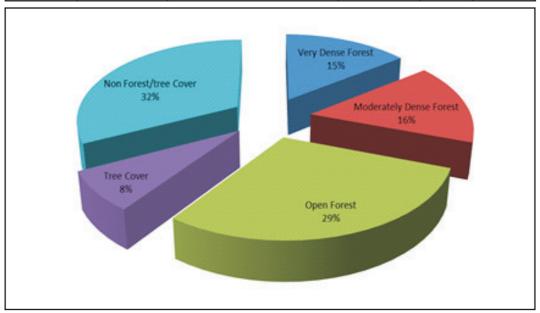
CHAPTER II FOREST AREA

2.1 FOREST AND TREE COVER

The Forest Survey of India (FSI) assesses the forest and tree cover of the country along with other resource parameters biennially using the remote sensing technology and is published in the State of Forest Report (SFR). As per the State of Forest Report published by the Forest Survey of India, the forest cover of the state is 2219 Km² which is 59.94 % of the State's geographical area. The estimated tree cover in the state is 286 Km² which is 7.73 % of the Geographical area. The district wise area in different density classes, the total forest and tree cover and the altitude Zone wise forest cover is given in the tables and charts below

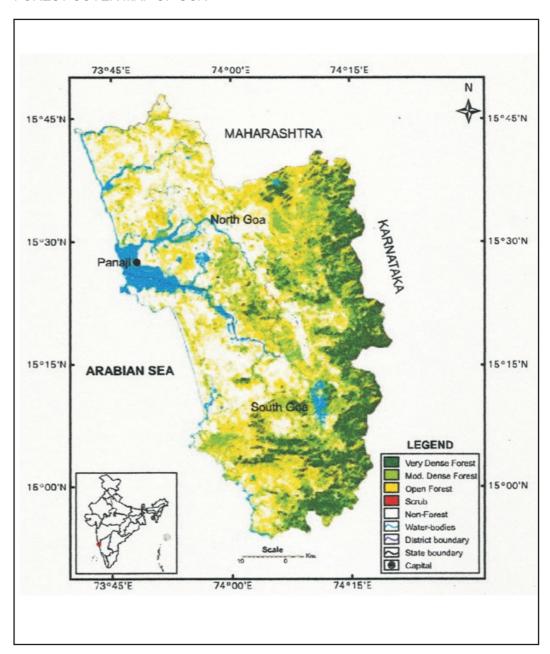
Forest and Tree cover(Area in Km²)

| District | Geographical area | Very Dense Forest | Moderately Dense Forest | Open Forest | Total Area | %of Geo area |
|-----------|----------------------|-----------------------------|----------------------------|-------------|---------------|--------------------|
| North Goa | 1736 | 128 | 236 | 559 | 923 | 53.17 |
| South Goa | 1966 | 415 | 349 | 532 | 1296 | 65.92 |
| Total | 3702 | 543 | 585 | 1091 | 2219 | 59.94 |
| | | Tree Cover | | | 286 | 7.73 |
| | | Total Forest and Tree Cover | | | 2505 | 67.67 |



Forest cover classification

FOREST COVER MAP OF GOA



Altitude Zone - wise Forest cover(Area in Km2)

| Altitude Zone | Very Dense Forest | Moderately Dense Forest | Open Forest | Total Area |
|---------------------|----------------------|----------------------------|-------------|-------------|
| 0-500m 500-1000m | 444 99 | 561 24 | 1058 33 | 2063 156 |
| Total | 543 | 585 | 1091 | 2219 |

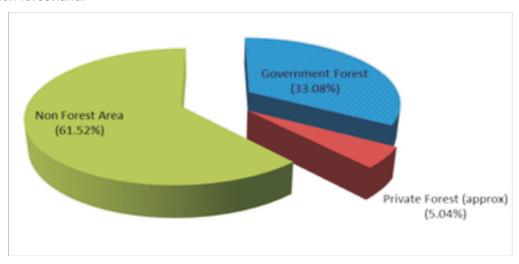
The total estimated growing stock in the state as per the SFR 2011 is 11.611 million cum and the estimated bamboo bearing area of the state is 308 Km².

2.2 FOREST COVER ASSESSMENTS IN THE PREVIOUS YEARS

| State of the Forest Report | Forest Cover in Km ² | |
|----------------------------|---------------------------------|--|
| 2011 | 2219 | |
| 2009 | 2151 | |
| 2005 | 2164 | |
| 2003 | 2156 | |
| 2001 | 2095 | |

2.3 RECORDED FOREST AREA

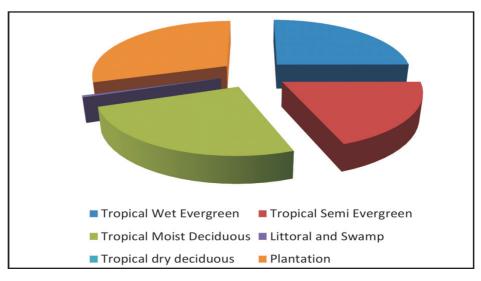
The total forest area of Goa is 1424.46 sq. km, out of which approximately 200 sq. km is privately owned. This amounts to 33.08% of the geographical area of Goa being government forest and 5.40% being private forest. 61.52% of Goa's geographical area is non-forest land.



2.4 FOREST TYPE CLASSIFICATION

The Forest Survey of India has mapped the forest types by using satellite data with reference to Champion and Seth Classification. As per this assessment in the State of Forest Report 2011, the state has 5 forest types which belong to five forest type groups

| Sr.No. | Forest Type | Percentage area | |
|--------|--------------------------|-----------------|--|
| 1 | Tropical Wet Evergreen | 24.97 | |
| 2 | Tropical Semi Evergreen | 19.33 | |
| 3 | Tropical Moist Deciduous | 25.39 | |
| 4 | Littoral and Swamp | 0.45 | |
| 5 | Tropical Dry Deciduous | 0.01 | |
| 6 | Plantation | 29.85 | |



2.5 MANGROVES

The mangroves are salt tolerant plant communities found along the tropical and sub-tropical tidal regions of the world between 24 degrees north and 38 degrees south latitudes. These ecosystems are rich in biodiversity and the mangrove vegetation exhibit a number of morphological and physiological adaptations in order to survive in such harsh conditions characterized by lack of oxygen, high salinity and frequent tidal inundation. As per the SFR report 2011, the area of the mangrove vegetation was 22 Sq.Km. The district wise and density wise area under mangroves in the state of Goa is given below

(Area in sq. kms.)

| District | Very Dense | Moderately Dense | Open | Total area |
|-----------|------------|------------------|------|------------|
| North Goa | 0 | 16 | 1 | 17 |
| South Goa | 0 | 4 | 1 | 5 |
| Total | 0 | 20 | 2 | 22 |



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