

NATURAL VEGETATION OF INDIA

A lush green forest scene with a path leading through tall trees. The trees have thick trunks and dense green foliage. The path is a light green color, and the ground is covered in grass and small plants. The overall atmosphere is peaceful and natural.

**NATURAL
VEGETATION**

DEFINITION OF NATURAL VEGETATION

- Natural vegetation refers to plant community that grows over an area and is left undisturbed by the humans.
- Depending upon the climatic conditions and soil , following types of natural vegetation is found in India:
 - 1. Tropical Evergreen Forest
 - 2. Tropical Deciduous Forest
 - 3. Tropical Thorny Forest
 - 4. Montane Forest
 - 5. Littoral and Swamp Forest/Mangrove Forest

1.Tropical Evergreen Forest

- **1.Characterstics:**
- A) They are found in areas of heavy rainfall.
- B) It is because of high rainfall throughout the year the vegetation here is very dense.
- C) Trees in this forest remain green throughout the year and do not shed their leaves.
- D) Trees of this forest are as high as 40-60 mts.
- E) Due to thick growth, sun's rays do not reach the surface of Earth.
- F) they are hard wood forest and thus are not fit economically.

- **2. Temperature:** they are found in areas having temperature of 22°C.
- **3. Rainfall:** they are found in areas having rainfall above 200 cms.
- **4. Trees:** trees like Rosewood, Ebony and Mahogany are found here.
- **5. Areas:** they are found in areas like Western Ghats, North eastern parts of India, Andaman and Nicobar Islands, West bengal, Odhisha etc.

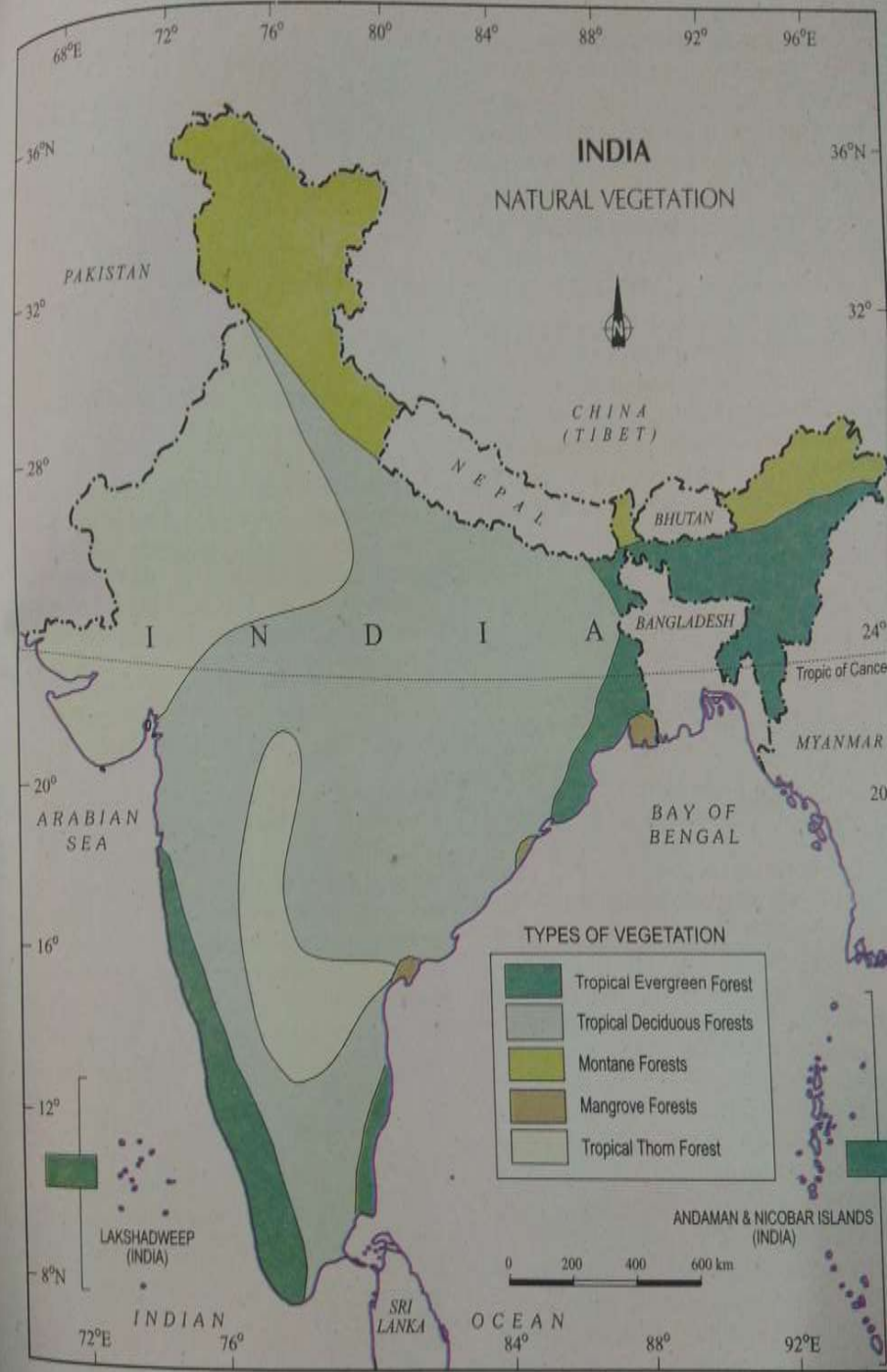


Figure 5.3 : Natural Vegetation



2.Tropical Deciduous Forest

- **1.Characterstics:**
- A) They are also called as monsoon forest.
- B) Trees in this forest shed their leaves.
- C) Trees of this forest are as high as 30-45 mts.
- D) the trees of this forest provide useful wood and are economically very high.
- **2. Temperature:** they are found in areas having temperature of 20-40°C.
- **3.Rainfall:** they are found in areas having rainfall above 70-200 cms.
- **4. Trees:** trees like Teak, Shisham and Bhel are found here.

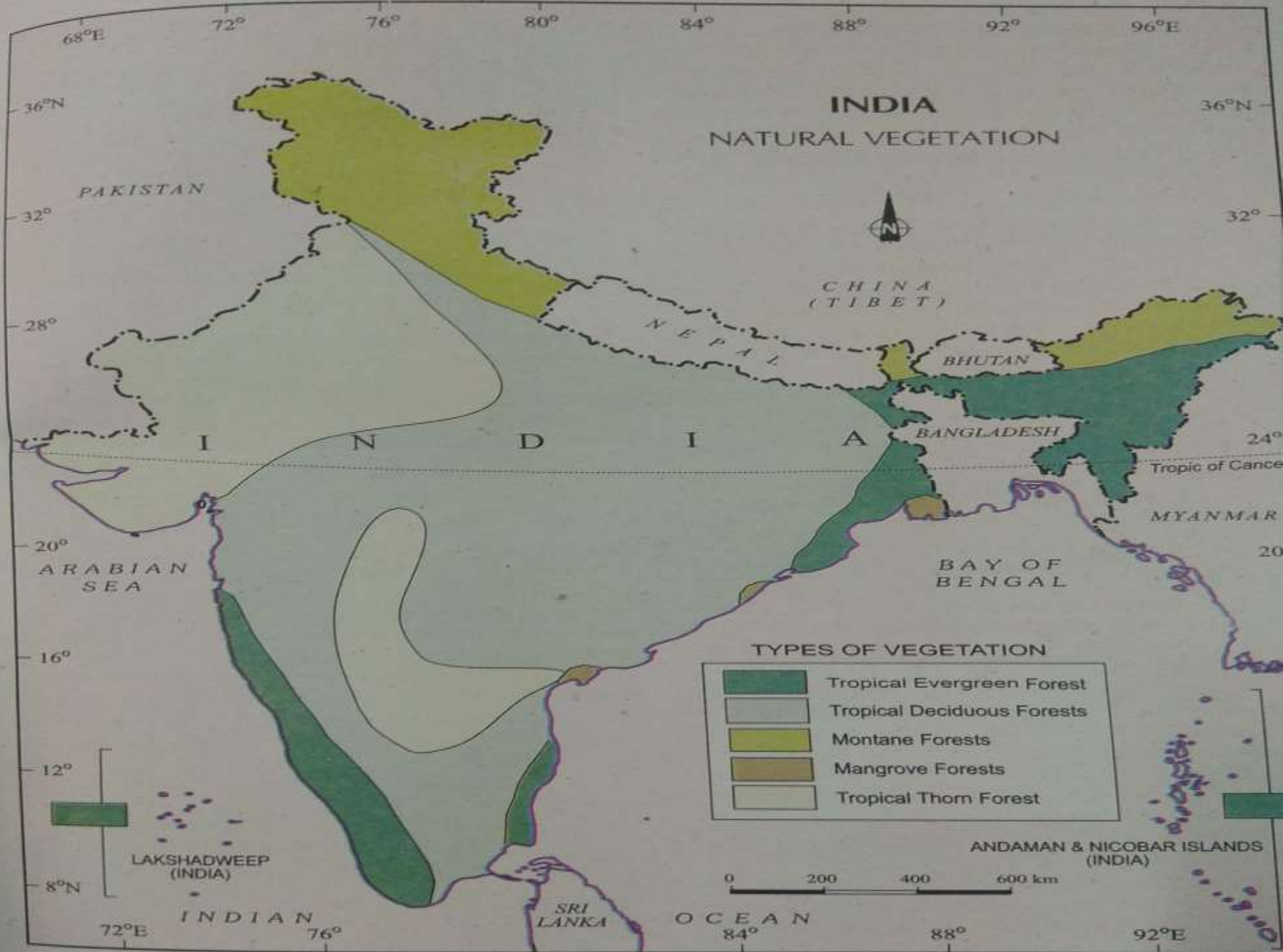


Figure 5.3 : Natural Vegetation



- **These forest are of further two types:**
- **1. Moist Deciduous Forest:**
- They are found in areas having rainfall 100-200 cms.
- Teak, Sal and Shisham are the forest of this type.
- They are found in foothills of Himalayas, Eastern slopes of Western Ghats and Odisha.
- **2. Dry Deciduous Forest**
- They are found in areas having rainfall 70-100 cms.
- Bhel and Amaltas are the forest of this type.
- They are found in parts of Uttar Pradesh and Bihar.
- **5.Areas:** they are found in areas foothills of Himalayas, Eastern slopes of Western Ghats, Odisha, parts of Uttar Pradesh and Bihar.

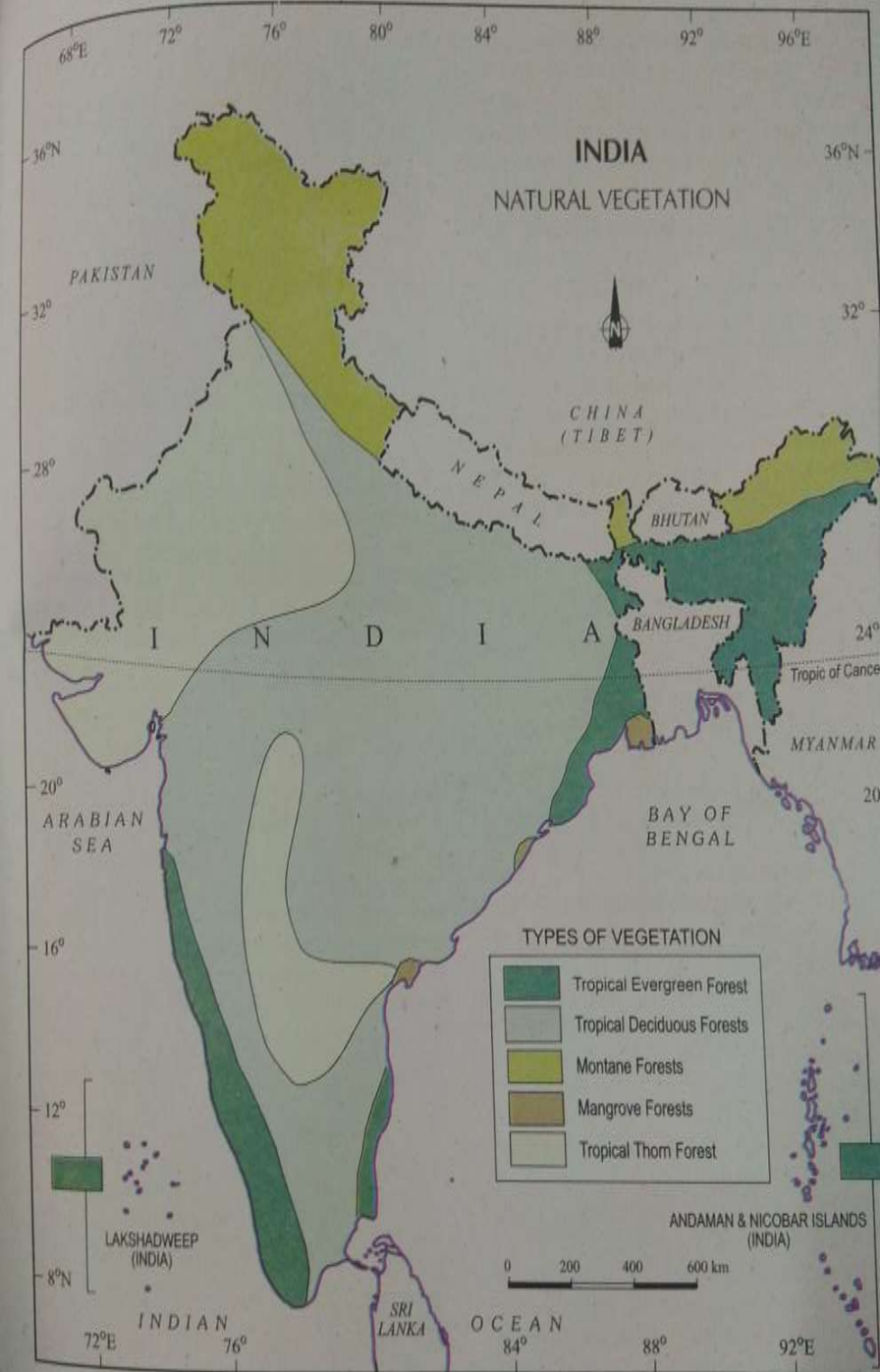


Figure 5.3 : Natural Vegetation

3.Tropical Thorn Forest

- **1.Characterstics:**
 - A) the leaves of these trees are waxy in nature to prevent loss of moisture from leaf skin.
 - C) the plants have deep roots.
- **2. Temperature:** they are found in areas having temperature greater than 40°C.
- **3.Rainfall:** they are found in areas having rainfall less than 50 cms.
- **4. Trees:** trees like Kikkar, Babool and Neem are found here.
- **5. Areas:** parts of Rajasthan, Punjab and Haryana have this type of vegetation.

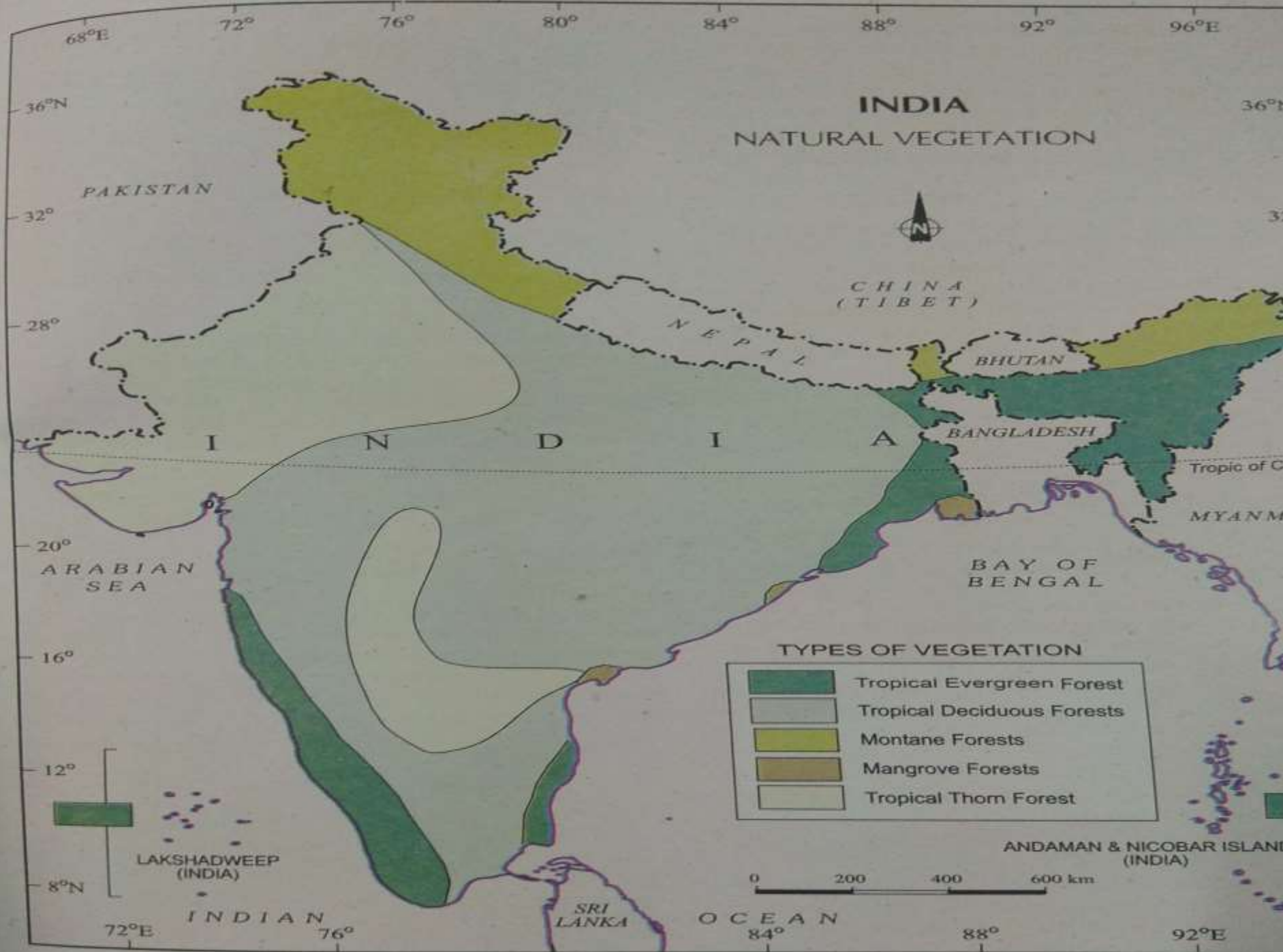


Figure 5.3 : Natural Vegetation

TROPICAL THORN FORESTS



4.Montane Forest

- These forests are found in mountain areas of India. They are divided into two types: 1. Himalayan Forest in north India 2. Peninsular Forest in south India.
- **1.HIMALAYAN FOREST**
- They are further of three types on the basis of altitude:

TYPE OF MONTANE FOREST	ALTITUDE	TREES	Areas
Wet Temperate Forest	1000-2000 meters	Oak and Chestnut	North east part of India, Uttrakhand
Temperate Forest	2000-3000 meters	Pine, Deodar, Silver fir, Cedar	Kashmir valley
Alpine Vegetation	> 3600 meters	Silver Fir, Pines	Pir Panjal range

2.Peninsular Forest

The trees in these forest are covered with shrubs.

They are found in Western Ghats, Vindhya, Satpuras and Nilgiri hills.

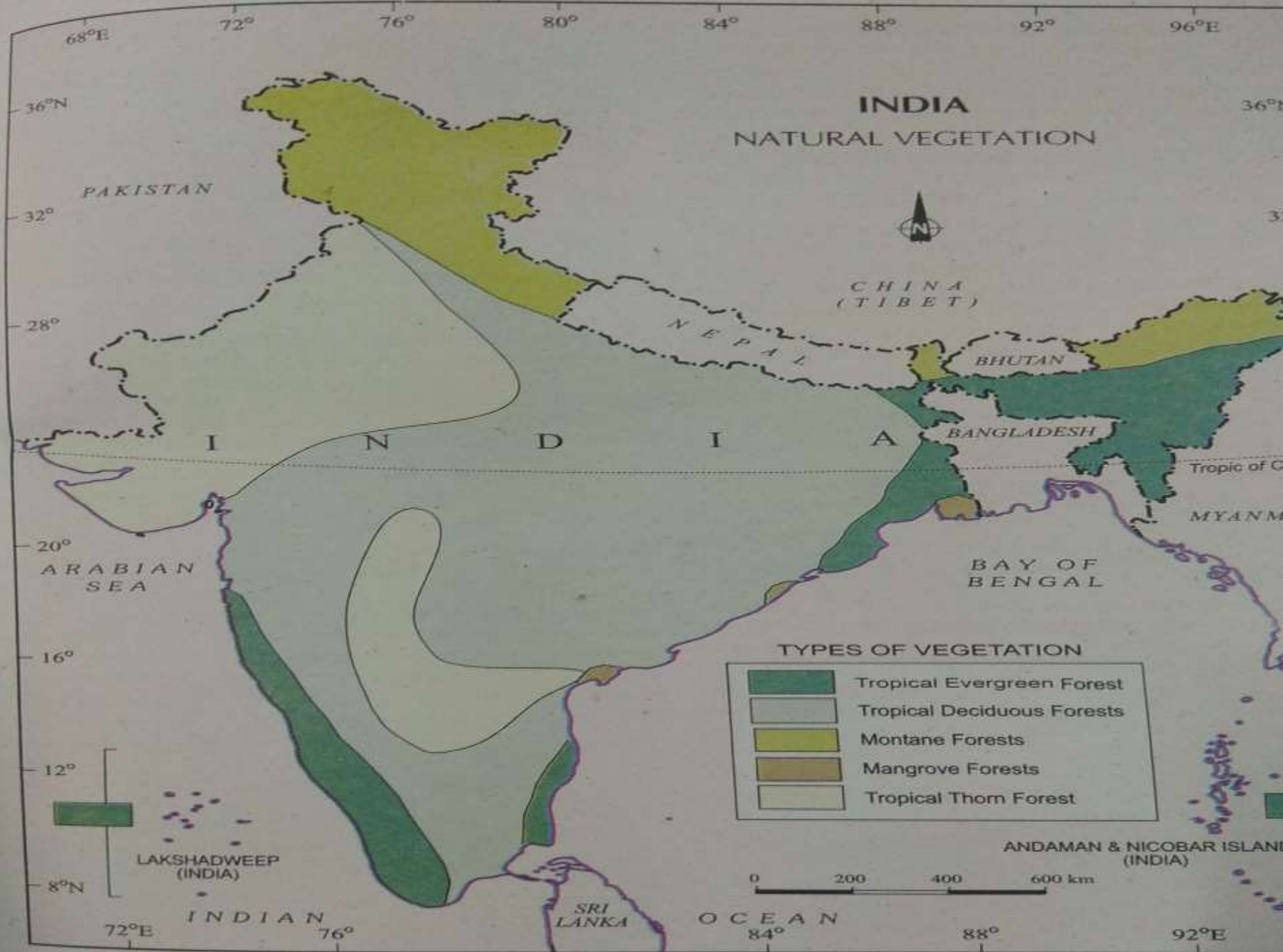


Figure 5.3 : Natural Vegetation



5. Littoral and Swamp Forest

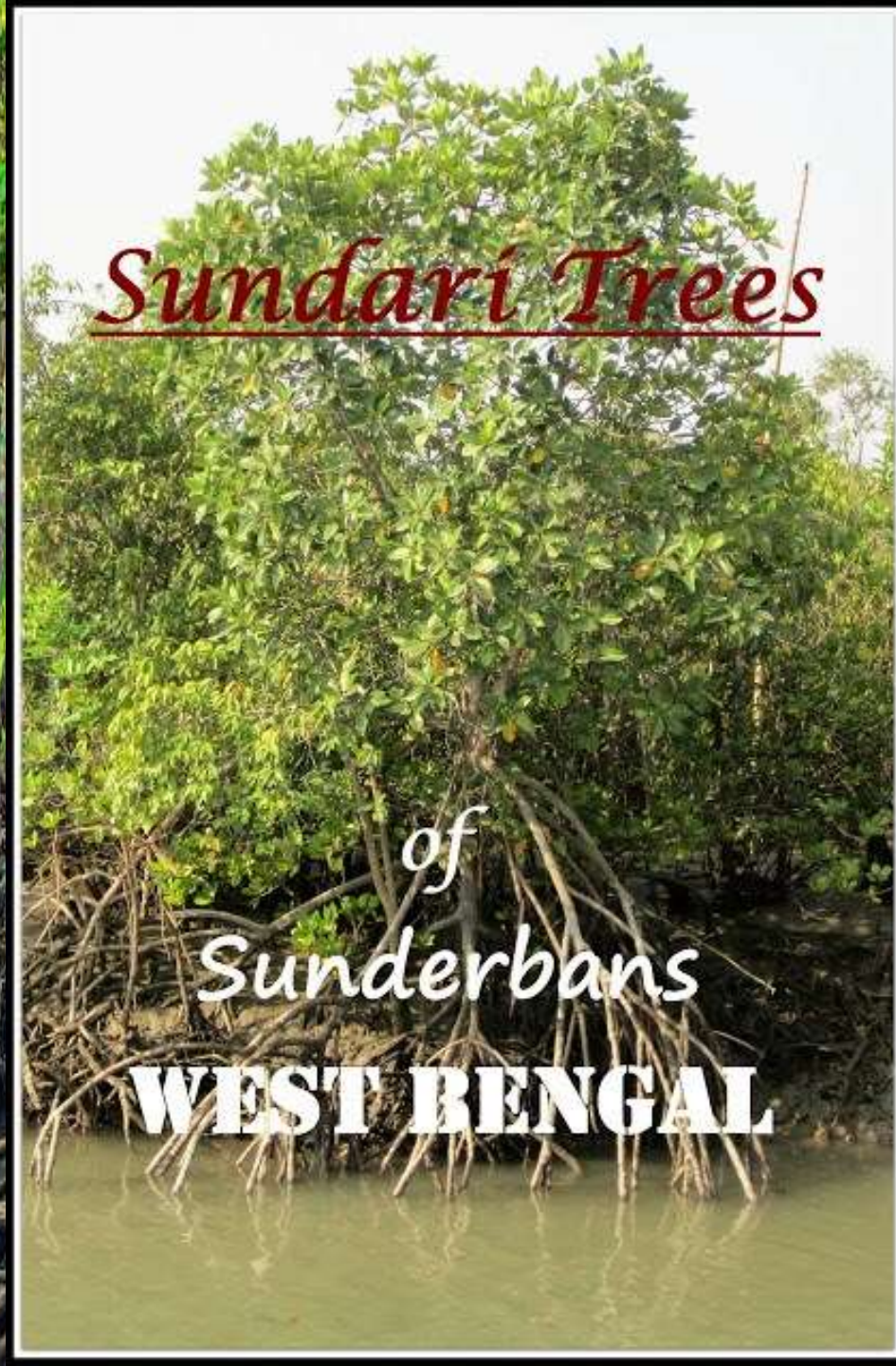
Characteristics:

These forest are found in coastal areas where tides are present. Therefore they are also called as tidal forest.

This forest have various salt absorbing trees. Their roots are deep and submerged in water.

Areas: Deltas of Mahanadi, Krishna, Godavari and Brahmaputra is covered with this type of vegetation. In West Bengal Ganga-Brahmaputra delta called Sunderban delta have this type of vegetation. SUNDARI TREES are found which provide durable timber.

Trees: Palm, Coconut, Sundari Trees are found in this type of vegetation.



Sundari Trees

of
Sunderbans
WEST BENGAL

FOREST COVER IN INDIA

- Forest area refers to area notified to be under forest.
- Forest cover refers to area actually under forest.
- About 23% of the area should be under forest but according to latest Census of 2001, 20.5 percent of area is under forest.



On the basis of percentage of actual forest cover, it is divided into following categories:

- **1. The region of High Concentration:** it includes states like Nagaland, Arunachal Pradesh and Mizoram.
- **2.The region of Moderate Concentration:** Goa, Odhisha, Assam fall into this category.
- **3. The region with very Low Concentration:** Rajasthan, Punjab and Haryana fall in this category.

Forest policy and Conservation

- 1. Forest policy was declared by Government of India in **1894**. with the passage of time, when India became independent trees were cut for making houses etc.
- 2.in **1952** Forest policy was passed which laid stress on conserving forest, expanding area under forest cover, conserving forest so that it meet the needs of present people and future nation. **In 1988, New Forest Policy was passed which have following aims and objectives:**
 - 1. bringing 33 % of the area under forest
 - 2. checking soil erosion
 - 3.Increasing production of forest to make timber, fuel and food available to rural population.
 - 4. creating massive awareness among the people for planting of trees.
 - 5. increasing forest cover through afforestation and social forestry.



Social Forestry

- Social forestry was started by National Commission on Agriculture in 1976 to include growing of trees for supplying firewood, timber and minor forest produce to rural population. It has 3 components:
- 1. **Urban Forestry:** it refers to growing trees on public and privately owned lands in urban centres like parks, roadside etc.
- 2. **Rural Forestry:** it lays emphasis on Agro Forestry i.e Agriculture plus forestry
- 3. **Agroforestry:** it refers to raising trees and agriculture crops on the same land including some waste patches.
- 4. **Community Forestry:** it refers to raising trees on public or community land such as roadside, canal along railway lines etc.
- 5. **Farm Forestry:** it refers to growing trees for commercial and non commercial purposes on their farm lands.



Wildlife



- India have tremendous level of plant and animal species on Earth.
- The plant and animal percentage on Earth is getting decreased due to various reasons:
 1. forest are being cut for expansion of industrial and technological advancement like malls in a forest area.
 2. increasing population has resulted in clearing lands for agriculture, human settlement , roads etc.
 3. hunting is also one of the reason in which many animals are killed for their skins products etc.
 4. increasing pressure on the forest for fodder, fuel wood etc.
 5. Lots of forests are destroyed due to natural causes like forest fire, earthquakes etc.

Wildlife Conservation in India

- Wildlife conservation needs to be there because every animal have a important place in the food cycle.
- Literature like Jataka tales, Panchatantra also raised their voice for conservation of forest.
- The Wildlife Protection Act was passed in 1972 with following objectives:
 - 1. provide protection to endangered species.
 - 2. development of national parks and Sanctuaries for conservation of wildlife and providing them home to live.
 - 3. making strict rules and punishing those who kill wildlife.

Various Projects:

- **1. Project Tiger:** passed in 1973 for maintaining the tiger population in India for cultural, ecological, natural heritage of country, education of people for not killing them.
- **2. Project Elephant:** passed in 1992 for ensuring proper elephant population in India.
- **3. Crocodile Breeding Project:** launched in 1975.



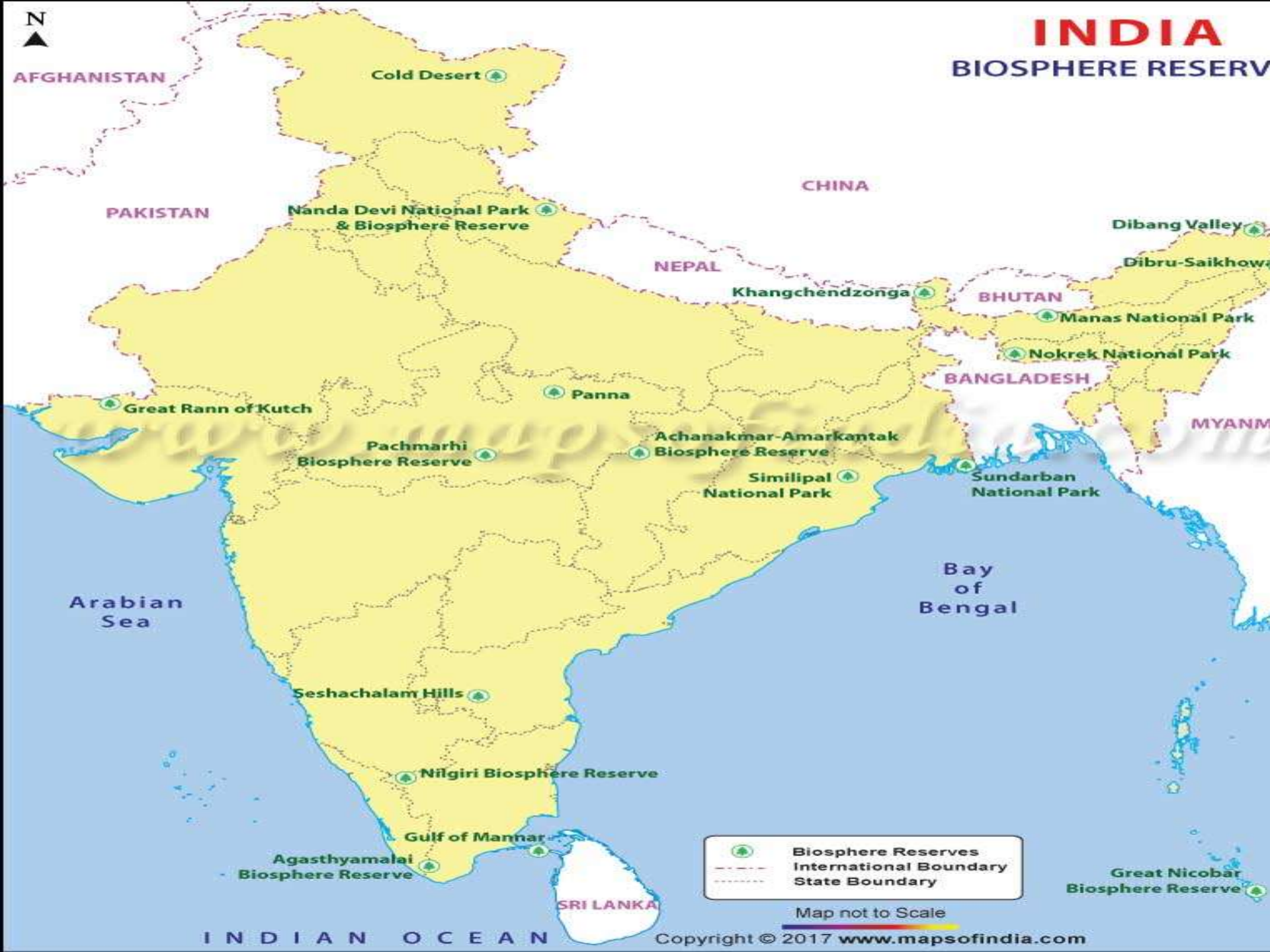
- **4. National Parks:** It is a large area with one or more ecosystems in which plants are grown by humans for the survival of animals. Various geomorphological habitat is provided for scientific education, recreation etc. there are 92 national parks in India like Bharatpur National Park in Rajasthan.
- **5. Sanctuaries:** it is a large area which is utilized for the conservation of animal life. There are 492 wildlife sanctuaries in an area. example Gir Bird Sanctuary in Gujarat.



- **6. Biosphere Reserves:** it is a unique ecosystem of terrestrial and coastal areas which are recognised by UNESCO Man and Biosphere Programme(MAB) which aims at following:
 - 1. Conservation of Biodiversity and Ecosystem.
 - 2. Making development in terms of technology and environment.
 - 3. providing logistics to Biosphere reserves
- There are 14 Biosphere Reserves in India and out of them 4 are recognised By UNSECO
 - A) Nilgiri biosphere reserve in
 - B) Nanda Devi biosphere reserve In Uttrakhand
 - C) Sunderban Biosphere Reserve in West Bengal
 - D) Gulf of Mannar Biosphere Reserve

INDIA

BIOSPHERE RESERVE



- **1. Nilgiri biosphere reserve:**
- Established in 1986
- Area of 5520 sq km.
- Cover states like Tamilnadu, karnataka and kerala.
- It saves various vegetation like dry scrubs, decidudous forest etc.
- It act as a home for various animals like elephant, tigers etc.
- About 80 percent of flowering plant species are reported here.
- **2. Nanda Devi Biosphere Reserve**
- It is present in Uttrakhand.
- It covers parts of chimoli, Pithorgarh district of Uttrakhand.
- Its area is 2236 sq kms.
- It is covered with temperate forest of silver weed conifers etc.
- It conserves animals like black bear, brown bear etc.



- **3. Sunderban Biosphere Reserve**
- It is located in west Bengal.
- Its area is 9630 sq kms.
- It consist of mangrove forest and forest islands.
- It is the home of 200 royal bengal tigers.
- Many bird species from fish to shrimp are present here.
- Chital deer, wild deer are present here.
- **4. Gulf of Mannar reserve**
- Covers 10,500 kkm of area in Tamilnadu
- Worlds richest region with marine biodiversity
- It include 21 islands which are home for various plants and animal species.