

8.20 NAGALAND

8.20.1 Introduction

Nagaland, situated in the northeastern part of India, shares international border with Myanmar in the east. It lies between lat 25°10' and 27°4' N and long 93°15' and 25°6' E and has geographic area of 1.66 million ha. Nagaland consists of a narrow strip of hilly area running northeast to southwest which is located in the northern extension of the Arakan Yoma ranges. The altitude of terrain varies from 194 m to 3,826 m.

Average annual rainfall in the State is 2,000 mm. summer temperature varies from 15°C to 30°C and winter temperature ranges from 4°C to 25°C.

Total population of the State is 1.99 million (*Census 2001*) of which rural population is 82.78% and urban 17.22%. The population density is 120 persons per km². The Scheduled Tribes population is 89.1%. The livestock population of the State is 1.35 million (*Livestock Census 2003*), which has increased by nearly 26% since the census of 1992. Land use pattern of the State is given in Table 8.20a.

8.20.2 Forest Resources

The recorded forest area in the State is 9,222 km² which is 55.62 % of the total geographic area of the State. According to legal classification Reserved, Protected and Unclassed forests constitute 0.93 %, 5.51 % and 93.56 % respectively. Shifting cultivation is widely prevalent in the State. Most of the forests under the Unclassed category are privately owned.

Major forest types occurring in the State are Assam Valley Tropical Evergreen Forests, Tropical Moist Deciduous Forests, East Himalayan Wet Temperate Forests and Assam Sub Tropical Pine Forests.

8.20.3 Protected Area

There are 1 National Park and 3 Wildlife Sanctuaries in the State. The total area under protected area network is 22,236 ha constituting 1.34 % of the total area.

8.20.4 Joint Forest Management

Joint Forest Management was initiated in the State in 1997. There are 335 JFM Committees managing about 20,000 ha of forest area as on March 2005. About 85,000 families are involved in this programme, mostly belonging to the Scheduled Tribes.

Source: Proceedings of the National Workshop on JFM, MoEF, 2005.

8.20.5 Forest Cover

The forest cover of the State, based on satellite data of February 2004 and January-February 2005, is 13,719 km², which is 82.75% of the geographic area. Very dense forest is 236 km², moderately dense forest, 5,602 km², and open forest, 7,881 km². The forest cover of the State is shown in Fig. 8.20.

A decrease of 296 km² of forest cover has been assessed in the present assessment as compared to the

Table 8.20a: Land use pattern

Land Use	Area in '000 ha	Percentage
Total geographical area	1,658	
Reporting area for land utilization	1589	100.00
Forests	863	54.31
Not available for cultivation	66	4.15
Permanent pastures and other grazing lands	0	0.00
Land under misc. tree crops & groves	125	7.87
Culturable wasteland	65	4.09
Fallow lands other than current fallows	79	4.97
Current Fallows	91	5.73
Net area sown	300	18.88

Source: Land Use Statistics, Ministry of Agriculture, GOI, 2005.

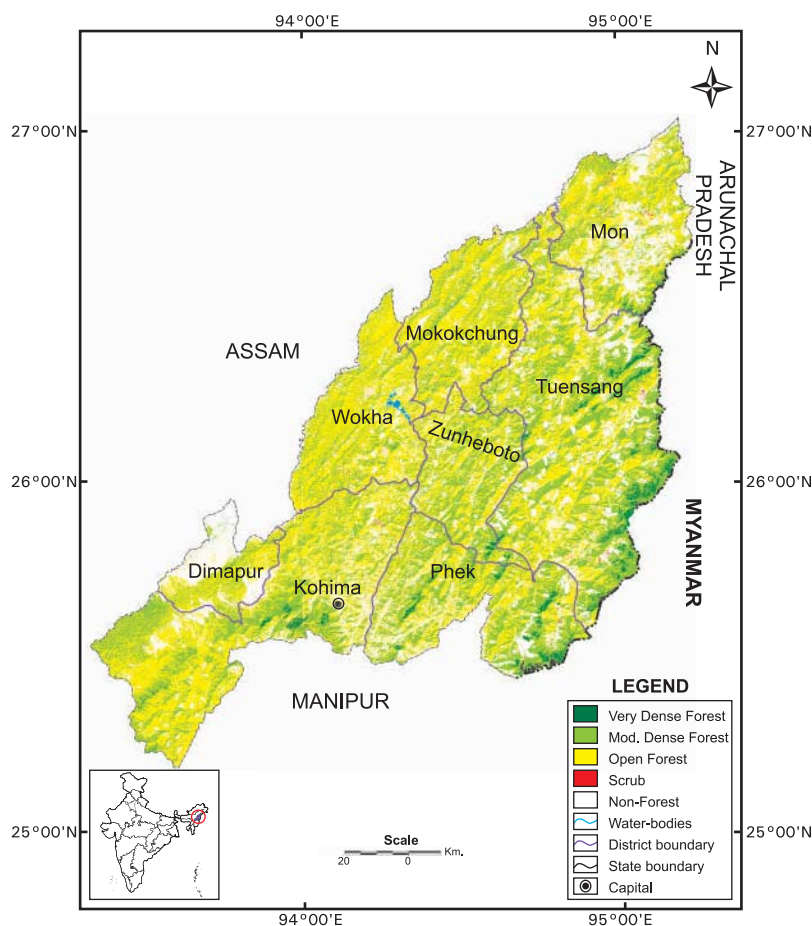


Fig. 8.20 : Forest Cover Map of Nagaland

previous assessment (based on satellite data of December 2002 and January to February 2003).

The change matrix, given in Table 8.20b reveals that there has been no change in very dense forest, a decrease of 258 km² in moderately dense forest, and a decrease of 38 km² in open forest. Further, the scrub has decreased by 218 km².

Shifting cultivation practice and bamboo flowering in all the districts are responsible for the decrease in the forest cover of the State as observed by FSI officials during field verification.

The district wise details of very dense forest, moderately dense forest, open forest and scrub, along with the changes compared to 2003 assessment, have been provided in Table 8.20c.

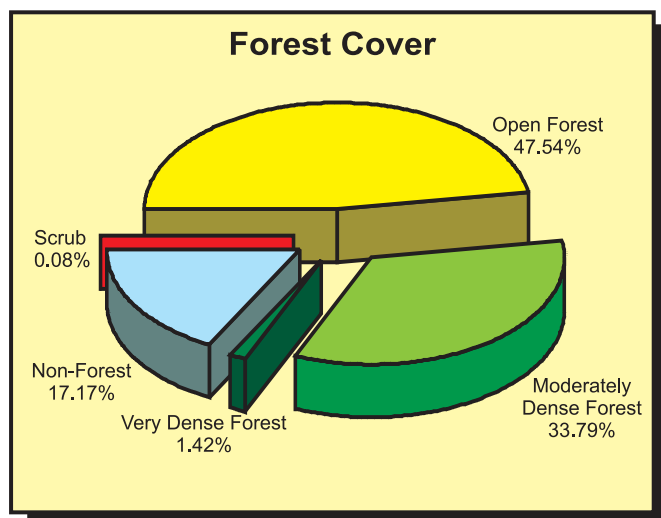


Table 8.20b: Forest cover change matrix

(area in km²)

2003 Assessment(Data of Dec.2002 & Jan.-Feb.2003)	2005 Assessment (Data of Feb. 2004, Jan.-Feb.2005)					Total 2003
	VDF	MDF	OF	Scrub	NF	
Very Dense Forest	236	0	0	0	0	236
Moderately Dense Forest	0	5,602	0	0	258	5,860
Open Forest	0	0	7,147	0	772	7,919
Scrub	0	0	0	13	218	231
Non Forest	0	0	734	0	1,599	2,333
Total 2005	236	5,602	7,881	13	2,847	16,579
Net Change	0	-258	-38	-218	514	

Table 8.20c: District-wise forest cover

Number of Districts: 8

(area in km²)

District	Geographic area	2005 Assessment				Percent of G.A.	Change	Scrub
		Very dense forest	Mod. dense forest	Open forest	Total			
Dimapur TH	758	0	140	266	406	53.56	4	6
Kohima TH	3,283	29	1,051	1,765	2,845	86.66	-85	0
Mokokchung TH	1,615	1	458	966	1,425	88.24	-18	1
Mon TH	1,786	11	491	820	1,322	74.02	-95	0
Phek TH	2,026	65	835	786	1,686	83.22	30	1
Tuensang TH	4,228	120	1,711	1,660	3,491	82.57	-103	4
Wokha TH	1,628	1	406	1,042	1,449	89.00	-25	1
Zunheboto TH	1,255	9	510	576	1,095	87.25	-4	0
Total	16,579	236	5,602	7,881	13,719	82.75	-296	13

8.20.6 Tree Cover

Tree cover of Nagaland has been estimated following a sampling based approach. A separate exercise was carried out where high resolution satellite data (5.8m) has been used for identification of tree patches for field inventory. The

estimated tree cover in the State is 238 km². Being a forest rich State, there is a limited scope of expanding tree cover outside the forest areas.

The forest and tree cover of the State is presented in the Table 8.20d.

Table 8.20d: Forest & tree cover

(area in km²)

Category	Area	% of Geographical Area
Tree Cover	238	1.44
Forest Cover	13,719	82.75
Forest & Tree Cover	13,957	84.19