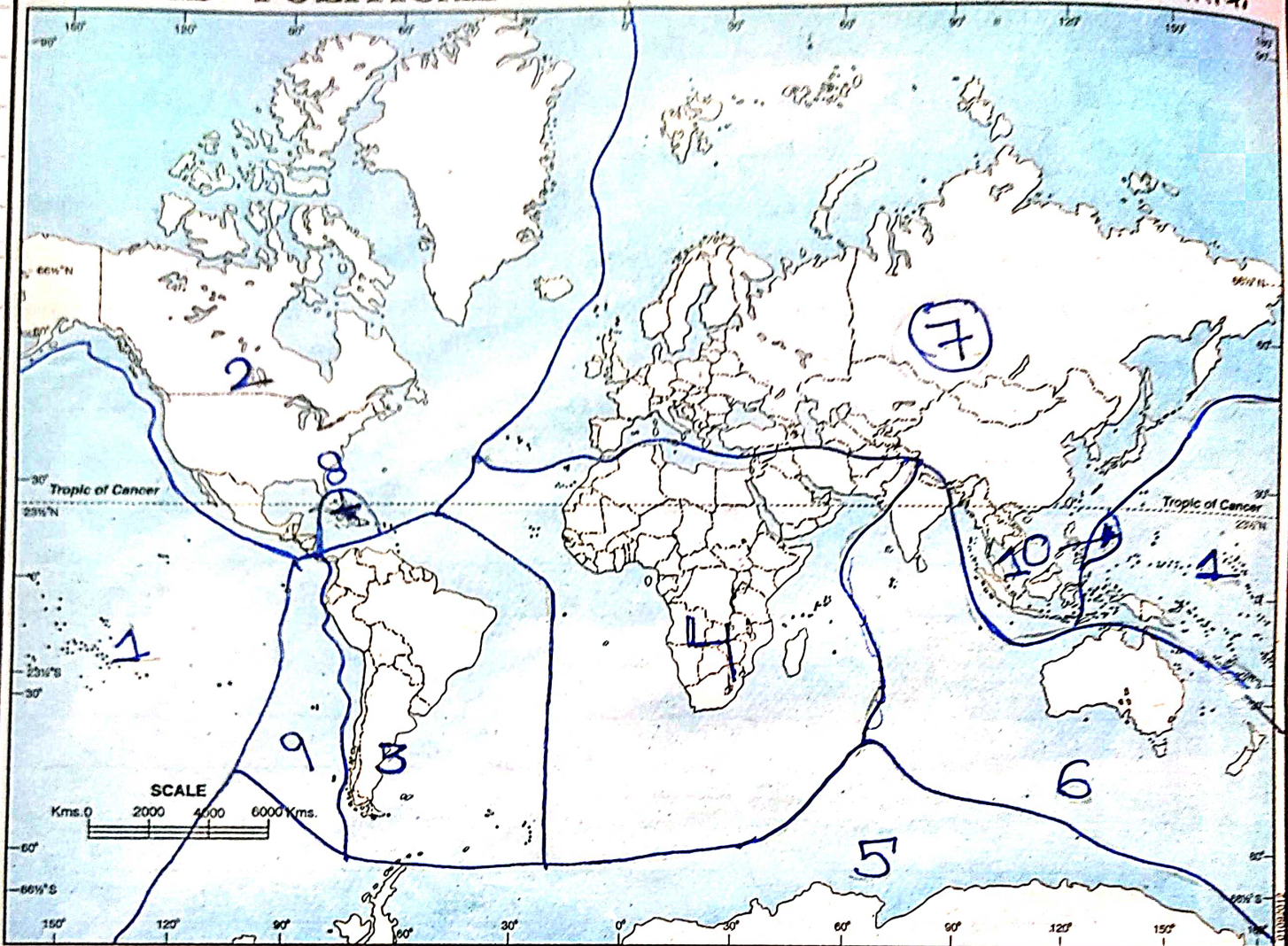


WORLD - POLITICAL

संसार-राजनैतिक



1. Based upon Survey of India map with the permission of the Surveyor General of India. © Government of India Copyright, 2012

2. The territorial waters of India extend into the sea to a distance of twelve nautical miles measured from the appropriate baseline.

3. The External Boundary and coast-line of India shown on this map agree with the Record / Master Copy certified by the Survey of India, Dehra Dun.

Vide Letter No. T.B. 409/62-A-3/213 Dated 13/3/2003.

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- 1. Pacific Plate
 - 2. North American Plate
 - 3. South American Plate
 - 4. African Plate
 - 5. Antarctica Plate
 - 6. Indian Australian Plate
 - 7. Eurasian Plate
 - 8. Caribbean Plate
 - 9. Nazca Plate
 - 10. Philippines Plate
- } Small Plates

Introduction: India is a vast country with varied landforms which has all major physical features of the earth i.e. mountains, plains, deserts, plateaus and Islands.

How these Physical Features Formed?

• There are some theories behind the formation of physical features. One such theory is the "Theory of plate tectonics".

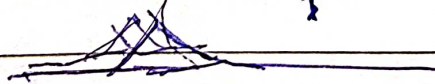
⇒ "Theory of plate tectonics"

• This theory explained that upper part of earth, called crust divided into seven major and some minor plates called tectonic plates.

• The movement of these plates builds up stresses within the plates and also the continental rocks above which result in folding, faulting and volcanic activity.

• The movement can be classified into three types broadly:

→ convergent boundary: When some plates come towards each other, form convergent boundary. It may lead to either collide and crumble or one may slide under the other.

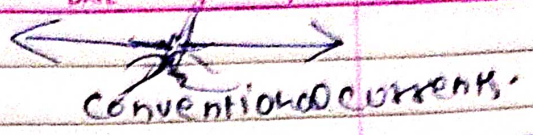


Formation of mountains

Folding

→ Divergent boundary: When some plates move away from each other, it,

Form divergent boundary.
Faulting · Rift valley.



→ Transform Boundary: When some plates move horizontally past each other and form transform boundary. earthquake, volcano.

- The movements of the plates along with the processes such as weathering, erosion and deposition have changed the position and size of the continents over millions of years and also responsible for the evolution of the present Landform features of India.
- The oldest landmass i.e. peninsula part of India was a part of the Gondwana land.

⇒ Gondwana land :-

There was a time when India, Australia, South Africa, South America and Antarctica, were single land mass known as Gondwana land. It was the southern part of super continent pangea. Northern part was known as Angara land.

The below - detailed picture of Gondwana land, will make you more clear.





⇒ Formation of Himalayas

- The earth crust was divided into a number of pieces by convectional currents.
→ The Indo-Australian plate separated from the Gondwana land drifted toward north which resulted in the collision of the plate ~~with~~ with the much larger Eurasian plate.
→ Due to this collision, the sedimentary rocks, which were accumulated in the geosyncline, known as the Tethys were folded which, resulted in formation of mountain system of western Asia and Himalaya.

⇒ Formation of Northern plain

- The uplift of Himalaya from Tethys sea and setting of the northern flank of the peninsular plateau created a large basin.
→ In due time gradually the basin got filled, with deposition of sediment by the rivers flowing from the mountains in the north and the peninsular plateau in the south which, created a flat land of extensive alluvial deposits known as northern plains of India.
- Geologically, the peninsular plateau are most stable land blocks as it was one of the ancient landmasses on the earth's surface.
→ The Himalayas and the northern plains are, the most recent landforms.

→ The Himalyan mountain form an unstable zone as it has very youthful topography with high peaks, deep valleys and fast flowing rivers.



⇒ Major Physiographic division of India:

The Himalyan Mountains:

- It is geologically young and structurally folded mountains which run along the northern border in India.

→ The ranges run from west (from Indus) to east direction (to the Brahmaputra) covering a distance of about 2400km representing loftiest peak in the world.

- Width varies from 400km in Kashmir to 150km in Arunachal Pradesh. Altitude (Height) variations is greater in the eastern half than those in the western half.

- Longitudinal divisions of Himalyas:

→ The Great or inner Himalyas or the "Himadri".

→ The lesser Himalya or "Himachal".

→ The Shiwaliks.

- The Great or inner Himalyas or the "Himadri".

→ It is the northernmost range and most continuous range consisting of the loftiest peaks with an average height of 6000 metres.

→ It contains all the famous peaks. The folds are asymmetrical in nature.

- The basic part of this Himalayas is composed of granite.
- It is perennially snow bound, and a number of glaciers descend from this range.

- The lesser Himalaya or 'Himachal'.
 - It lies south of Himachal. Forms the most rugged mountain system.
 - It is mainly composed of highly compressed and altered rocks.
 - The height varies between 3700 and 4500 metres and the average width is 50 km.

→ Longest and most important ranges are, Pirpanjal range and Dhauladhar and the Mahabharat ranges.

→ Famous valleys of this range are the Kashmir, the Kangra and Kullu valley in Himachal Pradesh. Also this range is famous for hill stations.

• The Shiwaliks:

- This is the outermost range of the Himalayas.
- They extend over a width of 10-50 km and have a varying between 900 and 1100 meter.
- It is composed of unconsolidated sediments, brought down by rivers from the main Himalayan ranges.
- These valleys are covered with thick gravel and alluvium.

The Northern Plains:

- The northern plain has been formed by the interplay of three major river systems, namely - The Indus, The Ganga, The Brahmaputra, along with its tributaries.
- It is formed of alluvial soil. The vast basin, lying at the foothills of the Himalaya is deposited with alluvium (fine particles of silt, and clay and larger particles of sand and gravel) over a million of years and formed this plain.
- Area of Northern Plain: 7 lakh Sq. km.
Length of Northern plain 2400 km.
Breadth of Northern plain: 240 to 320 km.
- It is densely populated region. It is agriculturally very productive region of India due to, rich soil cover combined with adequate, water supply and favourable climate.
- The river coming from northern mountain, brought a huge amount of eroded soil which help in the depositional work.
→ In the lower course, due to gentle slope, the velocity of the river decreases which, result in the formation of riverine islands, (An island formed by the river).
- Also in lower course river split into numerous channels due to deposition of silt known as, Distributaries.

The Northern plain is broadly divided into three parts:

→ The Punjab Plains: The western part of the Northern plain, formed by the Indus and its tributaries, the larger part of this plain lies in Pakistan.

→ The Ganga Plains: It extends between Ghaggar and Tista rivers, spread over the states of north India, Haryana, Delhi, U.P, Bihar, part of Jharkhand and West Bengal.

→ The Brahmaputra Plains: Lies in the east of Ganga plain, particularly in Assam.

• Northern plain is not flat land. The vast plains also have diverse relief features.

• Northern plains can be divided into four regions (according to the variation in relief features).

→ Bhabar: lying at the foot of Shivalik, a narrow 8 to 16 km wide belt of pebbles.

→ Terai: lying next to Bhabar, a wet and marshy area with wildlife and forest.

→ Bhangar: older alluvium plains which rises above the level of the flood plains.

→ Khadar: Younger alluvium of the Flood plain

→ Peninsular Plateau

- The peninsular plateau is a tableland composed of the old crystalline, igneous and metamorphic rocks.
- It was formed due to the breaking and drifting of the Gondwana land.
- The plateau consists of two broad divisions.
 - The Central Highlands.
 - The Deccan Plateau.
- The Central Highlands: It lies to the north of the Narmada river covering a major area of Malwa Plateau.
 - The Vindhyan range is bounded by the Central Highlands on the south and Aravalis on the northwest.
 - The further westward extension gradually merges with the sandy and rock desert of Rajasthan.
 - Rivers in this area: The Chambal, the Sind, the Betwa and Ken.
 - The Central Highlands are wider in the west but narrow in the east.
 - The eastward extensions of this plateau are locally known as the Bundelkhand and Baghelkhand → The Chotanagpur Plateau marks the further eastward extension drained by Damodar river.

• The Deccan Plateau: It is a triangular landmass that lies to the south of the river Narmada.

→ The Satpura range bound its broad base in the north while the Mahadev, the Kaimor hills and the Maikal range form its eastern extension.

→ It is higher in the west and slopes gently eastwards.

• An extension of Deccan Plateau is also visible in the northeast - locally known as the Meghalaya, Karbi-Anglong Plateau and North Cochar Hills.

→ It is separated by a fault from the Chotanagpur Plateau.

→ Three prominent hill ranges from the west to east are the Garo, the Khasi and the Jaintia Hills.

• A distinct feature of the peninsular plateau is the black soil area known as Deccan Trap.

• The Western Ghats and the Eastern Ghats mark the western and the eastern edge of the Deccan Plateau respectively.

⇒ The Indian Desert:

- The Indian desert lies towards the western margins of the Aravali Hills.
- It is a land of undulating topography covered with sand dunes.
 - This region receives very low rainfall below 150 mm per day. year.
 - It has arid climate with low vegetation cover.
- Luni is the only large river in this region.
- Barchans (crescent shaped dunes) cover larger areas but longitudinal dunes become more prominent near the Indo-Pakistan boundary.

⇒ The Coastal Plains:

- The narrow coastal strips flank the peninsular plateau, running along the Arabian Sea on the west and the Bay of Bengal on the east.
- It consist of three sections: (M-6)
 - Northern part of the coast is called the Konkan.
 - central stretch is called the Kannad plains.
 - Southern stretch is called the Malabar coast.
- The plain along the Bay of Bengal (east part) are wide and level.
 - The northern part is known as the Northern Circar, while the southern part is known as Coromandel coast.

- Large rivers such as Mahanadi, the Godavari, the Krishna and the Kaveri have formed, extensive delta on eastern coast.
- Lake Chilika is an important feature, along the eastern coast.

⇒ The Islands

- The Lakshadweep Islands group in the Arabian sea is close to Kerala:
 - This group of Islands is composed of small coral Islands.
 - The Lakshadweep Islands were earlier, known as Laccadive, Minicoy and Amindive.
 - It covers small area of 32 sq km.
 - Kavaratti Island is the administrative headquarters of Lakshadweep.
 - The Pithi Island which is uninhabited has a bird sanctuary.
- The Andaman and Nicobar Islands are an elongated chain of Island located in the Bay of Bengal:
 - They are bigger in size and are more numerous and scattered.
 - The entire group of islands is divided into two broad categories - The Andaman in the North and Nicobar in the South.
 - These Islands are an elevated portion of submarine mountains.

How these diverse physical features useful for India :

- The mountains are the major source of water and forest wealth.
- The northern plains are the granaries of the country.
- The plateau is a storehouse of minerals, which has played a crucial role in the industrialisation of the country.
- The coastal region and island groups provide sites for fishing and port activities.

Mo hit tanjia * * * *

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