

Physical Divisions of Rajasthan

Rajasthan is the largest state in the Union of India and has more physical variations than any other state. It has regions of rolling sand dunes in the west to lofty rocks in the middle to fertile plains in the east.

On the basis of relief features, there are following physical divisions of Rajasthan:

1. **Western Sandy Plains**
2. **Aravalli Range and Hilly Region**
3. **Eastern Plains**
4. **South-eastern Rajasthan Pathar (Hadoti Plateau)**

1. **Western Sandy Plains**

The western sandy plains are divided into two major regions and 6 sub-regions as following

A. **Sandy Arid Plain**

- A1. Marusthali
- A2. Dune free Tract

B. **Semi-Arid Basin or Rajasthan Bangar**

- B1. Luni Basin
- B2. Shekhawati Region
- B3. Nagaur Upland
- B4. Ghaggar Plain

2. **Aravalli Range and Hilly Region**

Aravalli Range on basis of its general characteristics, form elements, relief, slope and drainage pattern can be divided into following physiographic sub-units:

A. **The North- Eastern Hill Tracts or Alwar Hills**

B. **The Central Aravalli Range**

- B1. The Sambhar Basin or Shekhawati Tow hills
 - B2. The Merwara hills
- C. The Mewar Rocky region and Borat Plateau
- D. Abu Block region

3. The Eastern Plains

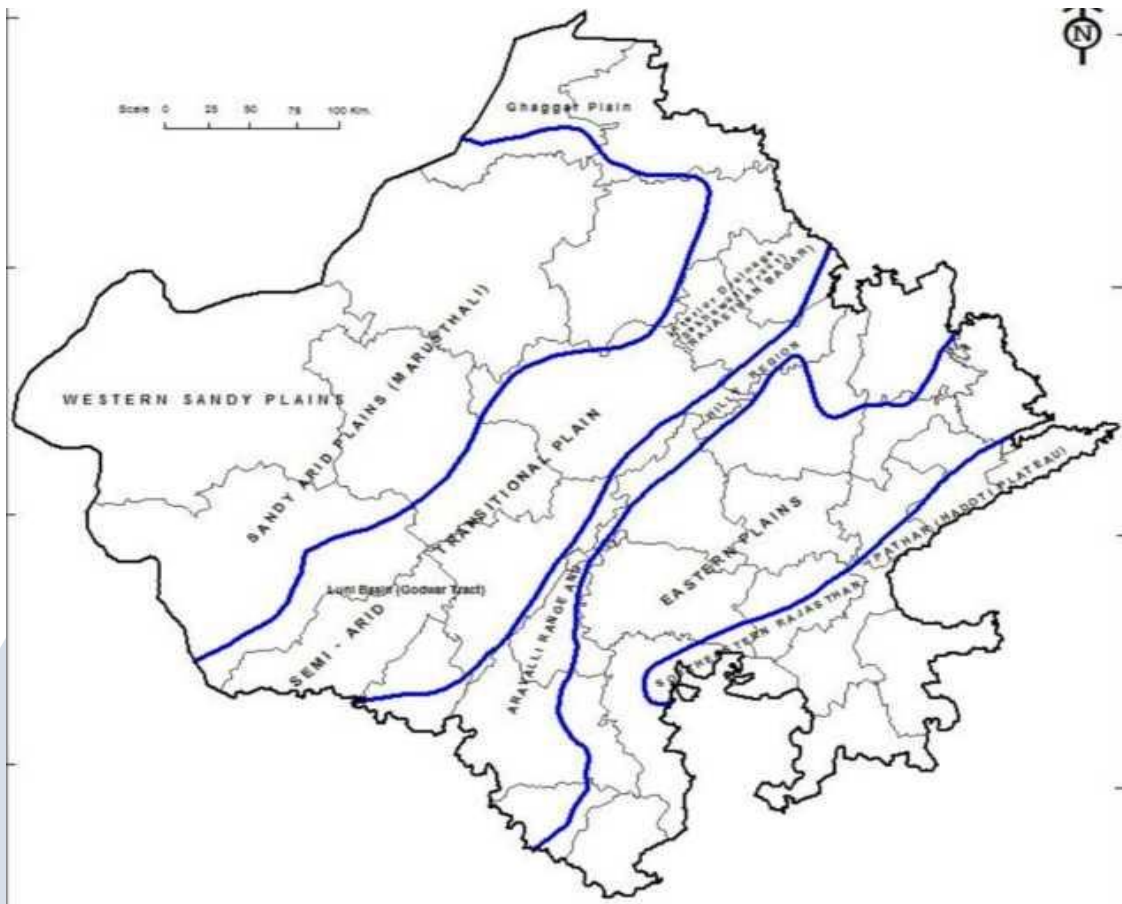
The eastern plains can be divided into 3 sub-regions:

- A. Chambal basin
- B. Banas Basin
- C. Mahi or Chappan Basin

4. South-eastern Rajasthan Pathar (Hadoti Plateau)

It has following sub regions:

- A. Deccan highlands
- B. Vindhyan region



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1. Western Sandy Plains

- Districts: Hanumangarh, Sriganaganar, Bikaner, Jaisalmer, Barmer, Jalore, Sirohi, Pali, Jodhpur, Nagaur, Churu, Sikar & Jhunjhunu.
- The western sandy plains are divided into two major regions and 6 sub-regions as following

A. Sandy Arid Plain

- Area- 61% of total area of W.S.P.
- Population- 40%
- Maximum Rainfall- 30 Cm
- There are vast expanses of sand & rock outcrops where mainly limestone is found, in Jaisalmer, Barmer, Bikaner, Churu, Planumangarh & Sriganaganar.

Sandy Arid Plain further Sub-divided into two sub-regions.

A1. Marusthali

- Districts- Bikaner, Barmer, Jaisalmer, Jodhpur, Nagaur, Churu
- Area - 120500 Sq. Km (Thar Desert)
- Height of sand dunes - 6 m to 60 m
- Length of sand dunes - 3 km to 5 km
- Towards west this sandy arid Marushthali is known as Thar Desert. Shifting sand dunes is locally terms as Dharians.

A2. Dune free Tract

- Districts- Bikaner, Jaisalmer (Phalodi & Pokhran)
- Area - 65 Sq. Km.
- Limestone & Sandstone rocks exposes here belong to Jurassic & Eocene formations.
- It is rocky but dune free tract.
- Small hills are found within a circle of 64 Km of Jaisalmer town
- Dry beds & banks could easily be tapped for ground water

- Grid conglomerate, gneiss, schist & granite rocks are also exposed at places.

B. Semi-Arid Basin or Rajasthan Bangar

- District - Jaipur, Jodhpur, Nagaur, Pali, Jalore, Barmer
- Area - 7500 Sq. Km
- Rainfall - 25 cm
- In it lies in the eastern part & drained by the Luni in its south-eastern portion.
- Gullying has given rise to conglomerate landscape. Its eastern part is covered with superficial sand deposits.
- Towards north lies the Shekhawati tract which is semi arid transitional plain characterized by inland drainage & stream with salt lakes like Sambhar, Didwana etc.
- In the extreme north lies the Ghaggar Plain.

B1. Luni Basin

- District - Barmer, Jalore, Jodhpur, Nagaur
- Area - 34866 .4 Sq. Km
- Basin is drained by the Luni River & its tributaries Bandi, Sagi, etc. Covers the area from its source to Tiwara (Barmer) till where Sukri river meets it.
- It is a seasonal river
- Floods occur during the rains in Luni
- Topography is marked by hills with steep slopes & extensive alluvial plains.
- This area is locally known as Naid (Rel) & is one of best alluvial plains.

B2. Shekhawati Region

- District: Churu, Sikar, Jhunjhunu & Nagaur
- Livestock, milk production & dairy are the occupation of this region

- Aravalli hills runs through this region from south to north, cutting into almost two halves.
- Topography of the Shekhawati tracts is characterized by an undulating sandy terrain traversed by longitudinal sand dunes. There is only one seasonal river Kantli
- The calcareous substratum is exposed of the tract from the sea level is 450m.

B3. Nagaur Upland

- District: Nagaur
- Average height of this region from sea level - 300 m to 500 m
- Rainfall - 25 cm in west to 50 cm in east
- This region is full of sand hills & low depressions.
- The temperature being High, the evaporation of the saline flood-water results in the deposits of the salt & soda in these depressions.

B4. Ghaggar Plain

- Districts- Hanumangarh & Sriganagar
- No existing river or stream except ancient Ghaggar and region is known as Ghaggar plain.
- It is a sandy plain interspersed with sand-dunes (6-30m high) & small sand-hills.

2. Aravalli Range and Hilly Region

Rajasthan is bisected by Aravalli range into two major parts: Southeast Rajasthan and Northwest Rajasthan. Aravalli range is approximately 692 Kms long, running across Gujarat, Rajasthan, Haryana and Delhi.

The Aravalli's in Rajasthan are divided into 4 main sections:

1. North-Eastern Aravalli Range
2. Central Aravalli Range
3. The Mewar Rocky region and Bhorat Plateau
4. Abu Region

1. The North- Eastern Hill Tracts or Alwar Hills

- Districts- Jaipur, Sikar, Jhunjhunu, Alwar, Sawai Madhopur.
- Stretches from Delhi to isolated hills of Alwar & Jaipur.
- They are also called as Alwar hills.
- Average Height: 300 m to 670 m
- Valleys between the hills are wide & in some cases stretch for many kilometers.
- Flattered hill tops- form small plateaus.
- Lakes- Sambhar, Ramgarh, Pandupole
- To north & east it merges with Ganga-Yamuna Plains.
- Hill Ranges
 - o Malkhet & Khetri Group of hills
 - o Torawati Hills

2. The Central Aravalli Range:

- Districts: parts of Ajmer, Tonk, Jaipur

- Length of central Aravalli range is 100 Km with width of 30 Km and valleys with depth of 550 m.
- Height/ Elevation- 700 m
- Highest Peak/elevation- 799 m in Rajgarh
- The central/Aravalli extends from Sambhar Lake to the Borhat Plateau
- Surrounded on
 - o North by - Alwar Hills
 - o East by Karauli table-land
 - o South by Banas plains
 - o West by Sambhar basin

3. The Mewar Rocky region and Borhat Plateau

- Includes areas of Udaipur, Pali & Dungarpur districts.
- Area- 17007 Sq. Km
- Average height- 1225 m
- The highest portion of Aravalli range lies between the forts of Kumbhalgarh & Gogunda in the form of plateau locally known as '**Bhorat**'
- Altitude of Borhat- 1225 m
- Borhat plateau is one of the highest table lands of Aravalli

4. Abu region

- District- Sirohi
- Area 5180 Sq. Km
- Elevation: 1200 m
- It has been separated from the main Aravalli range by the wide valley of the West Banas.

Peaks of Aravalli Ranges:

S. No	Peak Name	Height (m)	District
1	Guru Shikhar	1732	Mount Abu, Sirohi
2	Ser	1592	Sirohi
3	Delwara	1442	Sirohi
4	Jarga	1431	Udaipur
5	Achalgarh	1380	Sirohi
6	Kumbhalgarh	1224	Rajsamand
7	Raghunathgarh	1055	Sikar
8	Hrishikesh	1017	Udaipur
9	Kamalnath	1001	Udaipur
10	Khoh	920	Jaipur
11	Taragarh	870	Ajmer
12	Bhairach	792	Alwar
13	Babai	780	Jhunjhunu
14	Bairath	704	Jaipur

3. Eastern Plains

- Districts- Tonk, Bundi, Amjer, Sawai Madohpur, Bhilwara, Chittorgarh, Kota, Bhatratpur
- Percentage- 23.3% of total area of Rajasthan
- Location- South West of Rajasthan
- Eastern plain is subdivided into three regions:

A. Chambal basin

- District- Kota, Bundi, Baran, Tonk, Sawai Madhopur, Dholpur
- Area- 4500 Sq. Km
- Average width- 10 Km

B. Banas Basin

- District- Udaipur, Chittorgarh, Bhilwara, Tonk, Jaipur, Alwar, Sawai Madhopur
- Average height- 280 - 500 m
- Area- 187400 Sq. Km
- It is an elevated peneplain plain drained by Banas & its tributaries.
- It is divided into two sub-regions mentioned below:

B.1 Mewar Plain:

- It is a dissected plain of Archean granite and gneiss.
- Mewar plain gradually slopes towards the east & north-east, with an average elevation of 280- 500 m.
- The Banas & its tributaries Berach, Menal, Bandi, Mansi, Kothari, Khari flow through this plain.

B.2 Malpura-Karauli Plain:

- It is flat upland, which Heron recognized as a —Tertiary Peneplane.
- It is composed of schist & gneiss with average elevation of 250-350 m
- Alluvial deposits are thick in larger parts of Kishangarh and Malpura.

C. Mahi or Chappan Basin

- District: Dungarpur
- Area: 7056 Sq. Kms.
- The region lies to the east of Mewar hills & south of the Banas plain.
- The western part of Mahi Basin is hilly but central & eastern parts are fertile plains with extensive cultivation. These plains are also known as **Chappan plains**.
- Average elevation of the region is between 200-400 m.
- This dissected plain along with hill tracts of Banswara are Dungarpur are locally known as Bagar.

4. South-eastern Rajasthan Pathar (Hadoti Plateau)

- The region comprises of the eastern & south-eastern part of the state & is known as **Hadoti**.
- This region locally called Pathar and Uparmal.
- Districts- Bhilwara, Bundi, Kota, Baran & Jhalawar districts.
- It contains about 9.6% of the area of Rajasthan.
- The **Great Boundary Fault** of the Aravallis forms its northwest boundary, which extends eastward across the Rajasthan border.
- River Chambal drains the large part of this area.
- This plateau is further sub-divided into two sub-regions.

A. Deccan highlands

- Districts- Bundi, Kota
- The western parts of the vindhyan plateau lie in the form of three concentric escarpments.
- Formed by the exposed rocks of three main sandstones with slate-stones in between.
- This physiography of south east of Rajasthan is also known as Uparmal (high or stony plateau)
- Region is trained by Chambal and its tributaries Kali Sindh, Parwan and Parvati.
- Soil of the region is mostly black with visible deposits of Deccan Trap lava.

B. Vindhyan region

- Districts- Karauli, Sawai Madhopur, Bundi, Kota
- The region presents an undulating topography strewn with boulders, blocks & depressions.
- The scarps are facing towards the south-southeast between the Banas and the Chambal and extend towards the east over Bundelkhand.



- The scarp lands are formed by massive sandstones.
- Average height of the region is between 350-550 m.

