

ROCK SYSTEM IN MAHARASHTRA

The Total area of Maharashtra is 3, 07,713 sq. km. The Whole of Maharashtra is part of the Indian peninsula. This part is composed of highly stable pre-Cambrian rock and has undergone extensive metamorphism over time. These pre-Cambrian rocks serve as the foundation of all rock structures.

The land of Maharashtra is made up of different rocks. The major types of rocks are:

1) Archaean rock

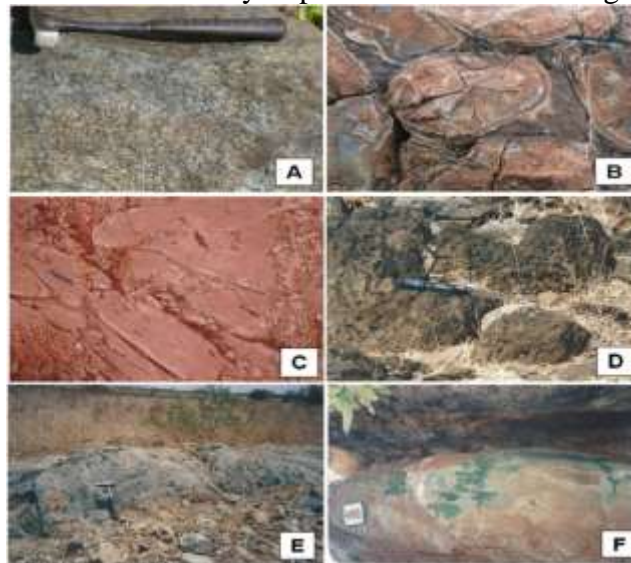
- This is the most ancient rock.
 - Fossils are not usually found in these rocks.
 - This rock appears to have been extensively transformed.
 - It has an abundance of granite igneous rocks and metamorphic rocks of Gneiss and Schist.
- ⇒ **Region:** It is found in Bhandara, Gondia, Chandrapur and Gadchiroli districts in the east and Sindhudurg district in the southwest of Maharashtra.
- ⇒ This rock is also found in some parts of Marathwada. Layers of this rock are found in Nanded district.
- **Importance:** This rock is rich in iron and manganese.



Archaean rock

2) Dharwar Rocks

- It is the first rock system to be converted into stratified rocks.
- These are ancient rocks that contain igneous, metamorphic, stratified rocks.
- Dolomite, marble, mica, sillimanite, granulite, hornblende and silica are found in this rock system.
- **Region:** Dharwad-type rocks are found in the Bhandara and Chandrapur districts in the east and the Sindhudurg district in the west of Maharashtra.
- **Importance:** These rocks are economically important. It contains manganese.



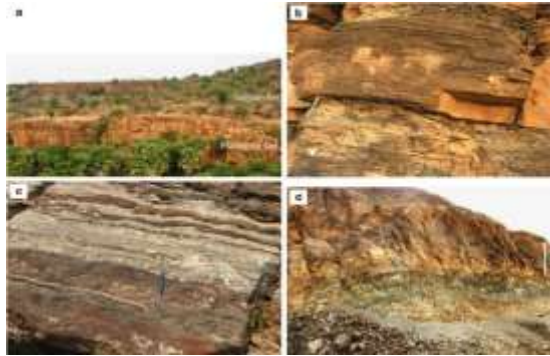
Dharwar Rocks

3) Rocks from the Kadappa period

- This rock got its name from the place that it was first studied at Kadappa in Andhra Pradesh.
- These rocks were formed during the Lower Paleozoic period.
- Fossils are not found in the stratified rocks in this rock system.
- It contains rocks like limestone, sandstone, silica and slate.
- **Region:** These rocks are found in the south-east and western parts of Maharashtra.

These are mainly found in Yavatmal and Chandrapur in the east, Kolhapur in the south and Sindhudurg district in the west of Maharashtra.

- **Importance:** The limestone rocks of the Kadappa period are important.
- ⇒ These rocks are used in iron and steel factories.
- ⇒ Dolomite is used in cement factories.



Rocks from the Kadappa period

4) Vindhyan Rock

- This rock was also formed during the Lower Paleozoic period. It also does not contain fossils.
- This is reddish in color and very strong in nature.
- **Region:** This type of rock is found in small quantities in the eastern district of Chandrapur in Maharashtra. This rock is found in very few parts of the state.
- **Importance:** This rock is used for building construction. This rock is used for the construction of old historical buildings in North India.



Vindhyan Rock

5) Rocks from the Gondwana period

- Earth movements occurred in many parts of Maharashtra during the period. As a result of these earthquakes, small and large potholes were formed.
- Sludge was accumulated in these potholes and Gondwana rocks were formed by mixing the remains of plants and animals in that storage.
- Over time, these residues formed coal.
- **Region:** This rock is found in Nagpur, Chandrapur, Amravati and Yavatmal districts in the eastern part of Maharashtra.
- **Importance:** The high quality coal found in this rock is of great economic importance.

6) Volcanic rocks:

- These rocks are formed by the accumulation of eruptions from volcanic activities.
- In the latter part of the Gondwana period, a huge volcanic eruption broke out in South India and a large amount of lava flowed out. This lava flow spread around and cooled to form volcanic rock.
- These rocks are considered as a part of the 'Aryan rock system' and are called 'Cretaceous rock system'.
- It has an abundance of basic types of rocks i.e. basalt rocks. Due to this rock, Maharashtra has abundance of black cotton soil.



- **Region:** 80% of Maharashtra is made up of rock system. The thickness of this rock system is more near Mumbai. The plateau of Maharashtra is formed from this rock.
- **Importance:** It is used to construct buildings, roads, dams, and wells.

7) Sedimentary rock system

- This rock system formed in the Tertiary and Quaternary periods of Cenozoic era.
- During the Pleistocene period, silt accumulated in the basins of the Godavari, Bhima, Krishna, Panchganga, Tapi, Wardha and Wainganga rivers and formed sedimentary rocks.
- **Region:** This rock is found in the basins of major rivers in Maharashtra.
- **Importance:** This rock is used for building construction, cement and brick making.

