

# REGIONAL GEOGRAPHY OF INDIA

## NATURAL/PHYSICAL REGIONS

India Introduction:

India is the world's seventh largest country in size. It is approximately one-third the size of the United States of America. India is located on the world's largest continent that is Asia. India is often called a sub continent, meaning that it is part of Asia, yet it is a large land mass with differences in physical features, climatic conditions, natural vegetation, human habitations, religions, languages, economic, and social activities which are characteristics of continents.

It is quite natural that such a large region of South Asia has a great variety of differences in geological structure. The physiographic diversity of this region embraces lofty young fold mountains, flat plains and one of the oldest plateaus. It is, however, possible to divide the region into 5 physiographic regions. Hence, in this episode the following aspects are going to be seen:

1. The Himalayan Mountains.
2. The Great Plain of North India.
3. The Peninsular plateau.
4. The Coastal plains.
5. The Islands.

The **Himalayas** are the **Mountains**: highest mountains in the world. Himalayas

means the "abode of snow."

: about 120 million years ago, the arrangement of continents and oceans was quite different. There used to be a shallow area, known as the Tethys Sea, lying between the Angara land in the north and Gondwanaland in the south. Sediments were brought by rivers from these land masses and deposited at the bed of this sea. These sediments were subjected to powerful compression, either because of the southward movement of the Angara land or due to the northward movement of Gondwanaland.

It is believed that it is the northward movement of the Gondwanaland which caused compression in the sediments at the floor of the Tethys Sea. As a result, of this compression the sediments in the Tethys Sea was squeezed and crushed and a series of folds were formed one behind the other giving birth to the highest relief features of the earth that is Himalayas.

**Division of Himalayas:**

The Himalayas consist of a series of parallel mountain ranges stretching in a North West to South East direction. It has been recognized as a natural guard on the north of the continent. The total length of the Himalayas is about 2415 km. the Himalayas are the highest mountain range in the world.

The northern mountain wall of the Himalayas along the northern frontier of the Indian subcontinent can be dividing into three divisions they are

- a. The North West range.
- b. The Northern Himalayan Range or the Northern Arc and
- c. The North East Himalayan Ranges or Purvanchal.

**The North West Range:** The North West Range is a series of mountain ranges radiate from the Pamir Knot known as the 'Roof of the World'. Hindukush towards south westward, Kunlun towards the east and Karakoram towards the south-east with Ladakh and Zaskar as parallel ranges form the Great Northern Wall, shielding the great subcontinent from the bitter cold winds from North Asia.

The north western ranges are almost dry, devoid of any vegetation. They have three prominent passes associated with three small rivers that are the Kabul, the Gomal and the Bolan.

**The Northern Himalayan Range or the Northern Arc:** The Great Northern Himalayan Range runs in the form of a convex arc from Kashmir in the west to Assam in the east.

Karakoram with its **parallel ranges** of Ladakh and Zaskar runs towards the east and south-east from Pamir Knot. It is a very high range and has the distinction of having the highest peaks of the world. The Karakoram Pass is the gateway to China and Central Asia. Karakoram extends further east as Kailash Range in south-west Tibet.

The great Himalayan range extends from west to east over 2,400km, separating the Indian subcontinent in the north from central Asia. It comprises three districts, parallel ranges that is

1. Himadri is overlooking the Tibetan plateau, it is also called the great or inner Himalayas.
2. Middle or lesser Himalayas, also called Himachal at an elevation of about 300m.
3. Shiwaliks or outer Himalayas, whose height varies between 1000 to 1500m above

Himadri is the highest mountain ranges occupy this part, the highest of all being Mt. Everest at 8,848m, locally known as Sagarmatta. Sir Edmund Hillary of New Zealand and Tenzing Norgay of India were the first to reach the top of Mt. Everest in 1953.

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The Ganga and its tributaries, Sharada, Ganga, Kosi and Gandak rivers flow through these regions.

Siachen Himalayas range the largest snow glacier covered throughout and a number of glaciers descend from it. located **The North** the Manipur **East Purvanchal** **South Himalayan** mountains. **Ranges or** **These Purvanchal** hills running through Indian's

Arunachal Pradesh, Assam, Nagaland, Mizoram, Tripura and eastern Assam are series of hills mostly

composed of igneous and sedimentary rocks and are highly dissected and slightly best like a few with

They mostly run parallel ranges, valleys and are covered with dense forests. They consist of Patkoi Bum and Naga hills in the north, and are made up of strong sandstones. They have a synclinal structure covered with dense forests and form the boundary between Arunachal Pradesh and Myanmar. Towards west are Kohima Hills, composed of sandstone and slate with a very rugged topography.

The Mizo Hills, known as Lushai Hills, form the north-south parallel ranges and valley with steeper slopes towards west. Garo, Khasi, Jaintia and Naga Hills lie in the center. These mountain ranges are neither as tall nor as spectacular as the mighty Himalayas.

**To 2. The South Great Plain of the Himalayas of North India:** and to the north of the peninsula lies the great plain of North India. It is an aggradational plain formed by the depositional work of three major river system that is the Indus, Ganga and the Brahmaputra. The plain is also known as Indo-Gangetic Brahmaputra plain. They run parallel to the Himalayas, from Jammu and Kashmir in the west to Assam in the east, and drain most of northern and eastern India. The plains encompass an area of 2,70,000 sq mi. The major rivers in this region are the Ganges, Indus, and Brahmaputra along with their main tributaries—Yamuna, Chambal, Gomti, Ghaghara, Kosi, Sutlej, Ravi, Beas, Chenab, and Tista—as well as the rivers of the Ganges Delta, such as the Meghna.

The Indo-Gangetic belt is the world's most extensive expanse of uninterrupted alluvium formed by the deposition of silt by the numerous rivers. The plains are flat making it conducive for irrigation through canals. The area is also rich in ground water sources.

The plains are one of the world's most intensely farmed areas. The main crops grown are rice and wheat, which are grown in rotation. Other important crops grown in the region include maize, sugarcane and cotton. The Indo-Gangetic plains rank among the world's most densely populated areas.

According to Regions, the great plain of North India is divided into 4 major parts, are

The Rajasthan Plain.

1. The Punjab-Haryana Plain.
2. The Ganga Plain and
3. The Brahmaputra Plain.
- 4.

extensively is sandy desert in the northwestern India and eastern Pakistan. This plain is also called the Great Indian Desert locally called Marusthali. The Thar Desert **Rajasthan** is another **Pl** name. It is bounded on the northwest by the Sutlej River, on the east by the Aravalli range, on the south by the Rann of Kachch, which is a salty marsh, and by the Indus valley on the west. Rajasthan state in India has the largest part of this desert.

The eastern part of the desert up to the Aravali range is a semi-arid plain known as the Bagar. It runs in a north-east to south-west direction from the edge of the Aravali in the east to the 25 cm isohyets in the west. It is drained by a number of short seasonal streams originating from the Aravali and supports agriculture in some patches of fertile tracts called Rohi. Even the important river Luni is a seasonal stream which flows towards the south-west to the Rann of Kachch. The tract north of the Luni is known as thali or sandy plain.

The Great Indian Desert imperceptibly gives way to the fertile plains **The Punjab of the Punjab Haryana and Plain:** Haryana towards the east and north-east. The entire plain extends for a length of 640 km in north-west to south-east direction and is about 300 km wide in east-west direction. The total area of this plain is above 1.75 lakh sq km. its eastern boundary in Haryana is formed by the Yamuna river. The average elevation of the plain is about 250m above mean sea level.

The part of the plain, formed as a result of alluvial deposits by five rivers are the Sutlej, the Beas, the Ravi, the Chenab and the Jhelum, is known as the Punjab plain, the land of five rivers. It is primarily made up of 'doabs' that means the land between 2 rivers.

This is the largest unit of the great plain of India stretching from Delhi to Kolkata **The Gngain the Plain:** states of Uttar Pradesh, Bihar and West Bengal covering an area of about 3.75 lakh Sq Km. This plain has been named after the river Ganga. The Ganga along with its large number of tributaries originating in the Himalayan ranges is the Yamuna, the Gomati, the Ghaghara, the Gandak, the Kosi, etc. have brought large quantities of alluvium from the mountains and deposited here to build this extensive plain. The peninsular rivers such as Chambal, Betwa, Ken, Son, etc. joining the Ganga river system have also contributed to the formation of this plain. The general slope of the entire plain is to the east and south-east. Depending upon its geographical variations, this plain can be further sub divided in to 3 divisions:

The upper Ganga plain

1. The middle Ganga plain and
2. The lower Ganga plain

**Brahmaputr Plain:** This is also known as the Brahmaputra valley or Assam Valley or Assam Plain as most of the Brahmaputra Valley is situated in Assam. The entire plain covers an area of about 56,000 sq km. it is an aggradational plain built up by the depositional work of the Brahmaputra and its tributaries.

There are large marshy tracks in this area. The alluvial fans formed by the coarse alluvial debris have led to the formation of tarai or semi tarai conditions.

### **3. The Peninsular plateau.**

The peninsular plateau of India is triangular in shape with its base coinciding with the southern edge of the Great plain of north India and its apex is formed by the Kanya kumari in the southern extremity. The northern boundary of the peninsular block in an irregular line running from Kuchch along the western bank of the Aravali Range to near Delhi, and roughly parallel to the Yamuna and the Ganga delta. It is surrounded by the hill ranges on all the three sides to its north are the Aravali range, the Vindhya, the Satpura, the Barmer and the Rajmahal Hills. To the South of about 22° N latitude, the Western Ghats and the Eastern Ghats form its western and eastern boundaries respectively. The entire plateau measures about 1600 km in north-south and 1400 km in east-west direction. It covers a total area of about half of the total land area of the country. It is thus, the largest physiographic unit of India.

limestone of **Vindhayan** period.

Chambal and its tributaries.

Also called the Madhya Bharat Pathar lying in the east of Marwara **2. The Central upland and Highland:** drained by

**Bundelkhand** Vindhyan scarap **Upland:** land consists of granites and gneiss. To south of Yamuna river between Madhya Bharat Pathar and **3. The**

Bonded by Aravali range in the west and Bundelkhand in east and **Vindhayas** in south. It is an extensive lava plateau in M.P. with black soil drained by a

**4. number Malw of Plateau:** flowing rivers like Betwa, Parbati, Kali Sindh, Chambal and Mahi.

East of Makal range and bounded by Son River on the north.

**5. Baghelkhand:** It covers mostly Jharkhand adjoining eastern Madhya Pradesh and Purulia of West Bengal. This Plateau is composed mainly of Gondwana rocks with patches **6. Chotanagpur Plateau:**

of granites and gneisses and Deccan lavas.

This Plateau has been separated from main block of the peninsular plateau **7. Meghalay by a gap Plateau:** called Ganu-Raj Mahal gap. From east to west the plateau comprises Gana, Khasi and Jaintia hills and Mikir hills. Shilong is the highest point of the plateau.

This is the largest unit covering an area of 5 lakh sq.km. It comprises **8. The Deccan Maharashtra Plateau:** Plateau, Karnataka plateau and the Telengana plateau that is Andhra Pradesh. The general slope is from west to east. Indicated by flow of major rivers like Mahanadi, Godwari, Krishna and Cauveri.

It is the only plain worth the name in the vast stretch of plateau drained **9. The Chhattisgarh by upper course Plain:** of Mahanadi.

**Hill ranges of the peninsula:**

Some of the important hill ranges are:

Aravallis are the world's oldest fold mountain running in north east to southwest **1. Aravali** direction **Range:** from Delhi to Palampur in Gujarat.

It raises as an escarpment flanking the northern edge of the Narmada, **2. Vindhyan**-trough. **The Range:** Vindhyas are continued eastward as the Bharner and Kaimur hills. This range acts as a water divide between Ganga system and river system of South India. The Makal range forms a connecting link between Vindhyan and Satpuras.

It is a series of seven mountains running in east-west direction south of vindhyas **3. Satpur** and **Range:** in between the Narmada and Tapi. Dhupgarh near Panchmarhi on Mahadeo hills is highest peak of Satpuras.

**4. Western Ghats is also called as Sahyadris:** The western Ghat run in north-south

the direction peninsula. from Tapi All the valley important north rivers of Kanyakumaris rise from. these Sahyadris hills form and the flow is eastward. water divide in this of

Thalghat, portion Kalsubai Bhorphatis and the Palghat highest peak. There are 3 important passes in the Sahyadris: are

It is a chain of highly broken and detached hills starting from Mahanadi in Orissa **5. Eastern** to Vaigai **Ghat:** in Tamil Nadu. These are part of the very old fold mountains. Mahendragiri is the tallest peak of eastern Ghat.

The **4. The narrow coastal plains:** strip between the edges of the peninsular plateau and the coastline of India ~~running for a distance~~ of about 6000 km from the Rann of Kachchh in the west to the Ganga-Brahmaputra delta in the east is called the coastal plains. The area between the Western Ghats and the Arabian Sea coast is known as the west coastal plain and that between the Eastern Ghats and the coast of the Bay of Bengal is called the East Coastal plains. The two coastal plains meet each other at the southernmost tip that is Kanyakumari.

is a wide stretch of land lying between the Eastern Ghats and the Bay of Bengal (the coastal plains) from [Kanyakumari](#) in the south to [Allahabad](#) in the north.

[Mahanadi](#), [Godavari](#), [Kaveri](#), and Krishna rivers drain these plains and their deltas occupy **The** most of the area. The temperature in the coastal regions often exceeds 30 °C, and is coupled with high levels of humidity. The region receives both the northeast monsoon and southwest monsoon rains. The southwest monsoon splits into two branches, the Bay of Bengal branch and the Arabian Sea branch. The Bay of Bengal branch moves northwards crossing northeast India in early June. The Arabian Sea branch moves northwards and discharges much of its rain on the windward side of Western Ghats. Annual rainfall in this region averages between 1,000 and 3,000 mm. The width of the plains varies between 100 and 130 km. The plains are divided into six regions are the Mahanadi delta, the southern

Andhra Pradesh plain, the Krishna -Godavari deltas, the Kanyakumari coast, the Coromandel Coast, and sandy coastal.

**The Western Coastal Plain** is a narrow strip of land sandwiched between the Western Ghats and the Arabian Sea, **ranging** from 50 to 100 km in width. It extends from Gujarat in the north and extends through Maharashtra, Goa, Karnataka, and Kerala. Numerous rivers and backwaters inundate the region. Major rivers flowing into the sea are the Tapi, Narmada, Mandovi and Zuari. The Western Coastal Plain can be divided into two parts, the Konkan and the Malabar Coast.

### 5. The Islands:

and are classified as union territories. The Lakshadweep Islands lie 200 to 300 km of the coast of Kerala in the Arabian Sea with an area of 32 km<sup>2</sup>. They consist of twelve atolls, three reefs, and five submerged banks, with a total of about 36 islands and islets.

**1) Bay of Bengal Islands:** The Andaman & Nicobar group of islands are separated by 10 Degree channel. These islands have been formed by extension of tertiary mountain chain of Arakan Yoma. The Andaman group of island is divided into 3 major groups are North Andaman, Middle Andaman and south Andaman, collectively called Great Andaman's. Little Andaman is separated from Great Andamans by Duncan passage. The Nicobar group of islands of which Great Nicobar is largest and southern most one. Saddle peak situated in Andaman Islands is the highest peak of Andaman & Nicobar group.

The Dhuliar peak is the highest peak of Nicobar group of islands.

**2) Lakshwadeep islands:** The Lakshadweep islands are in the Arabian Sea, west of the Kerala coast. The thirty-six islands were formerly known as the Laccadive, Minicoy and Amindivi islands. The Lakshadweep Islands are the smallest union territory in area and population. When the tiny sea creatures surrounding the Lakshadweep Islands die, their shells, made of calcium carbonate turn into white limestone and form the white sandy beaches.

North India have their source in the high snow-clad Himalayas. The rivers of North India never dry up. The Indus, Ganges, and Brahmaputra River systems are the major rivers of the Indo-Gangetic Plain. The rivers in the north are long and deep. The smooth plains these rivers cross make them good for navigation and irrigation because they do not have waterfalls. The rivers in South India are rain-fed and dry up in the hot and dry season. The peninsular rivers of the south have their source in the Western Ghats and flow across hills making a number of waterfalls, which are not navigable, but provide Hydro-electricity. The Narmada, Tapti, Periyar, Mahanadi, Godavari, Krishna, and Cauvery are other major rivers of India.

India lies entirely on the Indian Plate in the northern portion of the Indo-Australian Plate.

**Conclusion:** India is bounded to the southwest by the Arabian Sea, to the southeast by the Bay of Bengal,

and to the south by the Indian Ocean. [Kanyakumari](#) is the southern tip of the Indian peninsula. The Ganges is the longest river originating in India.