



Sahara Desert in Africa

Desert is a dry place having very little rainfall resulting in scarce vegetation. It has extreme temperatures high or low. Depending on the temperature there can be hot deserts or cold deserts. In most parts of it there is no water to drink or irrigate the crops and no grass for the cattle to feed on. Deserts occupy about one seventh part of the Earth's surface.

Hot or tropical deserts are found between 20° and 30° latitudes to the north and south of the equator within the tropics. For example, Sahara and Kalahari deserts of Africa.

Cool or temperate deserts are found in the temperate regions (30°–55° latitude) of both the hemispheres. Their altitude is high and they are surrounded by high mountains. Thus, their location is in the interior of these mountains. These factors result in scanty rainfall and severe

winters. Or they are located in the interior plateaus and basins. For example, Ladakh desert and Mongolian or Gobi desert.

Cold deserts are areas of permanent ice, which melts during short summers. They are found in the polar regions (North of 60° latitude and south of 60° latitude). Their location at very high latitudes makes them desert. The entire Antarctica is a cold desert.

The common feature of all types of deserts is their extreme dryness. Water is scarce in hot deserts; while it is available but frozen due to very low temperature in a cold desert. Both the conditions make it difficult for vegetation to grow or survive. Also, weathering and wind erosion are very active in them.

Sahara – The Hot Desert

'Sahara' in Arabic language means desert. The Sahara extends from the Atlantic Ocean in the west to the Red Sea in the east which covers a distance of about 5500 km. In the east it also meets the Arabian desert, which is linked to Sind in Pakistan and Thar desert in India. There is no ocean to the east of North Africa. The whole area has been turned into a desert. Even Egypt is a part of this desert. It extends from the Mediterranean Sea in the north and gradually merging with grasslands (Savanna) in the south. It is about 2,000 km from north to south. However, the Sahara is not rectangular in shape.

It has an area of around 8.54 million sq km. and covers one-third of the Africa's total land area. To take an idea of its size recall that India has an area of 3.2 million sq. k m . The Sahara desert touches eleven countries—Algeria, Chad, Egypt, Libya, Mali, Mauritania, Morocco, Niger, Sudan, Tunisia and Western Sahara. Sahara is the largest tropical desert of the world.

The whole of Sahara is not sandy. Its sandy area covers about one-fourth of the area. In the rest there are gravel plains and elevated plateaus with base rocky surface (upto 2500 m high). There are shifting sand dunes as high as 180 m. There are also many dry valleys, where rivers once flowed millions of years ago. River Nile flows along the eastern part of Sahara while Niger flows in its western part. Lake Chad is the only fresh water lake in Sahara located at the southern edge of the desert.

Climate

The climate of the Sahara desert is hot and dry. The temperature rises as high as 50° C in daytime while it may go down below zero degree at night. The months of June, July and August are very hot in the desert. The annual rainfall is less than 10 cm. During winter nights are very cold.

Flora and Fauna

Vegetation in the Sahara desert includes cactus, date palms and acacia. In some places there are oasis—green islands with date palms surrounding them. In their shade are grown figs, olives, apricots etc. When wind blows away the sand, at some places depressions are formed where underground water reaches the surface, an oasis is formed. There are almost 90 large oases around which people live in villages and grow crops. Sometimes the oasis may be abnormally large. Area of Tafilalet Oasis in Morocco is about 13000 sq. km.



The Sahara Desert



Fact File

It is interesting to know that highest temperature is not found near the equator but in the interior of Sahara desert. Al Azizia in Sahara desert, south of Tripoli, Libya recorded the highest temperature of 57.7° C in 1922. It is the highest temperature on the surface of the Earth known till now. It is noted that over 50° C humans and cattle start dying.



Oasis in the Sahara Desert

Wildlife of Sahara includes camels, hyenas, jackals, foxes, scorpions, many kinds of snakes and lizards. The immense desert is not that lifeless. The camel is the most important. Well adjusted to the harsh desert environment and helpful to man, it is rightly called the 'ship of the desert'. The camel has hard lips which help it eat the thorny vegetation. Soft padded feet help to walk in the sands without sinking. The long eyelashes of the camel protect its eyes from sand storms. The camel is like a water tank, it can drink 100 litres of water at a time. It can remain without drinking water for 10 days in winter and for three days in summer. It can store enough fat in its hump. Thus, it can survive long journeys without food or water.

People

Despite the harsh climate nearly two million people of various groups live in the Sahara desert who pursue different activities. Among them Bedouins and Tuaregs groups are nomadic tribes. They rear livestock such as goats, sheep, camels and horses. They move in caravans from

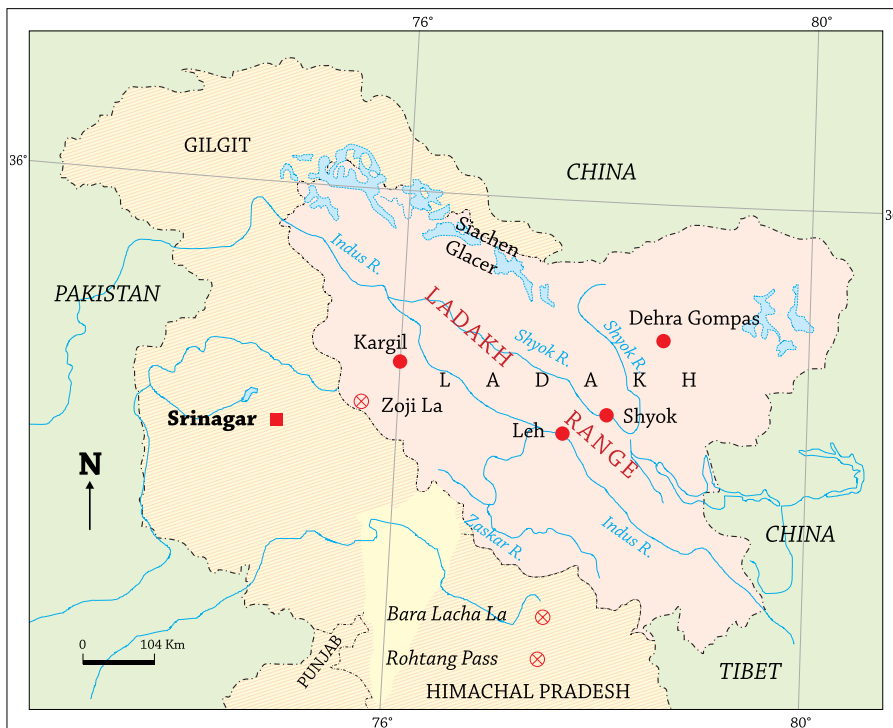
one oasis to the other with their herds of animals in search of food and water. They get milk, hide (leather) and hair from the animals. They wear long and loose heavy robes as protection against dust storms and hot winds. They still carry water in goat skin or camel skin bottle to keep it cool.

Near the oases in the Sahara and in the Nile valley in Egypt people lead a settled life. They live in mud houses or tents. They grow crops like rice, wheat, barley, beans and date palms.

The people and the cattle feed on date palms. The leaves of this plant are also used for fuel and as a roof of the house. The sap of date palm is used to make wine.

People have generally thick mud houses to protect from excessive heat and cold. The houses have small doors and small windows to restrict heat and fast moving winds carrying sand.

Over the past few decades, the northern parts of the Sahara have become rich and modernised because of the discovery of oil in Libya, Algeria and Egypt and minerals like iron, manganese, phosphorus and uranium. Though roads have been constructed for jeeps and wagons, camel is still used as breakdown of an automobile can be fatal.



Ladakh

Ladakh– The Cold Desert

Ladakh is a high mountainous region in the eastern part of Jammu and Kashmir. It is located in the northern Great Himalayan range. The Karakoram range in the north and Zaskar mountains (5500 m height) in the south enclose it. It covers an area of about 98,000 sq. km. Leh and Kargil are two districts of Ladakh. The south-western monsoons do not reach the northern Great Himalaya, therefore, this region is a desert. Indus and several other rivers flow through Ladakh. The rivers form deep valleys and gorges. People live along the rivers and in their valleys. Several glaciers are found in Ladakh, for example, the Gangri glacier. The surrounding mountain ranges remain snow bound for whole of winter.

Climate

As Ladakh lies in the rain shadow of the Himalayas, there is little rainfall (7 to 10 cm) every year. Due to high altitude (about 3,000 m in Kargil to more than 8,000 m in the Karakoram) the climate is extremely cold and dry. The day temperatures in summer are just above zero degree and the night temperatures well below -3°C . It is freezing cold in the winters when the temperatures may remain below -20°C for most of the time. The area experiences freezing winds and burning hot sunlight. The air is so thin (because of high altitude) that the heat of the Sun is felt intensely. It is often said that if a person sits here in the sun with his feet in the shade he may suffer from sunstroke and frost bite at the same time.

Flora and Fauna

There are scanty patches of grasses and shrubs only. In the valleys of the rivers groves of willow and poplar trees are found. During the summer fruit trees such as apples, apricot and walnuts bloom. Birds like robins, raven, hoopoe are seen. The wildlife includes goats, sheep, yaks and dogs.

People

Ladakh has a population of about two lakhs. Leh, the capital of Ladakh is well connected both by road and air. The national highway 1A connects Leh to Kashmir Valley through the Zoji la pass. In the summer season people grow barley, peas, beans, potatoes and turnip. Due to scarcity of water and fuel, they use them with care. Tourists come (July to September) to see the meadows and glaciers and the Buddhist monasteries. People rear goats and sheep for their hair (wool) and yaks for cheese and butter. Yak is also their beast of burden. The famous Pashmina wool is obtained from the mountain goat, Ibex, found only in Ladakh. The climate in winter months is very harsh. Therefore, outdoor activities are restricted.

Ladakh is still known as Khapa-Chan meanign snow land. Another meaning is 'La–mountain pass' and 'Dak–country.'

We can compare the hot desert Sahara with the cold desert Ladakh :



Yak



Fact File

The finest cricket bats are made from the wood of the willow trees.

The finest wool called shahtoosh which is light in weight and extremely warm is obtained from an antelope called Chiru. They were hunted for it. This made it an endangered species. The government has imposed ban on hunting of this antelope as well as on keeping any blanket or cloth made of shahtoosh wool.

Sahara	Ladakh
1. Sahara is the rocky desert with hot ground below.	1. Ladakh is a cold desert only in winter.
2. Rocky and sandy landscape.	2. Rocky landscape.
3. No major rivers in Sahara except Nile in Egypt and river Niger.	3. River Indus flows through Ladakh, also surrounded by several rivers Nubra, Suru, etc.
4. Water available only in an oasis at least 200 to 300 km apart from each other.	4. Water available at a distance.
5. No snow.	5. Heavy snowfall in winter.
6. Chief occupation of the people is rearing animals.	6. Chief occupation of the people is agriculture.
7. People are nomadic tribals.	7. People are settled peasants.



Key Words

- » Weathering : change in colour or shape due to the effect of the sun, wind or rain.
- » Sand dune : a small hill of sand deposited by wind.
- » Oasis (plural : Oases) : a depression in a desert having water and vegetation.
- » Nomadic tribe : a tribe moving from one place to another with its animals in search of food and water.
- » Pashmina : wool made from the hair of the mountain goat, Ibex.
- » Shahtoosh : wool made from the hair of the antelope, Chiru.
- » Desert : a dry region often empty and receiving less than 25 cm rainfall in a year.
- » Rain shadow area : area on the side of the mountain which does not face the winds carrying rains.
- » Caravans : large trading groups moving together often for security reasons.

SUMMARY

- ▶ Sandy area in Sahara is one-fourth, rest is gravel plains and elevated plateaus with bare rocky surface.
- ▶ The day temperature rises as high as 50° C in Sahara while it may go down below zero degree at night.
- ▶ Vegetation in the Sahara desert includes cactus, date palms and acacia. Near the oases figs, olives, apricots are grown.
- ▶ Wildlife of Sahara includes camels, hyenas, jackals, foxes, scorpions, snakes and lizards.
- ▶ Nomadic tribes rear goats, sheep, camels and horses.
- ▶ Near the oases in the Sahara and in the Nile valley in Egypt people lead a settled life. They grow crops like rice, wheat, barley, beans and date palms.
- ▶ Ladakh– the cold desert lies between the Karakoram range in the north and Zaskar mountains in the south.
- ▶ There is little rainfall (7 to 10 cm) every year in Ladakh. Due to high altitude the climate is extremely cold and dry. The area experiences freezing winds and burning hot sunlight.
- ▶ There are scanty patches of grasses and shrubs. In the valleys willows, poplar, apricot, walnut trees are found. Wildlife includes goats, sheep, yaks and dogs.
- ▶ In the summer, people grow barley, peas, beans, potatoes and turnip. They rear goats and sheep for their hair and yaks for cheese and butter.

Exercise Time

A. Tick (✓) the only correct choice amongst the following :

1. What type of desert is the Sahara
a. Cold b. Cool c. Hot d. Mild
2. The landscape of Ladakh is
a. Rocky and sandy b. Rocky c. Sandy d. Muddy
3. The area which does not have a snowfall in winter
a. Ladakh b. Kashmir c. Sahara d. Shimla
4. The day temperature in the Sahara desert rises as high as
a. 20° C b. 30° C c. 40° C d. 50° C
5. Deserts are characterised by
a. Thick vegetation b. Scanty vegetation c. Low evaporation d. Heavy precipitations

B. Fill in the blanks :

1. The annual rainfall in Sahara is less than _____ cm.
2. The tree found in the oasis of Sahara as well as in the river valleys of Ladakh is _____.
3. Chief occupation of the people of Sahara is _____.
4. Leh and _____ are two districts of Ladakh.
5. The common feature of all deserts is their extreme _____.

C. Match the Following :

- | | |
|-------------|---------------------------|
| 1. Oil | a. Sahara |
| 2. Oasis | b. Glacier |
| 3. Bedouins | c. Depressions with water |
| 4. Gangri | d. Libya |

D. Write true (T) or False (F) against the following statements in given brackets :

1. A desert gets more than 25 cm rainfall annually.
2. The nomadic tribes move from one place to another.
3. Pashmina is obtained from goats.
4. A desert is always hot, it cannot be cold.
5. Ladakh experiences freezing winds and burning hot sunlight.

E. Identify the following :

1. largest tropical desert of the world
2. People who move from place to place in search of food and water
3. The beast of burden in Ladakh
4. Wool made from the hair of the antelope, Chiru
5. The ship of the desert



F. Answer in one word or one phrase :

1. How much part of the Earth is covered by deserts ?
2. How much part of the Sahara is sandy ?
3. Name the countries of Sahara which has oil reserves.
4. Why do people in the desert wear long and loose clothes ?
5. What is the beast of burden in Ladakh ?

G. Answer these questions briefly :

1. Why there is scanty vegetation in the deserts ?
2. Where is water available in Sahara ? Name the crops which are grown in the oases of Sahara.
3. Why do people of the Sahara desert wear heavy robes ?
4. What is the common feature of a cold and a hot desert ?
5. What are the causes of cold desert conditions in Ladakh ?
6. Why does Ladakh not benefit by the south-west monsoons ?
7. What is the temperature variation in Sahara and Ladakh ?
8. The yak is used in the cold desert and the camel in the hot desert. Compare them.

H. Answer these questions in detail :

1. Which features of the camel's body make it call 'the ship of the desert' ? Why do people use camels in the Sahara inspite of roads and jeeps available there ?
2. Where is Ladakh located ? Discuss its climate and chief occupations of the people.
3. Compare the Sahara, the hot desert with Ladakh, the cold desert.
4. Discuss the climate of the Sahara and occupations of its people.

PROJECT WORK

- On an outline map of the world locate and label the hot desert Sahara and cold desert Ladakh.