

CHAPTER-III

LOCALE OF THE STUDY

3.1 General Outline of Manipur:

Manipur has a glorious and recorded history of 2000 years. The “CHEITHAROLKUMBABA (the state royal chronicle)” traces the political history of Manipur with the ascent of Nongda Lairen Pakhangba (33 AD-154 AD) to the throne of Manipur. The sovereignty of Manipur remained undisturbed till the Burmese invasion and occupied Manipur nearly seven years (1891-1826) which is known as Chahi Taret Khuntakpa (Seven Years Desertation). Again, Manipur lost her independence at Anglo-Manipuri War of 1891 and came under the British rule from 27th, April, 1891. Thereafter, the political control Manipur went in the hand of the British government and became a princely native state. All the executive powers were in the hand of political agent appointed by the British government. The British paramountcy remained till Manipur regained its independence in 1947. During II World War, fierce battle were fought between Japanese and Allied forces in Manipur and Japanese forces withdrawn before entering to Imphal. After the war, a semi-democratic form of government was formed with the enactment of Manipur Constitution Act of 1947. The Maharaja of Manipur became the executive head of the newly formed government with elected representatives. But, the legislative assembly did not last long and end with the controversial Shillong –Accord of 1949. Accordingly, Manipur was merged with the Indian Union on 15th, October, 1949 and became a Part “C” state under the administration of

Chief Commissioner. By 1950-51, an Advisory form of government was established. Subsequently, it was replaced by Territorial Council in 1957. The Territorial Council was formed with 30 elected and 2 nominated members. Later on, Manipur became a Union territory under the Government of Union Territories Act, 1963. The territorial assembly has 30 elected members but the nominated members increased from 2 to 3. Besides, the administrator rose from Chief Commissioner to Lt. Governor. In 1972, Manipur got its statehood on 21st, January with a Legislative Assembly of 60 members. In Lok Sabha, the state has two member representations while only one member is being represented in Rajya Sabha.

Geographically, Manipur is a hill-locked region with green valleys and one of the eight North Eastern states of India. Occupying a geographical area of 22,327 sq.km, the state lies at latitudes 23⁰ 50' N -25⁰ 41' N and longitude of 93⁰02' E -94⁰47' E. Manipur shares her boundaries with Myanmar in the east, Assam in the west, Nagaland in the north and Mizoram in the south. The state locates at an altitude of 700-3000 metres above the mean sea level. Manipur is divided into two portions by geographical structure viz. hills and valleys.

The Hills

The hills occupy 20,089 km²(including Khopum valley), of the total geographical area of Manipur that constitutes about 90% of the total area. Consisting of parallel ranges that extends from Naga Hills and further extended as Mizo and Chin hills. These successions of parallel ranges are being separated by valleys.

The Valleys

The valley of Manipur constitute about 10% of the total geographical area of the state by occupying 2,238 km² (excluding Khopum valley) of the total area. Out of this 10% share, lakes or wetlands and isolated hillocks cover an area of 550 km². The Manipur valley is made up of two parts namely, a) the Manipur central plain or Imphal valley and b) the Barak basin or barak valley.

Imphal Valley

The Manipur central plain is an oval shaped basin and lies at the heart of Manipur. As the Imphal river passes through the central plain, it is also known as Imphal valley. A basin having the length of 70 km (north-south) and breadth of 35 km (east-west). The strategic geographical location is the determining factor for being the centre of growth and development of the state. With the share of 9.2% of the total geographical area, Imphal valley occupies a geographical area of nearly 2067 Km². Loktak lake, the largest fresh water lake of north eastern India, occupies southern portion of the valley. The elevation of the valley varies from 838 metres (northern portion) to 760 metres (southern portion) above mean sea level and slope away from north to south. Some of the hills like Langol, Chingmeirong, Langthabal etc. scatter intermittently within the valley.

The Barak Valley

The Barak valley locates on the western border of Manipur neighbouring the Cachar district of Assam. As the river Barak flows through this valley, it is known as Barak valley. The valley has a

geographical area of nearly 250 km² that includes both 171 km² of Jiribam and about 79 km² of Tipaimukh areas(Churachandpur district). The valley is located at an altitude of 200 to 500 meters from the mean sea level and sandstone hillocks are lying scattered in the valley.

Rivers

The river system of the state mainly consists of Barak River System, Imphal or Manipur RiverSystem and Chindwin River system. The western hills as well as the eastern hills serves as watershed for these river systems and subsequently join with their respective major drainage system namely Ganga-Brahmaputra drainage and Irrawaddy drainage. The major rivers of Manipur are Imphal, Nambul, Iiril, Sekmai, Chakpi, Thoubal, Khuga etc. The Barak and Manipur River altogether amounted to 1.85 million hectare meter per annum of the total water resources of the state. Nearly, 0.7236 million hectare meter per annum amount of water balance exists within the annual water budget. The hilly rivers have mountain streams with rocky pools where water remains during dry season whereas the valley rivers carry down large amount of silts during rainy season with non-perennial flow.

Wetlands

The wetlands of Manipur are the prominent water bodies of the state. They are mainly confined to the valley areas but scattered in the hilly regions also. Number of Swamps and marshes are dotted along the riparian tracts. There were 500 lakes in Manipur(R.Brown,1873) but the number decreases to 2 lakes at present(Dr. R.K.Ranjan,2013). The

main reasons for the vanishing of wetlands in Manipur are urbanization, population pressure, infrastructure development, no respect or love for the wetland, ignorance of public as well as authority about the importance of the wetland (R.K.Ranjan,2013). The wetlands are mainly rain-fed and depend on the seasonal rain. Loktak Lake ,the largest fresh water lake in north-east India is already listed under Ramsar Site.

Soil

Basically, two main types of soil are available in Manipur namely- Residual soil and Transported soil. Residual soils are mostly confined to the hills and acidic in nature whereas transported soils are mainly available in the valley and high clay content.

Forests

Manipur is endowed with number of forests. The recorded forested area is estimated at 17,090 km²and its share about76.54% of total geographical area (FSI, 2011). Although, the state is far above the national average of forested area, but, declining of forested area has been experiencing. Forest take a vital role both ecologically and socio-economic development of the state.

The forest of Manipur is classified based on Champion & Seth's classification as follows(Deptt. of Forest, Govt. of Manipur, Annual Administrative Report,2013-14):

- Tropical Semi Evergreen Forests: The forest extends from foothills to an elevation of 900 above MSL. Mainly confined to western part of Manipur adjacent to Cachar district of

Assam and cover an area of 644 sqkm (approx.). Bamboos and hard wood trees(like mango, agar, Ironwood etc.) are mainly dominated species. humming is heavily practised in this forest.

- Sub-tropical Pine forests: This type of forest exist between an elevation of 900m to 1600m with rainfall above 1800 mm. Only, it is found in the north-eastern and southern part of Manipur. The area under the coverage of this forest is 2442.77 sqkm.(approx.). Good quality pines and soft wood trees are found in this forest The forest is suffering from forest fire and inaccessibility.
- Teak Gurjan Forests: This kind of forest is located at an elevation between 100m to 900m. Confined along the Myanmar border. Among various species, Muli bamboos are found in this forest. The forest cover an area of 610.74 sqkm.(approx.) and mainly dominated by Teak trees.
- Moist Deciduous Forests: This type of forest has the same elevation with Teak Gurjan Forest. It is found along the Myanmar border. Nearly, 610sqkm of area come under this forest. Teak is one of the main species and jhumming is commonly practised.
- East Himalayan Wet Temperate Forests: This forest is located at an elevation between 1700-2700 m above MSL. Cover an area of 1450sq.km and mainly dominated by evergreen species of Oak and pine trees of various sizes
- Sub-Alpine Forests: Located at an elevation above 2700 sq.km above MSL and extended to a limited area.

- Grassy Blanks: Grassland extended to certain tract of forests and occupy upto 154 sq.km(approx.).
- Bamboo Brakes: Almost bamboo brakes are located all elevation except 1700m above MSL.Largely, bamboo brakes and bamboo mixed with scrubs are extended in western, south-western and north-western parts of Manipur. Nearly, 53 species of bamboos are found in Manipur.(Devi& Devi).
- Cane Brakes: Cane brakes are mainly confined with long period of wet area.Variou species of canes are found along with palms.

Status of forest

Decrease in forested areas (in sq km) between 1999-2013for Manipur is -1,942.56.(Down to Earth, Annual State of India’s Environment,2015).

Table 3.1.1: District Wise Forest Area of Manipur

(Area in sq.kms.)

District	Geo.Area	Very Dense	Moderately Dense	Open forest	Total forest Cover	Percent to the state
Bishnupur	496	0	1	20	21	4.23
Chandel	3313	0	744	2085	2829	85.39
Churachandpur	4570	37	1683	2555	4275	93.54
Imphal East	669	0	53	167	220	32.88
Imphal West	559	0	24	31	55	9.84
Senapati	3271	233	870	1080	2183	66.74
Tamenglong	4391	279	1784	1839	3902	88.86
Thoubal	514	0	4	52	56	10.89
Ukhrul	4544	181	988	2380	3549	78.10
Grand Total	22327	730	6151	10209	17090	76.54

Climate

Manipur enjoy a sub-tropical monsoon climate condition with hot and wet summer, and cold and dry winter. However, spatial variability of climatic conditions occurs. Because, various orographic feature such as river system, terrain variation and elevation variation determine the climatic conditions of Manipur. Therefore, warmer climatic condition are experienced in Barak basin and lower foothills of Western hills as compare with central valley and surrounding hills. While the western part of Manipur are more humid than the eastern part.

Temperature

The mean annual temperature of the Manipur ranges from 15.4⁰C to 25.3⁰C. But, the state is experiencing surface temperature variability during past 100 years. The data reveals an increasing pattern both in minimum and maximum surface temperatures (Manipur State Action Plan on Climate Change, 2013). The maximum temperatures has risen from 26.5⁰C to 27.3⁰C while the minimum temperature has increased from 13.8⁰C to 15.3⁰C. Comparatively, night temperatures is quickly increased with day temperature and greenhouse gases are accounted for it. Increasing trend both in minimum and maximum temperatures ($\geq 1.75^{\circ}\text{C}$ and $\geq 1.5^{\circ}\text{C}$) are being observed over Jiribam, Churachandpur, Bishnupur, Thoubal, Imphal(East&West), Chandel and some areas of Tamenglong during the past 100 years.

Rainfall

Manipur is a rain-fed state. Although, the rainfall is abundant, but distributed unevenly. Monsoon plays a main role in the rainfall of the

state. The rainy season starts from April and continue till October. The average rainfall ranges from 33.95 cm in June to 23.98 cm in August.. The annual amountof rainfall varies from 959.5 to 2269.9 mm. While the average monthly total rainfall has varied from 12.2 mm(January) to 407.3 mm(July)). Churanchandpur district receives the highest rainfall comparatively with the rest of the state. Hilly areas have higher rainfall than the valley areas.

The decadal assessment of monthly rainfall reveals that the period of raining days in Manipur has extended from monsoon months i.e. June-October to pre-monsoon months like April and May.Few districts of central and southern Manipur experienced a marginal decrease in precipitation over Imphal(east & west), Bishnupur, Thoubal, Tamenglong, Jiribam, Chandel in the last 100 years whereas the northern districts of Manipur i.e. Senapati and Ukhrul has observed a considerable increase in precipitation. (Manipur State Action Plan on climate change, 2013).

Relative Humidity (RH)

The relative humidity of an area varies with season to season .The state has changing pattern of RH due to seasonal variation. Generally, RH of the state shows variation fromJanuary (74%) to March (71%) and rises abruptly from April (77%) to October (84%) during the monsoon season. It goes downward fromNovember (77%) to December (78%).Accordingly to the report of Manipur State Action Plan on Climate Change (2013), the average relative humidity of the state was 74.22% during 1969-2011. Further, the reports asserted that there is considerable increased of relative humidity in

Manipur during night. It has reached above 80% (night) especially during June to December (monsoon months) due to continuous rainfall. High relative humidity during monsoon periods increases the incidents of the people affected by vector borne diseases such as malaria, dengue etc.

Land Use

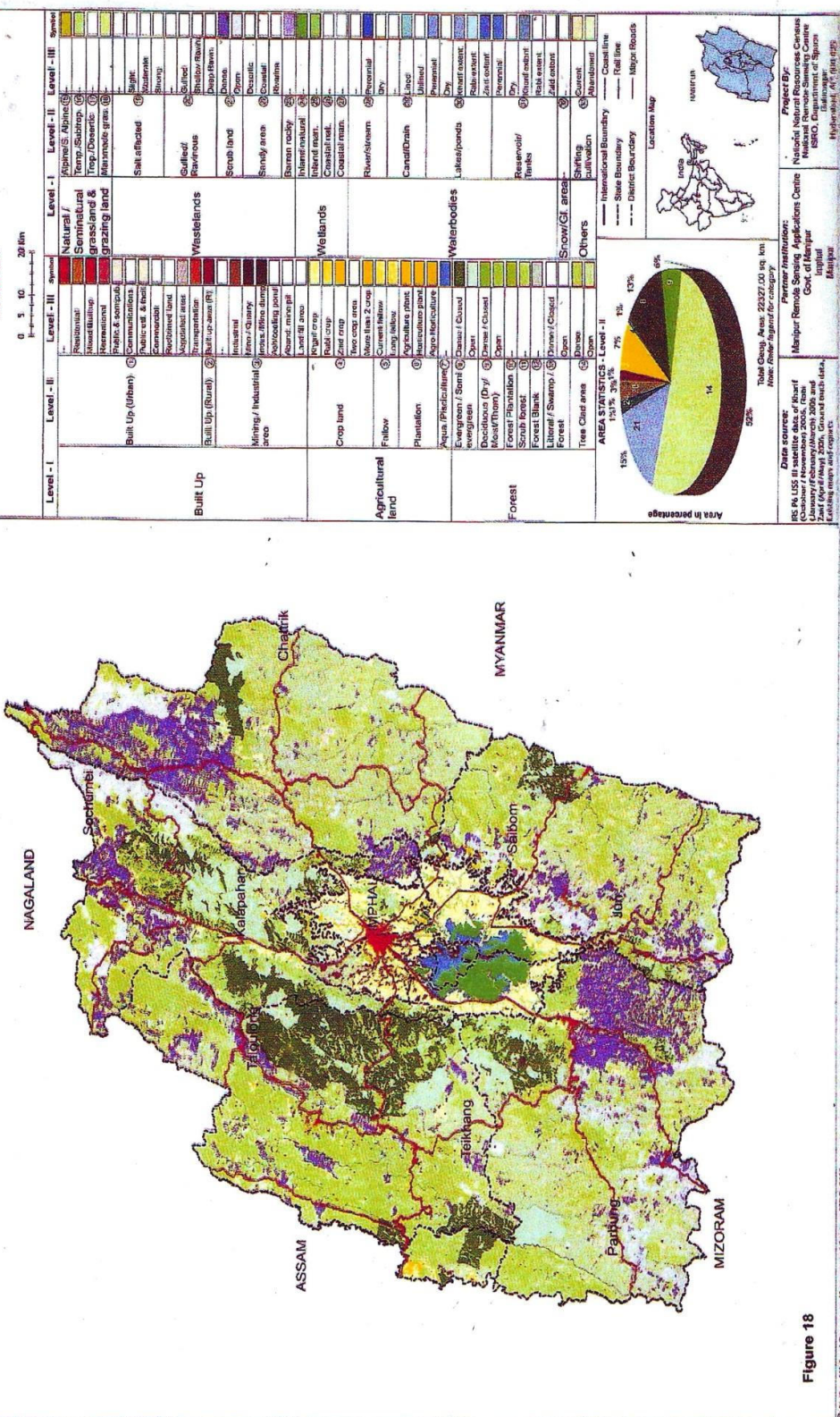
The state has no well- defined, strictly, efficiently and uniformly enforceable property rights. Three distinctly different property-rights are found in the state. In the hills, the property rights are governed by traditional unwritten laws and conventions.....the private –property ownership system that prevails in the valley. Individual owners have the sole right of use and transfer. But, in the absence of effective public law, misuse of land is on the rise. While the Manipur Land Revenue and Land Reforms Act, 1960 is ineffective, the Manipur State Land Use Board remains practically unknown without any convincing activity whatsoever so far.(State of Environment Report, Manipur, 2006).

The lands in the valley are classified and falls under the purview of MLR Act whereas the lands in the hills not under the purview of MLR Act. No legal provisions for the prohibition of conversion of wetland/lakes into agricultural land and encroachment on the lake areas. Besides, man-land ratio is reducing in the valleys. (State of Environment Report, Manipur, 2006).

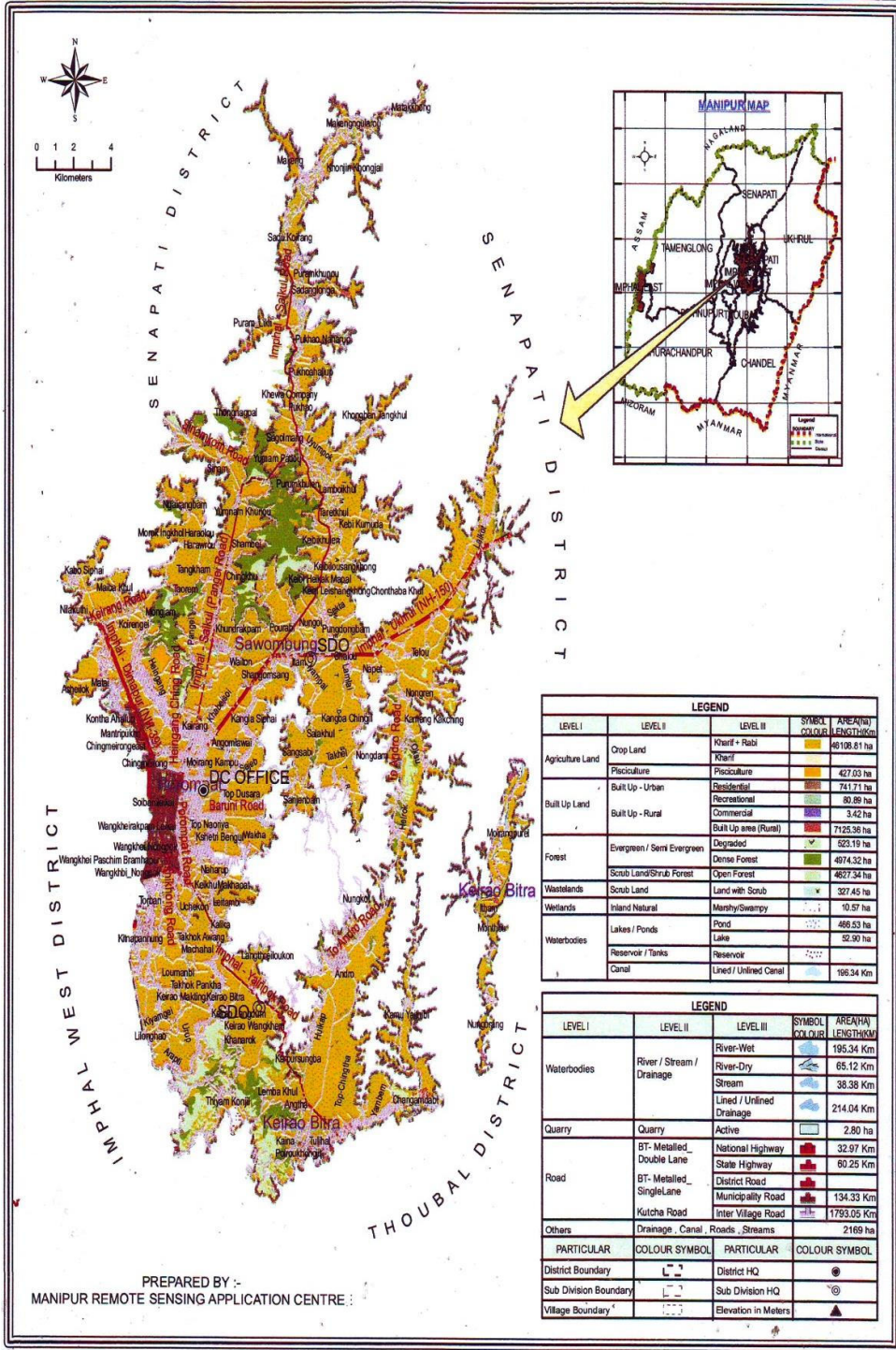
Table3.1.2: Land Utilization Statistics of Manipur

Land Use	Area	Percentage
Area for land utilization	1,951,000 Ha	100.00%
Forests	1693,000 Ha	86.78%
Not available for cultivation	27,000 Ha	1.38%
Permanent pastures and other grazing lands	1,000 Ha	0.05%
Land under misc tree crops and groves	6,000 Ha	0.31%
Culturable wasteland	1,000 Ha	0.05%
Fallow lands other than current fallows	0	0.00%
Net area sown	224,000 Ha	11.48%

LAND USE / LAND COVER MAP MANIPUR



LAND USE / LAND COVER
 IMPHAL EAST DISTRICT, MANIPUR

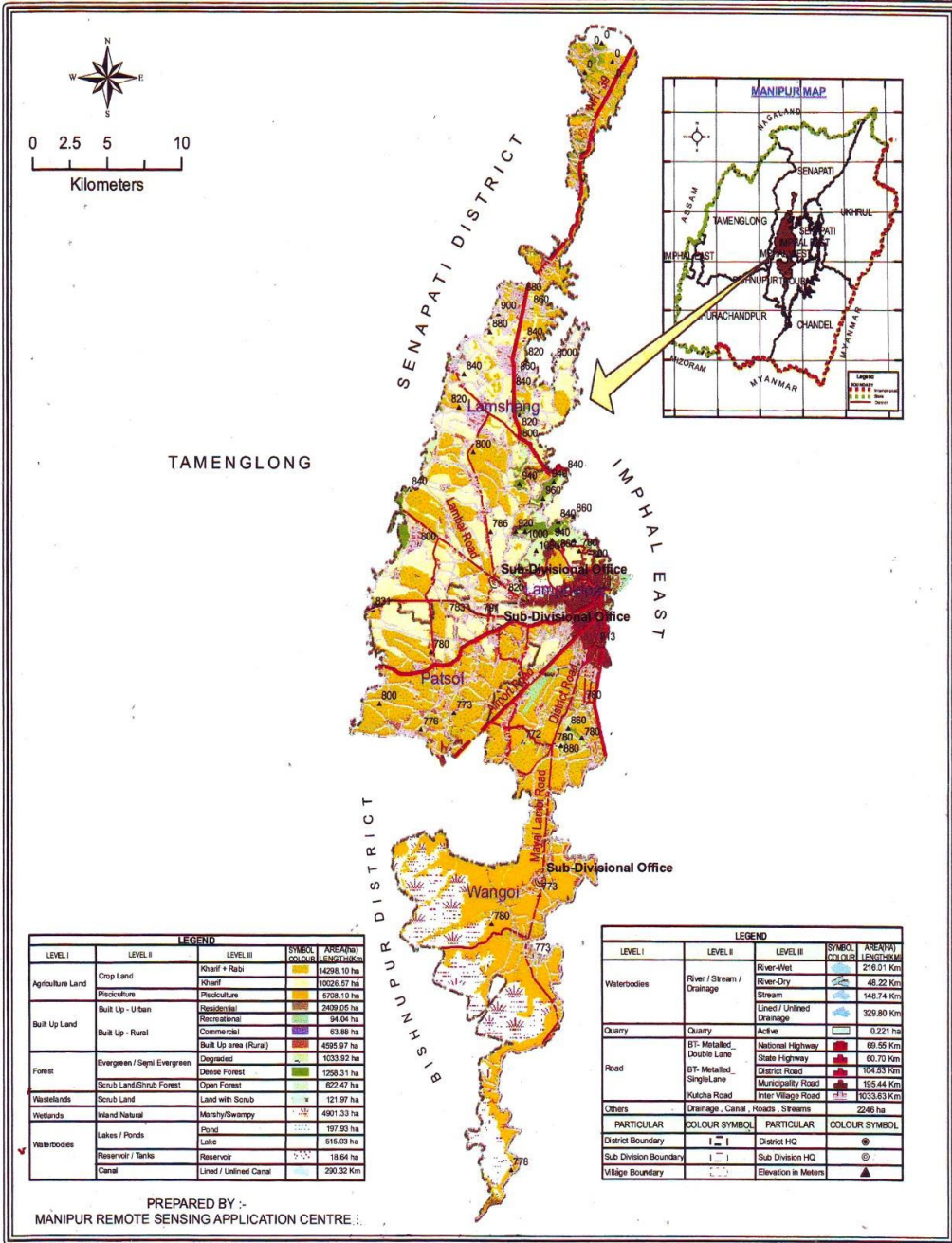


LEGEND				
LEVEL I	LEVEL II	LEVEL III	SYMBOL / COLOUR	AREA/HA / LENGTH/KM
Agriculture Land	Crop Land	Kharif + Rabi	[Yellow]	48108.61 ha
	Pisciculture	Pisciculture	[Blue]	427.03 ha
	Built Up - Urban	Residential	[Orange]	741.71 ha
Built Up Land	Built Up - Rural	Recreational	[Green]	80.89 ha
		Commercial	[Purple]	3.42 ha
	Built Up area (Rural)		[Red]	7125.36 ha
Forest	Evergreen / Semi Evergreen	Degraded	[Light Green]	523.19 ha
		Dense Forest	[Dark Green]	4974.32 ha
	Scrub Land/Shrub Forest	Open Forest	[Light Green]	4627.34 ha
	Wastelands	Scrub Land	Land with Scrub	[Light Green]
Wetlands	Inland Natural	Morshy/Swampy	[Light Green]	10.57 ha
	Waterbodies	Lakes / Ponds	Pond	[Blue]
		Lake	[Blue]	52.90 ha
	Reservoir / Tanks	Reservoir	[Blue]	
	Canal	Lined / Unlined Canal	[Blue]	198.34 Km

LEGEND				
LEVEL I	LEVEL II	LEVEL III	SYMBOL / COLOUR	AREA/HA / LENGTH/KM
Waterbodies	River / Stream / Drainage	River-Wet	[Blue]	195.34 Km
		River-Dry	[Blue]	65.12 Km
		Stream	[Blue]	38.38 Km
		Lined / Unlined Drainage	[Blue]	214.04 Km
Quarry	Quarry	Active	[Grey]	2.80 ha
Road	BT- Metalled Double Lane	National Highway	[Red]	32.97 Km
		State Highway	[Red]	60.25 Km
	BT- Metalled Single Lane	District Road	[Red]	134.33 Km
		Municipality Road	[Red]	1793.05 Km
	Kutcha Road	Inter Village Road	[Red]	
Others	Drainage, Canal, Roads, Streams			2169 ha
	PARTICULAR	COLOUR SYMBOL	PARTICULAR	COLOUR SYMBOL
	District Boundary	[Red Line]	District HQ	[Red Circle]
	Sub Division Boundary	[Blue Line]	Sub Division HQ	[Blue Circle]
	Village Boundary	[Dotted Line]	Elevation in Meters	[Black Triangle]

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LAND USE / LAND COVER
IMPHAL WEST DISTRICT, MANIPUR

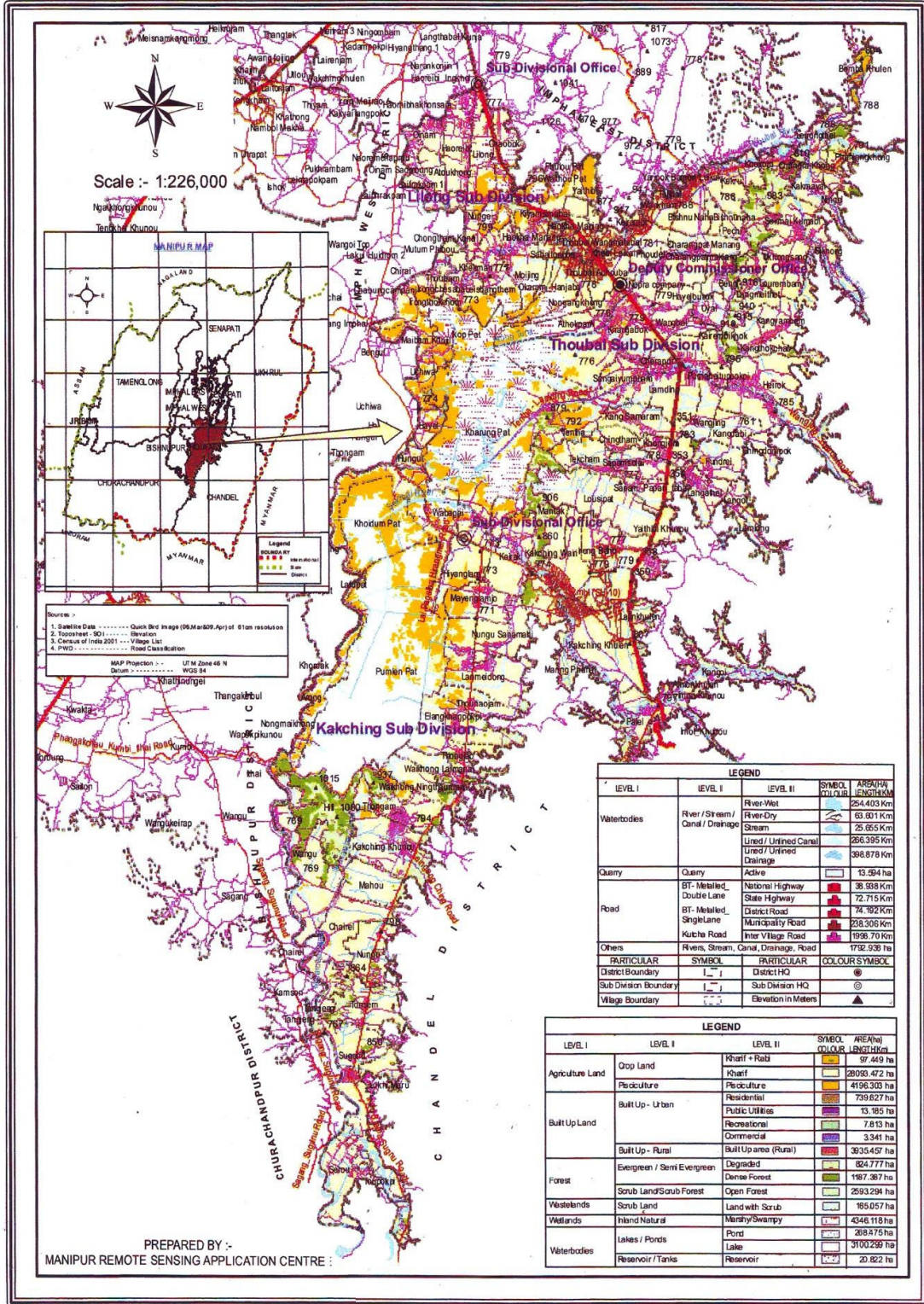


LEGEND			
LEVEL I	LEVEL II	LEVEL III	SYMBOL / AREA (ha)
Agriculture Land	Crop Land	Kharif + Rabi	14298.10 ha
		Kharif	10226.57 ha
		Pisciculture	5739.19 ha
Built Up Land	Built Up - Urban	Residential	2459.05 ha
		Recreational	94.66 ha
	Built Up - Rural	Commercial	63.66 ha
		Built Up area (Rural)	4595.97 ha
Forest	Evergreen / Semi Evergreen	Degraded	1033.92 ha
		Dense Forest	1298.31 ha
		Scrub Land/Shrub Forest	622.47 ha
Wetlands	Scrub Land	Land with Scrub	121.97 ha
Wetlands	Inland Natural	Marshy/Swampy	4901.33 ha
		Lake	197.29 ha
Waterbodies	Lakes / Ponds	Pond	515.03 ha
	Reservoir / Tanks	Reservoir	18.64 ha
	Canal	Lined / Unlined Canal	290.32 Km

LEGEND			
LEVEL I	LEVEL II	LEVEL III	SYMBOL / LENGTH (Km)
Waterbodies	River / Stream / Drainage	River-Wet	216.01 Km
		River-Dry	46.22 Km
		Stream	146.74 Km
Quarry		Lined / Unlined Drainage	326.80 Km
		Active	0.221 ha
Road	BT- Metalled, Double Lane	National Highway	69.55 Km
		State Highway	60.70 Km
	BT- Metalled, Single Lane	District Road	104.53 Km
		Municipality Road	195.44 Km
		Kulcha Road	1033.63 Km
Others	Drainage, Canal, Roads, Streams		2246 ha
PARTICULAR	COLOUR SYMBOL	PARTICULAR	COLOUR SYMBOL
District Boundary	— —	District HQ	⊙
Sub Division Boundary	— —	Sub Division HQ	⊙
Village Boundary	— —	Elevation in Meters	▲

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MANIPUR REMOTE SENSING APPLICATION CENTRE :-

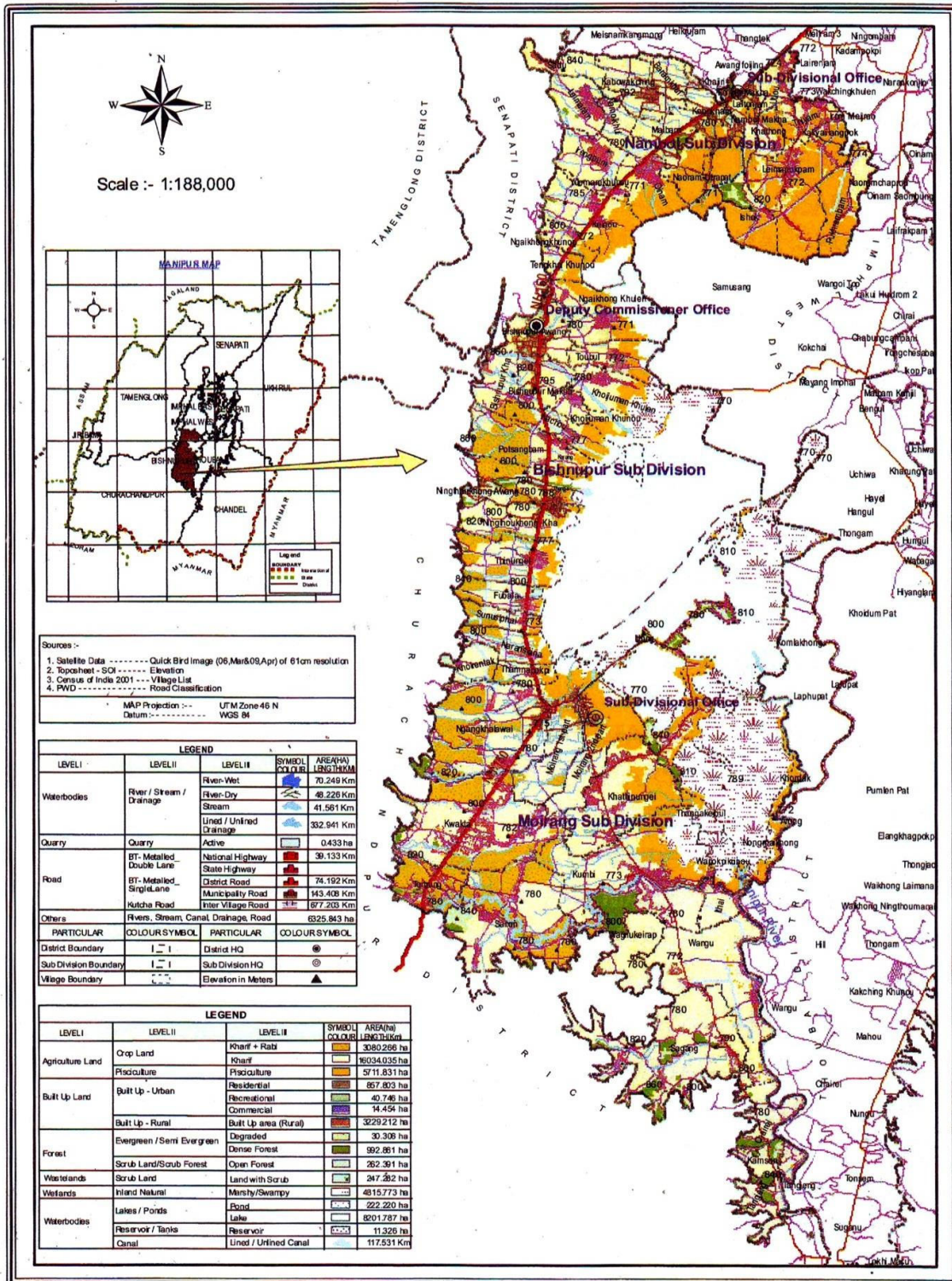
LAND USE / LAND COVER
THOUBAL DISTRICT, MANIPUR



LEGEND			
LEVEL I	LEVEL II	LEVEL II	SYMBOL AREA/KM ²
Waterbodies	River / Stream / Canal / Drainage	River/Wet	254.403 Km ²
		River/Dry	63.801 Km ²
		Stream	25.655 Km ²
Quarry	Lined / Unlined Canal	Lined / Unlined	256.395 Km ²
		Drainage	398.878 Km ²
	Quarry	Active	13.594 ha
Road	BT- Metalled, Double Lane	National Highway	38.998 Km ²
		State Highway	72.715 Km ²
	BT- Metalled, Single Lane	District Road	74.192 Km ²
		Municipality Road	238.306 Km ²
	Kutche Road	1998.70 Km ²	
Others	Rivers, Stream, Canal, Drainage, Road		1782.938 ha
PARTICULAR	SYMBOL	PARTICULAR	COLOUR SYMBOL
District Boundary	—	District HQ	●
Sub Division Boundary	—	Sub Division HQ	◎
Village Boundary	—	Elevation in Meters	▲

LEGEND			
LEVEL I	LEVEL II	LEVEL II	SYMBOL AREA/KM ²
Agriculture Land	Crop Land	Kharif + Rabi	97.449 ha
		Kharif	28090.472 ha
	Pisciculture	Pisciculture	4196.303 ha
Built Up Land	Built Up - Urban	Residential	739.627 ha
		Public Utilities	13.185 ha
	Built Up - Rural	Recreational	7.813 ha
		Commercial	3.341 ha
Forest	Evergreen / Semi Evergreen	Built Up area (Rural)	3635.457 ha
		Degraded	824.777 ha
	Scrub Land/Scrub Forest	Dense Forest	197.267 ha
		Open Forest	2593.294 ha
Wetlands	Scrub Land	Land with Scrub	165.057 ha
Wetlands	Inland Natural	Marshy/Swampy	4346.116 ha
Waterbodies	Lakes / Ponds	Pond	288.475 ha
	Reservoir / Tanks	Reservoir	3700.259 ha
			20.822 ha

LAND USE / LAND COVER
BISHNUPUR DISTRICT, MANIPUR



Population

Manipur has a total population of 25,70,390 as per Census 2011. The decadal increase of population is 18.6 percent. Out of the total population, male population is 1,290,171 and that of the female population is 1,280,219. Further, the census shows sex ratio as 992 females per 1000 males. The Scheduled Castes population turns out to be 3.8 percent of the total population and that of the Scheduled Tribes population as 35.1 percent. The Census shows that the total literacy rate of Manipur is 79.2 percent. Out of this, male literacy rate is 86.06 percent while that of the female literacy rate comes to 72.37 percent.

The census report discloses that about 32.5 percent of the population lives in urban areas while 67.5 percent lives in rural areas. The decadal change of urban and rural population is 44.8 percent (urban) and 9.1 percent (rural). The population density per square kilometre as per the report is 115. Imphal West turns out to be the most populous district and Tamenglong as the least populous district. The total workers of the state are 45.1 percent.

The indigenous ethnic group of Manipur includes Meitei (including Meitei Muslims, Bhamon), The Nagas and Kuki Chin groups. Meitei are the major ethnic group and they are mainly concentrated in the valley. While the Nagas and Kukis are mainly dispersed among the hills of Manipur but some of them are also settled in the valley along with the Meitei communities. Only 33 scheduled tribes are listed but, a number of unlisted tribes are there in Manipur. Besides, the indigenous ethnic population, Manipur is home to a number of

immigrants like Dhobi, Muchi(Rabidas),Namasudra, Patni and Sudradhor, Nepalis, Bengalisetc. They are inhabited at various places like valley areas, Sadar hills and Jiribam sub division. The ethnicity reflects in the vibrant culture of Manipur.

The administrative units of Manipur per Census 2011 are 9districts(four valleydistricts and five hill districts), 38 sub-districts, 51 Towns and 2582 villages. No increase in both districts and sub-districts. But, 18 towns and 191 villages have been increased since last Census 2001.

Flora and Fauna

Manipur has been covered with forest about76.54% of total geographical area (FSI, 2011). Naturally, the state is blessed with varieties of flora and fauna. The state harbours over 3,000 species of higher plants, 269 rice varieties, over 53 species of bamboos, more than 500 varietiesof orchids and1200 species of medicinal plants(S.C.Sinha,1996).The state share more than 22% of animal resources of India. Unfortunately, orchids are already depleted considerably and great destruction in the habitat of invertebrates have occurred (State of Environment Report, Manipur, 2006).

Art and Culture

Manipur is known for its unique art-forms and distinctiveculture to the world. The famous Manipuri Ras Lila, a creation of Rajarishi Bhagyachandra Maharaj of 18thcentury through a divine revelation , depicts the culmination of devotional service through the transcendental pastimes of Lord Krishna and Radha and Gopis. Another unique art- form is Nupa Pala(Male Cymbal dance) that

displays combination of dance and music in Manipuri style . Generally the performers are males. The Lai Haroaba dance forms and music enrich the cultural variegatedness of Manipur. Distinctive culture and tradition adorn each ethnic group with unique ritual, costumes, dance, music, customary practices and so on.

Games & Sports

History is the evidence for the love of games and sports by Manipuris. The indigenous games are varied and developed through ages. Thang-ta & sarit saraat is a unique form of Manipuri Martial Art, Hiyang tannabe (boat race, performed as annual event and during natural calamity with the belief of worshipping boat to protect one from omens), Yubi Lakpi (Manipuri Rugby, coconut serves as ball and offered to the king or judges), Khong Kangjei (Manipuri Hockey, when encounter occurs between two opponents Manipuri style of wrestling do performs as a trial of strength), Sagol Kangjei (Manipuri Polo, play on riding Manipuri pony), Kang (a game performed during Manipuri New Year's and Rath Yatra), Lamjel (foot-race), Mangjong (broad jump) etc.

Festivals

Manipur is full festivals round the year and a month hardly passes without any festival. Festivals symbolises the socio-cultural and religious hopes of the Manipuris. Some of the festivals of Manipur are Emoinu eratpa (worshipping of goddess Emoinu), Yaoshang (Holi), Lai Haraoba (Honouring of sylvan god and goddess), Lui –Nagi-Ni (seed sowing festival of Nagas), Gaan-Ngai (festival of Kabui Nagas), Ramjan Id (festival for Manipuri Muslims), Ningol Chakkouba (festival of Meities for feasting of married women at parental home),

Sanamahi Cheng Hongba(festival of Meities for offering rice and food items to Lord Sanamahi), Mera Houchongba(Get-together of various ethnic communities of Manipur for promotion of peace, integrity and solidarity), Kwak Tanba(Kwak Jatra, celebration to propitiate goddess Durga), Rath Jatra(Kang Chingba, celebration in honour of Lord Jagannath where devotees pulled Kang or Rath), HeiKru Hidongba (Boat race performed in front of Lord Vishnu), Chumpha(harvesting festival of Nagas) and Christmas(Celebration for the birth of Jesus Christ).

Commerce & Industries

Manipur has its own State Industrial Policy (1996) for the development of Industry. Although the state is endowed with natural resources, various factors accounted for the under-development of large scale industries in Manipur. Only micro-enterprises and small-scale units are being larger segment of the industrial sector. Manipur remains industrially backward state in India. Mostly, the industrial units belong to khadi and villages industries. But, the contribution of cottage industries is significant in the socio-economic development of the state. Manipur has been ranked fourth in terms of number of handloom workers in India and notch top position in terms of handicraft workers among the North Eastern states. The state government is implementing various welfare schemes for the development of handloom industry in Manipur. “Industrial area has not been declared so far. The small-scale units are operating at any convenient area within the thickly populated villages. Many Brickfields, Saw Mills and Jewellery units are coming up in many prime and sensitive areas. Indications of mass deflowering of

horticultural crops have been seen in the villages where coal-brick-fields are operating.”(State of Environment Report, Manipur, 2006).

Power

The state is completely dependent on Centrally Generating Stations that are located in North East. Mostly, the generating stations are of hydel power stations. During, lean season Manipur suffer from shortage of power supply due to drastic reducing of the state’s share.

Agriculture

Nearly 70% of the population depends on agriculture and allied activities. Therefore, the economy of Manipur largely depends on agricultural sector. But, the state experience uneven growth of agriculture due to rely on seasonal rainfall. The valley of Manipur is the main production centre for rice. Therefore, it is known as Rice Bowl. The 12th Five Year Plan emphasised on the self sufficient production in food grains, oilseeds, sugarcane and potato.

Urbanization

Generally, urbanization refers to the concentration of population into towns and cities. With urbanization, expansion of new urban places or developments of towns occur. The state of Manipur is also experiencing rapid urbanization. As per Census 2011, 51 towns of different size or class are existing in the state. Of which 28 are categorised as statutory towns and 23 as census towns. “Imphal is the only Class I city in the state of Manipur and is the centre of economic and social activity. But, the growing population poses major challenges to the availability of urban amenities and

infrastructures such as housing stock, public transport system, water supply, solid waste disposal provisions and sanitation and sewerage systems. Also, unplanned development leads to a haphazard growth and clustered settlements. As a result a large number of citizens remain deprived of the basic urban services (Manipur State Action Plan on Climate change,2013)”.

3.2ENVIRONMENTAL POLLUTION

Air

As the state has few numbers of small scale industries, the main cause of air pollution is smoke emitted from the vehicle. Maximum people /owner of the vehicle are unaware of the motor vehicle rule regarding smoke emission and its effect in environment as well as health of human being.”(Official report, MPCB, 2013).Dust-fall due to bad road management and other miscellaneous commercial earthmoving activities.The slash and burning of forestduring February –March every year for preparation of the field for agricultural crop under Jhum practices adds huge mounts of fumes and particulates into the atmosphere. Last 3 decades show increasing number of trucks, cars, taxis and ever exploding number of 2 wheelers. The concerned authority remains unconcern in phasing out of over-aged vehicles. Traffic jams/slow vehicular movement become a regular feature during peak hours in city or town areas. Such activity leads to the increased emission of poisonous gases into the atmosphere. Greenery areas are vanishing rapidly whereas construction activities are increasing at faster pace. Coal-fired brick kilns are dotting at various fields in the valley areas.Status: Increased air pollution in urban areas.

High levels of SPM in many urban areas. Rain water collected in urban areas during the first few days of the rainy season often found frothy & containing a lot of brownish/black suspensions.(State of the environment report Manipur,2006). The rural and hill areas experience this problem of indoor air pollution more. Majority of the population use the traditional pattern of housing where there are less number of doors and windows contributing of ill ventilation wood (particularly pines) is the main source of fuel for cooking, heating etc. producing a lot of smoke inside the house. This produces varieties of lung diseases. 85.50 of the households are using fuel wood for cooking in Manipur(State of the environment report Manipur,2006). WHO reports 2014 shows most the Indian cities are death traps because of very high air pollution levels.(State of India's Environment, 2015).

Table 3.2.1: District wise vehicular emissions in Manipur(2011-2012)

Sl. No.	District	No. Of vehicles tested	No. Of vehicles with emissions beyond permissible limits.	
			Diesel	Petrol
2.	Imphal East	1500	70	30
3.	Imphal West	1400	150	50
4.	Bishnupur	600	65	15
5.	Thoubal	800	50	20
6.	Ukhrul	300	21	0
7.	Tamenglong	250	18	0
8.	Chandel	300	16	0
9.	Churachandpur	400	10	10
	Total	5730	420	125

Water

The people of Manipur depend on both running water and standing water bodies. 37.20 percent of household depends on tanks /ponds for drinking purposes. Only 24.80 % depend on tap-water whereas other unclassified sources remain fairly high. 22.60 % of the households depend on other sources. The water quality of Nambul river has more organic and biological load compared with Imphal and Iril rivers. The load comes mainly from domestic wastes, dumping filth and debris demand. All the rivers under study show their physico-chemical characteristic within standard of permissible limit. Both unsafe drinking water and scarcity of water become a major cause for ill health of the state population. Except Singda and Porompat water supply schemes that regularly monitoring water quality in Imphal, other water supply schemes do not have proper facility for regular monitoring of water quality. Because of the shortage of safe drinking water many people use available surface water for drinking and domestic purposes from any source. People illegally break the water pipe and tap. Increased use of fertilizers and insecticides in agriculture leads to chemical contamination of food & water. Since the last four decades, various kinds of threats and stresses are being felt by the lakes. Artificial eutrophication is being major cause for the fast and untimely degradation of the lakes. (State of the environment report Manipur,2006).

Municipal Solid Waste

The average output of waste is around 100-120 tonnes per day in Imphal only. The facilities for effective collection and disposal of

waste are very much inadequate in all towns resulting in a high proportion remaining uncollected. There is no specific landfill site for disposal. As a result the waste is dumped at unspecified places in unscientific manner.(State of the environment report Manipur,2006).

Table 3.2.2: District wise hazardous waste and e-waste generating units inventorised by MPCB during 2014-2015.

Sl.No.	District	No. of Hazardous wastes units inventorised	No. Of e-waste units inventorised
1	Imphal East	85	28
2	Imphal West	43	17
3	Bishnupur	28	09
4	Thoubal	33	12
5	Chandel	08	-
6	Senapati	06	-
7	Ukhrul	05	-
8	Tamenglong	03	-
9	Churachandpur	09	-
	Total	220	66

Major Environmental Issues:

Major environmental issues of Manipur as suggested by the environmentalists, governmental officials, media professionals and NGOs working with environmental issues are as follows:

Major environmental issues of Manipur based on priority
1. Deforestation
2. Decrease of Wetlands
3. Climate Change
4. Loss of biodiversity
5. Management of water conservation
7. Solid Waste Management
7. Management of natural resources
8. Poaching
9. Conservation of Loktak lake
10. Air pollution due to brick fields, stone crushers, automobiles.
11. Issue of urban mobility with a focus on Non-motorized Transport
12. Wild fire
13. Jhum cultivation
14. Dam issue
15. Developmental projects without environmental management planning.

Besides the above major issues, some of the minor issues that are facing by the people of Manipur includes drying up of springs and other sources of natural water bodies, increasing recurrence of

landslides, flash flood, illegal sand mining and quarrying activities in some river, tradition of grand feast etc.

To tackle the environment issues concerted efforts are required by all the stakeholders. The most demanding issue is how much people are aware about the environmental issues. Only awareness could change the mindsets and attitude of the people towards environment. Realising the fact, Shri Y.K Sabharwal, former Chief Justice of India has expressed his views as “Various legislations have been enacted by Indian Parliament in last about 30 years to tackle the problem of environmental protection. Various Rules and Regulations have also been framed. Despite these legislations, Rules and Regulations, protection and preservation of environment is still a pressing issue. Today, the necessity of environmental awareness and enforcement is more demanding and urgent than ever before”.

3.3 MASS MEDIA IN MANIPUR

Print media in Manipur:

Manipur is a state which has 2000 years recorded history. Before the advent of modern press, many hand written accounts and inscribed things were left by our forefathers. Modern journalism came into Manipur at a later period comparatively with the rest of India. Although, many scholars considered Meetei Chanu (a handwritten magazine) published by Jananeta Hijam Irabot to be the pioneer of Manipur journalism. Dainik Manipur Patrika (a daily newspaper) was published on 23rd March, 1933. In the same year , Lalit Manjari Patrika (a monthly journal) was published by September .

As early as 1895, one Pundit Mark Singh published books meant for Manipuri's. By 1912, William Pettigrew had written Manipuri Grammar(following English style) in English. In the same year, a drama book for children was printed by Loitnagbam Kalachand Singh. Interestingly, Sorokhaibam Lalit Singh's Areppa Marup(claimed as first printed book in Manipur) was brought out at that time.

In 1918, the government press was established at Imphal. Both governmental reports and private publications were printed. The first "State Administrative Report of 1919-1920" was printed at the same press in 1920. Hand press was a common practice till 1918-1919. As late as 1963, the government press procured automatic printing machine and commissioned on 20th Feb. 1963. During that period, Friends Union Press(a private press) also acquired automatic printing machine. Before the arrival printing machine, hand written and cyclostyle publications were rampantly practised in Manipur.

Educated section of Manipuri's realised the importance of the publications for social wakening. They started publication of journal related with social issues, literatures etc. Therefore, the Manipuris inhabiting at silchar, diburgarh, and sylhet started bringing out publications. Besides, Manirpuri students studying outside Manipur had joined in the publications. Some of those publications are Meitei Leima(1917-18), Jagaran Patrika(1924), NongPok Meira(1923), Saratki Echel, Chelmabi, Anouba Echel, Bharat Ima.

During freedom struggle, a number of newspaper editors were put behind bar by the British Government. In the same line, the editor of

Anouba Pao(a weekly magazines), Shri. Kujabihari was put into the jail. During world war-II(1936-1945), almost all publications of newspaper and journals were stopped. Only, after the war ends, some newspapers and journals resume their publications.

The print media in Manipur had developed rapidly from 1949 onwards. Apart from the Manipuri language, the development of dialect press could not neglect. Nearly 40 newspapers and 8 periodicals of different dialects were published from separate places of Manipur during 1935-1979. Some of those publications are Mairam, Inchuk Kahinum(1950,Hmar), Hmasawnia(1935,Hmar), Known(1960,Hmar), Chamdin(Kabui), Angko Bungbi(Rongmei), Alauduan(1958), Lanthan Reimei(1958, Rongmei), The Young Zomi, The Hill Monitor, Manipur Herald, The Hunter, MBC Newsletter etc. Besides, Manipuri Muslims also made their publications like Payam Islam(1978), Samriti Manjudas etc. With the advent of new technology and devices, the print media of Manipur joined the bandwagon by switching over to offset printing, publication of supplement, online edition etc.

Electronic Media in Manipur

Radio in Manipur

The transmission of All India Radio, Imphal began on 5th August, 1963 through a low power transmitter and R.K Acharya was its first Station Director. On 2nd November, 1971, a high power transmitter was installed at Mayang Imphal. Later on, a 50KW short wave transmitter was commissioned on 20th February, 1996 that increases the coverage to the entire state and neighbouring states. With the

commissioning of a 10KW FM transmitter on November, 2002, regular service was started from 2003. Today, AIR Imphal has two channels –Kangla and Sangai(FM service). Mainly programme are broadcasted in Manipuri. But, programme are also transmitted into English and Hindi languages.

Besides, the programmes are also broadcasted in 6 major dialects and 18 minor dialects. Regional News Unit was commissioned on 15 August 1963. On 1st January 1964, a 15 minute news bulletin was broadcasted daily at 7.30 p.m. Later on, the duration was increased to 5 minutes bulletin. It was extended to 10 minutes with news analysis. On 21 January 2009, Mid day news was launched. Today, AIR Imphal has the facility for news on phone and able to tune the news on online. Some of the popular programme are Matamgi Wapham, Khonjel nachom, Hello Manipur, Bigyan gee Wapham etc.

Television in Manipur

DDK

Doordarshan Kendra Imphal started its transmission in Manipur with 1982 Asian Games through the installed 100 W LPT in Imphal(present AIR, Imphal complex). By 1987, the installed LPT was upgraded to HPT with 1KW capacity and shifted to the present location. The Regional Transmission was started on 30th April 1993 for the first time. Earlier, duration of regional transmission was around half an hour only. In later years, duration of regional transmission was increased to 2 and half hours for other days and 5 hours on Saturdays and Sundays with the transmission period from 5.30 p.m. to 8.00 p.m for other days and 3.00 P.M. to 8.00 P.M. on

Saturdays and Sundays respectively. By 2005, Manipuri News was started transmission.

Generally, this Kendra telecast programmes in Manipuri language and cater to the infotainment need of the people. Not only the regular programmes but also transmitted special audience programmes like environmental programmes, agriculture Children, Youth Women, Senior Citizen, etc. Fifteen minutes are devoted for minorities and backward classes in a week and transmitted various tribal songs and dances regularly. Today, DDK Imphal is broadcasting two Manipuri News Bulletins at 5.30 p.m. for a duration of 5 minutes and 7.00 p.m. for 10 minutes. everyday. Besides, the Kendra broadcast various appeal and messages made by State Chief Minister and other Ministers during important festivals and anniversaries from time to time. Thirty minutes is devoted for weekly programmes based on the developmental activities in the state.

Image Cable TV

The Image Cable TV came into existence in 2000 by clubbing Saya TV and Town TV .Initially, Image Cable was broadcasting only entertainment channels. By 2004, Image Cable began to broadcast news. Today, Image cable TV telecasted 38channels(pays channels + home channel - Image 1,2 and music) on daily basis. Image-1 pertains to health, sports and arts, Image- 2 is exclusively English movie and Image music is mainly video album and Manipuri films. Since the last 2-4 yrs , it started an interactive programme with sportspersons, academic achievers, film personality ,achievers in the field of arts, culture and literatures.

Image Cable also take up and broadcasted programmes related with burning issues of the state as well as the local issues. As of today, Image Cable TV could reach out its cable network the whole of kakching, Wabagai, kairak. Kakching lamkahi. Image cable has correspondents in various districts of Manipur. They are sponsoring expeditions. Provide ample coverage to Tipaimukh dam issues and promoted Ranbir thouna's " Save Loktak" music album.

ISTV Network

Early part of 1990s witnesses the establishment of small cable operators in every localities of Manipur. By 1995, pressure mounted on the cable operators due to the conversion of most of the Free to Air channels into Pay Channels. In response to it, the two giant cable networks namely Imphal Cable and Television Network (ICTV) and Satellite Education and Entertainment Network (SEEN TV) were established in 1997s. With the arrival of ICTV and SEEN TV, cable network in Manipur enter into a new era. Both SEEN TV and ICTV were showing parallel programmes with high local content that bring a new wave in Imphal city. By 27th January 2003, SEEN TV and ICTV were clubbed together and formed ISTV Network. Today, ISTV Network has five channels catering different needs of its viewers. The network reaches almost all the valley regions and covering some parts of hilly areas too.

Manipuri Cinema

The journey of Manipuri cinema begins with Matamgi Manipur (first Manipuri feature film) which was released on 9th April, 1972. In commemoration of this historic event, Mamigee Numit is being

observed every year on 9th, April. During this forty years journey, the Manipuri cinema has witnessed many trials and tribulations. Within this short span, Manipuri Cinema displayed its glorious journey by bagging ten Rajat Kamals and written a new chapter in the history of Indian Regional Cinema.

Before the birth of Manipuri Cinema, the people of Manipur were witnessing the Indian silent movies as early as 1920s. During that period, makeshift and improvised film houses were erected for public exhibitions. Among those exhibitors ,Kasturichand Jain and Ramkumar are some of the names worthy to mention. After the Second World War, many cinema halls came up in Manipur. MNB Talkies, Victory Cinema are some of those cinema halls.

In 1936, Maharaj Kumar Priyabrata, younger brother of the then king Bodhachandra of Manipur venture out for making non-fiction films. Some of those documentary films made by him are Hiyang Tannaba((Royal Boat Race), Ceremonial Reception of the Governor of Assam , Architectural elegant of Royal palace complex etc. Exactly eleven years later, one Ayekpam Biramangal with eleven others started Shri Shri Govindajee Film Comapany . The company made an attempt to produce a popular Manipuri play Mainu Pemcha into film. Unfortunately, the attempt was turn out a failure due to various factors. By 1960, a professional photographer, named Kongbrailatpam Ibohal Sharma started making silent Manipuri films(both feature and non-feature).He made films between 1960 and 1970. Some of his films are Ningthem Macha Ahum(1960), Eechel(1961) ,Cultural Heritage(1964),Imphal Diary Part I and

II(1965-68).In 1970, eminent film maker Aribam Sharma filmed Maipak: the son of Manipur(a 10 mins documentary).

As part of Manipur cinema, film fraternity of Manipur fondly remember S.N. Chand(Sapam Nodia Chand) one of the pioneer film makers of Manipur. He sacrificed his possessions from white collar job to personal properties for making Borjendragi Luhongba. He made the film single handedly and played the role of Borjendra by himself.

The role of film societies in Manipur could not be ignored in carrying forward the movement of Manipuri Cinema. Film societies like Film Society Manipur(1966), Imphal Cine club(1979), Film forum Manipur etc. augmented the pace of film movement by organizing film Festivals, seminars, appreciation courses, film discussions and other activities related with film movement.

The illustrious journey of Manipuri cinema displayed excellent pieces like Aribam Syam Sharma's Imagee Ningthem (My son, my precious).This film became the first Indian film winning Grand Prix in the competition section of the 4th Film Festival of Three Continents(1982),Nantes in France. Before 1997, few Manipuri films were produced but the pace of film production shows an increasing trend since 1997 onwards. Because, more professionals like producers, technicians and artistes joined the movement. During the four-decade journey, altogether 60 films have been produced so far.

In 1999, screening of Hindi films was banned by the underground outfits. Most of the cinema hall owners shut down the theatres and switch over to other business. During that period, 58 number of

cinema halls were existed in Manipur and had the potential of collecting more than one core of rupees as entertainment tax. After the imposition of ban, the film fraternity were almost helpless. Some of them had started making video films and screened those films against the ban put up by Exhibition Act of the state.

Although, the state government co-operate the movement of Manipuri Cinema by establishing Manipur Film Development Corporation, the demand for a State Film Policy remains a distant dream. In contrast to the existing norms of the government of India , the Department of Art and Culture deal with films. But, the existing norms permitted to handle film by the Ministry of Information and Broadcasting at the centre and the Department of Information and Public Relations at their respective states. With the advent of digital films, Manipuri films could come out from the state of long hibernation. In the year 2010, digital films were given permission for participation in the competitions. Off and on, film lovers of Manipur produced feature and documentary films in the celluloid format for the sake of this art form. Some of them are Ayuki Likla (Makhomani Monghshaba), Phijegee Mani which brought laurels for Manipur. Not only the Manipuri language films, other dialect films are also burgeoning today. Maniwood, a term being legitimised by the film fraternity of Manipur in line with Bollywood/Hollywood. Both the young and talented professionals have joined the Manipuri film movement. Although, films critics comment on the declining quality in the films of Manipur as compare with the past films, a bright future of Manipuri cinema is lying ahead with the arrival of “Golden Jubilee year – 2022”.