



Structure and Physiography of India

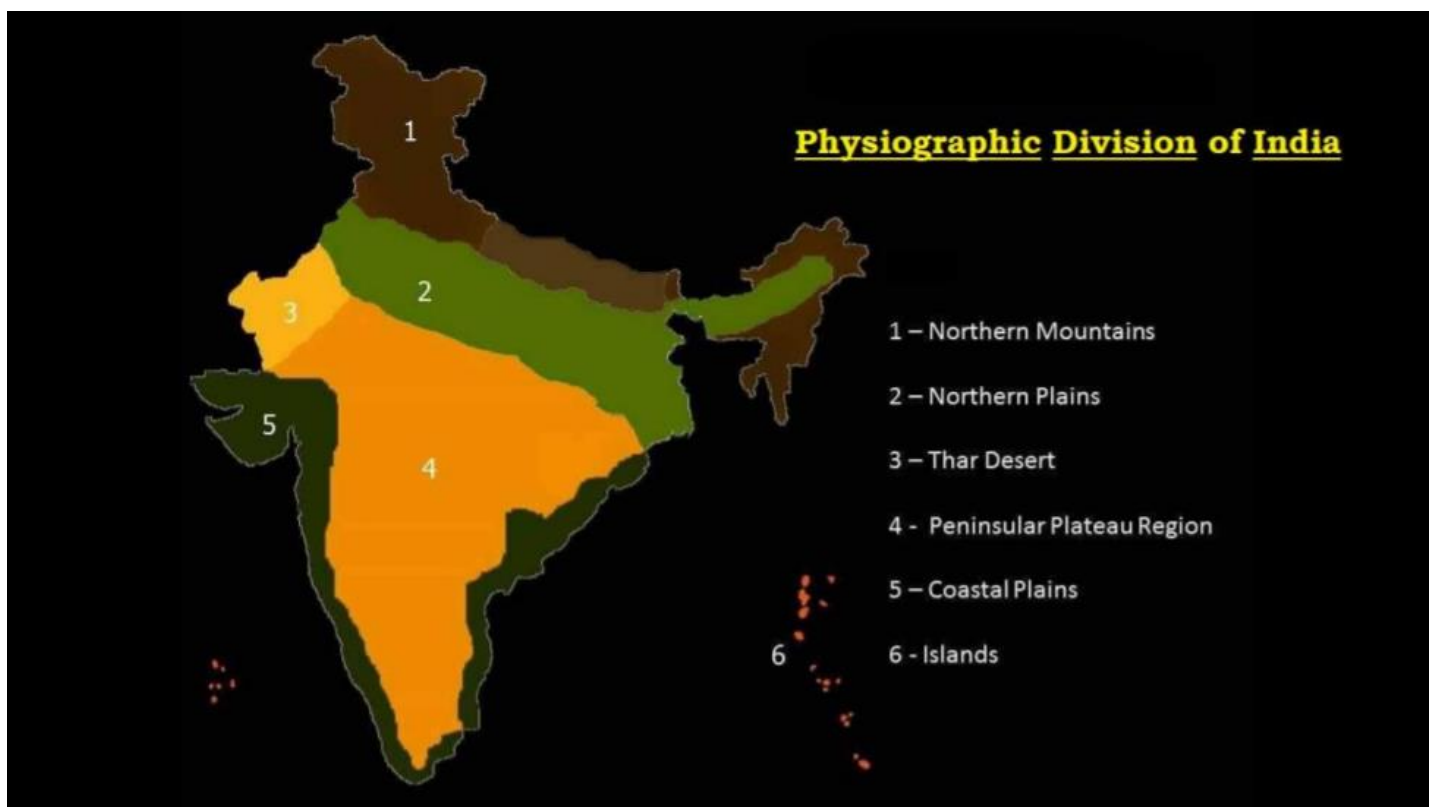


Physiography is the other name for “Physical Geography”. Physiography of an area is an outcome of structure, process and stage of development of that area.

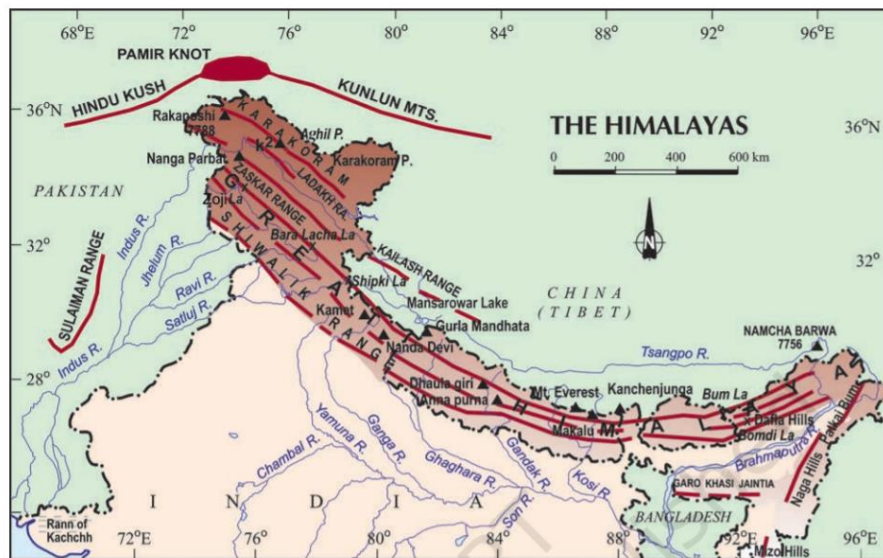
Physiography of India

The land of India shows various macro variations viz; In North, it consists of a series of mountain ranges, peaks, valleys etc. In south it consists of flat land (plateaus), steep pieces of land (Scarps), rocks etc. Based on these micro variations, India is divided into following physiographic divisions –

- Northern and North-Eastern mountains
- Northern Plain
- Peninsular Plateau
- Indian desert
- Coastal Plains
- Islands



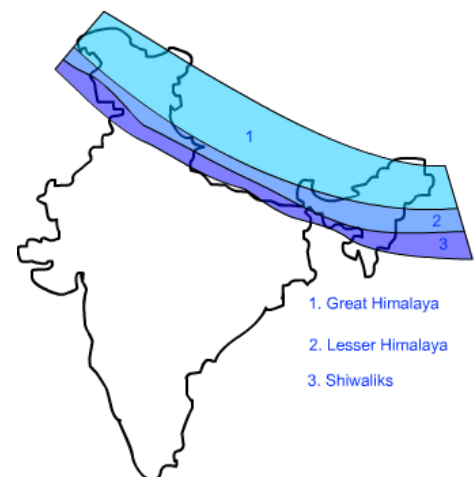
Northern and North-Eastern Mountains



- The North and North-Eastern Mountains consists of Himalayas and North-Eastern Hills.
- It runs in West-East direction from Indus to Brahmaputra

Features

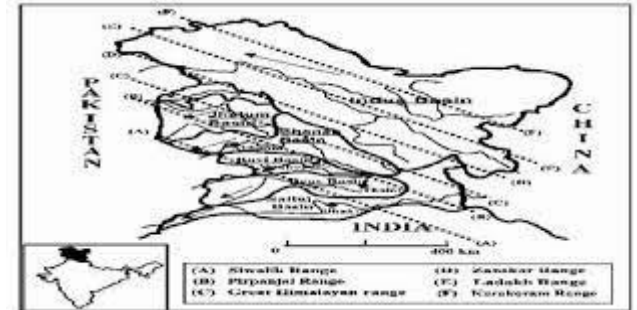
- These are geologically young and structurally fold mountains. (Fold mountains are formed when two or more tectonic plates collide)
- These are one of the highest mountain ranges in the world.
- These are one of the most rugged mountain barriers of the world. These are not only physical barrier but also climatic, drainage and cultural divide.
- The Himalayas consists of three parallel ranges –
 - Great or Inner Himalayas
 - Himachal or Lesser Himalayas
 - Shiwalik or Outer Himalayas
- On the basis of relief and alignment of ranges, the Himalayas can be divided into following sub-divisions –
 - Kashmir or Northwestern Himalayas
 - Himachal and Uttarakhand Himalayas
 - Darjeeling and Sikkim Himalayas
 - Arunachal Himalayas



- Eastern Hills and Mountains

Kashmir or Northwestern Himalayas

- The North-Eastern part of Kashmir Himalayas is a cold desert, which lies between the Greater Himalayas and the Karakoram ranges.
- Important ranges
 - Karakoram
 - Ladakh
 - Zaskar
 - Pir Panjal
- Important glaciers – Baltoro and Siachen
- Important Passes
 - Zoji La on the Great Himalayas
 - Banihal on Pir Panjal
 - Photu La on Zaskar
 - Khardung La on Ladakh.
- Fresh Water Lake – Dal and Wular
- Salt water lakes – Pangong Tso and Tso Moriri
- Srinagar is located on the banks of Jhelum River



The Kashmir Himalayas are famous for Karewa formations which are useful for cultivation of **Zafran**, a local variety of saffron.



Himachal and Uttarakhand Himalayas

- This part lies between the Ravi in the West and the Kali in the East.
- All the three ranges of Himalayas are prominent in this section –
 - Great Himalayas
 - Lesser Himalayas (locally known as Dhauladhar in HP and Nagtibha in Uttarakhand)
 - Shiwaliks
- The great Himalayan range is mostly inhabited by nomadic group – Bhotias
- This region is drained by the Indus and the Ganga
- Other rivers in this region – Ravi, Beas, Sutlej, Yamuna and Ghaghara



Bhotia's Traditional Dress



- Distinguishing features of this region – “Shiwalik” and “Dun Formations”

Dun Formation – These are longitudinal valleys formed as a result of folding when Eurasian Plate and Indian Plate collided. These are formed between Lesser Himalayas and Shiwaliks.

- Some important Duns located in this region – Chandigarh-Kalka Dun, Harike Dun, Nalagarh Dun and Dehradun. (Dehradun is the largest of all Duns)

- “Valley of Flowers” is also situated in the region



Darjeeling and Sikkim Himalayas

- This region is surrounded by Nepal Himalayas in the West and Bhutan Himalayas in the East.
- It is a region of high mountain peaks like Kanchenjunga and deep valleys.
- Important river – Tista
- Higher reaches of this region are inhabited by Lepcha tribes while the southern part has a mixed population of Nepalis, Bengalis and Tribals.

- Weather and physical conditions of this region is suitable for tea plantation.
 - Moderate slope
 - Thick soil cover with high organic content
 - Well distributed rainfall
 - Mild winters



- One of the distinguishing features of this region is “Duar Formation”

Duar Formation – These are the alluvial floodplains in the Eastern and North-Eastern region of India. It lies between south of foothills of Himalayas and North of Brahmaputra basin

Arunachal Himalayas

- It extends from East of the Bhutan Himalayas to the Diphu Pass in the East
- Important mountain peaks – Kangtu and Namcha Barwa
- Important rivers – Kameng, Subansiri, Dibang, Dihang and Lohit
- This region is inhabited by a number of ethnic tribal community namely -
 - Monpa
 - Abor
 - Mishmi
 - Nyishi
 - Nagas
- Jhum/Shifting/Slash and Burn cultivation is prominent in this region

Rivers in this region are perennial with high rate of fall having highest hydro-electric power potential in the country.

Barak is an important river of Manipur and Mizoram

Jhum Cultivation – It is a traditional farming method where first the land is cleared, burned and then cultivated for a limited number of years.



Eastern Hills and Mountains

- These ranges have relatively low heights
- These are known by different local names –
 - In North – Patkai Bum (Arunachal Pradesh), Naga hills, Manipur hills
 - In South – Mizo hills, Lushai Hills (Mizoram and Manipur)
- Most of these ranges are separated from each other by numerous small rivers
- In Manipur, “Loktak” lake surrounded by mountains from all sides is present



The Northern Plains

- Formation – These plains are formed by the alluvial deposits brought by the rivers – Indus, Ganga and Brahmaputra
- These plains are divided into three major zones – The Bhabhar, The Tarai and The Alluvial Plains.

Bhabhar	Tarai	Alluvial Plains
<ul style="list-style-type: none"> • It is a narrow belt ranging between 8-10 km parallel to Shiwalik foothills • Streams and rivers coming from the mountains deposit heavy rocks in this region. 	<ul style="list-style-type: none"> • It is located South of Bhabhar with a width of 10-20 km • Most of the streams and rivers re-emerge without any properly demarcated channel, creating marshy and swampy conditions. • This region has a luxurious growth of natural vegetation. 	<ul style="list-style-type: none"> • It is located South of Tarai • It is a belt consisting of old and new alluvial deposits known as Bhangar and Khadar respectively. • This region has depositional landforms such as sand bars, Meanders, ox-bow Lakes and braided channels.

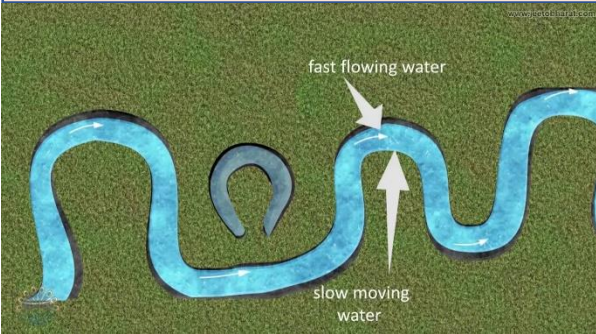
Sandbars – Area of sand, gravel or fine sediments that sits above water



Meanders – Series of regular curves in the channel of river



Oxbow lakes – U-Shaped lake that forms when a wide meander of river cuts off



Braided Channels – Consists of a network of river channels separated by small islands



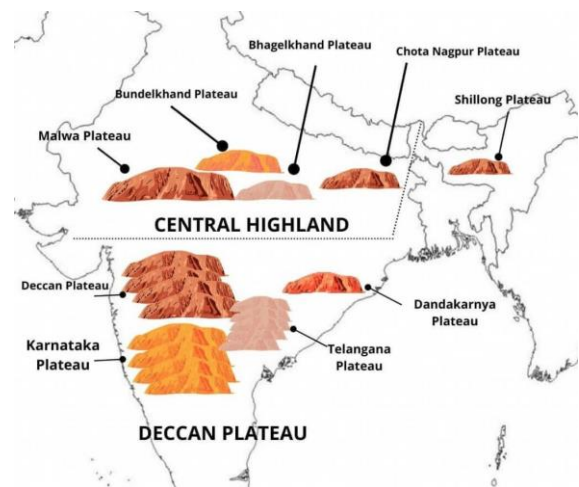
Points to be Noted

- Rivers of this region form some of the largest deltas of the world. For ex – Sundarbans delta.
- Haryana and Delhi form a water divide between Indus and Ganga.
- Brahmaputra river flows from North-East to South-West direction before it takes 90° southwards turn at Dhubri before entering into Bangladesh.



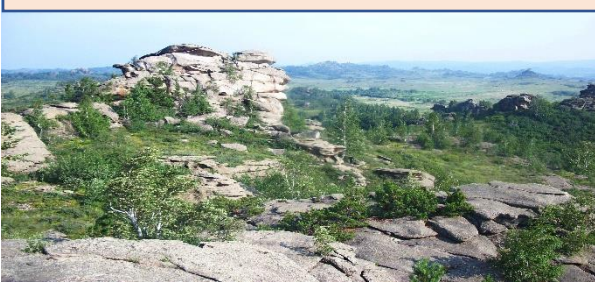
The Peninsular Plateau

- It is an irregular triangle at a height of 150m above the river plains.
- Delhi ridge in the North-West, Rajmahal hills in the East, Gir Range in the West and Cardamom hills in the South constitute the boundaries of peninsular plateau.
- However, its extension is found in North-East in the form of Shillong and Karbi Anglong plateau.
- It consists of various Plateau plateaus –
 - Hazaribagh Plateau
 - Palamau Plateau
 - Ranchi Plateau
 - Malwa Plateau
 - Coimbatore Plateau
 - Karnataka Plateau



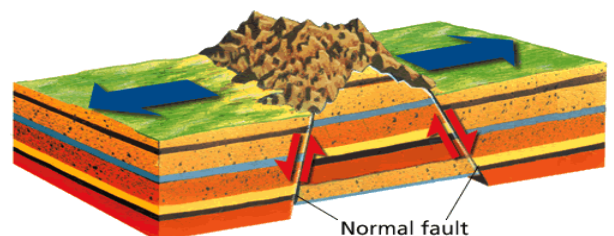
- Physiographic features of this region -

Tors – Large freely standing rock



Block Mountains – Formed when two tectonic plates move away and middle block moves upwards

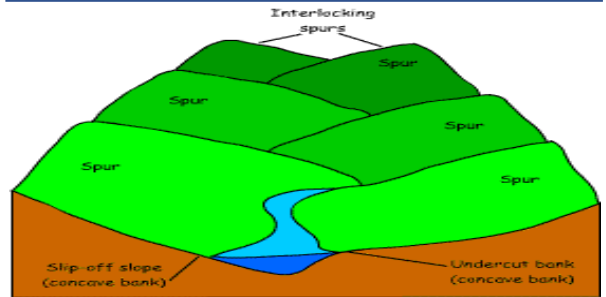
Fault-Block Mountain



Rift Valley – Lowland region formed when Earth’s tectonic plates move apart



Spurs – It is a long, gently sloping “tongue” of that runs down from a hill to ground.



Bare Rocky Structures

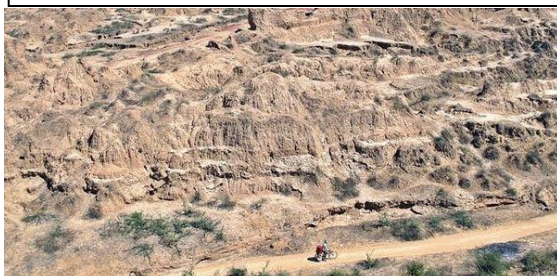


Dykes – Sheet of rock formed in a fracture of pre-existing rock body



- The North-Western part of the plateau consists of Ravines and Gorges. For ex – Ravines of Chambal, Bhind and Morena

Ravines – erosional landform formed as a feature of constant erosion by rivers and streams



Gorges – Narrow valley with steep and rocky walls located between hills or mountains



- On the basis of prominent features, the peninsular plateau is divided into three parts-
 - Deccan plateau
 - Central highlands
 - North-Eastern Plateau

Deccan Plateau

- It is bordered by Eastern Ghats in the East, Western Ghats in the West and Satpura, Maikal and Mahadeo hills in the North.



Western Ghats	Eastern Ghats
Height ranges from 900-1600m	Height ranges from 600-900m
These are continuous chains of mountains	Discontinuous and highly eroded by rivers such as Godavari, Krishna etc.
Most of the peninsular river originates here	No river originates here
Soil is highly fertile	Soil is less fertile

Points to be noted

- Western ghats are locally known by different names –
 - Sahyadri – Maharashtra
 - Nilgiri – Karnataka and Tamil Nadu
 - Anaimalai and Cardamom hills in Kerala
- Highest peak of peninsular plateau, Anaimudi, is located on the Anaimalai hills of Western Ghats.

Central Highlands

- It lies to the North of Deccan Plateau and is bounded by Aravalli hills in the West and Satpura range in the South.
- Elevation above sea level – 600-900m
- Mountains in this region are relict, highly denuded and form discontinuous ranges.
- Banas is the only significant tributary of river Chambal that originates from Aravalli.

North-Eastern Plateau

- It is an extension of main peninsular plateau.
- Formation – Due to the force exerted by the Northeastward movement of the Indian plate at the time of Himalayan origin, a huge fault was created between the Rajmahal hills and the Meghalaya plateau. Later this fault got filled up by the deposition brought by rivers.
- Meghalaya Plateau is divided into 3 regions – Garo, Khasi and Jaintia hills.
- Meghalaya Plateau has a highly eroded surface because it receives maximum rainfall from the South-West monsoon.

The Indian Desert (Marusthal)

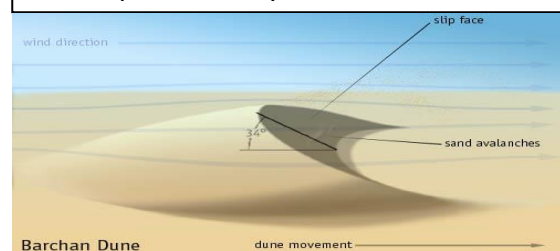


- The Great Indian Desert lies North-West of the Aravalli hills.
- It is a land of undulating topography dotted with longitudinal dunes and barchans.

Dunes – landform composed of wind or water driven sand. It takes the form of a hill or a ridge



Barchans – Crescent shaped sand dunes produced by the action of winds



- On the basis of orientation, it is divided into two parts – Northern part is sloping towards the Sindh and southern towards the Rann of Kutch.
- The climate is arid with low vegetation cover.
- Low rainfall – Below 150mm per year
- This region has some prominent features like mushroom rocks, shifting dunes and oasis.

Oasis – Fertile land in a desert where the water table approaches the surface



Mushroom Rocks – Naturally occurring rocks whose shape resembles a mushroom



- Most rivers are ephemeral; Luni River is significant.

The coastal Plains

Coastal Plain of India



- India is divided into two coastal plains –
 - Eastern coastal plains
 - Western coastal plains

Eastern Coastal Plains	Western Coastal Plains
It is divided into two stretches – <ul style="list-style-type: none"> • North (Northern Circar) • South (Coromandel Coast) 	It is divided into 3 sections – <ul style="list-style-type: none"> • Southern – Malabar coast • Central – Karavali or Karana • Northern – Konkan
It lies between Bay of Bengal and Eastern ghats	It lies between Arabian sea and Western Ghats
Deltas are formed	Deltas are not formed
Broader	Narrow
Level surface	Intersected by mountain ridges

Points to be Noted

- Malabar coast has kayals (backwaters) which is used for fishing and inland navigation.
- Nehru trophy Vallamkali (Boat Race) is held every year in Punnamada Kayal in Kerala.



The Islands



- There are two major islands groups in India – Bay of Bengal and Arabian Sea.

Bay of Bengal Islands Group

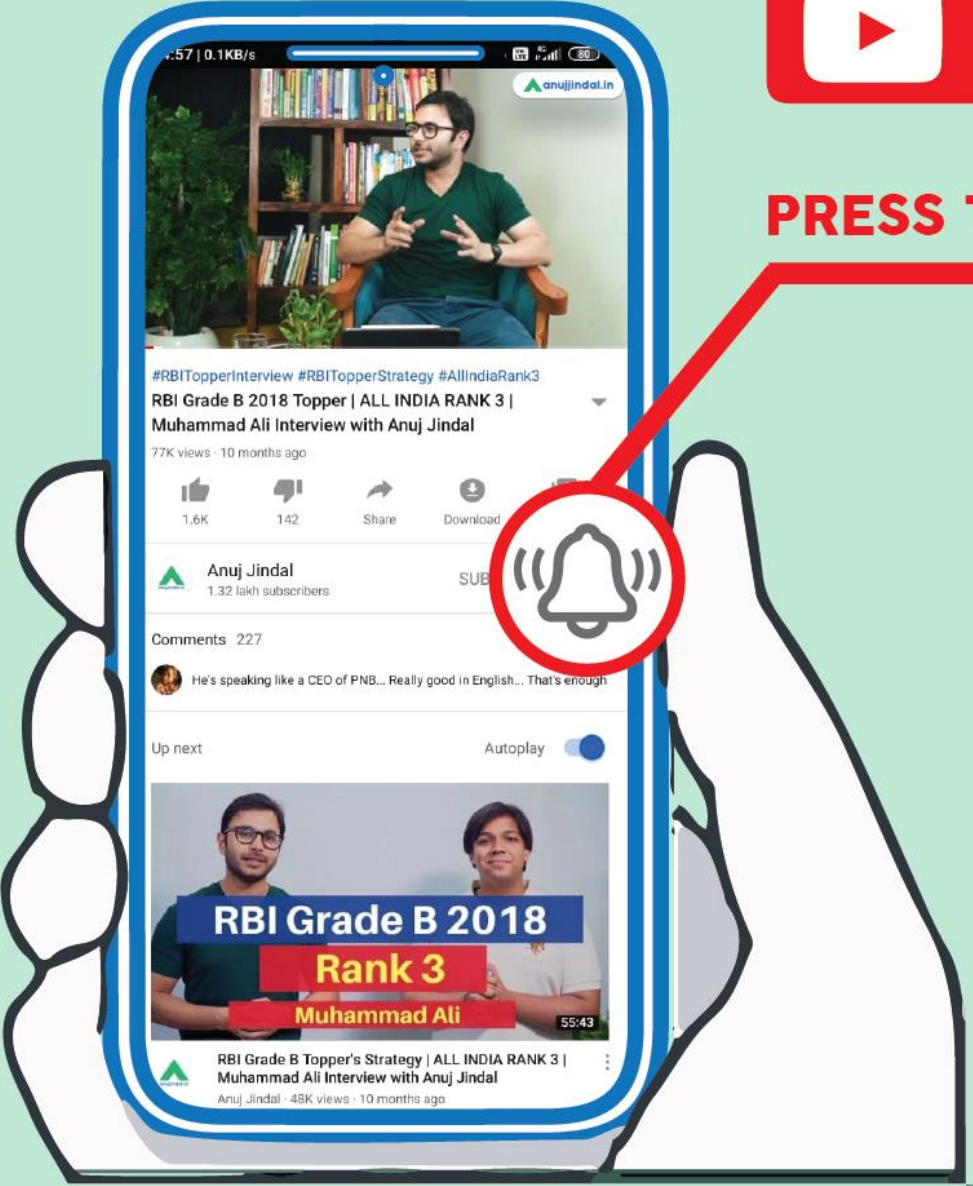
- These are located between 6°N - 14°N and 92°E - 94°E
- The group is divided into two broad categories – Andaman in North and Nicobar in South
- Andaman and Nicobar are separated by Ten Degree Channel.
- These islands lie close to equator and thus have equatorial climate.
- These islands have thick forest cover due to heavy convectional rainfall.
- Barren Islands, the only active volcano in India is also situated in the Nicobar Islands.

Arabian Sea Islands Group

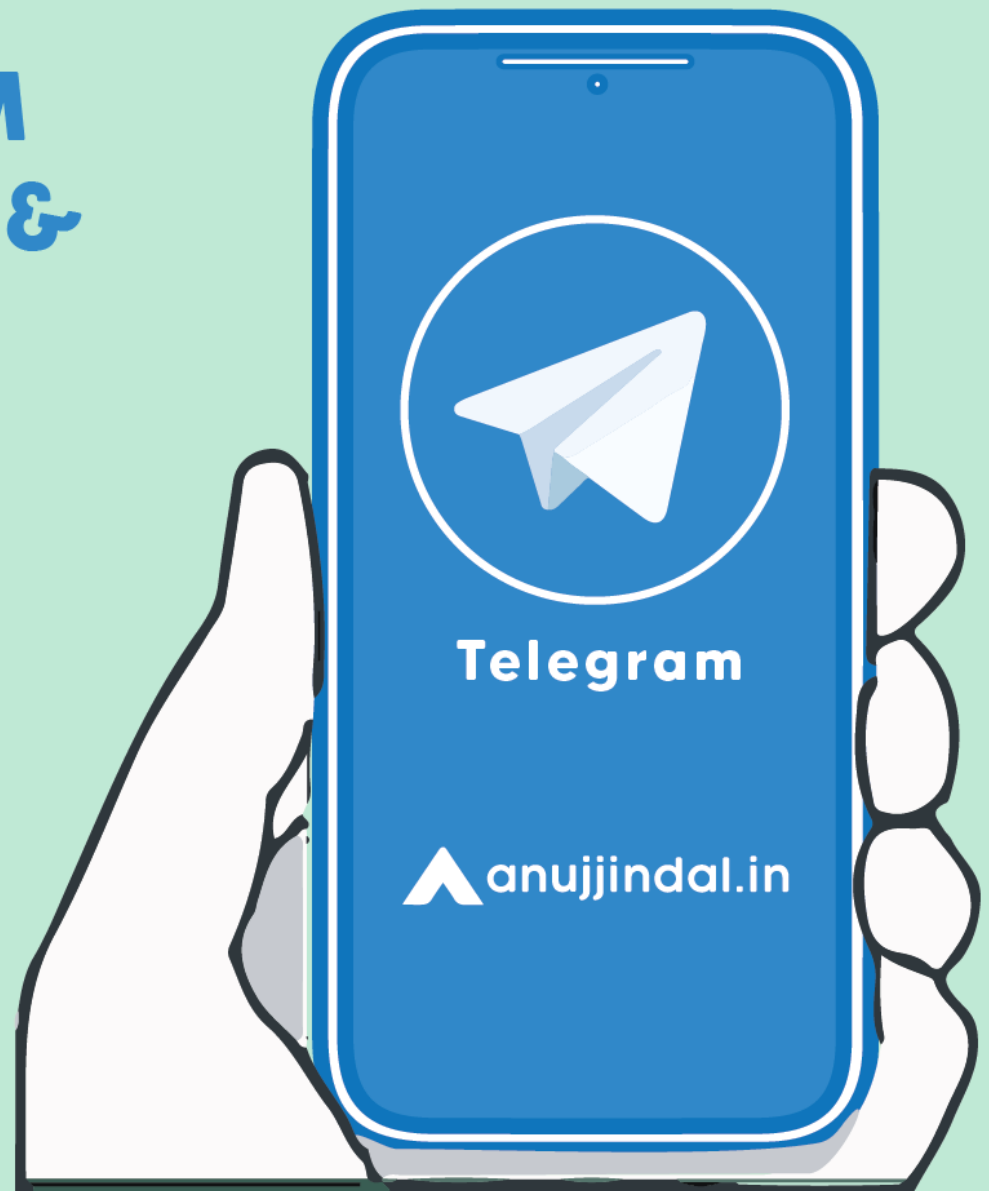
- These are located between 8°N - 12°N and 71°E - 74°E longitude.
- The islands of this group include Lakshadweep and Minicoy.
- Entire island group is built of coral deposit
- Minicoy is the largest island
- The entire group of islands is divided by Eleventh Degree channel, North of which is the Amini island and to the South, it is Cannanore islands.

 **SUBSCRIBE**

**&
PRESS THE "BELL ICON" !**



Join our
TELEGRAM
CHANNEL &
GROUP





HALL OF FAME



All Indian Rank 01

Rajendran S

SEBI



All India Rank 03

Ali

RBI



All India Rank 06

Aditya Sood

RBI



All India Rank 10

Sameer

RBI



All India Rank 11

Abhishek

RBI



Cleared RBI Grade B

Sanskar Vijay



Cleared RBI Grade B

Sanjay Meena



Cleared RBI Grade B

Yash Gupta



Cleared RBI Grade B

Ila Sahu



Cleared RBI Grade B

Argha Banerjee



Cleared RBI Grade B

Suchana Ghosh



Cleared NABARD

Vinay Verma



Cleared NABARD

Lal Chand Kumar



Cleared NABARD

Krishna Kumar Singh



Cleared NABARD

Anshu Goel



Cleared NABARD

Jatin Kumar



Cleared NABARD

Atul Yadav



Cleared SEBI

Abhishek Kumar



Cleared SEBI

Vishwanidh Singh



Cleared SEBI

Gopika Jayan



Cleared SEBI

Vasant Kesari



Cleared SEBI

Swetha Bodagala



NET with 98 Percentile

Anushka Keshri



JRF with 96.92 Percentile

Vaishali Jadon



NET with 89.27 Percentile

Srishti Gupta



JRF with 72 Percentage

Abhishek Mohanty



NET with 68 Percentage

Dinesh Mohan



JRF with 64.66 Percentage

Adhwaresh Pandey

ENROLL NOW !

[youtube.com/anujjindal](https://www.youtube.com/anujjindal)

[anujjindal.in](https://www.anujjindal.in)

Call us at : +91 9999466225