Karauli, the 32<sup>nd</sup> district of Rajasthan was formed on 19<sup>th</sup> July 1997 by carrying out a part of Sawai Madhopur district, comprising tehsils of Karauli, Hindaun, Nandauti, Sapotara and Toda Bhim. The district lies in the northeastern part of Rajasthan. Stretching between 26<sup>o</sup> 02' latitude and 76<sup>o</sup> 28' to 77<sup>o</sup> 25' longitude.

It is bounded in north by Dausa and Bharatpur districts, in west by Dausa and Tonk district, in south by Sawai Madhopur district and in east by Dholpur and Bharatpur districts and state of Madhya Pradesh.

The district has an area of app. 4985 sq. km. The district headquarter Karauli is 180 kms from Jaipur and is well connected by tar roads. State Highway No. 2 and 22 connect it with the other cities. Nearest railhead is Gangapur city on Delhi Bombay main line of Western Railway National Highway No. 11 passes through northern top of district.

The district enjoys a plain topography except in northeastern part of the district where Aravalli and Vindhyan ranges raise 300 to 500 mts above msl. The only major river is Chambal, which forms district and state boundary in east with MP. Other river is Gambhiri emerging from hills of Nandauti tehsil and flowing through Hindaun and Toda Bhim tehsils.

A major part of Karauli and Sapotra tehsils falls in reserve and protected forest. Reserve forests also occur in northern part of Nandauti tehsil. The drainage system is dendritic.

In the Karauli tehsil hills become more high and extensive. Hills and broken grounds characterize almost entire area locally known as Dang.

The famous temple of Kela devi is situated 25 kms from Karauli, while the world famous Shri Mahaveerji temple is situated in hindaun tehsil.

# Geology

Geologically the district comprises rocks belonging to pre Aravalli, Delhi and Vindhyan super group. The oldest rocks of Bhilwara super group occupying a large part of the district exposed in the central portion from northeast to southwest. The high grade metamorphic rocks forming the basement includes granite gneises, migmatites garnetiferous, mica schist, etc. The low-grade metamorphic rocks forming Hindoli Group comprise shale, slate, phyllite limestone dolomite and quartzite. The Bhilwara super group is uncomformably overlain by rocks of Delhi super group and vindhyan super group.

The rocks of Delhi super group occupy northwestern part of district exposed as narrow strip between Toda Bhim and Lewale. The rocks include quartzite and schist with basic intrusive. The general trend of these rocks is N  $25^{\circ}$  E-S  $25^{\circ}$  W with moderate to high dips due NW.

The Vindhyan super group occupies a major part of the district. The rocks are separated from Bhilwara super group by a major reverse fault known as Great Boundary fault. The lower most Semri Group is represented by basal conglomerates. Tirohan shale, breccia and limestone having scattered exposures. The Kaimur Group comprises conglomerate to gritty and pebbly sandstone exposed east of Hindaun. The Rewa Group of rocks comprise alternate shale and sandstone horizons, while the upper most Bhander group occupies most extensive area in the district. The lower most bed is Ganurgarh shales. Lower Bhander limetone occupies hill slopes in Karauli area. Sirbu shales with limestone and upper Bhander sandstone are youngest formation. The sandstone is flaggy and mined extensively in the district.

The quarternary sediments representing scree, talus, aeolin and alluvial deposits occupy a large part of the district occurring as thin to moderately thick layer.

### Mineral of Karauli District

The newly formed Karauli district has some very important nonmetallic mineral deposits in the state it has good recourses of silica sand, sandstone and quartz, besides soapstone, limestone, red oxide, laterite, etc. Karauli sandstone is well known for its sculpture and engraving property. The red and spotted variety of Karauli sandstone is exported to various countries i.e. Japan, Gulf and other Asian countries. Hindaun is the main business center for it's processing. The details of the mineral deposits are given below.

### Soapstone

The soapstone in the district occurs in Morra-Ka-Dungar ridge of Toda Bhim tehsil. It is located 27 km northwest of Hindaun, situated on the Nagda-Mathura broad gauge section of the Western Railway. Talc deposits in the Morra-Ka-Dungar ridge are known for the last 125 years and these have been worked on a small scale ever since. Between the village of Dhaota and Morra which are about 8 km apart, the talc deposit have been exposed at as many as seven localities near Dhaota, Dwain, Kamalpura, Rajuli, Giarhipura and Morra. Of these, deposits of Dwain, Rajuli and Garhi are fairly large. Most of the deposits in this area occur in the basal part of the massive quartzite (Alwar Group).

The talc occurs in lenses which vary in width from less than a meter to 20 meters and are exposed over lengths varying from a few meters to 40 meters. The talc is generally pale to light green and pale greenish white in colour, cleaved to locally compact and massive. The indictated reserves of talc from Dwain, Rajuli and Garhi areas have been estimated at about 0.107 million tones for depth varying from 8 m to 30 m along dip. At present 5 leases are under production in the belt.

### Limestone

About 25 kms S.S.W. of Karauli Mohalikeladevi limestone belt is exposed intermittently over a strike length of 16 kms with 100 to 200 mts width. The limestone is grayish, pinkish and purple in colour and is associated with chert bands at places. The total reserves available in this area are 4.63 million tones with average 43.50% CaO. The area is leased out to M/s. Laxmi Cement Industries.

### Silica Sand

The important silica sand deposits are located in Pator-Sapotra area extending from Ganeshwari to Machh villages over a strike length of 1 km in Sapotra and Karauli tehsils. Besides this the other occurrences are near Jon, Ghat, Parli and the Badrela in Toda Bhim tehsil.

In Sapotra and Karauli tehsils, silica sand is associated with Rewa and stone of Vindhyan super group. It is white in colour and coarse grained and contain 92.62 to 95% silica. In Toda Bhim it occurs with Delhi super group rocks.

# Laterite

The laterite occurs near village Bajna, Gathra in Sapotra tehsil capping over Rewa and stone of upper Vindhyan super group. One lease near village Bajana is under operation. Its main consumer was M/s. Jaipur Udyog Limited, a cement industry, which is closed since long.

# **Red Oxides**

It is exposed near Rodhai village of Karauli tehsil. One lease has been executed in the area. At present the production is closed.

### Ochres

Both red and yellow ochres are available in the district. These are found associated with quartzites of Bhilwara super group. The main localities for red ochres are Narayanpura and Tantwara in Sapotra tehsil, Kachrauli in Karauli tehsil. Yellow ochre is only located near village Kherata of karauli tehsil.

### Iron Ore

Near village Karauli about 7 km east of Hindaun, iron ore deposit occurs in the banded hematite chert of Kaimur group of Vindhyan super group. Three abandoned workings and few minor excavation for iron ore are present in this area. The samples from these old working show 55.93 to 63.78% Fe, 3.32 to 6.94% SiO<sub>2</sub>.

### Sandstone

Karauli sandstone is an excellent building stone as it is amenable to receive good polish and intricate carving meant for lattices and arches. The sandstone occurs in the form of hill range crossing across the district. Most of the quarries are situated in nearby areas of Karauli and sapotra tehsils. The sandstone is find to medium in grain size, compact and moderately hard and has good splitting property by which almost smooth surface bearing slab of 5 to 10 cm thickness can be obtained.

Recently Mines and Geology Department has identified 5 splittable sandstone blocks viz. Bhauapura-Ratiapura (10 sq. kms.), Chobe Ki Guwari (4.88 sq. km.), Mokanpura-Berda (2 sq. km.) and Bhaktri (5 sq. km.) of about 25 sq. km. total area. These are 10 to 40 km. away from Karauli town and well connected with tar road. After drilling up to 15 mts. depth it has been proved that 2 to 3 splittable sandstone zones of about 3 m. thickness occur below 1 to 2 m. depth from the surface, with 2 to 4 m. intervals between each successive zones. Sandstone is red and buff in colour, fine grained and bedded in nature. These blocks are outside forest and lease hold areas.

Important sandstone mining localities are Bhadurpura and Madibhat in Sapotra tehsil where as parasari, Makanpura, Barda, Bhanpura and Maon villages are in Karauli tehsil. Other localities are Godi-Ka-Gaon, Moder, Langare, Gurdha, Ghanwar, Ratimpura, Keshpura, Albat-Ki-Guwadi, Dewari Piaran, Makori, Karshai, Kashare, Sewali of Karauli tehsil; Chamble-Ki-Guwadi, Lohara in Sapotra tehsil. Besides in Rajoli, Kamalpura village of Toda-Bhim, Bapoti, Mangrol and Tali hill of Sapotra tehsil, sandstone is quarried for millstone because of its greater hardness and massiveness.

About 138 mining leases were in working conditions from which an inexhaustible supply of the most excellent roofing and flooring slabs have been obtained. Most of the material is processed in 62 cutting and polishing units.