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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 :



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 Ladakh 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.

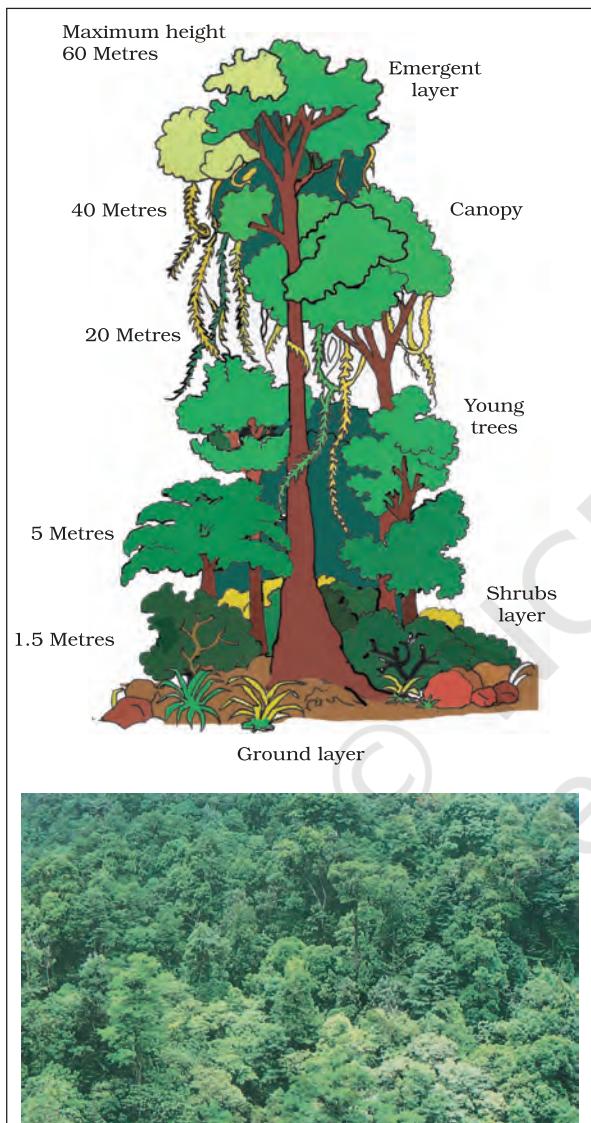


Figure 8.1 : Tropical Rain Forests

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.

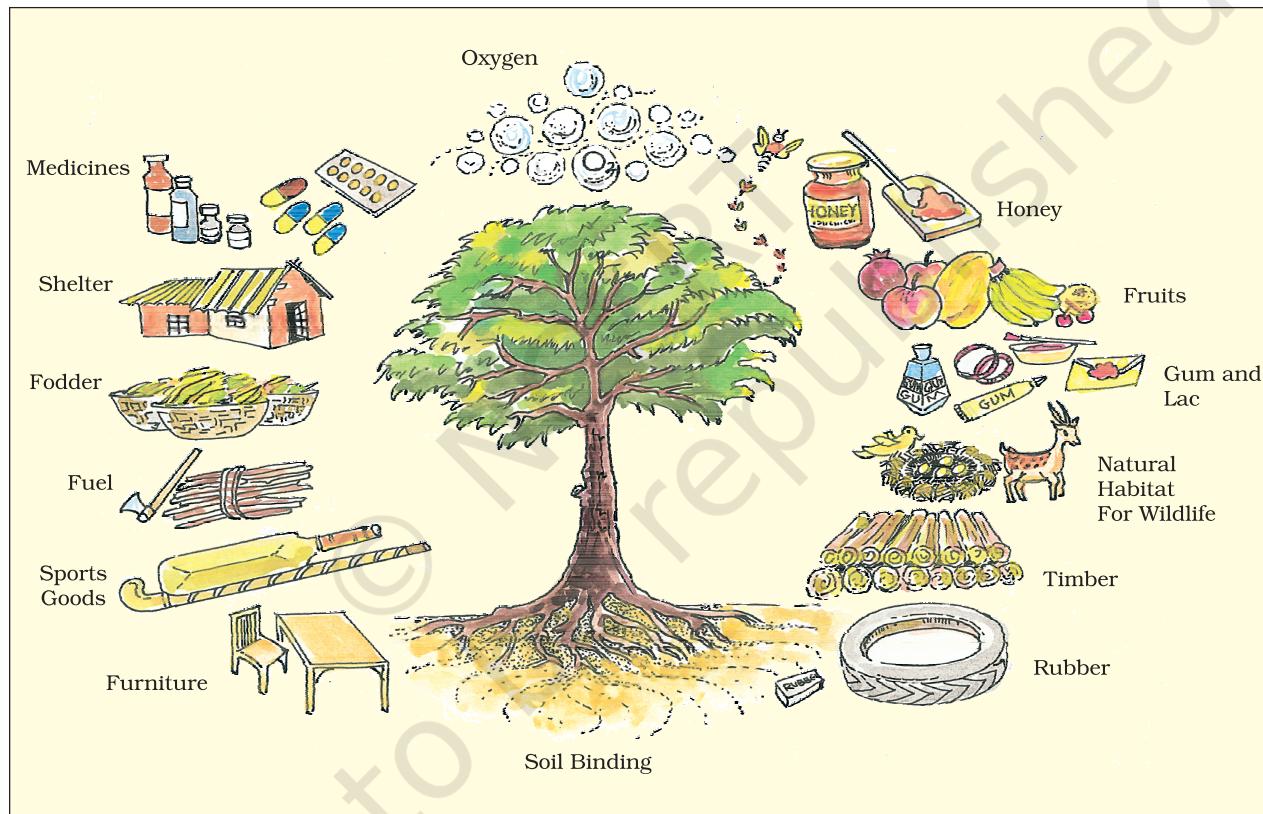


Figure 8.2 : What we get from forests

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 Kuchchh 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, cheetal, 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. This time 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, visitors are also reporting increasing about cattle kills by the jungle cats. There are 64 villages with a 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.

Jitendra 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 80 waterfalls 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 not fixed.

"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."

Analysing the numbers?



IS ORISSA'S SIMLIPAL RESERVE HEADING THE SARiska WAY?

partment official said lack of cattle poaching was intriguing and hoped new sophisticated census methods would be more accurate.

In the case of Sariska and Simlipal, two of the more important tiger reserves in India, previous census reports were either found to be exaggerated or completely wrong. Biswajit Mohanty of the Wildlife Society of Orissa, which monitors the Simlipal tiger population, says claims of the authorities aren't valid and circumstantial evidence suggests otherwise.

"Unlike in elephant poaching where the poacher leaves behind the carcass, the tiger poacher . . .

is not seen."

Analysing the numbers?

Big cats vanishing from Uttarakhand

By Jashodan Chopra/TNN

Dakha Dara, Uttarakhand, has remained the same since 2003 (22 tigers). Now there are now 20 tigers in the area. In 2002, Sonardanda (Wildlife Sanctuary) also a part of CTR, the number of tigers increased after a census in 2003.

According to Utkal Singh, Director of the Uttarakhand Forest Department, there are 14 tigers in Panchgani and 10 in Kumaon.

There are 10 tigers more than last year. There were 20 tigers more than there were 25 tigers in 2003.

The number further reduced to 26 in 2002. The Central Tiger Reserve (CTR) had 24 tigers in 2001.

Two tigers less in 2000 (24) had come along in 1999 (26).

According to the report, there was a slight improvement from 2001 when the tiger population was 27 in the Gir Forest National Park.

Now there are 26 tigers in the Gir Forest.

Analysing the numbers?

This certainly doesn't mean the two sides have kissed and made up.

More Sariskas in the making

By Chandrika Mago/TNN

New Delhi: There could be many more Sariskas in the making – and this is official. If tourism officials see tigers lapsing into the Sariska model, they will bring in Ramnagar reserve, "extremely disturbed" areas, to earn a tiger status.

It is reported to have about 3,000 tigers but nobody believes that number.

Because right from paws, eyes, toes, teeth, tail, nothing is sold. There were 9 of leopards and tiger at the four months in the poaching cases were registered.

According to Wildlife Trust vice-chairman Ashok Chakraborty, who has moved a PIL in the Court challenging official statistics, "The figures are not more than 50 as per estimation. It is true that there is a lack of water bodies in the area and it is also a dense forest."

Analysing the numbers?



Gopal says the tourist crush at Ranthambore has pushed out tigers to Ranthambore's neighbour, the Gir forest, located close to the Chambal riverfront. At least one tourist's death has been reported.

A tiger was shot by a poacher at Gir.

According to Gopal, the tiger was shot by a poacher at Gir.

Analysing the numbers?

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EXERCISES

1. Answer the following questions briefly.

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

2. Tick the correct answers.

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

3. Fill in the blanks.

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



FOR FUN

- Make a list of trees in your neighbourhood and collect pictures of plants, animals and birds and paste them in your copy.
- Plant a sapling near your home and nurture it and write down the changes you observe for a few months.
- Does any migratory bird come in your locality? Try to identify that. Be watchful in the winter season.
- 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	Daman
Bihar	Patna	and Daman & Diu	
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	Ladakh	Leh
Karnataka	Bengaluru		
Kerala	Thiruvananthapuram		
Madhya Pradesh	Bhopal		
Maharashtra	Mumbai		
Manipur	Imphal		
Meghalaya	Shillong		
Mizoram	Aizawl		
Nagaland	Kohima		
Odisha	Bhubaneshwar		
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>