

Landforms and Life

Chapter-3

The Big Ques (Page 41)

Ques 1.

What are the major types of landforms and their significance to life and culture?

Answer:

The major types of landforms and their significance to life and culture are as follows:

Mountains: They are large landforms that rise prominently above their surroundings. Their significance is that it affects the climate and weather pattern, provide freshwater from rivers and streams originating in mountains. It is considered sacred in various cultures. It is home to unique flora and fauna.

Plains: They are large areas of flat or gently rolling land. It is ideal for farming due to fertile soil, easy to build infrastructure, leading to dense human settlements. Plain areas are cultural and economic hubs due to ease of transportation and trade.

Plateaus: They are elevated flatlands that rise sharply above the surrounding area. They are rich in minerals and often sites for mining. They are suitable for certain types of agriculture and livestock grazing. Plateaus are home to unique ecosystems and sometimes isolated communities with distinct cultures.

Hills: They are elevated landforms that are smaller than mountains. They are used for terraced farming, provide scenic views and are popular for tourism. Many historical sites and ancient structures are located on hills.

Deserts: They are arid regions with little precipitation and sparse vegetation. In deserts, there is extreme temperatures and harsh living conditions. But it is rich in minerals like oil and natural gas and home to unique cultures and traditions adapted to the harsh environment.

Valleys: They are low areas between hills or mountains, often with a river running through them. Valleys are fertile land due to river deposits, ideal for farming, provide natural protection and resources for communities. Often the cradle of ancient civilizations due to the availability of water and fertile soil.

Ques 2.

What are the challenges and opportunities of life associated with each landform?

Answer:

The challenges and opportunities of life associated with each landform are as follows:

Mountains: Living in mountainous regions presents several challenges and opportunities. The cold weather and heavy snowfall can make everyday life difficult, impacting transportation and agriculture. Steep slopes also pose challenges for construction and infrastructure development. However, mountains offer unique opportunities, including breathtaking scenery that attracts tourists and outdoor enthusiasts, creating economic opportunities through tourism.

Mountains are also vital sources of freshwater, as many rivers and streams originate there, providing essential resources for downstream communities. Additionally, the diverse ecosystems support unique flora and fauna, contributing to biodiversity.

Plains: Plains are generally favourable for human habitation due to their flat and fertile land, making them ideal for agriculture and the development of infrastructure. This leads to dense human settlements and thriving communities. However, plains can also face challenges, such as the risk of flooding, which can damage crops and property.

Despite this, the ease of transportation and trade in plains areas facilitates cultural and economic growth, turning many plains regions into cultural and economic hubs. The agricultural potential of plains supports large populations and contributes significantly to food production.

Plateaus: Plateaus, characterized by elevated flatlands, offer a mix of challenges and opportunities. The terrain can be less fertile and dry, making agriculture difficult without proper irrigation. Access to water sources may also be limited. However, plateaus are often rich in mineral resources, making them prime locations for mining activities.

They are suitable for livestock grazing and sometimes provide unique ecosystems and isolated communities with distinct cultures. The scenic landscapes of plateaus can also attract tourists, adding to their economic opportunities.

Hills: Hills, smaller than mountains, present their own set of challenges and opportunities. The slopes can complicate farming and construction, and there is a risk of landslides in certain areas. Despite these challenges, hills offer opportunities for terraced farming, which can make agriculture viable on slopes. They are also popular for tourism and outdoor activities, thanks to their scenic views and cooler climates. Hills often host historical sites and ancient structures, adding cultural significance and attracting visitors.

Deserts: Deserts are known for their harsh living conditions, with extreme temperatures and limited water sources posing significant challenges to human habitation and agriculture. However, deserts also offer unique opportunities. The arid environment is home to specialized plants and animals that have adapted to the conditions.

Deserts are often rich in minerals like oil and natural gas, providing economic opportunities through resource extraction. Additionally, the stark beauty and unique landscapes of deserts attract tourists and support cultural traditions adapted to the harsh environment.

Valleys: Valleys, often formed by rivers between hills or mountains, offer fertile land that is ideal for agriculture, presenting significant opportunities for food production. However, they can be prone to flooding, which poses a risk to crops and settlements.

Valleys provide natural protection and resources for communities, fostering early civilizations due to the availability of water and fertile soil. The rivers in valleys offer water for irrigation, drinking, and transportation, supporting both agricultural and human needs. Valleys often become centers of human activity and development, blending natural beauty with practical living conditions.

Let's Explore

Ques 1.

As a class activity, form groups of four or five students and observe the school's surroundings. What kind of landscape do you see? Will the landscape change a few kilometres away? Or within some 50 kilometres? Compare with other groups. (Page 42)

Answer:

Do it yourself.

Ques 2.

In the same groups, discuss a journey that any of you has made through a region of India. List the different landscapes seen on the way. Compare with other groups. (Page 42)

Answer:

Do it yourself.

Ques 3.

Here are two verses from a long poem by Kālidāsa, who lived at least 1,500 years ago and is often considered to be the greatest poet of ancient India. The poem, Kumarasambhava, begins with an invocation to the Himalayas. (This is a simplified translation from the Sanskrit.)

In the north rises Himālaya, the Lord of mountains, like a living god, who measures the Earth and stretches from the western to the eastern oceans.... From it the wind comes down, carrying spray from descending Gangā, shaking the deodar trees, opening the peacocks' tail feathers and cooling the mountain people after they hunt deer.

Discuss the verses and the following Quess in class. (Page 46)

(i) What are the 'western to the eastern oceans'? Can you locate them as well as the 'Lord of mountains' (on page no. 76)?

Answer:

The phrase "western to the eastern oceans" refers to the Arabian Sea to the west and the Bay of Bengal to the east of the Indian subcontinent. These bodies of water form the western and eastern boundaries of the Indian Ocean.

The "Lord of mountains" is the Himalayas, which stretch across northern India, from the west in the region near the Arabian Sea to the east near the Bay of Bengal. On a map (Page no. 76); the Himalayas can be located as the mountain range running across northern India, Nepal, Bhutan, and Tibet.

(ii) Why is Ganga mentioned? (Hint: There could be several reasons.)

Answer:

The Ganga is mentioned due to the following reasons:

(a) The Gangā River, or Ganges, is considered sacred in Hinduism. It is often associated with purity, spiritual cleansing, and has numerous religious festivals centered around it.

(b) The Ganga originates from the Himalayas and flows through the northern plains of India, providing water for agriculture, drinking, and various daily needs. It is a lifeline for millions of people.

(c) The Ganga is a cultural icon, celebrated in literature, poetry, and folklore. Its mention evokes the rich cultural heritage and the natural beauty of the region.

(d) The verses highlight the natural scenery of the Himalayas, where the wind carries the spray from the descending Gangā, illustrating the river's dynamic presence in the mountainous landscape.

Ques 4. The images (on page 50) depict a few challenges that people living in the mountains may face. Discuss them in groups in the class and write one paragraph on each. Also discuss why, despite many such challenges, people still choose to live in the mountains. (Page 49)

Answer:

Do it yourself.

Ques 5.

The picture (Page 49) is taken from a satellite. It captures a portion of north India from a high altitude. Observe and discuss the image as a class activity.

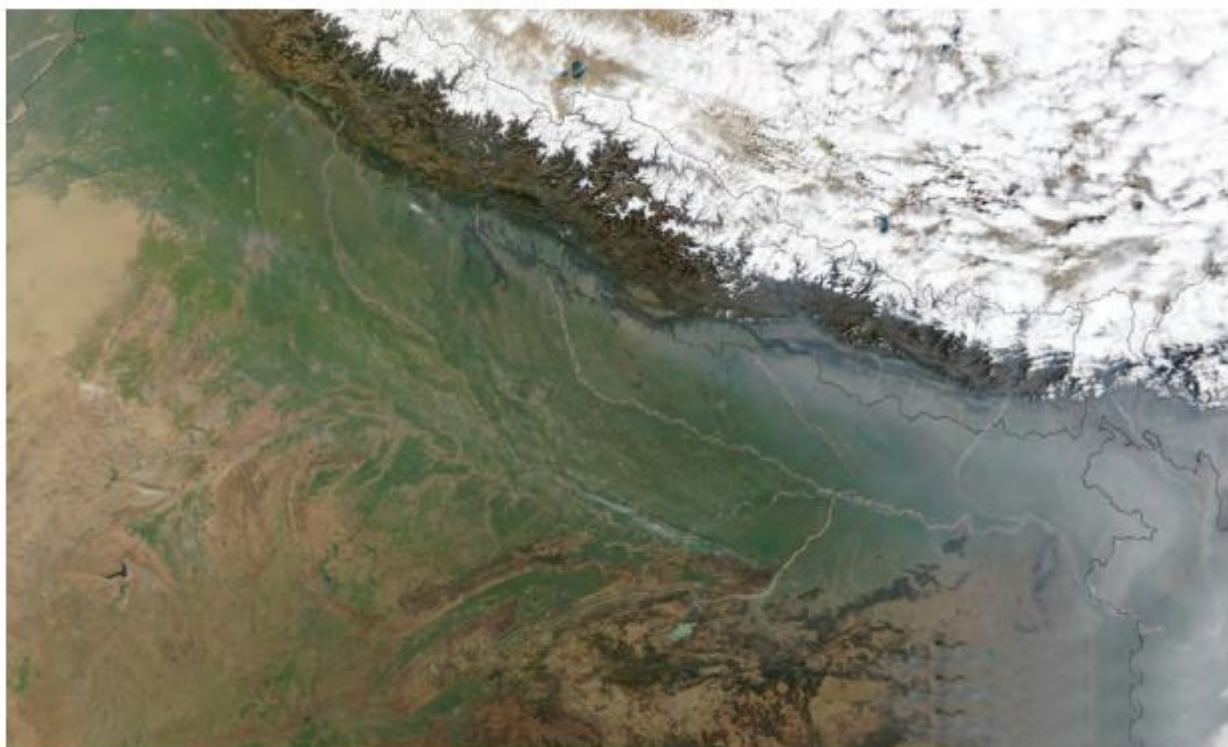


Fig. 3.9. A satellite view of the Ganga plain

(i) Which colour is the Ganga plain?

Answer:

Green

(ii).What does the white expanse represent?

Answer:

Snow

(iii) What does the brown expanse at the bottom left of the image represent?

Answer:

Himalayas

Ques 6.

Can you give examples of river sources or confluences from your region that are regarded sacred by any community?

Answer:

Do it yourself

Ques 7.

Visit a nearby river and observe all activities there, whether economic or cultural. Note them down and discuss with your classmates.

Answer:

Do it yourself.

Ques 8.

Name some popular tourist destinations in India and identify the category of landform they are associated with.

Answer:

Some popular tourist destinations in India and the category of landform they are associated with are as follows:

1. Shimla and landform is hilly.
2. Goa and landform is coastal plains.
3. Rajasthan and landform is desert.
4. Ladakh and landform is mountains.

Landforms and Life Ques Answer (Exercise)

Ques 1.

In what type of landform is your town/village/city located? Which features mentioned in this chapter do you see around you?

Answer:

Do it yourself.

Ques 2.

Let us go back to our initial trip from Chhota Nagpur to Prayagraj and Almora. Describe the three landforms you came across on the way.

Answer:

The three landforms that come across on the way are as follows:

The Chhota Nagpur Plateau is a large plateau in eastern India, covering parts of Jharkhand, Odisha, and Chhattisgarh. It is known for its rich mineral resources, including coal, iron ore, and bauxite. The plateau has a rugged terrain with numerous hills and valleys, and it is covered with dense forests and rivers. It is also home to various tribes and has a unique cultural heritage.

As you travel from Chhota Nagpur towards Prayagraj, you enter the Indo-Gangetic Plains. These are expansive flat lands that stretch across northern India. The plains are formed by the deposition of silt by the Ganga and its tributaries, making the soil very fertile. This region is known for its extensive agriculture, supporting the cultivation of crops like wheat, rice, and sugarcane. The plains are also densely populated and have numerous cities and towns.

Continuing the journey from Prayagraj to Almora, you reach the Kumaon Hills in the state of Uttarakhand. The Kumaon region is part of the larger Himalayan mountain range. It is characterized by rolling hills, deep valleys, and lush forests. Almora, situated in the Kumaon Hills, offers panoramic views of the Himalayas and is known for its pleasant climate, rich biodiversity, and cultural heritage. The region is also famous for its terraced farming, traditional handicrafts, and temples.

Ques 3.

List a few famous pilgrimage spots in India along with the landforms in which they are found.

Answer:

A few famous pilgrimage spots in India along with the landforms in which they are found are:

Varanasi (Uttar Pradesh): It is a river plain and it is located on the banks of the Ganga River, Varanasi is one of the oldest and most sacred cities in Hinduism. It is known for its ghats, temples, and spiritual significance.

Amarnath (Jammu and Kashmir): It have a mountainous landform. Amarnath is famous for the Amarnath Cave Temple, dedicated to Lord Shiva. It is located in the Himalayas and attracts thousands of pilgrims during the annual Amarnath Yatra.

Tirupati (Andhra Pradesh): It is located in the hills. Tirupati is home to the famous Venkateswara Temple, situated in the Tirumala Hills. It is one of the most visited pilgrimage sites in India.

Ques 4.

State whether true or false –

i) The Himalayas are young mountains with rounded tops.

Answer:

False

ii) Plateaus usually rise sharply at least on one side.

Answer:

True

iii) Mountains and hills belong to the same type landform.

Answer:

True

iv) Mountains, plateaus and rivers in India have the same types of flora and fauna.

Answer:

True

v) Ganga is a tributary to the Yamuna.

Answer:

False

vi) Deserts have unique flora and fauna.

Answer:

True

vii) Melting snow feeds rivers.

Answer:

True

viii) Sediments from rivers deposited in the plains makes the land fertile.

Answer:

True

ix) All deserts are hot.

Answer:

False

Ques 5.

Match the following

Column A	Column B
1. Mount Everest	(a) Africa
2. rafting	(b) roof of the world
3. camels	(c) rice fields
4. plateau	(d) desert
5. Gangetic plains	(e) river
6. waterway	(f) Ganga
7. Mount Kilimanjaro	(g) tributary
8. Yamuna	(h) climbing

Answer :

Column A	Column B
1. Mount Everest	(b) roof of the world
2. rafting	(e) river
3. camels	(d) desert
4. plateau	(a) Africa
5. Gangetic plains	(c) rice fields
6. waterway	(f) Ganga
7. Mount Kilimanjaro	(h) climbing
8. Yamuna	(g) tributary