, one of the proposed for conservation under NLCP

GROUND WATER table data of Manipur varies as per its geological formation i.e. for the plan areas (Central Valley districts) the ground water table is reported at 2 – 4 meter bgl (below ground level), whereas, for the hill & foothill areas (Hill districts) reported as 4 – 5 meter bgl (below ground level). Groundwater is mostly exploited through open wells, occurs under sub-artesian and artesian conditions in the deeper aquifers. Through tubewells, the underground water are targeted to explore at the valley areas with the yields ranging from 0.6 to 4 cu.m./hr and an annual recharge of 44 M cum has been estimated. Considering the clayey nature of formation in the top acuifer, development of this resource is not considered promising on a large scale either in irrigation of water supply. However, it can be exploited for local water supplied through open wells dug-cum-bore wells and tube wells. Recently, the North Eastern Regional Institute of Water and Land

Management (NERIWALAM) and the Central Pollution Control Board, Delhi has been reported the presence of arsenic in some of the existing underground water (Tube Well) in Kakching, Thoubal district of the state.

Water Quality Problems :

Water quality for both the surface & sub surface has been monitoring by the Environment Monitoring, R & D Laboratory of the Environment & Ecology Office, Govt. of Manipur regularly.

TABLE - 4 : Environmental Pollution Status of Manipur

	Pollution Level	*Pollution Status*	*Problems & Pollution Sources*
Surface Water - Lake :	Moderate	Eutrophic	Domestic Sewage & Agriculture runoff
Surface Water - River :	Moderate	Eutrophic	Domestic Sewage & Agriculture runoff
Surface Water - Pond :	Moderate	Eutrophic	Domestic Sewage
Underground Water :	Low, but considerable	Contamination	Host Rock, Solid Wastes Disposal
Air Pollution :	Medium	Ambient Air	Smoke from Vehicles / Transport
Soil Pollution :	Low, but considerable	Contamination	Solid Wastes Disposal
Wastes Disposal :	High	Non Segregation	Urban, Domestic & Hospital
Noise Pollution :	Low		--

Some of the hot-spots for water quality resources & its problems has been identified as below

1. Nambul River, in the urban area of Imphal City;
2. Loktak Lake and its periphery lakes;
3. Underground water at Kakching Town;
4. Community ponds namely Ningthem Pukhri, Thangmeiband Pukhri, Bijoy Govinda Moat, Kangla Moat, etc. at Imphal City;

No any industrial pollution, chemically pollution with toxic / hazardous effluents, etc. has been reported since yet, however different observations in between the surface & sub surface water resources have been reported.

Existing and proposed water supply / management in the state :

Water supply system in Manipur is under supervision of the Public Health Engineering Department (PHED), Government of Manipur. This Department is dealing with Planning, Investigation, execution and Operation & Maintenance of both Urban & Rural water supply schemes in the state.

i) Urban Water Supply :

Urban water supply is divided as Imphal Water Supply and Other Towns water Supply.

a) Imphal Water Supply having the existing treatment plant with installed capacity of 83.03 MLD as on March 2002. The present water requirement is about 100 MLD for the estimated

population 5.65 lakh (2002- 03), and expected to be 140 MLD for the projected population of 7 lakh by the year 2011.

b) Other Towns Water Supply, i.e. 29 (twenty nine) other towns (as on March 2002), having as existing installed capacity of 19.05 MLD, whereas the present water supply demand for these towns are estimated of 30.09 MLD by covering 3.79 Lakh of provisional population (2001 Census). The water demand is expected to be at about 40 MLD as increases the population at 4.93 (projected population for 2011).

ii) Rural Water Supply :

Rural water supply of the state having 2,815 habitations, i.e. 2203 main habitations and 612 other habitations, out of the total population of 13.2 Lakh (1991 Census) and the its network with the existing water supply system as on March 2001 is as

a)	Not Covered (NC) habitations	-	28 Nos.
b)	Partially Covered (PC) Habitations	-	302 Nos.
c)	Fully Covered (FC)	-	2461 Nos.
d)	Deserted	-	24 Nos.
	Total Habitations	-	2815 Nos.

Moreover, there are many central sponsored schemes / programmes for the water supply. The details of services on existing & proposed water supply system of Greater Imphal & Imphal Municipality area are given as below

TABLE : Details of Services for Water Supply System in Greater imphal & Imphal Municipality Area as on March 2003.

Details of Services of water Supply	Greater Imphal	Imphal Municipal Council
Surface Source (MLD)	72 . 42	98 . 17
Sub Surface / Underground Source (MLD)	1 . 35	1 . 83
Treatment Plant Capacity (MLD)	51 . 63	--
Domestic / Residential supply (MLD)	30 . 56	82 . 89
Non – Domestic / Commercial supply (MLD)	6 . 41	17 . 39
Average per capita supply (lpcd)	80 . 63	--
Population Served	457261	--
Total Storage Capacity (ML)	25 . 11	--

Forests Resources :

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vi. Biodiversity :

Manipur, physically adorned with microclimatic & monsoonic climate. The elevation of the state varies from 400 msl (Jiribam) to 2,994.36 msl (Tenipu Hill at western region of the state). Adapted to these, there are different types of forest ranging, say from tropical to sub-alpine. Hence, the state has enriched various flora and fauna considerably. Moreover, the north-eastern Himalyan region including Manipur happens to be one of the two mega biodiversity **'hotspots'** in India. The state has a number of proposed biosphere reserves, like Yangoupokpi, Siroi, Kailam. Khongho- tenepu-Dzuko, Jial lake & Keibul Lamjao National Park where there are a number of wild palnts and animals (resident – migrant), including the much talked brow antlered deer, locally called SANGAI (*cervus eldi eldi)*. However, a major threat for rapid great losing / diminishing of biological diversity has been facing by the state. Some of the major Biodiversity statistics may be highlighted as

	Reported varieties
A. Flora :	
Tree species	153
Bamboo Species	54
Orchid	500
Edible Wild Plants	50
Plant / Herb Spices	73
Indigenous Medicinal plants	430
Endemic Rice	40


Rare Orchid of Manipur

B . Fauna :	
Fish	160
Amphibian	13
Snakes	34
Lizard	18
Birds	79
Wild animal	34


Indigenous Fish

Pollution Status & Environment (as on August 2004):

	Pollution Level	*Pollution Status*	*Pollution Sources*
Surface Water - Lake :	Moderate	Eutrophic	Domestic Sewage & Agriculture runoff
Surface Water - River :	Moderate	Eutrophic	Domestic Sewage & Agriculture runoff
Surface Water - Pond :	Moderate	Eutrophic	Domestic Sewage
Underground Water :	Low, but considerable	Contamination	Host Rock, Solid Wastes Disposal
Air Pollution :	Medium	Ambient Air	Smoke from Vehicles / Transport
Soil Pollution :	Low, but considerable	Contamination	Solid Wastes Disposal
Wastes Disposal :	High	Non Segregation	Urban, Domestic & Hospital
Noise Pollution :	Low		--


Biomedical Wastes mixing Municipal Solid Wastes


Polluted River