

8.7 GOA

8.7.1 Introduction

Goa is the smallest State of the country having a geographic area of 0.37 million ha. It lies between lat 14°53' to 15°40' N and between long 73°40' to 74°21' E. Mandovi and Zuari are two major rivers which are lifeline of Goa originating from Western Ghats and flowing towards southern boundary to join the Arabian Sea. The land use pattern of the State is shown in Table 8.7a.

The mean temperature in the State ranges from 16.2°C to 36.7°C. The average annual rainfall is 3,790 mm. The State falls under western ghats and coastal plain, hot humid per humid eco-region.

The total population of the State is 1.35 million (*Census 2001*). Out of this urban population is 49.76 % and rural population is 50.24 %. Population density is 363 persons per km². The livestock population is 212,000 (*Livestock Census 2003*).

8.7.2 Forest Resources

The recorded forest area is 1,224 km² which constitutes 33.06% of the geographic area of the State. By legal status, 237 km² (19.36%) is under Reserved Forest, 723 km² (59%) under section 4 of Indian Forest Act (IFA), and the remaining under Unclassed Forest.

There are three major forest types namely Tropical Evergreen Forests, Tropical Semi-Evergreen Forests and Littoral and swamp forests.

8.7.3 Protected Area

Protected area is spread over 755 km² constituting 20.4% of the geographical area of the State which comprises 1 National Park (Mollem National Park) and 6 Wildlife Sanctuaries.

8.7.4 Joint Forest Management

The Government of Goa started Joint Forest Management in 2003. There are 26 JFM committees managing 10,000 ha of forest area where 336 families are involved.

The dependence of people on forests in Goa is negligible. As per JFM notification of Goa, sharing of benefit is not based on harvested forest produce but on the value addition to the forests being protected by the JFM committees.

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

8.7.5 Forest Cover

The forest cover based on the satellite data of December 2004 is 2,164 km², which is 58.45% of the geographic area of the State. Very dense forest is 55 km², moderately dense forest, 1,095 km², and open forest, 1,014 km². The forest cover of the State is shown in Fig. 8.7.

Table 8.7a: Land use pattern

Land Use	Area in '000 ha	Percentage
Total geographical area	370	
Reporting area for land utilization	361	100.00
Forests	125	34.63
Not available for cultivation	37	10.25
Permanent pastures and other grazing lands	1	0.28
Land under misc. tree crops & groves	1	0.28
Culturable wasteland	55	15.24
Fallow lands other than current fallows	m	0.00
Current Fallows	m	0.00
Net area sown	141	39.06

m: Not available separately, included under culturable wasteland
Source: Land Use Statistics, Ministry of Agriculture, GOI, 2005.

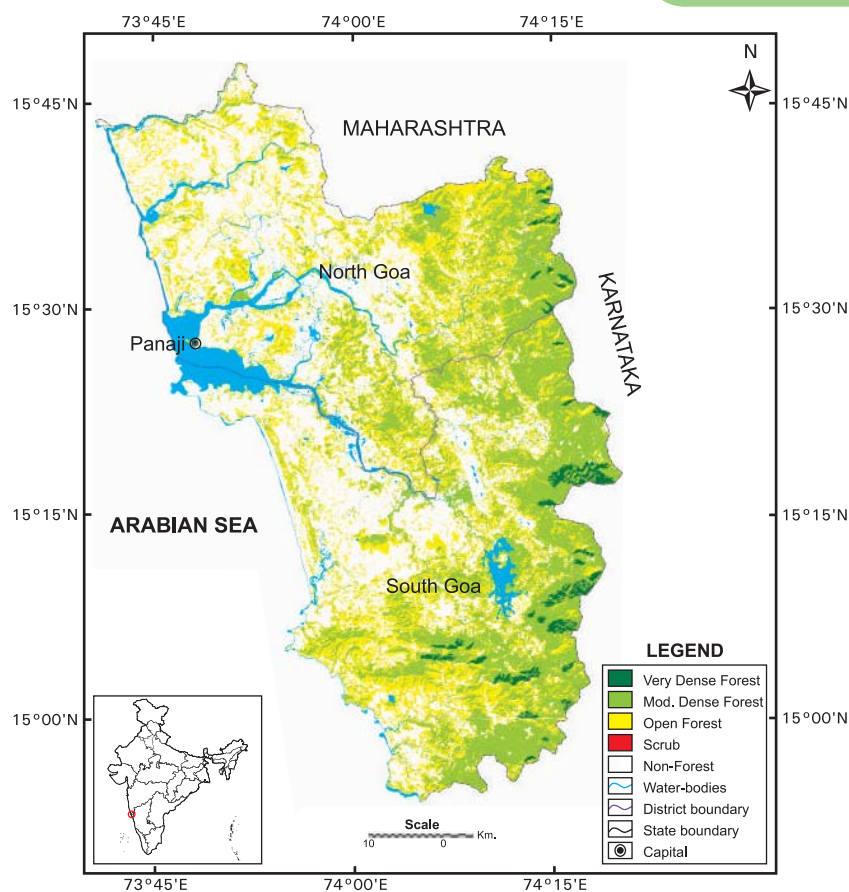


Fig 8.7 : Forest Cover Map of Goa

There is no change in forest cover and its density as compared to the previous assessment (based on satellite data of November 2002), hence no change matrix is given.

The extent of very dense forest, moderately dense forest, open forest, and scrub is given in Table 8.7b compared to 2003 assessment.

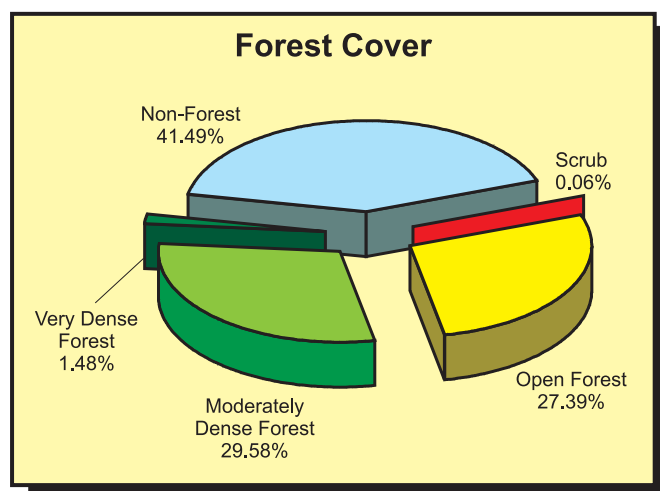


Table 8.7b: District-wise forest cover
Number of Districts: 2

(area in km²)

District	Geographic area	2005 Assessment				Percent of G.A.	Change	Scrub
		Very dense forest	Mod. dense forest	Open forest	Total			
North Goa	1,736	7	371	497	875	50.40	0	0
South Goa	1,966	48	724	517	1,289	65.56	0	2
Total	3,702	55	1,095	1,014	2,164	58.45	0	2

8.7.6 Tree Cover

Tree cover of Goa 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.

Field inventory has been carried out on 143 sample plots in one district of the State between 2002-06 and the estimated tree cover in the State is 268 km².

The forest and tree cover of the State is presented in the Table 8.7c.

Table 8.7c: Forest & tree cover

(area in km²)

Category	Area	% of Geographical Area
Tree Cover	268	7.24
Forest Cover	2,164	58.45
Forest & Tree Cover	2,432	65.69