

Chapter - 2 Physical Features of India

Other Chapters



Introduction

India is a vast country with varied landforms which has all physical features of earth i.e. mountains , plains , deserts , plateaus and island .we find different types of rocks and soils (made out of different type of rocks).

How these physical features are formed?

1. processes such as weathering, erosion and deposition have created and modified the present landform.
2. Explanation of the formation of physical features is given by the "THEORY OF PLATE TECTONICS" - According to this theory, the crust (upper part) of the earth has been formed out of seven major and some minor plates. The movement of the plates results in the building up of stresses within the plates and the continental rocks above, leading to **folding, faulting and volcanic activity.**
3. Three types of plate movements: -
 1. Convergent boundary " move towards each other
 2. Divergent boundary " move away from each other
 3. Transform boundary - move horizontally past each other
4. These processes takes millions of years.

Oldest landform

Gondwana land includes India, Australia, south Africa, south America and Antarctica as one single landmass. the conventional currents split the crust into many pieces. Thus, leading to the drifting of Indo-Australian plate after being separated from the Gondwana land, towards north. The northward drift resulted in the collision of the plate with the much larger Eurasian plate which resulted in uplift of the Himalayan.

The major physical divisions

1. The Himalayan Mountains
2. The Northern Plains
3. The Peninsular Plateau
4. The Indian Desert
5. The Coastal Plains
6. The Islands

The Himalayan mountains

1. Stretch over the northern borders of India.
2. Mountain ranges run in a west-east direction from the Indus to the Brahmaputra.
3. Covers a distance of about 2,400 Km and Their width varies from 400 Km in Kashmir to 150 Km in Arunachal Pradesh.

4. Himadri - most continuous range with an average height of 6,000 meters. The core of this part of Himalayas is composed of granite. the south of the Himadri is known as Himachal or lesser Himalaya. The altitude varies between 3,700 and 4,500 meters and the average width is of 50 Km.
5. Pir panjal and dhaula dhar ranges are also important.
6. Shiwaliks- extend over a width of 10-50 Km and have an altitude varying between 900 and 1100 meters.
7. The part of Himalayas lying between Indus and Satluj has been traditionally known as Punjab Himalaya, but it is also known regionally as Kashmir and Himachal Himalaya from west to east respectively. The part of the Himalayas lying between Satluj and Kali rivers is known as Kumaon Himalayas. The Kali and Tista rivers demarcate the Nepal Himalayas and the part lying between Tista and Dihang rivers is known as Assam Himalayas.
8. The Purvachal comprises the Patkai hills, the Naga hills. Manipur hills and the Mizo hill.

The coastal plains

1. Runs along the Arabian Sea on the west and the Bay of Bengal on the east. The western coast, sandwiched between the Western Ghats and the Arabian Sea, is a narrow plain. It consists of three sections. The northern part of the coast is called the Konkan (Mumbai to Goa), the central stretch is called the Kannad Plain while the southern stretch is referred to as the Malabar coast.
2. Northern part is referred as the Northern Circar, while the southern part is known as the Coromandel Coast.
3. Large rivers such as the Mahanadi, the Godavari, the Krishna and the Kaveri have formed extensive delta on this coast. Lake Chilika is an important feature along the eastern coast.

The Islands

1. Lakshadweep Islands group lying close to the Malabar coast of Kerala. This group of islands is composed of small coral islands. Earlier they were known as Laccadive.
2. It covers small area of 32 sq km. Pavarotti island is the administrative headquarters of Lakshadweep.
3. The entire group of islands is divided into two broad categories to The Andaman in the north and the Nicobar in the south.

Important points to be noted

1. Gondwana land: It is the southern part of the ancient super continent Pangea with Angara Land.
2. Glaciers in the Great Himalayas to Gangotri, Chaturangi, Bhagirathi, Kharak, Satopanth, Kamet, Milam and Pindari. Passes in the Great Himalayas to Karakoram Pass, Shipkila pass, Nathula, Bomdila pass.
3. States where highest peaks are located--

Mountain peaks -State

Kanchenjunga- Sikkim,

Nanga Parbat- Jammu and Kashmir,

Nanda Devi- Uttarakhand

Kamet- Uttarakhand,

Namche Barwa- Assam

3. Central highland-the north of the Narmada river covering a major area of the Malwa plateau and westward extension gradually merges with the sandy and rocky desert of Rajasthan. The rivers draining this region, namely the Chambal, the Sind, the Betwa and Ken is from southwest to northeast. Deccan Plateau- a triangular landmass that lies to the south of the river Narmada. The Satpura range flanks its broad base in the north while the Mahadev, the Kaimur hills and the Maikal range form its eastern extensions. Three Prominent hill ranges from the west to east are the Garo, the Khasi and the Jaintia Hills.
4. The **Western Ghats** and the **Eastern Ghats** mark the western and the eastern edges of the Deccan Plateau respectively.
Western ghats -They are continuous and can be crossed through passes only. they are higher than the eastern ghats. average elevation is 900â€”1600 meters as against 600 meters of the Eastern Ghats. The highest peaks include the Anai Mudi (2,695metres).
Eastern Ghats- stretch from the Mahanadi Valley to the Nigiris in the south. The Eastern Ghats are discontinuous and irregular and dissected by rivers draining into the Bay of Bengal. Mahendragiri (1,501 meters) is the highest peak.
5. The peninsular plateau is the black soil area known as Deccan Trap. This is of volcanic origin hence the rocks are igneous.

The Indian Desert

1. lies towards the western margins of the Aravali Hills. It is an undulating sandy plain covered with sand dunes. This region receives very low rainfall below 150 mm per year. It has arid climate with low vegetation cover.
2. Luni is the only large river in this region.

The northern plains

1. Formed by the interplay of the three major river systems, namely“ the Indus, the Ganga and the Brahmaputra along with their tributaries. This plain is formed of alluvial soil.
2. It spreads over an area of 7 lakh sq. km. The plain being about 2400 Km long and 240 to 320 Km broad, is a densely populated physiographic division. With a rich soil cover combined with adequate water supply and favorable climate(agriculture).
3. The Western part of the Northern Plain is referred to as the Punjab Plains. Formed by the Indus and its tributaries .The Indus and its tributaries“the Jhelum, the Chenab, the Ravi, the Beas and the Satluj originate in the Himalaya.
4. These vast plains also have diverse relief features. the Northern plains can be divided into four regions (*bhabar, terai, bhangar, kankar*).
5. **Bhabar**-8 to 16km in width lying parallel to the slopes of the Shiwaliks.
Terai- was a thickly forested region full of wildlife. The forests later cleared to create agricultural land.
Bhangar - formed of older alluvium, lie above the flood plains of the rivers and present a terrace like feature.
Kankar-The soil in this region contains calcareous deposits.

The Peninsular Plateau

1. A tableland composed of the old crystalline, igneous and metamorphic rocks.
2. Formed due to the breaking and drifting of the Gondwana land and consist of two broad divisions -Central Highlands and the Deccan Plateau.