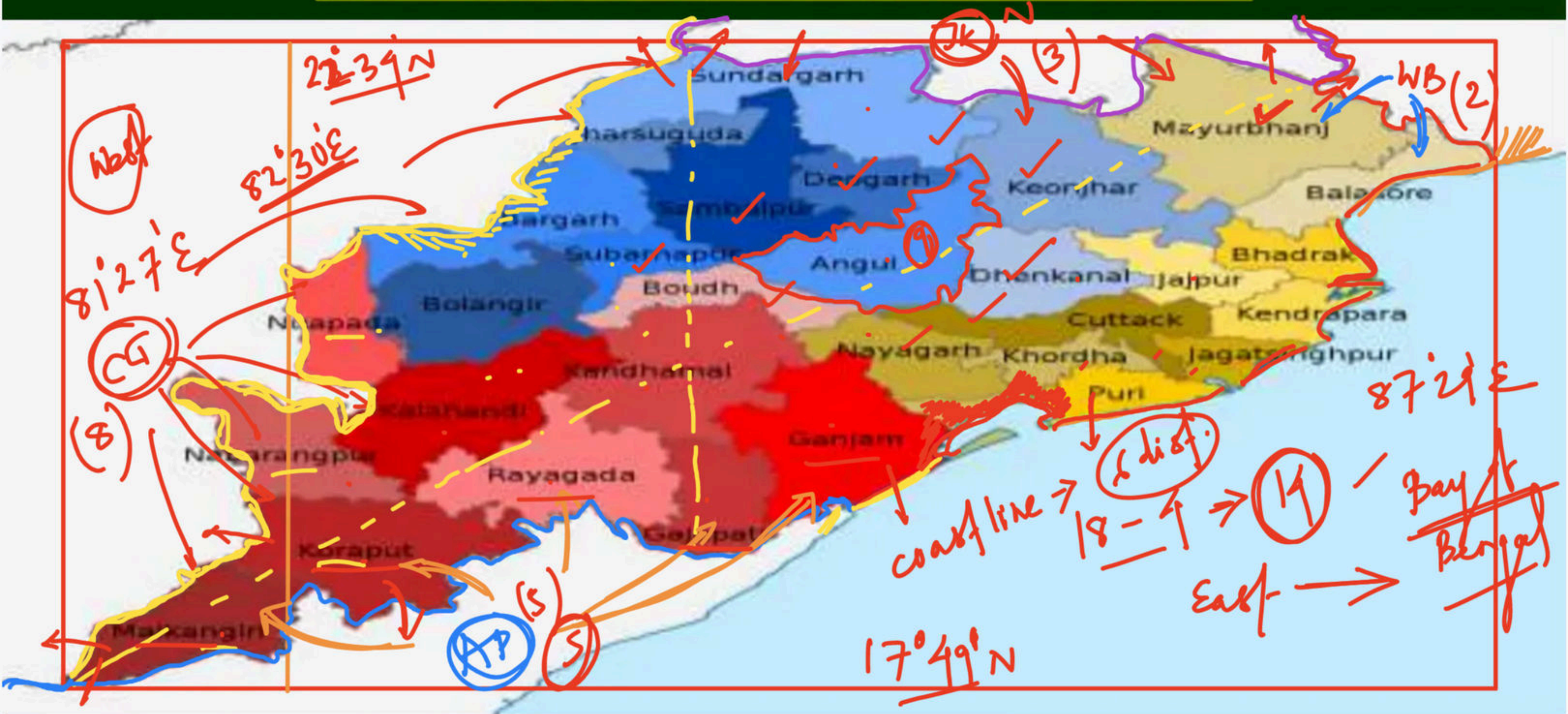




Rivers of Odisha - Part II

Comprehensive Course on Geography for OCS Prelims

PHYSIOGRAPHY OF ODISHA PART I



PHYSIOGRAPHY OF ODISHA PART I

LOCATION

- ❖ SOUTH-NORTH EXTENT – 17°49'N latitude to 22°34'N (500 KM)
- ❖ WEST-EAST EXTENT – 81°27'E to 87°29'E (1030 KM).
- ❖ IST passes through 4 districts of Odisha – Nuapada, Nawrangpur, Koraput and Malkangiri.
- ❖ Total land area - 155,707 km² (4.74% of India's total area).
- ❖ Odisha is located in the eastern part of the Indian peninsula and the Bay of Bengal lies to its East.
- ❖ Odisha is surrounded by four states. Chhattisgarh shares its border in the west and north-west, West Bengal in the north-east, Jharkhand in the north and Andhra Pradesh in the south.
- ❖ Chhattisgarh makes the longest border with Odisha touching the borders of 8 districts - Malkangiri, Koraput, Nawrangpur, Kalahandi, Nuapada, Bargarh, Jharsuguda and Sundergarh.

328726389 km.
3214 km
2939 km

PHYSIOGRAPHY OF ODISHA PART I

- ❖ Smallest border is with West Bengal. Only two districts make the border here – **Mayurbhanj and Baleswar**.
- ❖ Andhra Pradesh makes border with 5 districts of Odisha – **Malkangiri, Koraput, Rayagarha, Gajpati and Ganjam**.
- ❖ Jharkhand has border with three districts – **Mayurbhanj, Keonjhar and Sundergarh**.
- ❖ Total number of districts making border with other states is **14**.
- ❖ Coastline of Odisha is 480 KM. 6 districts makes the coastline – **Ganjam, Puri, Jagatsinghpur, Kendrapada, Bhadrak and Baleswar**.
- ❖ **Puri** has the **longest coast line** where **Bhadrak** has the **smallest coastline**.
- ❖ **Chilka lake** the largest lagoon and the first Ramsar site in India is bordered by the districts - **Ganjam, Khordha and Puri**.

PHYSIOGRAPHY OF ODISHA PART I

- ❖ A major part of this region is formed by deltas of the **six major rivers** i.e. **the Mahanadi, the Brahmani, the Budhabalanga, the Subarnarekha, the Baitarani, and the Rushikulya**. This has given rise to the names such as the "**Gift of Six Rivers**" or the "**Hexadeltaic region**". (Nana Matraku)
- ❖ It spans along the coast of the Bay of Bengal with the maximum width near **the Mahanadi Delta (the Middle Coastal Plain)**. It is narrower in the Northern Coastal Plain in Baleshwar District (also called Balasore Plain) and narrowest in the Southern Coastal Plain in Ganjam District (called Ganjam Plain).

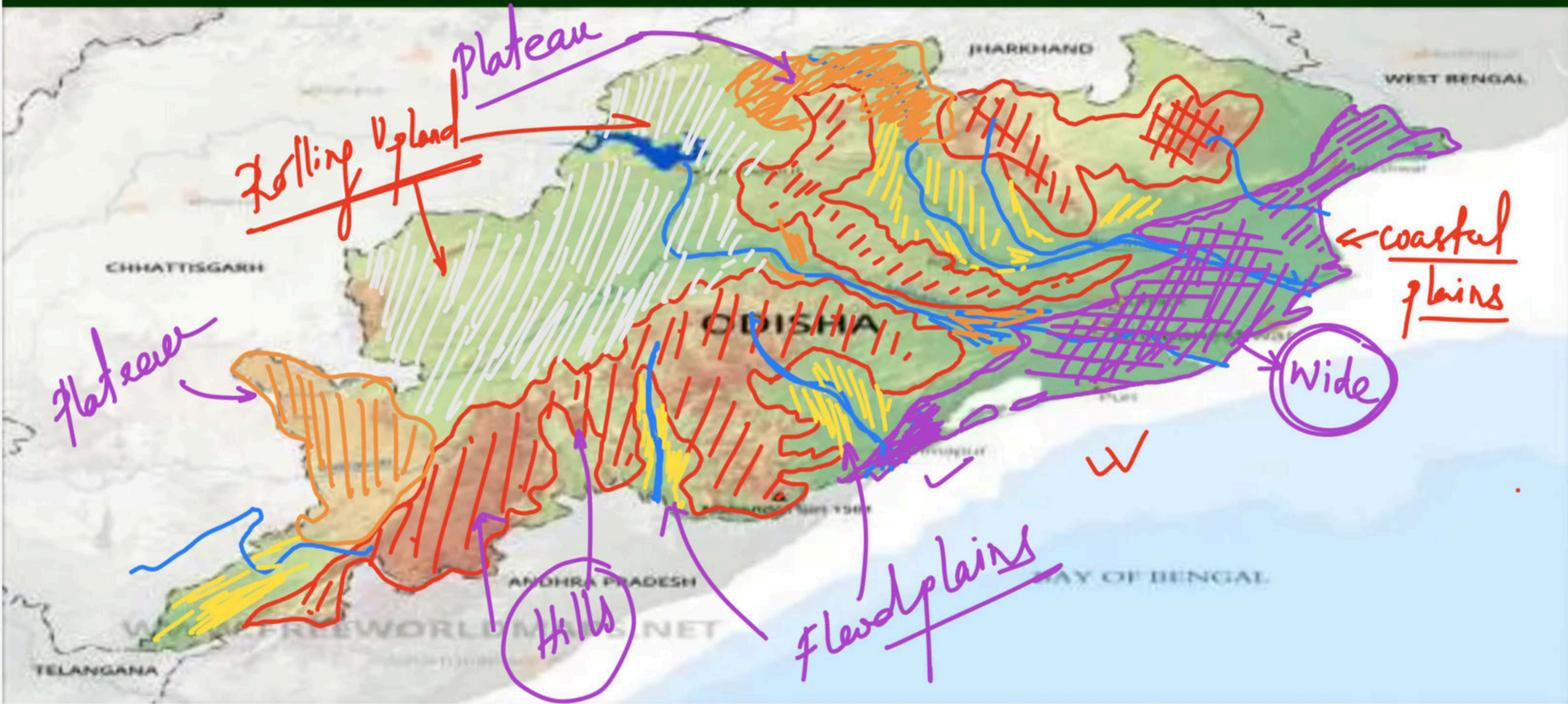
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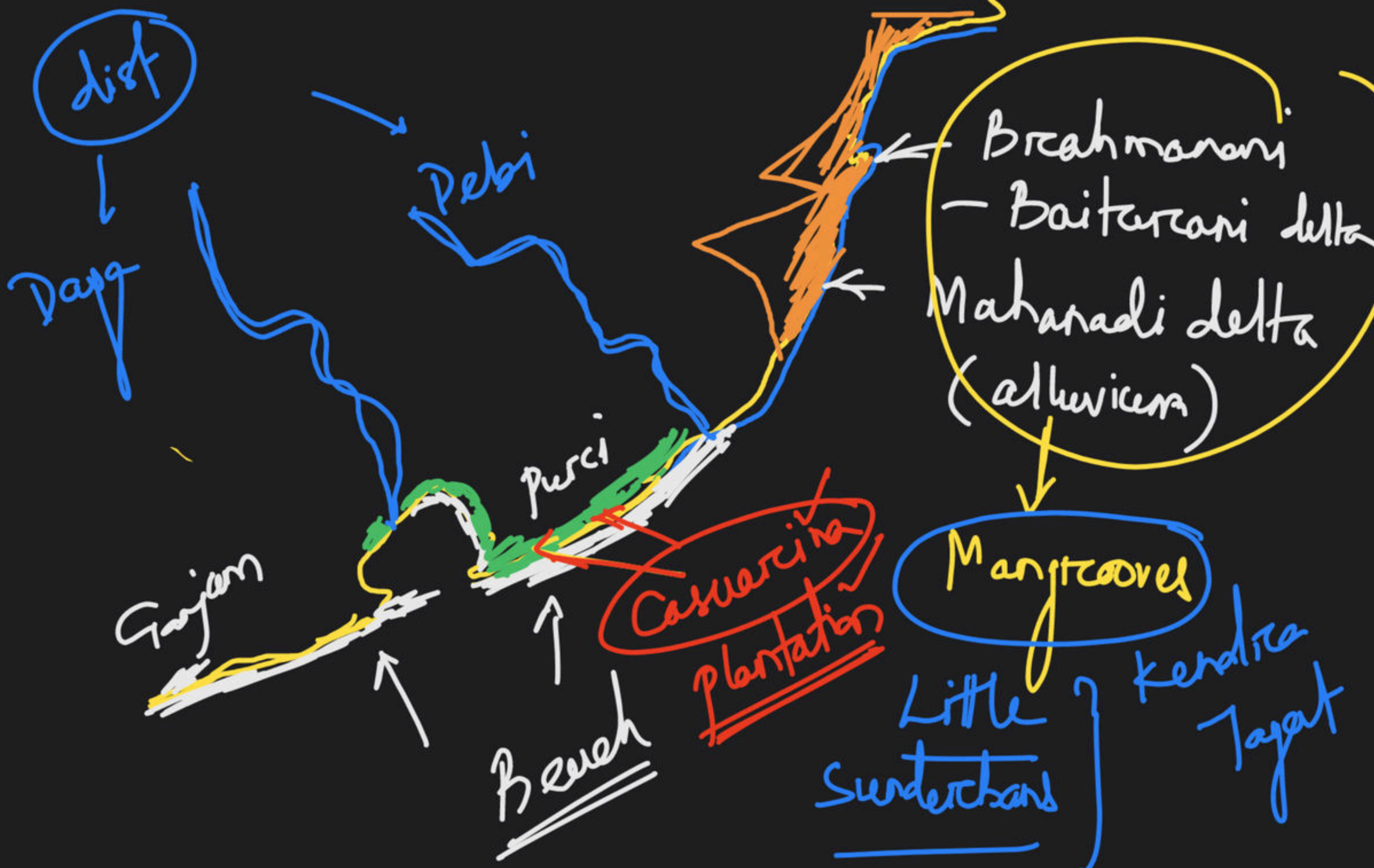
Salt tract -

- ❖ The Salt Tract is a narrow belt which stretches just beyond the shoreline for about 4.8 km to 9.6 km in land.
- ❖ In **Mahanadi Delta**, this salt tract is covered with tidal mangrove forests, known as **little Sunderbans** (Paradeep to Dhamra including The Bhitarkanika National Park).
- ❖ In the **Devi-Daya sector**, **Casuarina forest** plantations are found.

Rushikulya - No delta ✓

PHYSIOGRAPHY OF ODISHA PART I





Hills ✓
plateau ✓
Landforms under 75 m sea level.

Coastal plains ✓
(Undulating plains)
Rolling Uplands ✓
Height from sea level → 153 m to 305 m

Flood plains ✓
plateau ✓
Height from sea level ⇒ 750 m to 153 m

plateau ✓
Height from sea level ⇒ More than 300 m ✓

Hills ✓
"Nearly ^{5000 ft} level" ✓
afterwards
Mtns

PHYSIOGRAPHY OF ODISHA PART I

Depositional or Sandbar ISLANDS –

- Hukitola or Jambu island in the Hukitola Bay, Kendrapara
- Kanika island and Shortt's island near Dhamra – Bhadrak
- Wheeler island – Bhadrak (Missile Testing Facilities)

PORTS

- Paradeep (Jagatsinghpur) is the deepest natural port and harbour of India.
- Chandbali and Dhamra (Bhadrak), and Gopalpur (Ganjam) are medium and minor ports of Odisha,

PHYSIOGRAPHY OF ODISHA PART I

Mountainous Regions Of Odisha

- ❖ The mountainous regions cover about **three-fourth of the area of the state**.
- ❖ It was previously a part of the ancient landmass called Gondwana land.
- ❖ The rivers like Baitarani, Brahmani, Mahanadi, Rushikulya, Vamsadhara and Nagavali cut deep and broad valleys through these mountains.

These mountainous regions are morphologically divided into the following regions-

Simlipal – Meghasani mountains of Mayurbhanj district

- ❖ This is typically a dome shaped mountain and are volcanic in origin.
- ❖ Meghasani is the highest peak of this region.

The Mankarnacha-Malayagiri mountains of the Baitarani and Brahmani interfluves:

- ❖ This group of mountains with three lofty peaks extends in a north-south direction.
- ❖ All these mountains are a part of Eastern Ghats whose original trend is NE to SW. This area is a polycyclic region.

PHYSIOGRAPHY OF ODISHA PART I

Watershed between Brahmani and Mahanadi:

- ❖ The evolution of these mountains is similar in character with that of the former region. But these are more maturely dissected by continued action of Mahanadi and the Brahmani.

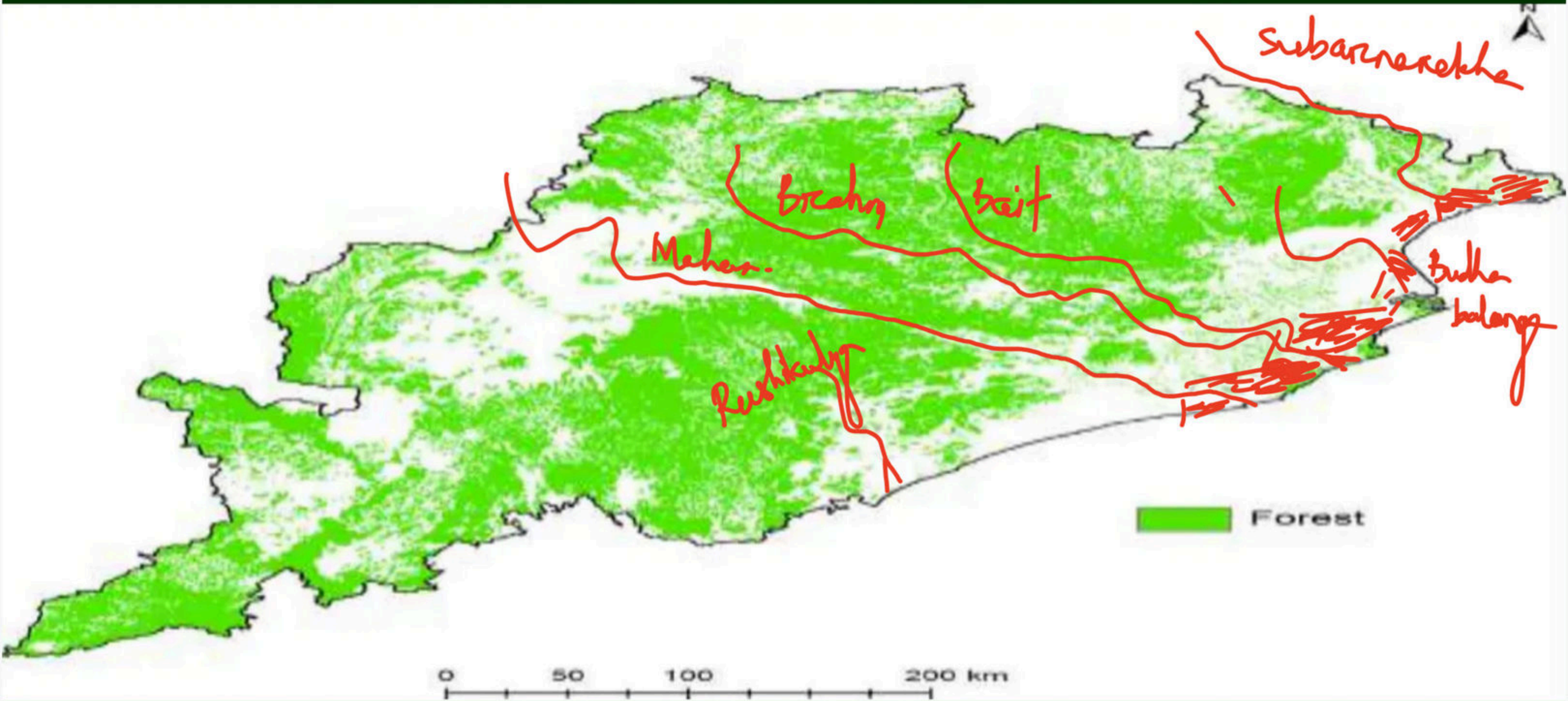
The Common Interfluves of the Mahanadi: The Rushikulya and the Vamsadhara

- ❖ This water shed is deeply eroded and the height varies from 600 to 1000 meters in elevation. This interfluves stretches in the north-south direction with several peaks rising above 1,200 meters.

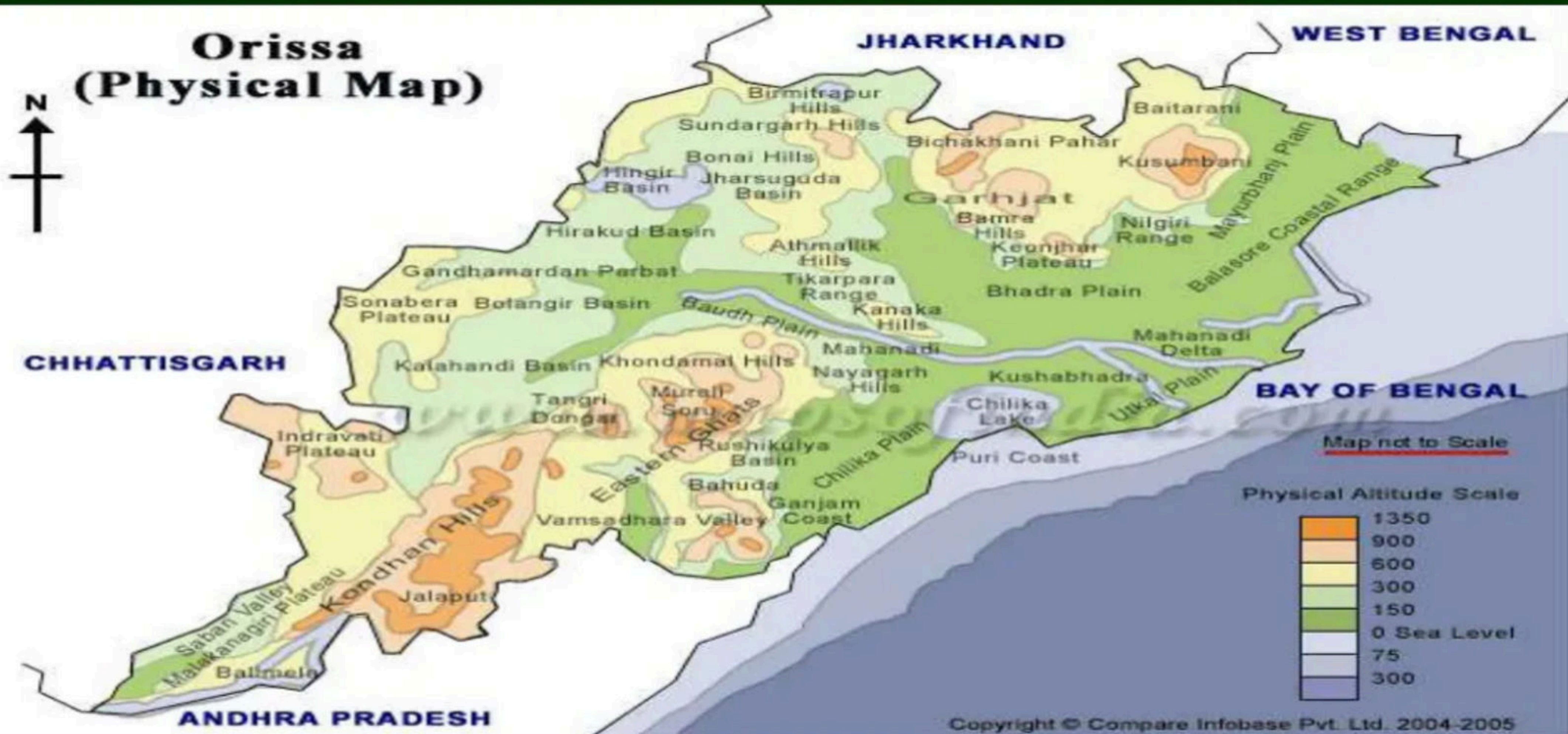
The Potangi and Chandragiri mountain ranges:

- ❖ These mountain ranges are highest in Odisha (Orissa) and the average height varies form 900 to 1,350 meters.
- ❖ The Deomali peak is the highest in Orrisa with an elevation of 1,672 meters and is the tallest in the whole of the Eastern Ghats.
- ❖ The mountains completely separate the Nagavali and the Sabari basins.
- ❖ They are highly dissected and in the valleys terrace cultivation is practiced. The hilltops are bare of vegetation because of shifting cultivation.

PHYSIOGRAPHY OF ODISHA PART I



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Central Plateaus of Odisha

- ❖ The plateaus are part of the western slopes of the Eastern Ghats. They are mostly eroded plateaus with elevation varying from 305–610 meters.

There are two broad plateaus:

- ❖ the Panposh-Keonjhar-Pallahara plateau comprises the Upper Baitarani catchment basin in the northern part of the state.
- ❖ the Nabrangpur-Jeypore plateau comprises the Sabari basin in the southern part of the state.

Western Rolling Uplands

The western rolling uplands have heights varying from 153 metres to 305 metres. These are lower in elevation than the plateaus. It consists of the following geographically distinct uplands.

PHYSIOGRAPHY OF ODISHA PART I

Upto 500m from the sea level

Rolling Uplands. ✓



PHYSIOGRAPHY OF ODISHA PART I

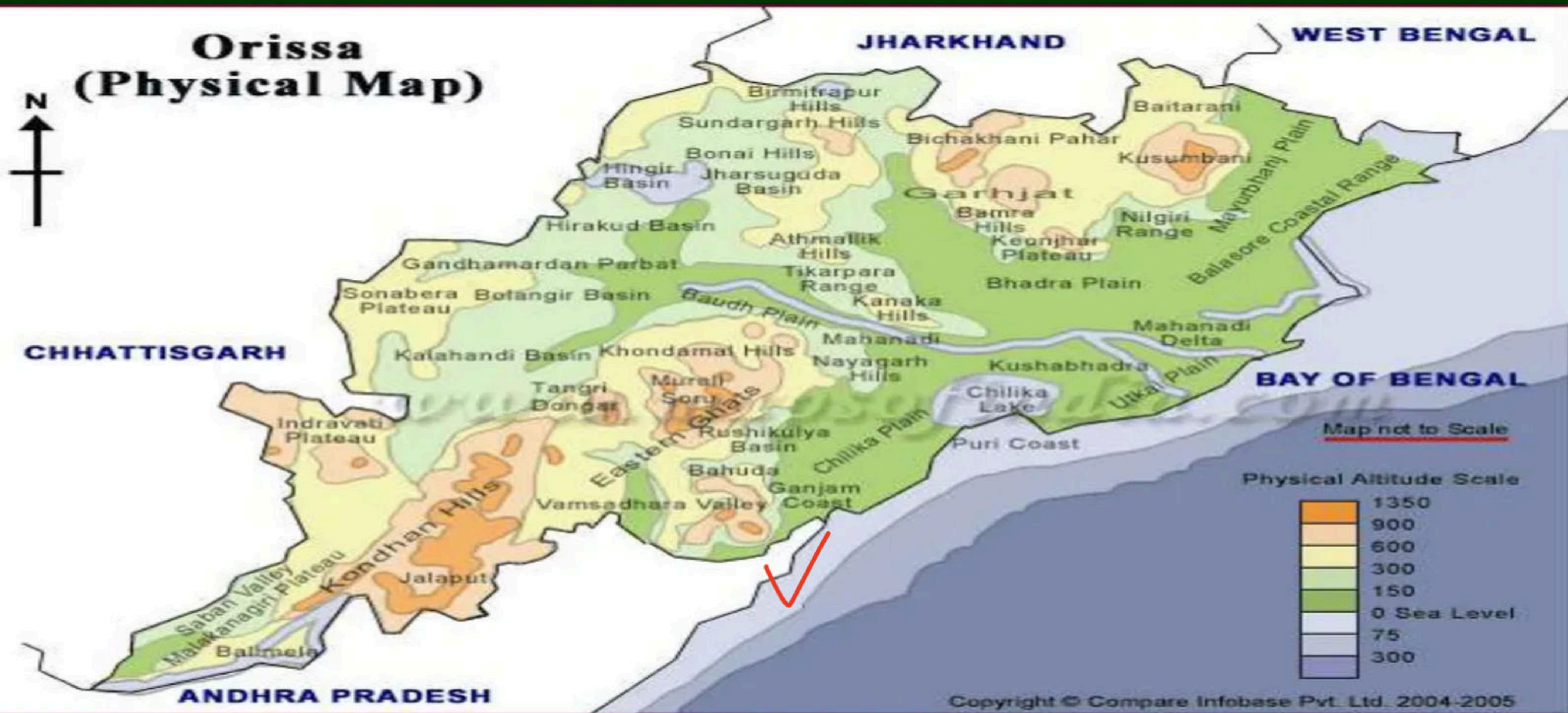
Some Important mountain peak in Odisha

- ❖ Mahendragiri – Gajapati
- ❖ Malayagiri, is a mountain peak in the Malayagiri hills subrange of the Garhjat Range. It is located near Pal Lahara town near Anugul in the district of Anugul of Odisha, Odisha.
- ❖ Chandragiri hills in Gajapati district is famous for Little Tibet of Odisha named Jirang(famous for Buddhist monastries and Tibetan Settlements).
- ❖ Potangi hills in Koraput.
- ❖ Gandhamardan Hills is a hill located in between Balangir and Bargarh districts of Odisha, India. This hill is well known for medicinal plants and Bauxite reserves.
- ❖ The Niyamgiri is a hill range situated in the districts of Kalahandi and Rayagada in Odisha. These hills are home to Dongria Kondh indigenous people also known as Adivasi.
- ❖ Mahendragiri – Gajapati
- ❖ Malayagiri, is a mountain peak in the Malayagiri hills subrange of the Garhjat Range. It is located near Pal Lahara town near Anugul in the district of Anugul of Odisha, Odisha.
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PHYSIOGRAPHY OF ODISHA PART I

- ❖ The Rairangpur rolling upland - This region encompasses the northern part of the Mayurbhanj district. The uplands are a part of the Subarnarekha basin, and slopes towards the north.
- ❖ The Keonjhar rolling upland - This region is part of Keonjhar district and lies at the edge of Keonjhar Plateau. It is part of the Baitarani River basin.
- ❖ The Rajgangpur-Panposh/ Rourkela rolling upland - This is part of Sundergarh district and lies on the Upper Brahmani basin of Koel and Sankh rivers.
- ❖ The Bargarh Upands of the Jira and Jhaun river basin.
- ❖ Bolangir-Titlagarh-Patnagarh Uplands of Northern Tel Basin.
- ❖ Bhawanipatna Uplands of Southern Tel Basin.
- ❖ The Aska rolling upland - This is situated in Ganjam District on the Upper Rushikulya basin.
- ❖ The Rayagada rolling upland - This uplands is part of the Rayagada district and lies on the Nagavali and the Vansadhara river basins.
- ❖ The Malkangiri rolling upland - Located on the southern tip of Odisha, this upland is situated on the Sabari - Machhkund basins of the Dandakaranya Region.

PHYSIOGRAPHY OF ODISHA PART I



PHYSIOGRAPHY OF ODISHA PART I

Major flood plains

These flood plains are formed due to major rivers in the highlands, uplands, and plateaus. The height varies from 75 to 153m. The nine major flood plains of Odisha are:

- Baripada flood plain** – Budhabalanga river(Mayurbhanj)
- Anandapur flood plain** – Baitarani river(Keonjhar)
- Talcher flood plain** – Brahmani river(Angul)
- Bhuban flood plain** – Brahmani river(Dhenkanal)
- Sonepur flood plain** – Mahanadi, Tel and Ong rivers.
- Athagarh flood plain** – Mahanadi(Cuttack)
- Aska flood plain** – Rushikulya and Bara rivers(Ganjam)
- Rayagada flood plain** – Nagavali and Vansadhara rivers
- Malkangiri flood plain** – Silleru river

PHYSIOGRAPHY OF ODISHA PART I

