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INDIA : CLIMATE, VEGETATION AND WILDLIFE

You read in newspapers daily and watch on T.V. or hear others talking about weather. You must know that **weather** is about *day to day changes* in the atmosphere. It includes changes in temperature, rainfall and sunshine etc. For example, as such it may be hot or cold; sunny or cloudy; windy or calm. You must have noticed that when it is hot continuously for several days you don't need any warm clothing. You also like to eat or drink cold things. In contrast there are days together, you feel cold without woollen clothes when it is very windy and chilly, you would like to have something hot to eat.

Broadly, the major seasons recognised in India are:

- Cold Weather Season (Winter) December to February
- Hot Weather Season (Summer) March to May
- Southwest Monsoon Season (Rainy) June to September
- Season of Retreating Monsoon (Autumn) October and November

COLD WEATHER SEASON OR WINTER

During the winter season, the sun rays do not fall directly in the region. As a result the temperatures are quite low in northern India.

HOT WEATHER SEASON OR SUMMER

In the hot weather season sun rays more or less directly fall in this region. Temperature becomes very high. Hot and dry winds called **loo**, blow during the day.

Let's have fun :

1. People in all parts of our country drink delicious cool drinks called *Sharbat* made from fruits available in their regions. They are excellent thirst-quenchers and protect our bodies from the ill-effect of the harsh 'loo'. Have you tried 'Sharbat', made from raw mango, bel, lemon, tamarind, kokum, phalsa, watermelon and buttermilk made from curds; for example chhaachh, mattha, mori, chash, etc? Many make banana and mango milkshakes too.
2. After a hot summer, the first rains bring much joy. All our languages have melodious songs on 'rains'. They sound happy and bring cheer. Learn two songs on rains and sing them together. Write or collect five poems on rains.

Ask your friends, neighbours and family members for names for rains and other seasons in different languages. For instance,

Varsha – Hindi

Pous – Marathi

Barish – Urdu

Borsha – Bengali



SOUTH WEST MONSOON SEASON OR RAINY SEASON

This season is marked by the onset and advance of monsoon. The winds blow from Arabian Sea and Bay of Bengal towards the land. They carry moisture with them. When these winds strike the mountain barriers, rainfall occurs.

SEASON OF RETREATING MONSOONS OR AUTUMN

Winds move back from the mainland to the Bay of Bengal. This is the season of the retreating monsoons. The southern parts of India, particularly Tamil Nadu and Andhra Pradesh receive rainfall in this season.

However, the **climate** is about the average weather condition, which have been measured *over many years*.

The climate of India has broadly been described as Monsoon type. **Monsoon** is taken from the Arabic word '**mausim**', which means seasons. Due to India's location in the tropical region, most of the rain is brought by monsoon winds. Agriculture in India is dependent on rains. Good monsoons mean adequate rain and a bountiful crop.

What would happen if monsoons were weak, or even worse, failed to occur one year? Tick (✓) the correct answer.

- Crops will be-
affected/not affected
- The level of the water in a well will-
come-up/go-down
- Summer will be-
longer/shorter



Let's Do

On a map of India, locate the places mentioned in the paragraph.

The climate of a place is affected by its **location**, **altitude**, **distance from the sea**, and **relief**. Therefore, we experience regional differences in the climate of India. *Jaisalmer* and *Bikaner* in the desert of Rajasthan are *very hot*, while *Drass* and *Kargil* in Jammu and Kashmir are *freezing cold*. *Coastal places* like *Mumbai* and *Kolkata* experience *moderate climate*. They are neither too hot nor too cold. Being on the coast, these places are *very humid*. *Mawsynram* in *Meghalaya* receives the *world's highest rainfall*, while in a particular year it might not rain at all in *Jaisalmer* in Rajasthan.

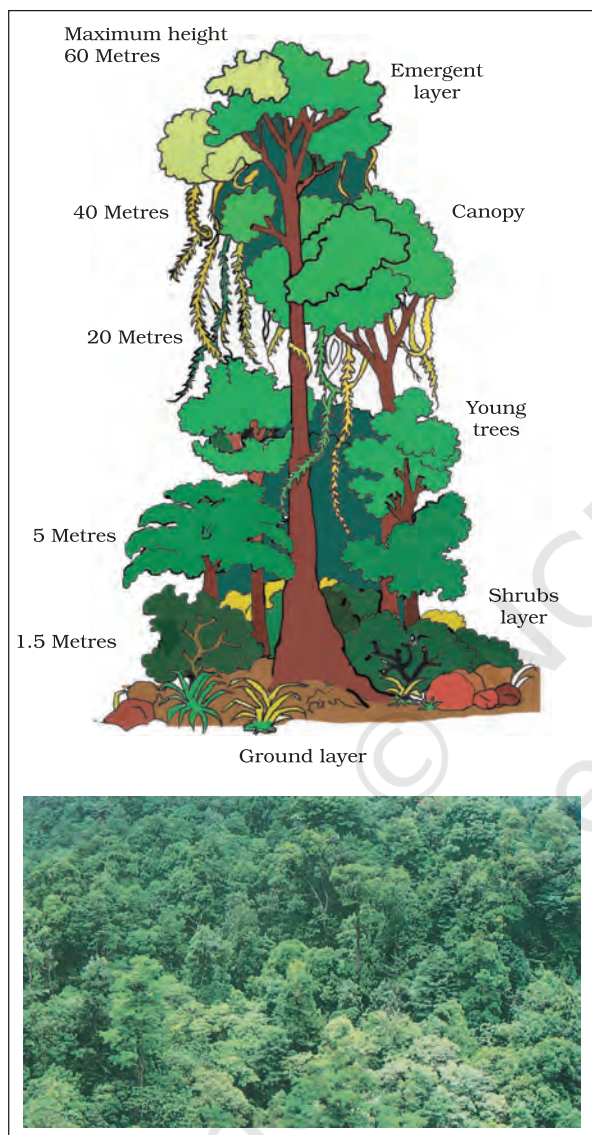


Figure 8.1 : Tropical Rain Forests

NATURAL VEGETATION

We see a variety of plant life in our surroundings. How nice it is to play in a field with green grasses. There are also small plants called bushes and shrubs like cactus and flowering plants etc. Besides there are many tall trees some with many branches and leaves like neem, mango or some which stand with few leaves such as palm. The grasses, shrubs and trees, which grow on their own without interference or help from human beings are called natural vegetation. Do you wonder how these differ from each other. Different types of natural vegetation are dependent on different climatic conditions, among which the amount of rainfall is very important.

Due to varied climatic conditions, India has a wide range of natural vegetation.

WHY ARE FORESTS NECESSARY?

Forests are very useful for us. They perform various functions. Plants release oxygen that we breathe and absorb *carbon dioxide*. The roots of the plants bind the soil; thus, they control soil erosion.

Forests provide us with timber for furniture, fuel wood, fodder, medicinal plants and herbs, lac, honey, gum, etc.

Forests are the natural habitat of wild life.

Natural vegetation has been destroyed to a large extent because of the reckless cutting of trees. We should plant more trees and protect the existing ones and make people aware of the importance of trees. We can have special programmes like *Van Mahotsav* to involve more people in making our earth green.

Leela's parents planted a sapling of "neem" to celebrate her birth. On each birthday, a different sapling was planted. It was watered regularly and protected from severe heat, cold and animals. Children took care not to harm it. When Leela was 20, twenty-one beautiful trees, stood in and around her house. Birds built their nests on them, flowers bloomed, butterflies fluttered around them, children enjoyed their fruits, swung on their branches and played in their shade.

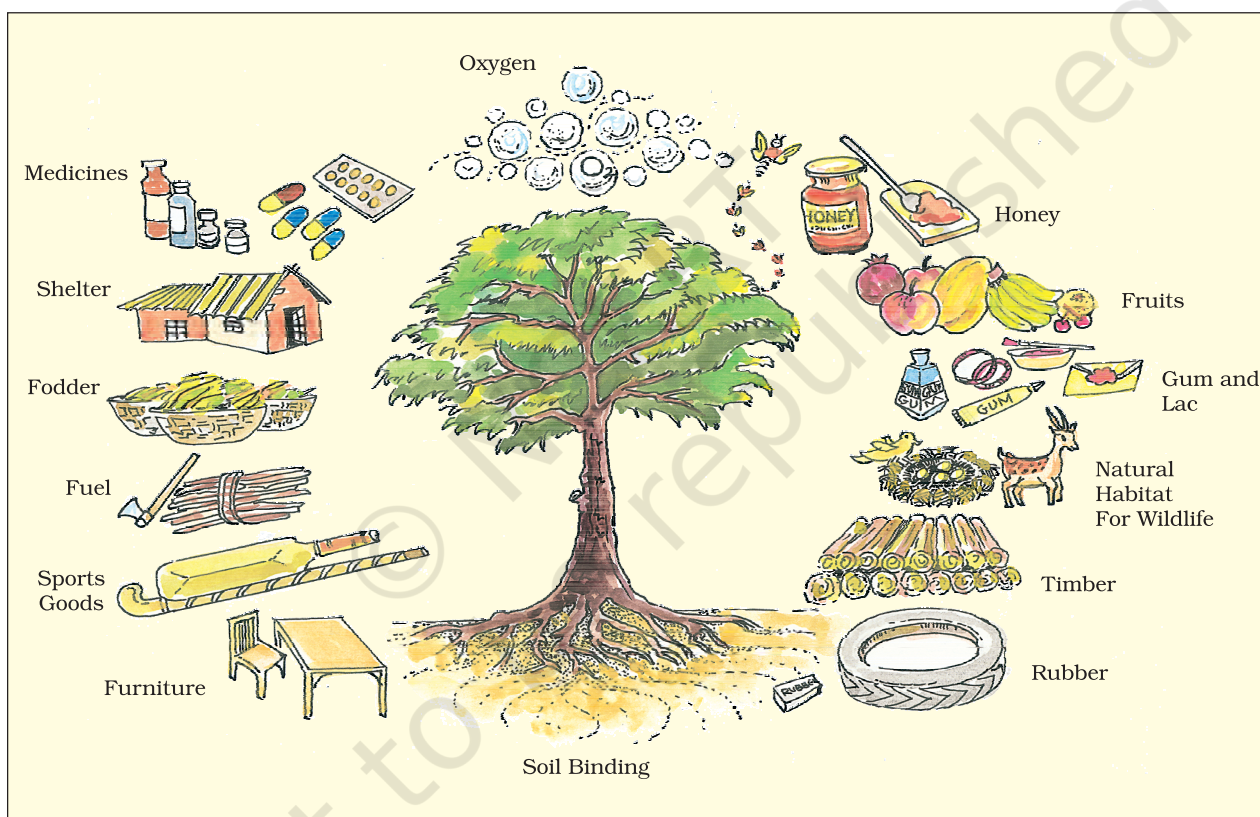


Figure 8.2 : What we get from forests

WILD LIFE

Forests are home to a variety of wild life. There are thousands of species of animals and a large variety of reptiles, amphibians, mammals, birds, insects and worms which dwell in the forest.

The tiger is our **national animal**. It is found in various parts of the country. *Gir* forest in Gujarat is the home of Asiatic lions. Elephants and one-horned rhinoceroses roam in the forests of Assam. Elephants are also found in Kerala and Karnataka. Camels and wild asses are found in the Great Indian desert and the Rann of Kutch respectively. Wild goats, snow leopards, bears, etc. are found in the Himalayan region. Besides these, many other animals are found in our country such as monkey, wolf, jackal, nilgai, cheetah, etc.

India is equally rich in bird life. The peacock is our **national bird**. Other common birds are parrots, pigeons, mynah, geese, bulbul and ducks. There are several bird sanctuaries which have been created to give birds their natural habitat. These provide the birds protection from hunters. Can you name five birds that are commonly found in your area?

There are several hundreds of species of snakes found in India. Cobras and kraits are important among them.

Due to cutting of forests and hunting, several species of wildlife of India are declining rapidly. Many species have already become extinct.

In order to protect them many national parks, sanctuaries and biosphere reserves have been set up. The Government



Figure 8.3 : Wildlife

has also started *Project Tiger* and *Project Elephant* to protect these animals. Can you name some wildlife sanctuaries of India and locate them on a map?

You can also contribute in conserving wildlife. You can refuse to buy things made from parts of the bodies of animals such as their bones, horns, fur, skins, and feathers. Every year we observe wildlife week in the first week of October, to create awareness of conserving the habitats of the animal kingdom.

Largescale poaching alleged in Simlipal reserve
By Arun Kumar Das/TNN
New Delhi: Yet another tiger sanctuary appears headed the Sariska way. Though officially there are 101 tigers in Orissa's Simlipal reserve, sightings have dropped to five this year, raising fears of largescale poaching in the state's largest tiger sanctuary. Not only are fewer tigers visible, villagers have also stopped complaining about cattle kills by the jungle cats. There are 64 villages with 4 lakh residents in the areas surrounding Simlipal and 12,000 people live inside the sanctuary area. Apart from tigers, the 2,750-sq-km sanctuary is home to 127 leopards, 465 elephants and hundreds of bison, barking deer, sambar and wild boars. Park records say there were 13 tiger sightings in 2003. The figure dropped to 7 in 2004. Atendra Kumar, district forest officer, Baripada, who is also in-charge of Simlipal, insists low sightings don't translate to fewer tigers. "Because it is a different terrain here. There are seven rivers passing through the forest and about 200 water bodies and falls in the forest. There is no shortage of food or water in the forest, so tigers don't go for human or cattle killings," he said. Visitors, Kumar says, don't have the patience to wait for tigers as they are always in hurry. "Unlike other sanctuaries, there is no fixed tiger spot here. So, one has to wait patiently in different places in the core areas. So far, we have not come across any evidence of poaching in the forest." Admitting the uncertainty, he said...

Will Centre, wildlife lovers finally kiss and make up?
By Chandrika Mago/TNN
New Delhi: The country's new director of all sightings in and outside reserves, States, however, are the decisive factor in every reserve. When the next tiger census begins in November, the ministry shows no interest in the tiger census. This certainly doesn't mean the two sides have kissed and made up.

More Sariskas in the making
By Chandrika Mago/TNN
New Delhi: Tiger counts in many more Sariskas in the making — and this is of fact. If tourism could see tigers begin to emerge from Sariska's Ramnagar-Ramghat reserve, "extensive and reserved distances" have taken an unaccounted toll on the other reserves. India is supposed to have about 3,500 tigers but nobody believes the figure, just as nobody is sure of the scale of the poaching. Over the past year, Project Tiger officials have been mapping traditional tiger ranges across the country to detect the changes and strategies accordingly. This is an attempt to put management on a scientific footing — instead of acknowledging that it hasn't been so far. According to Wildlife India vice-chairman Ashu, who has moved a PIL in the Court challenging official tiger figures, "The number is not more than 30 as per census. It is true that the number of water bodies in the and it is also a dense forest."

Big cats vanishing from Uttarakhand
By Anshika Chopra/TNN
Dehra Dun: Uttarakhand, once known as the tiger capital of India, is now losing its tigers at an alarming rate. The state government has released a report showing that the tiger population in the state has fallen from 200 in 2002 to 143 in 2003. The report also shows that the tiger population in the state has fallen from 200 in 2002 to 143 in 2003. The report also shows that the tiger population in the state has fallen from 200 in 2002 to 143 in 2003.

Cramped in Gir, lions pine for grassland
By Anshika Chopra/TNN
Gir: In the Gir forest, lions are cramped in their enclosures and pine for grassland. The Gir forest is one of the last remaining wild habitats of the Asiatic lion. The Gir forest is one of the last remaining wild habitats of the Asiatic lion. The Gir forest is one of the last remaining wild habitats of the Asiatic lion.

Villages in tiger reserves must be relocated
By Chandrika Mago/TNN
New Delhi: India's tiger reserves must be relocated, says a panel of experts. The panel, headed by Sunita Narain, chairwoman of the Tiger Task Force, says that the villages in the tiger reserves must be relocated. The panel, headed by Sunita Narain, chairwoman of the Tiger Task Force, says that the villages in the tiger reserves must be relocated.

Tiger crisis: Have we done enough to check poaching?
By Chandrika Mago/TNN
New Delhi: India's tiger reserves must be relocated, says a panel of experts. The panel, headed by Sunita Narain, chairwoman of the Tiger Task Force, says that the villages in the tiger reserves must be relocated.

Task force begins two-day meet
By Chandrika Mago/TNN
New Delhi: The Prime Minister's Task Force on Tiger Conservation has begun its two-day meeting in the Capital. The task force is headed by Sunita Narain, chairwoman of the Tiger Task Force. The task force is headed by Sunita Narain, chairwoman of the Tiger Task Force.

Figure 8.4

Migratory Birds

Some birds such as Pintail Duck, Curlews, Flamingo, Osprey and Little Stint migrate to our country in winter season every year. Smallest migratory bird Little Stint Weighing as low as 15 gram, from Arctic region travel over 8000 km to reach India.

EXERCISES

1. Answer the following questions briefly.

- (a) Which winds bring rainfall in India? Why is it so important?
- (b) Name the different seasons in India.
- (c) What is natural vegetation?

2. Tick the correct answers.

- (a) The world's highest rainfall occurs in
 - (i) Mumbai
 - (ii) Asansol
 - (iii) Mawsynram
- (b) Wild goats and snow leopards are found in
 - (i) Himalayan region
 - (ii) Peninsular region
 - (iii) Gir forests
- (c) During the south west monsoon period, the moisture laden winds blow from
 - (i) land to sea
 - (ii) sea to land
 - (iii) plateau to plains

3. Fill in the blanks.

- (a) Hot and dry winds known as _____ blow during the day in the summers.
- (b) The states of Andhra Pradesh and Tamil Nadu receive a great amount of rainfall during the season of _____.
- (c) _____ forest in Gujarat is the home of _____.



FOR FUN

- 1. Make a list of trees in your neighbourhood and collect pictures of plants, animals and birds and paste them in your copy.
- 2. Plant a sapling near your home and nurture it and write down the changes you observe for a few months.
- 3. Does any migratory bird come in your locality? Try to identify that. Be watchful in the winter season.
- 4. Visit a zoo in your city or visit a nearby forest or sanctuary with your elders. Look carefully at the various types of wildlife there.



State and Union Territories of India

State	Capital	Union Territory	Capital
Andhra Pradesh	Hyderabad	Andaman and Nicobar Islands	Port Blair
Arunachal Pradesh	Itanagar	Chandigarh	Chandigarh
Assam	Dispur	Dadra & Nagar Haveli	Silvassa
Bihar	Patna	Daman & Diu	Daman
Chhattisgarh	Raipur	Lakshadweep	Kavaratti
Goa	Panaji	Puducherry	Puducherry
Gujarat	Gandhi Nagar		
Haryana	Chandigarh	National Capital Territory of Delhi	Delhi
Himachal Pradesh	Shimla		
Jammu & Kashmir	Srinagar		
Jharkhand	Ranchi		
Karnataka	Bengaluru		
Kerala	Thiruvananthapuram		
Madhya Pradesh	Bhopal		
Maharashtra	Mumbai		
Manipur	Imphal		
Meghalaya	Shillong		
Mizoram	Aizawl		
Nagaland	Kohima		
Odisha	Bhubaneswar		
Punjab	Chandigarh		
Rajasthan	Jaipur		
Sikkim	Gangtok		
Tamil Nadu	Chennai		
Telangana	Hyderabad		
Uttarakhand	Dehradun		
Uttar Pradesh	Lucknow		
Tripura	Agartala		
West Bengal	Kolkata		

Some Internet Sources for more information

<http://volcanoes.usgs.gov/>

www.nationalgeographic.com/earthpulse

<http://www.cpcb.nic.in>

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