

# **DISTRICT SURVEY REPORT**

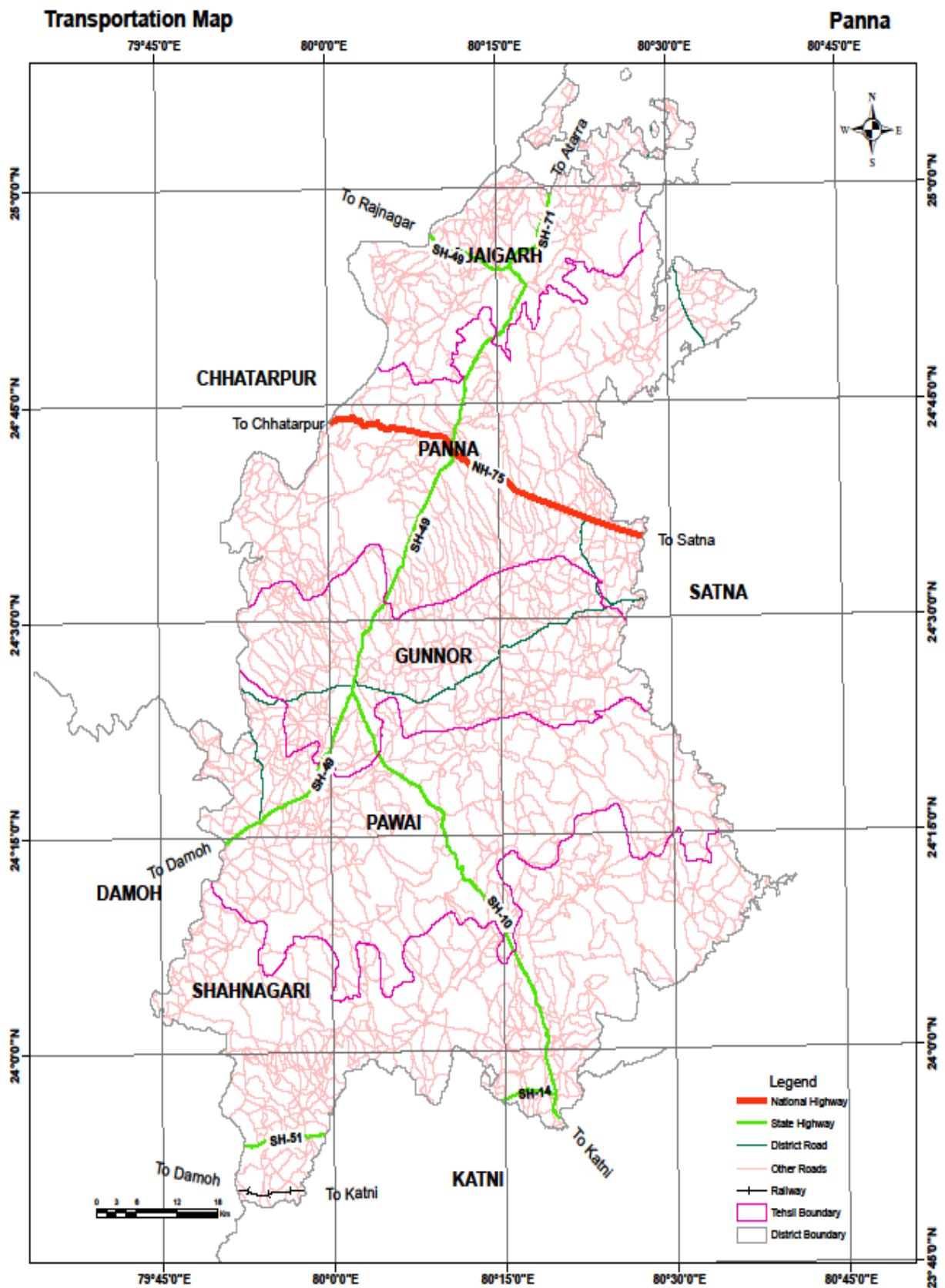
## **CHAPTER-I**

### **INTRODUCTION-**

Ministry of environment, forest and climate change vide notification dated 15<sup>th</sup> January 2016, New Delhi has made mandatory for mining of minor minerals irrespective of the area of mining lease, to obtain environmental clearance before mining, in this respect state govt. has set up two bodies DEIAA and DEAC which will meet once in every month and the members of this committee will recommend/scrutinize the mining plan/environmental clearance of the minor minerals. This will be done on the basis of district survey report in which all the important factors shall be taken into consideration regarding land use, reserves, mineral-availability, deposition, infrastructure, distance prohibition, annual deposition and time taken for replenishment etc,

This district survey report will be an important too for the guidance, assessment and sanction for giving environment clearance to the said mine plan of the minor mineral or if any correction or so is needed in the said mine plan.

The district lies between longitude 23<sup>0</sup>45' N to 25<sup>0</sup> 09'N and latitude 79<sup>0</sup>45'E to 80<sup>0</sup> 45'E of sagar division. It is the northern most part of the division. It is covered by toposheet no. 55M, 54P, 63C, 63D and 64A. It is located 70 km. west from WC Rly station Satna, by all fair weather road NH-75 and nearest airport at a distance of 40km. from district HQ.



An area of 246951 Hect. i.e., about 35% of the area of the district is covered under the government forests. Administratively, the forests are divided into two divisions and 14 ranges. For operational purposes, the bulk of the forests are given the legal status of Protected Forests which, given times, will be converted into Reserved Forests. Mainly under Teak and mixed types of the Southern tropical Dry Deciduous Forests. Other types of forests are either over-lapping over these or they exist in limited areas due to variations in the climatic conditions, soil, past treatment, altitude, slope.

The Northern Tropical Dry Deciduous forests are as under :- Teak, Dhaora, Tendu, Saj, Seja, Gurjan, Muhua, Bija, Bahera, Rohan, Safod Sirls, Kala Siris Semal, Kusum, Ghont, Kaim, Baranga and along nalaskoha.

### **SHRUBS AND HERBS:**

Sihru, ainthi, dhawai, karonda, thuar, baikal, gulchitari, nirgundi, gokhru, gursakari, bantulsi, chirchinda, kareta and tarota.

### **GRASSES:**

Bhurbhusi, lampa, gunher, phuli, aristata sain and kans.

The herbivorous animals found are barking deer, chital, nilgai, sambhar, slothbear, wild pig, common Indian hare, langoor, long tailed monkey and sahi.

The carnivorous animals found are tiger, leopared or panther, hyaena, pangolin, wild dog, wild cats, wolf, jackal and foxes.

### **RODENTS:**

Mice, rats, voles, fruit bats and squirrels are the rodents found commonly in the district.

Sparrow, bucks, fly-catchers, common crow, geese, spaow, hawks blue-birds, barpets, barn-owls, bustord quaits, creandoves flacons, flamingoos, hornbills,

domestic and spurfowl, owls, partridges, blue-rock-pigeons, quails, snipes, mountain quail, koels, parrots, and peafowl, are common birds found in the villages open grounds, birs, gardens and jungles of this district.

Large falcons, eagles, barn owls, fly catchers, hawks, owls, jungle and common crows are common scavengers in this district.

Guinea fowls, country fowls, partridges, parrots, ducks, and geese are the domestic birds. Ducks, fish-catchers, storks, and teals are water birds.

Siberian ducks white cranes visit in winters and are seen in Gangau Dam Sanctuary.

Pythons, crabs, cobras, scorpions and watersnakes, and stinging bees are common harmful insects.

The whole district lies on the Vindhya Plateau with an average height of 560 meters. Among the prominent features are the Kymore Ranges the Panna ranges which traverses across the southern part and the North-eastern part respectively. Between the two is the upper valley of the Ken which after cutting across the Panna Range flows along the North-western boundary. Thus the district can broadly be divided into four physiographic divisions in a sequence from South to North. They are :-

- (1) Southern Plateau on the Kymore Range
- (2) The upper Ken Valley
- (3) The Panna Range and
- (4) The Lower Ken Valley

Southern Plateau on the Kymore Range :-

The Kymore range is the North-Eastern extension of Vindhya. In southern edge scarps southeast in Katni District, along the boundaries of

Damoh, Panna and Satna. The range widens into an elongated plateau in the southern part of Panna district i.e. most of Pawai Tehsil. It also forms a northern scarp with a fall of about 100mtr. along the Gurne and in the Upper Ken Valley. The highest hills lie in the eastern part of the tract eg. Jheria (2136ft) Mawhadol (1874ft) Amua (2120ft) Tikarwara (1927ft) and Jukehi (1947ft) on the southern scarps and Benra (1748 ft) on the northern scarp near Pawal are other high peaks. The plateau slopes towards the north and is cut up by a number of rivers flowing through deep channels. Important among them is the Ken and its tributaries, the Bearma, the Bagni, the Patne, The Simarda and Gurneh and the Sersebahra.

### **The Panna Range :-**

It is one of the northern folds of Vindhya range running parallel to it in a south-west to north-east direction. It traverses the northern part of Sagar, Southern part of Chhatarpur, and central part of Panna Distt and converges into Chitrakoot hills in the northern part of Satna district. The hill ranges forms a plateau 10 to 20km wide, with steeper sides on the northern as well as the southern edges . The southern edge, resting on a higher plateau, is less steep than the northern edge but it is covered by higher hills dotted with small hillocks all over and traversed by small streams flowing in several directions. It presents an uneven topography with hard and poor soil. About 10 km east of Panna, the range bifurcates longitudinally, giving way in between to the narrow syncline of the upper Baghain nala in the district and the Paisuai nala in Satna district. As a general rule all over India the Vindhyan Plateau have alignments of high peaks along the scarps, and this comes true to the hills of Panna range also. Sukuha hill is the highest along the southern scarp whereas Marla works only 150 ft on the Northern slopes. Ajaigarh town lies at an elevation of 1400 ft in the north and Panna at 1557 ft on the northern scarp.

This range separates the upper Bundelkhand plateau in the south from the lower one in the north. It also marks the northern extension of the Vindhyan rock formation which meet the lower and older strata of Bundelkhand gneisses in the north.

### **Ken Valley (Upper and Lower) :-**

Ken Valley is divided into two parts in the district. The upper valley lies between Kaimour and Panna range in the central part. The lower Valley lies to north west of the Panna range. The Panna range forms the water divide between the two valleys, while the upper valley drains to the west, the lower valley slopes along the river towards the north-east. Though wider, the former is studded with Lowhills. The lower valley is more level but narrow, it is also irrigated by the Ken canal.

### **Drainage :**

The whole district lies in the Ganga drainage system. Most of its drains into the Yamuna through the Ken. A very small area around Devendrangan flows to the east and feeds the Ganga through the Satna and the Tons river.

### **The Ken :-**

The ken rises at Muwar near Rithi Railway station on the Bina-Katni section of the west Central Railway in Katni District; above the Southern scarps of the Kaimour. It enter Panna within 7 km and flows to the south among the hills for 40km It receives the streams of Aloni, Sumidra and Gurne on the right bank in the part, immediately after entering the upper plateau it turns to the west and flows into Tigraghat where it is crossed by Panna-Hatta Road Patne, a tributary from the southern hills, join it at Chandarpur on Pawai Road. After the river has taken a north-westerly trend to make a groove across the Panna range, it is met by Sonar river on the left bank. The Sonar also brings the water from

Bearma which marks the western boundary for about 40km. The Mirhasan, which collects the waters of the southern slopes of the Panna ranges joins the right bank below Singora.

The course of the Ken for 35km, while crossing the Panna ranges is narrow. It is marked by several rapids and falls below the hard rocks and pools above a rocky edge. Here the ken determines the boundray between Chhatarpur and Panna district, untill it leaves below Bira. Near Khami and Patharpur villages, there are two falls of 48 mtr & 45 mtr. The fall at Raneh near narayanpur is 25 mtr, now ken turns to the north-east and washes the edges of the Panna Range upto the road crossing at Mera. Further, it enters the lower plateau, and meanders along the north-western boundary, its valley in Ajaygarh Tehsil is narrow as compared to Chhatarpur and Banda Districts.

All streams of the district are seasonal and turbulent during the rains. In summer they are dry or mere threads between the wide sandy bed. The channels are deep in the hilly areas.

## **CHAPTER – II**

### **OVERVIEW OF MINING ACTIVITY IN THE DISTRICT**

Panna is the only district in country where mechanised mining of diamond is under progress, other minerals found in the district are limestone which is being leased out to different agencies, etc for setting up cement industry. Previously few lime kilns were set up around Devendranagar but at present they are not in working condition. Few granite and Green sandstone cutting & polishing industries were set up but at present they are not in working condition only unfinished blocks are sent.

In Panna district 01 mining lease of diamond is sanctioned and 177 quarry leases are sanctioned for different minerals like flagstone, granite, boulder, stone for crusher, etc. 69 auction quarries of flagstone, boulders and 25 sand quarries.

Royalty received from these quarries is Rs. 109523769 and 82299719 ending financial year 2015.



## CHAPTER – III

### LIST OF AUCTION QUARRY OF MINOR MINERALS

S.	Name of Grampanchayat	Block	Tehsil	Details of Quarry			Name of Mineral	Offset value
				Name of Quarry	Khasara No.	Area in Hect.		
1	पनारी	पन्ना	पन्ना	पनारी	127		फर्शी पत्थर	—
2	हरदुहाई	पन्ना	पन्ना	हरदुहाई	43 / 1	1.00	बोल्डर पत्थर	40000
3	राजापुर	पन्ना	देवेन्द्रनगर	राजापुर	156	1.00	बोल्डर पत्थर	40000
4	तारा	गुनौर	अमानगंज	तारा नं० 2	16 / 1	2.00	बोल्डर पत्थर	80000
5	तारा	गुनौर	अमानगंज	तारा नं० 3	16 / 1	1.00	बोल्डर पत्थर	40000
6	बलगहा	गुनौर	अमानगंज	बलगहा	1	2.00	बोल्डर पत्थर	80000
7	झरकुआ	गुनौर	अमानगंज	झरकुआ	1676 / 1		बोल्डर पत्थर	40000
8	सिरी	गुनौर	अमानगंज	सिरी	202 / 1		बोल्डर पत्थर	121000
9	रामपुर	गुनौर	अमानगंज	रामपुर नं०—1	195		बोल्डर पत्थर	80000
10	रामपुर	गुनौर	अमानगंज	रामपुर नं०—2	195	2.00	बोल्डर पत्थर	80000
11	रामपुर	गुनौर	अमानगंज	रामपुर नं०—3	195	2.00	बोल्डर पत्थर	80000
12	रामपुर	गुनौर	अमानगंज	रामपुर नं०—4	195	2.00	बोल्डर पत्थर	80000
13	रामपुर	गुनौर	अमानगंज	रामपुर नं०—5	195		बोल्डर पत्थर	80000
14	रामपुर	गुनौर	अमानगंज	रामपुर नं०—6	195		बोल्डर पत्थर	80000
15	रामपुर	गुनौर	अमानगंज	रामपुर नं०—7	195		बोल्डर पत्थर	80000
16	झरकुआ	गुनौर	अमानगंज	झरकुआ	1622		बोल्डर पत्थर	80000
17	झरकुआ	गुनौर	अमानगंज	झरकुआ	1604		बोल्डर पत्थर	80000
18	उडला	गुनौर	अमानगंज	उडला	93		बोल्डर पत्थर	40000
19	गूढ़ा	गुनौर	अमानगंज	गूढ़ा	215		बोल्डर पत्थर	—
20	खजरुट	गुनौर	अमानगंज	खजरुट	3		बोल्डर पत्थर	80000
21	खजरुट	गुनौर	अमानगंज	खजरुट	229		बोल्डर पत्थर	80000
22	उडला	गुनौर	अमानगंज	उडला	578	1.00	बोल्डर पत्थर	42000
23	उडला	गुनौर	अमानगंज	उडला	605	5.50	रेत	1320000
24	सुनवानीखुर्द	गुनौर	अमानगंज	सुनवानीखुर्द	155	5.30	रेत	1272000
25	महेवा	गुनौर	गुनौर	महेवा	363	2.00	बोल्डर पत्थर	85000
26	बरहाकला	गुनौर	गुनौर	बरहाकला	1140 / 1	2.00	बोल्डर पत्थर	82500
27	लुहरगांव	गुनौर	गुनौर	लुहरगांव	460, 464	1.00	बोल्डर पत्थर	554500
28	कठवरिया	गुनौर	गुनौर	कठवरिया	2473		बोल्डर पत्थर	87500
29	कोलगंवा मडैयन	गुनौर	गुनौर	कोलगंवा मडैयन	316		बोल्डर पत्थर	91000

30	पिपरिया	गुनौर	गुनौर	पिपरिया	96		रेत	1248000
31	कोठी	पवई	पवई	कोठी	40		बोल्डर पत्थर	194000
32	कोठी	पवई	पवई	कोठी	164		बोल्डर पत्थर	268000
33	ढेसाई	पवई	पवई	ढेसाई	807		बोल्डर पत्थर	80000
34	कुटमी	पवई	पवई	कुटमी	126		फर्शी पत्थर	1000000
35	बछौन	पवई	पवई	बछौन	757		फर्शी पत्थर	250000
36	बछौन	पवई	पवई	बछौन	15 / 1		फर्शी पत्थर	208000
37	बछौन	पवई	पवई	बछौन	754 / 1,758		फर्शी पत्थर	241000
38	बछौन	पवई	पवई	बछौन	51		फर्शी पत्थर	299000
39	बीजादेह खिलसारी	पवई	पवई	बीजादेह खिलसारी	42		फर्शी पत्थर	75000
40	बछौन	पवई	पवई	बछौन	19		फर्शी पत्थर	100000
41	कैमुरिया	पवई	पवई	कैमुरिया	241,242 / 1		फर्शीपत्थर	400000
42	पुरैना	पवई	पवई	पुरैना	468	6.00	रेत	1440000
43	बड़खेराकला	पवई	पवई	बड़खेराकला	1	5.50	रेत	1320000
44	सिघांसर	पवई	पवई	सिघांसर	1, 96	5.40	रेत	129600000
45	कोलकरहिया	पवई	पवई	कोलकरहिया	582	5.30	रेत	1320000
46	कैथी	पवई	पवई	कैथी	2	5.00	रेत	1200000
47	गूढा	पवई	पवई	गूढा	24	5.10	रेत	1200000
48	देवरा	शाहनगर	शाहनगर	देवरा	233	2.00	बोल्डर पत्थर	80000
49	कचौरी	शाहनगर	शाहनगर	कचौरी	3218 / 1	2.00	बोल्डर पत्थर	172000
50	देवरी	शाहनगर	शाहनगर	देवरी	1282	1.82	बोल्डर पत्थर	80000
51	आमा	शाहनगर	शाहनगर	आमा	1554	1.00	बोल्डर पत्थर	137000
52	चौपरा	शाहनगर	शाहनगर	चौपरा	1581	2.00	बोल्डर पत्थर	221500
53	चौपरा	शाहनगर	शाहनगर	चौपरा	1471	1.70	बोल्डर पत्थर	80000
54	सलैया समारी	शाहनगर	शाहनगर	सलैया समारी	1021	1.00	बोल्डर पत्थर	40000
55	रमगढा	शाहनगर	शाहनगर	रमगढा	253,296		फर्शी पत्थर	270000
56	बडखेरा	शाहनगर	रैपुरा	बडखेरा	284	1.00	बोल्डर पत्थर	40000
57	इमलिया	शाहनगर	रैपुरा	इमलिया	611 / 2		बोल्डर पत्थर	—
58	इमलिया	शाहनगर	रैपुरा	इमलिया	628 / 4		बोल्डर पत्थर	—
59	पौडी	शाहनगर	रैपुरा	पौडी	861/1	2.00	बोल्डर पत्थर	143000
60	इटौरा	शाहनगर	रैपुरा	इटौरा	504	2.00	बोल्डर पत्थर	129000
61	बगडौर	शाहनगर	रैपुरा	बगडौर नं01	82	2.00	बोल्डर पत्थर	80000
62	कूड़ा	शाहनगर	रैपुरा	कूड़ा	43	2.00	बोल्डर पत्थर	150000
63	पटना	शाहनगर	रैपुरा	पटना	1055 / 1	2.00	बोल्डर पत्थर	80000

64	पटना	शाहनगर	रैपुरा	पटना	1048		बोल्डर पत्थर	80000
65	बगडौर	शाहनगर	रैपुरा	बगडौर नं02	82	2.00	बोल्डर पत्थर	144500
66	तुल्ला	शाहनगर	रैपुरा	तुल्ला	21		बोल्डर पत्थर	147000
67	इटौरा	शाहनगर	रैपुरा	इटौरा	3		बोल्डर पत्थर	80000
68	इटौरा	शाहनगर	रैपुरा	इटौरा	1118	2.00	बोल्डर पत्थर	178500
69	भरवारा	शाहनगर	रैपुरा	भरवारा	3036 / 1		फर्शी पत्थर	86000
70	तुल्ला	शाहनगर	रैपुरा	तुल्ला	21		फर्शी पत्थर	245000
71	चन्द्रावल	शाहनगर	रैपुरा	चन्द्रावल नं0 1	1	6.00	रेत	1440000
72	चन्द्रावल	शाहनगर	रैपुरा	चन्द्रावल नं0 2	526, 549	6.00	रेत	1440000
73	मौहारककरा	शाहनगर	रैपुरा	मौहारककरा	1	5.20	रेत	1248000
74	कगरेकाबारा	अजयगढ़	अजयगढ़	कगरेकाबारा	247		बोल्डर पत्थर	—
75	मझगाय	अजयगढ़	अजयगढ़	मझगाय	668	1.00	बोल्डर पत्थर	40000
76	मझगाय	अजयगढ़	अजयगढ़	मझगाय	693		बोल्डर पत्थर	40000
77	कगरे का बारा	अजयगढ़	अजयगढ़	कगरे का बारा	250		बोल्डर पत्थर	41000
78	बरौली नं0 -2	अजयगढ़	अजयगढ़	बरौली नं0-2	105	1.00	बोल्डर पत्थर	40000
79	बरौली नं0 3	अजयगढ़	अजयगढ़	बरौली नं0 3	105 / 1	2.00	बोल्डर पत्थर	111500
80	देवरा भापतपुर	अजयगढ़	अजयगढ़	देवरा भापतपुर			बोल्डर पत्थर	40000
81	विलाही	अजयगढ़	अजयगढ़	विलाही	328 / 412		बोल्डर पत्थर	40000
82	बीरा	अजयगढ़	अजयगढ़	बीरा नं0 1	1	7.00	रेत	10500000
83	बीरा	अजयगढ़	अजयगढ़	बीरा नं0 2	1	7.00	रेत	12250000
84	बीरा	अजयगढ़	अजयगढ़	बीरा नं0 3	1	6.00	रेत	10500000
85	उदयपुर	अजयगढ़	अजयगढ़	उदयपुर	1	10.00	रेत	17500000
86	बरकोला	अजयगढ़	अजयगढ़	बरकोला	1	6.00	रेत	9000000
87	मझगाय	अजयगढ़	अजयगढ़	मझगाय	2	8.00	रेत	12000000
88	मोहाना	अजयगढ़	अजयगढ़	मोहाना नं0 1	1463	12.00	रेत	18000000
89	मोहाना	अजयगढ़	अजयगढ़	मोहाना नं0 2	55	6.00	रेत	9000000
90	रामनई	अजयगढ़	अजयगढ़	रामनई	1	7.00	रेत	8750000
91	चन्दौरा	अजयगढ़	अजयगढ़	चन्दौरा	1	8.00	रेत	16000000
92	भीना	अजयगढ़	अजयगढ़	भीना	1	10.75	रेत	21500000
93	सुनहरा	अजयगढ़	अजयगढ़	सुनहरा	1	7.00	रेत	13125000
94	फरस्वाहा	अजयगढ़	अजयगढ़	फरस्वाहा	1	7.00	रेत	11250000



## List of Quarry Leases in Panna District

S.	Name of Lease and Address	Sanctioned quarry and village	Name of Mineral	Kharasa No.	Area	Period of validity	Name of Tehsil
1	2	3	4	3	4	5	6
1	भाग्यवंती ग्रेनाइट प्रो० श्री ज्ञानेन्द्र सिंह निवासी छंगे राजा हाउस पन्ना	पिष्टा	ग्रेनाइट पत्थर	2029	8.06 एकड़	08.03.07 से 07.03.17 तक	अजयगढ़
2	श्रीमती निशा बाजपेई पत्नि प्रदीप बाजपेई निवासी रतहरा जिला रीवा	मुहाना	क्रेशर गिट्टी	621	2.00 हे०	15.04.10 से 14.04.20 तक	अजयगढ़
3	मे० सावित्री स्टोन माइन्स प्रो० भाष्कर दीक्षित नि० मठया तालाब पन्ना	मझगाँव	क्रेशर गिट्टी	935	2.00 हे०	16.12.06 से 15.12.206 तक	अजयगढ़
4	मे० नीलम कान्स्ट्रक्शन प्रो० श्रीमति नीलम सिंह नि० गल्ला कोठी पन्ना	पिष्टा	क्रेशर गिट्टी	1703	0.18	13.09.10 से 12.09.20 तक	अजयगढ़
5	श्री उपेन्द्र प्रताप सिंह पिता श्री भानू प्रताप सिंह निवासी पन्ना	रहुनिया	फर्शी पत्थर	10,26,27	2.00	12.10.06 से 1.10.16	पन्ना
6	मे० धरती धन स्टोन प्रो० श्रीमति सुशीला पाठक नि० कटरा पन्ना	पन्ना	फर्शी पत्थर	51	1.590	16.03.08 से 15.03.18 तक	पन्ना
7	श्री बृजमोहन सिंह पिता श्री जयराम सिंह निवासी धरमपुर	सिलधरा	फर्शी पत्थर	87	1.500	16.06.08 से 15.08.18	पन्ना
8	श्रीमति गीता वाई पति श्री अशोक कुमार पाण्डेय निवासी पन्ना	रानीपुर	फर्शी पत्थर	470	0.71	15.10.08 से 14.10.18	पन्ना
9	श्री नरेश पाठक पिता श्री हरी शरण निवासी नचनौरा	दहलान चौकी	फर्शी पत्थर	312/2	1.06	10.09.05 से 09.09.15	पन्ना
10	श्री धरमदास कुशवाहा पिता श्री कल्लू निवासी पन्ना	दहलान चौकी	फर्शी पत्थर	311	0.8	26.12.05 से 25.12.15	पन्ना
11	श्री सलीम खान पिता श्री याकूब खान निवासी पन्ना	दहलान चौकी	फर्शी पत्थर	19/3	1.0	26.12.05 से 25.12.15	पन्ना
12	मे० सिद्धी विनायक स्टोन प्रो० श्रीकान्त दीक्षित निवासी पन्ना	जमुनहाई	फर्शी पत्थर	47,48	4.00	17.08.06 से 16.08.16	पन्ना
13	श्री बाला प्रसाद गडरिया पिता श्री गिल्ला निवासी विश्राम गंज	रहुनिया	फर्शी पत्थर	10,11/1kh	4.00	12.10.06 से 1.10.16	पन्ना
14	श्री राजेन्द्र प्रसाद गुप्ता पिता श्री मोहन लाल गुप्ता निवासी पन्ना हस्ता० श्रीमती साधना गुप्ता	दहलान चौकी	फर्शी पत्थर	260	1.85	09.10.06 से 08.10.16	पन्ना
15	श्री आशुतोष सिंह पिता श्री स्व० श्री राम सिंह निवासी पन्ना हस्ता० श्री देवेन्द्र सिंह	पन्ना	फर्शी पत्थर	520/1	2.00	05.10.06 से 04.10.16	पन्ना
16	श्री भूपेन्द्र सिंह पिता श्री पूरन सिंह निवासी पन्ना	दहलान चौकी	फर्शी पत्थर	312/1,2	0.50	17.1.06 से 16.11.16	पन्ना
17	श्री मति मैदा बाई पत्नी महेन्द्र सिंह यादव निवासी पन्ना	पन्ना तह० पन्ना	फर्शी पत्थर	520/6k	2.00	29.07.07 से 28.07.17	पन्ना
18	श्री सुरेश कुमार शुक्ला पिता श्री रामस्वरूप शुक्ला निवासी पन्ना	पन्ना तह० पन्ना	फर्शी पत्थर	78/1	2.00	16.11.07 से 15.11.17	पन्ना
19	मे० सिद्धी विनायक स्टोन प्रो० श्रीकान्त दीक्षित निवासी पन्ना	पन्ना तह० पन्ना	फर्शी पत्थर	20/2	2.00	20.03.08 से 19.03.18	पन्ना
20	श्री ग्यासी राम आदिवासी पिता श्री राजाराम आदिवासी निवासी गहदरा	मनौर	फर्शी पत्थर	13/4	1.00	15.05.08 से 18.05.18	पन्ना
21	श्री भूपेन्द्र सिंह पिता श्री पूरन सिंह निवासी पन्ना	पनारी	फर्शी पत्थर	127	1.500	26.09.08 से 25.09.18	पन्ना
22	श्री अशोक कुमार शिवहरे पिता श्री जगदेव प्रसाद शिवहरे निवासी मोहन निवास पन्ना	उदयपुर	फर्शी पत्थर	4	1.50	29.05.09 से 28.05.19	पन्ना
23	श्री रविन्द्र प्रसाद शुक्ला निवासी रानीबाग पन्ना	पन्ना	फर्शी पत्थर	57	1.250	19.07.09 से 18.07.19	पन्ना
24	श्री इन्द्रपाल शिवहरे पिता श्री अनन्दी लाल शिवहरे निवासी पन्ना	पाठा	फर्शी पत्थर	98	0.70	08.11.09 से 05.1.19	पन्ना
25	श्री मनोज गुप्ता पिता श्री वहारी लाल गुप्ता निवासी सभागंज जिला सतना	सारंगपुर	फर्शी पत्थर	53	2.00	25.07.07 से 24.07.17	शाहनगर
26	चुन्नी लाल पिता कांती लाल पटेल निवासी कटनी	मलघन	फर्शी पत्थर	569	2.00	01.09.07 से 31.08.17	शाहनगर
27	श्री सतेन्द्र सिंह पिता श्री पुष्पेन्द्र सिंह निवासी कटनी	विसानी	फर्शी पत्थर	2564	3.00	05.08.09 से 04.08.19	शाहनगर
28	श्री अनन्त मसुरहा पिता श्री हरगोविन्द मसुरहा निवासी टिकरिया	विसानी	फर्शी पत्थर	94,95,	2.00	31.07.09 से 30.07.19	शाहनगर
29	श्री प्रेम लाल अहिरवार पिता श्री मुलुआ आहिरवार निवासी पडरिया	अतरहाई	फर्शी पत्थर	3838	3.99	03.11.08 से 02.11.18	शाहनगर
30	श्रीमती सीमा परौहा पत्नि स्व० श्री कृष्ण कुमार परौहा निवासी लमतरा शाहनगर	घोना	फर्शी पत्थर	40/2	2.00	23.02.09 से 22.02.19	शाहनगर
31	मे० डायमंड स्टोन क्रेशर प्रो० श्रीकान्त दीक्षित निवासी पन्ना	सिली	क्रेशर गिट्टी	228,2,1228,3,1,28,2,2,228,3,2	1.00	03.03.08 से 02.03.18	गुनौर
32	श्री शैलेश नगायच पिता श्री जगदीश प्रसाद निवासी	टाई	क्रेशर गिट्टी	1021,1023,	0.75	14.01.05 से 13.10.15	गुनौर
33	श्री दुश्यंत सिंह पिता श्री जगत प्रताप सिंह निवासी सुगरहा	लुहरगाँव	क्रेशर गिट्टी	386	0.65	18.07.06 से 17.07.16	गुनौर
34	मे० जुगल किशोर स्टोन क्रेशर प्रो० सुमन पाठक निवासी पन्ना	सिली	क्रेशर गिट्टी	228/1k,228/1k	3.563	08.06.07 से 07.06.17	गुनौर
35	श्री मति नंदिता सिंह पति श्री वृजेन्द्र सिंह निवासी ग्राम इटौरी	टाई	क्रेशर गिट्टी	995/6	1.85	24.08.07 से 23.08.17	गुनौर
36	श्री शैलेश नगायच पिता श्री जगदीश प्रसाद निवासी पवई	टाई	क्रेशर गिट्टी	10,251,059	1.39	12.07.07 से 1.07.17	गुनौर
37	मे० डायमंड स्टोन क्रेशर प्रो० श्रीकान्त दीक्षित निवासी पन्ना	विलघाडी	क्रेशर गिट्टी	33,613,362	1.00	25.09.08 से 24.09.18	गुनौर
38	श्री नरेन्द्र बागरी पिता श्री काशीप्रसाद बागरी निवासी फुलदरी	झरकुआ	क्रेशर गिट्टी	1676/1	4.00	16.05.07 से 15.05.17	गुनौर

39	श्री शैलेन्द्र कुमार पिता श्री प्रकाशचन्द्र पीपरा निवासी धाम मोहल्ला पन्ना	बरहाकला	केशर गिटटी	1140/1 k	3.99	23.10.2010 से 22.10.2020	गुनौर
40	श्री राजकिशोर शर्मा पिता श्री शंभू प्रसाद शर्मा निवासी पटना तमोली तह0 गुनौर	जनपुरा	फर्शी पत्थर	1,15	2.00	16.10.07 से 15.10.17	पवई
41	श्री चुन्नी लाल पटेल पिता श्री खेम जी भाई निवासी कटनी	सिंगडा	फर्शी पत्थर	107/1	1.768	15.12.07 से 24.12.17	पवई
42	श्री तीरथ प्रसाद लोधी पिता श्री मंगल प्रसाद लोधी निवासी हरीरा तह0 गुनौर	जैतुपुरा	फर्शी पत्थर	38,39	2.0	07.03.08 से 06.03.18	पवई
43	श्री रघुवीर सिंह पिता श्री करतार सिंह निवासी कटनी	झाझर	फर्शी पत्थर	104	1.70	03.03.08 से 02.03.18	पवई
44	अध्यक्ष पिछडा वर्ग पत्थर खदान श्रमिक मजदूर सह0स0मार्ग0 सो0 आगरा मोह0 पन्ना	कुठरहिया	फर्शी पत्थर	224	2.50	17.08.08 से 16.08.18	पवई
45	श्री गिरधारी पिता चखुआ आदिवासी निवासी कुँअरपुर तह0 पवई	कुठरहिया	फर्शी पत्थर	288	1.00	21.09.08 से 20.09.18	पवई
46	श्री रामगोपाल पिता पोहूराम जैसवांनी निवासी कटनी	चौपरा	फर्शी पत्थर	167	1.50	21.12.08 से 20.12.18	पवई
47	श्री ध्रुव कुमार पिता पन्ना लाल चौरसिया निवासी मोहन्द्रा	कुठरहिया	फर्शी पत्थर	293	2.00	5.01.09 से 04.1.19	पवई
48	श्री अध्यक्ष आदिवासी वनोपज सहकारी समि0 मर्या0 बरौहा	कैमुरिया	फर्शी पत्थर	236,246	2.00	03.02.2009 से 02.02.2019	पवई
49	श्री प्रताप गौड पिता श्री गोटी गौड निवासी बेलडावर	कुठरहिया	फर्शी पत्थर	281/1	1.40	26.03.09 से 25.03.19	पवई
50	अध्यक्ष छुई मिट्टी खदान उद्योग सह0स0 जसवन्तपुरा	मोहडिया	फर्शी पत्थर	404	0.60	03.04.09 से 02.04.19	पवई
51	राजेन्द्र कुमार पिता बाबू लाल जैन निवासी सलेहा	सोनई	फर्शी पत्थर	15	0.75	03.04.09 से 02.04.19	पवई
52	श्री श्याम लाल अहिरवारपिता श्री पसुआ चमार निवासी पडरिया	तालगाँव	फर्शी पत्थर	175/1	3.00	15.05.09 से 31.04.19	पवई
53	श्री राजेन्द्र कुमार पटेल निवासी नन्दी पवई	झाझर	फर्शी पत्थर	344	2.00	14.07.09 से 13.07.19	पवई
54	कल्लू पिता शरीफ शाह निवासी सिमरिया	कुठरहिया	फर्शी पत्थर	206	4.00	29.1.09 से 28.11.19	पवई
55	श्री हरप्रीत सिंह पिता श्री रघुवीर सिंह निवासी कटनी	सिंगडा	फर्शी पत्थर	53/1	0.90	30.12.10 से 29.12.20	पवई
56	श्री रमेश कुमार गौतम पिता श्री शिवनारायण गौतम निवासी कटनी	देवरी	फर्शी पत्थर	68	1.00	24.1.06 से 23.1.16	पवई
57	श्री लाल बहादुर सिंह पिता बुद्ध सिंह निवासी रूंध	जैतुपुरा तह0 पवई	फर्शी पत्थर	35,37	2.50	18.10.05 से 17.10.15	पवई
58	श्री संजय लटौरिया पिता श्री बाबूलाल लटौरिया निवासी पवई	मोहडिया	फर्शी पत्थर	136,137,138	1.00	09.10.06 से 08.10.16	पवई
59	श्री ओम प्रकाश गर्ग पिता श्री रामेश्वर प्रसाद गर्ग निवासी सथनिया	जैतुपुरा	फर्शी पत्थर	41	1.935	05.10.06 से 04.10.16	पवई
60	श्री कृष्ण प्रताप सिंह पिता श्री प्यारे जू निवासी लुधनी	कोठी	फर्शी पत्थर	31	1.370	27.10.06 से 26.10.16	पवई
61	श्रीमति विद्या बाई पत्नी श्री मदन मोहनपाण्डे निवासी कठवरिया	बीजादोह खिलसारी	फर्शी पत्थर	39/1	1.500	10.02.07 से 09.02.17	पवई
62	श्री लखुआ अहिरवार पिता श्री दुरजना अहिरवार निवासी इटौरी	कुटमी	फर्शी पत्थर	277,278,279	3.88	27.02.07 से 26.02.17	पवई
63	श्री रमेश कुमार गौतम पिता श्री शिवनारायण गौतम निवासी कटनी	देवरी	फर्शी पत्थर	68	1.00	24.1.06 से 23.1.16	पवई
64	श्री मदन मोहन पाण्डे पिता श्री बट्टी प्रसाद पाण्डे निवासी कठवरिया गुनौर जिला पन्ना	बीजादोह खिलसारी	फर्शी पत्थर	39/1	1.200	15.03.07 से 14.03.17	पवई
65	श्री बालगोविन्द कोरी पिता श्री भइया लाल कोरी निवासी पन्ना	कुटमी	फर्शी पत्थर	279	1.00	03.04.07 से 02.04.17	पवई
66	श्री राम कुमार पिता श्री देवी प्रसाद निवासी खबरा	जैतुपुरा	फर्शी पत्थर	101	1.650	17.04.07 से 16.04.17	पवई
67	श्री पन्नु आदिवासी पिता श्री कढ़ोरा आदिवासी निवासी टिकरिया	टिकरिया	फर्शी पत्थर	175	1.00	20.06.07 से 16.06.17	पवई
68	श्री रामप्रताप पिता श्री देवकी नन्दन चौरसिया निवासी मोहन्द्रा	कढ़ना	फर्शी पत्थर	680	1.500	02.07.07 से 01.07.17	पवई
69	श्री चौद मोहम्मद पिता श्री फजल मो0 निवासी सलेहा	बछौन	फर्शी पत्थर	51/1	0.850	04.07.07 से 03.07.17	पवई
70	श्रीमति शशि किरण सिंह पत्नी श्री राजेन्द्र सिंह निवासी सलेहा	ककरी कछार	फर्शी पत्थर	25/1	2.00	1.09.07 से 10.09.17	पवई
71	श्री कुंज विहारी पिता कृष्ण मोहन पाण्डेय निवासी कठवरिया	जैतुपुरा तह0 पवई	फर्शी पत्थर	40	1.00	07.1.07 से 06.1.17	पवई
72	श्री अजय देव बुन्देला पिता श्री अरुणपाल सिंह बुन्देला निवासी शिकारपुरा	कैमुरिया	फर्शी पत्थर	242/2	0.70	19.11.07 से 18.1.17	पवई
73	श्री धर्मेन्द्र पाल सिंह पिता श्री गन्धर्व सिंह निवासी वराहौ	ककरी कछार	फर्शी पत्थर	25/1	1.400	04.10.07 से 03.10.17	पवई
74	श्री भगवानदीन आदिवासी पिता श्री सलैया आदिवासी निवासी लमतारा	देवरी	फर्शी पत्थर	68	0.700	19.11.07 से 18.1.17	पवई
75	श्री शंकर आदिवासी पिता श्री परदेशी आदिवासी निवासी महेवा	तालगाँव	फर्शी पत्थर	126	0.41	19.12.07 से 18.12.17	पवई
76	श्री सुनील कुमार पाण्डे पिता श्री कृष्ण कुमार पाण्डे निवासी कठवरिया	जनपुरा	फर्शी पत्थर	1-Jan	1.00	30.11.07 से 29.11.17	पवई
77	श्री मोहन आदिवासी पिता श्री सकूरा आदिवासी निवासी हडा	तालगाँव	फर्शी पत्थर	125/1	1.00	29.11.07 से 28.1.17	पवई
78	श्री देवेन्द्र सिंह पिता श्री इन्द्रवीर सिंह परमार निवासी करहिया	कुटमी	फर्शी पत्थर	217/1	1.00	31.12.07 से 30.12.17	पवई
79	श्रीमति रूपिन्दर कौर पत्नी श्री देवेन्द्र सिंह कौर निवासी मुटमुरु	जैतुपुरा	फर्शी पत्थर	45	1.25	31.01.08 से 30.01.18	पवई
80	श्रीमति मोहन देवी पत्नी काशी प्रासाद बागरी निवासी फुलदरी	जैतुपुरा	फर्शी पत्थर	101	1.00	03.03.08 से 02.03.18	पवई

81	श्री राम मनोहर गौड़	कोड़ा	फर्शी पत्थर	19,20,	0.6	31.01.08 से 30.01.18	पवई
82	कुं0 संयोगिता पाण्डे पिता श्री मदन मोहन पाण्डे निवासी सलेहा	घुटेही	फर्शी पत्थर	352,353,354	1.16	1.02.08 से 10.02.18	पवई
83	श्री पंचम सिंह पिता श्री अमृत लाल यादव निवासी मोहडिया	मोहडिया	फर्शी पत्थर	140	0.75	08.04.08 से 07.04.18	पवई
84	श्री सुरेन्द्र सिंह पिता श्री भामा साह निवासी जसवंतपुरा	नारदपुर	फर्शी पत्थर	2-Apr	0.75	17.03.08 से 16.03.18	पवई
85	श्रीमति पिकी बागरी पत्नी यादवेन्द्र सिंह निवासी पवई	झांझर तह0 पवई	फर्शी पत्थर	344	2.00	20.03.08 से 19.03.18	पवई
86	श्रीमति नीलेश पाण्डे पत्नी धीरेन्द्र पाण्डे निवासी पन्ना	घुटेही	फर्शी पत्थर	363,364,365	1.00	18.03.08 से 17.03.18	पवई
87	श्री अक्ख विहारी पिता श्री भूरे राम शर्मा नि0 सलेहा जिला पन्ना	जूडा	फर्शी पत्थर	220,222,223	0.60	18.03.08 से 17.03.18	पवई
88	श्री रावेन्द्र सिंह पिता श्री इन्द्रभान सिंह निवासी कटनी	लिलवार	फर्शी पत्थर	13	1.30	01.04.08 से 31.03.18	पवई
89	श्री पहाडू आदिवासी पिता श्री मनुआ आदिवासी लमकुस	ककरी कछार	फर्शी पत्थर	25/1	0.50	19.05.08 से 18.05.18	पवई
90	श्री मति देशरानी पत्नी मिलन सिंह निवासी बछौन	बछौन	फर्शी पत्थर	51/1	0.40	04.11.08 से 03.11.18	पवई
91	श्री शंकर सिंह पिता श्री परवत सिंह निवासी कटरा सलेहा	ककरी कछार	फर्शी पत्थर	93	2.00	01.12.08 से 30.1.18	पवई
92	श्री ज्ञानेन्द्र सिंह पिता श्री दीवान जीत सिंह निवासी सलेहा	बछौन	फर्शी पत्थर	751	1.80	09.07.09 से 18.07.19	पवई
93	श्री रमाकान्त गौतम पिता श्री बीर अभिमन्यू निवासी कटनी	चौपारा	फर्शी पत्थर	203	1.49	22.02.10 से 21.02.20	पवई
94	श्री लक्ष्मण प्रसाद पाठक पिता श्री शालेग राम निवासी गौरा	कोड़ा	फर्शी पत्थर	18	1.0	02.11.2009 से 01.11.2019	पवई
95	श्री गोविन्द सिंह पिता गुलाब सिंह निवासी सिंहपुर तह0 अजयगढ़	ककरी कछार	फर्शी पत्थर	108/1	1.6	17.08.08 से 16.08.18	पवई
96	श्री पुष्पेन्द्र सिंह पिता श्री विश्वनाथ सिंह निवासी पहरूवा कटनी	कैमुरिया	फर्शी पत्थर	86	1	18.12.09 से 17.12.19	पवई
97	श्री जय प्रकाश पिता राम नरेश दुवे निवासी दनवारा	टिकरिया	66	66	0.51	16.04.10 से 15.04.20	पवई
98	श्री मदन मोहन पांडे पिता श्री बट्टी प्रसाद पांडे निवासी कठवरिया	बीजादोह खिलसारी	39/1	101	1.2	24.04.07 से 23.04.17	पवई
99	श्री देवेन्द्र सिंह पिता श्री खिलावन सिंह निवासी लुधनी	गनियारी	क्रेशर गिटटी	245	2	26.10.06 से 25.10.16	पवई
100	श्री राजेश कुमार द्विवेदी पिता श्री जगप्रसाद द्विवेदी निवासी बेनीसागर मोहल्ला पन्ना म0प्र0	कोलकरहिया	क्रेशर गिटटी	1287	2.84	23.10.2010 से 22.10.2020	पवई
101	श्री चतुरेश पाण्डे पिता श्री रामऔतार पाण्डे निवासी पवई जिला पन्ना	कुठरहिया	क्रेशर गिटटी	280	2.5	15.06.2011 से 14.06.2021	पवई
102	श्री पुरुषोत्तम पाण्डे पिता श्री विश्वनाथ प्रसाद पाण्डे निवासी मोहन्द्रा तहसील पवई जिला पन्ना	कुठरहिया	क्रेशर गिटटी	220	2.00	18.01.2011 से 17.01.2010	पवई

उपसंचालक  
एवं  
प्रभारी अधिकारी खनिज  
जिला पन्ना म0प्र0

## List of Quarry Leases in Panna District

S.	Name of Lease and Address	Sanctioned quarry and village	Kharasa No.	Area (Hect.)	Period of validity	Name of Tehsil	Name of Mineral	Remark	Quarries Situation
1	मे० धरती धन स्टोन प्रो० श्रीमति सुशीला पाठक नि० कटरा पन्ना म०प्र०	पन्ना	51	1.590	16.03.08 से 15.03.18	पन्ना	फर्शी पत्थर	उत्खानि पट्टा	संचालित
2	श्री बृजमोहन सिंह पिता श्री जयराम सिंह निवासी धरमपुर	सिलधरा	87	1.500	16.06.08 से 15.08.18	पन्ना	फर्शी पत्थर	उत्खानि पट्टा	संचालित
3	श्रीमति गीता वाई पति श्री अशोक कुमार पाण्डेय निवासी पन्ना	रानीपुर	470	0.71	15.10.08 से 14.10.18	पन्ना	फर्शी पत्थर	उत्खानि पट्टा	संचालित
4	मे० सिद्धी विनायक स्टोन प्रो० श्रीकान्त दीक्षित निवासी पन्ना	जमुनहाई	47, 48	4.00	17.08.06 से 16.08.16	पन्ना	फर्शी पत्थर	उत्खानि पट्टा	संचालित
5	श्रीमती सधना गुप्ता पति स्व० श्री राजेन्द्र प्रसाद गुप्ता निवासी बडा बाजार पन्ना	दहलान चौकी	260	1.85	09.10.06 से 08.10.16	पन्ना	फर्शी पत्थर	उत्खानि पट्टा	संचालित
6	श्री भूपेन्द्र सिंह पिता श्री पूरन सिंह निवासी पन्ना म०प्र०	दहलान चौकी	312 / 1,2	0.50	17.01.06 से 16.11.16	पन्ना	फर्शी पत्थर	उत्खानि पट्टा	संचालित
7	श्री रविन्द्र प्रसाद शुक्ला निवासी रानीबाग पन्ना	पन्ना	57	1.250	19.07.09 से 18.07.19	पन्ना	फर्शी पत्थर	उत्खानि पट्टा	संचालित
8	श्री राजकिशोर शर्मा पिता श्री राम प्रसाद शर्मा निवासी पटना तमोली तह० मुनौर	जनपुरा	1,15	2.00	16.10.07 से 15.10.17	पवई	फर्शी पत्थर	उत्खानि पट्टा	संचालित
9	श्री चुन्नी लाल पटेल पिता श्री खेम जी भाई निवासी कटनी	सिंगडा	107 / 1	1.768	15.12.07 से 24.12.17	पवई	फर्शी पत्थर	उत्खानि पट्टा	संचालित
10	अध्यक्ष पिछडा वर्ग पत्थर खदान श्रमिक मजदूर सहकारिण संघ आगरा मोह० पन्ना	कुठरहिया	224	2.50	17.08.08 से 16.08.18	पवई	फर्शी पत्थर	उत्खानि पट्टा	संचालित
11	श्री रामगोपाल पिता पोहुराम जैसवानी निवासी कटनी	चोपरा	167	1.500	21.12.08 से 20.12.18	पवई	फर्शी पत्थर	उत्खानि पट्टा	संचालित
12	श्री छुव कुमार पिता पन्ना लाल चौरसिया निवासी मोहन्दा पवई जिला पन्ना	कुठरहिया	293	2.00	5.01.09 से 04.1.19	पवई	फर्शी पत्थर	उत्खानि पट्टा	संचालित
13	श्री अध्यक्ष आदिवासी वनोपज सहकारी संघ मो० बरौहा जिला पन्ना	कैमुरिया	236, 246	2.00	03.02.2009 से 02.02.19	पवई	फर्शी पत्थर	उत्खानि पट्टा	संचालित
14	अध्यक्ष छुई मिट्टी खदान उद्योग सहकारिण जसवंतपुरा जिला पन्ना	मोहडिया	404	0.60	03.04.09 से 02.04.19	पवई	फर्शी पत्थर	उत्खानि पट्टा	संचालित
15	राजेन्द्र कुमार पिता बाबू लाल जैन निवासी सलेहा जिला पन्ना	संगई	15	0.75	03.04.09 से 02.04.19	पवई	फर्शी पत्थर	उत्खानि पट्टा	संचालित
16	श्री श्याम लाल अहिरवारपिता श्री पसुआ चमार निवासी पडरिया जिला पन्ना	तालगांव	175 / 1	3.00	15.05.09 से 31.04.19	पवई	फर्शी पत्थर	उत्खानि पट्टा	संचालित
17	श्री राजेन्द्र कुमार पटेल निवासी नन्दी पवई	झाझर	344	2.00	14.07.09 से 13.07.19	पवई	फर्शी पत्थर	उत्खानि पट्टा	संचालित
18	श्री रमेश कुमार गौतम पिता श्री शिवनारायण गौतम निवासी कटनी	देवरी	68	1.00	24.11.06 से 23.11.16	पवई	फर्शी पत्थर	उत्खानि पट्टा	संचालित
19	श्री संजय लटोशिया पिता श्री बाबूलाल लटोशिया निवासी पवई जिला पन्ना	मोहडिया	136,137,138	1.00	09.10.06 से 08.10.16	पवई	फर्शी पत्थर	उत्खानि पट्टा	सिंचित
20	श्री ओम प्रकाश गर्ग पिता श्री रामेश्वर प्रसाद गर्ग निवासी सधनिया तह० मुनौर पन्ना	जैतपुरा	41	1.935	05.10.06 से 04.10.16	पवई	फर्शी पत्थर	उत्खानि पट्टा	संचालित
21	श्री रमेश कुमार गौतम पिता श्री शिवनारायण गौतम निवासी कटनी	देवरी	68	1.00	24.1.06 से 23.1.16	पवई	फर्शी पत्थर	उत्खानि पट्टा	संचालित
22	श्री बालगोविन्द कोरी पिता श्री मइया लाल कोरी निवासी पन्ना जिला पन्ना	कुटनी	279	1.00	03.04.07 से 02.04.17	पवई	फर्शी पत्थर	उत्खानि पट्टा	संचालित
23	श्री चौद मोहम्मद पिता श्री फजल मो० निवासी सलेहा तहसील मुनौर जिला पन्ना	बाझीन	51 / 1	1.500	04.07.07 से 03.07.17	पवई	फर्शी पत्थर	उत्खानि पट्टा	संचालित
24	श्री कुंज विहारी पिता कृष्ण मोहन पाण्डेय निवासी कठवरिया जिला पन्ना	जैतपुरा	40	1.00	07.1.07 से 06.1.17	पवई	फर्शी पत्थर	उत्खानि पट्टा	संचालित
25	श्री अजय देव बुन्देला पिता श्री अरुणपाल सिंह बुन्देला निवासी शिकारपुरा पवई	कैमुरिया	242 / 2	0.70	19.11.07 से 18.1.17	पवई	फर्शी पत्थर	उत्खानि पट्टा	संचालित
26	श्री शंकर आदिवासी पिता श्री परदेशी आदिवासी निवासी महेबा जिला पन्ना	तालगांव	126	0.41	19.12.07 से 18.12.17	पवई	फर्शी पत्थर	उत्खानि पट्टा	संचालित
27	श्री सुनील कुमार पाण्डे पिता श्री कृष्ण कुमार पाण्डे निवासी कठवरिया जिला पन्ना	जनपुरा	1 / 1	1.00	30.11.07 से 29.11.17	पवई	फर्शी पत्थर	उत्खानि पट्टा	संचालित
28	श्री देवेन्द्र सिंह पिता श्री इन्द्रवीर सिंह परमार निवासी करहिया तहसील मुनौर पन्ना	कुटनी	217 / 1	1.00	31.12.07 से 30.12.17	पवई	फर्शी पत्थर	उत्खानि पट्टा	संचालित
29	श्रीमति रूपिन्दर कौर पत्नी श्री देवेन्द्र सिंह कौर निवासी मुटमुख तह० मुनौर पन्ना	जैतपुरा	45	1.25	31.01.08 से 30.01.18	पवई	फर्शी पत्थर	उत्खानि पट्टा	संचालित
30	श्री राम मनोहर गौड़ पिता श्री छंगा गौड़ निवासी जसवंतपुरा तहसील अमानगंज	कोड़ा	19, 20	0.60	31.01.08 से 30.01.18	पवई	फर्शी पत्थर	उत्खानि पट्टा	संचालित
31	कुं० संयोगिता पाण्डे पिता श्री मदन मोहन पाण्डे निवासी सलेहा तहसील मुनौर	घुटेली	352,353,354	1.16	1.02.08 से 10.02.18	पवई	फर्शी पत्थर	उत्खानि पट्टा	संचालित
32	श्री पंचम सिंह पिता श्री अमृत लाल यादव निवासी मोहडिया तहसील पवई पन्ना	मोहडिया	140	0.75	08.04.08 से 07.04.18	पवई	फर्शी पत्थर	उत्खानि पट्टा	संचालित
33	श्री सुरेन्द्र सिंह पिता श्री मामा साह निवासी जसवंतपुरा तहसील अमानगंज पन्ना	नारदपुर	4 / 2	0.75	17.03.08 से 16.03.18	पवई	फर्शी पत्थर	उत्खानि पट्टा	संचालित
34	श्रीमति पिकी बागरी पत्नी यादवेन्द्र सिंह निवासी पवई जिला पन्ना	झाझर	344	2.00	20.03.08 से 19.03.18	पवई	फर्शी पत्थर	उत्खानि पट्टा	संचालित
35	श्रीमति नीलेश पाण्डे पत्नी धीरेन्द्र पाण्डे निवासी पन्ना	घुटेली	363,364,365	1.00	18.03.08 से 17.03.18	पवई	फर्शी पत्थर	उत्खानि पट्टा	संचालित
36	श्री अजय विहारी पिता श्री पूरे राम शर्मा नि० सलेहा जिला पन्ना	जुडा	220, 222, 223	0.60	18.03.08 से 17.03.18	पवई	फर्शी पत्थर	उत्खानि पट्टा	संचालित
37	श्री रावेन्द्र सिंह पिता श्री इन्द्रमान सिंह निवासी कटनी	जिरवार	13	1.30	01.04.08 से 31.03.18	पवई	फर्शी पत्थर	उत्खानि पट्टा	संचालित
38	श्री पहाड़ आदिवासी पिता श्री मनुआ आदिवासी लमकुस तहसील मुनौर जिला पन्ना	ककरी कछार	25 / 1	0.50	19.05.08 से 18.05.18	पवई	फर्शी पत्थर	उत्खानि पट्टा	संचालित
39	श्री रमाकान्त गौतम पिता श्री बीर अभिमन्यू निवासी कटनी	चोपरा	203	1.49	22.02.10 से 21.02.20	पवई	फर्शी पत्थर	उत्खानि पट्टा	संचालित
40	श्री लक्ष्मण प्रसाद पाठक पिता श्री शालेय राम निवासी गौरा	कोड़ा	18	1.00	02.11.2009 से 01.11.19	पवई	फर्शी पत्थर	उत्खानि पट्टा	संचालित



41	श्री मदन मोहन पांडे पिता श्री बदी प्रसाद पांडे निवासी कठवरिया तहसील गुनीर	बीजादोह खिलसारी	101	1.20	24.04.07 से 23.04.17	पवई	फर्शी पत्थर	उत्खनि पट्टा	संचालित
42	श्री अनन्त मसुरहा पिता श्री हरगोविन्द मसुरहा निवासी टिकरिया	विसानी	94, 95	2.00	31.07.09 से 30.07.19	शाहनगर	फर्शी पत्थर	उत्खनि पट्टा	संचालित
43	श्री पुष्पेन्द्र सिंह निवासी कटनी	कैमुरिया	86	1.00	18.12.2009 से 17.12.19	पवई	फर्शी पत्थर	उत्खनि पट्टा	संचालित
44	श्री लखुआ अहिरवार निवासी झरकुआ	कुटमी	277,278,279	3.88	27.02.2007 से 26.02.17	पवई	फर्शी पत्थर	उत्खनि पट्टा	संचालित
45	श्री मदन मोहन पाण्डे	बीजादोह खिलसारी	39 / 1	1.200	15.03.2007 से 14.03.17	पवई	फर्शी पत्थर	उत्खनि पट्टा	संचालित
46	श्री कल्लू शाह निवासी सिमरिया	कुठरहिया	206	4.00	29.11.2009 से 28.11.19	पवई	फर्शी पत्थर	उत्खनि पट्टा	संचालित
47	श्री शंकर सिंह निवासी कटरा	ककरी कछार	93	2.00	01.12.2008 से 30.01.18	पवई	फर्शी पत्थर	उत्खनि पट्टा	संचालित
48	श्रीमति आराधना सिंह पति श्री हाकम सिंह निवासी घोरा खुर्द तहसील अमानगंज जिला पन्ना	बछीन	30	1.00	29.12.2014 से 28.12.24	पवई	फर्शी पत्थर	उत्खनि पट्टा	संचालित
49	श्री गंदर्भ सिंह पिता श्री रघुबीर सिंह निवासी बराहो तहसील पवई जिला पन्ना	इटाय	969	0.80	24.11.09 से 23.11.19	पवई	फर्शी पत्थर	उत्खनि पट्टा	संचालित
50	श्रीमती सीमा परीहा पति स्व० श्री कृष्ण कुमार परीहा निवासी लमतारा शाहनगर	घोना	40 / 2	2.00	23.02.09 से 22.02.19	शाहनगर	फर्शी पत्थर	उत्खनि पट्टा	संचालित
51	श्री बीरेन्द्र सिंह पिता श्री मामाशाह सिंह निवासी जसवंतपुरा तहसील अमानगंज जिला पन्ना	कोठी	155	1.40	01.11.15 से 31.10.2025	पवई	फर्शी पत्थर	उत्खनि पट्टा	संचालित
52	श्री भानूराजा पिता श्री कम्मोद सिंह नि० खिरवा पो० पिपरवाह पन्ना	कुठरहिया	281 / 1	2.00	01.04.2011 से 31.03.16	पवई	फर्शी पत्थर	घोष विक्रय	संचालित
53	श्री रितेश पांडे पिता श्री रामनारायण पांडे निवासी मोहन्दा जिला पन्ना	कुठरहिया	278 / 1	2.00	01.04.2011 से 31.03.16	पवई	फर्शी पत्थर	घोष विक्रय	संचालित
54	श्री राजकिशोर पांडे पिता श्री शंकर पांडे नि० ककरहटी जिला पन्ना म०प्र०	बछीन	14	1.600	01.04.2011 से 31.03.16	पवई	फर्शी पत्थर	घोष विक्रय	संचालित
55	श्री ज्ञानेन्द्र सिंह पिता श्री दीवानजीत सिंह नि० सलेहा तहसील गुनीर जिला पन्ना	बछीन	19	3.00	01.04.2011 से 31.03.16	पवई	फर्शी पत्थर	घोष विक्रय	संचालित
56	श्री सुखदेव सिंह पिता श्री गोविन्द सिंह नि० लमकुश तहसील गुनीर पन्ना म०प्र०	बछीन	4	1.500	01.04.2011 से 31.03.16	पवई	फर्शी पत्थर	घोष विक्रय	संचालित
57	श्री बालेन्द्र सिंह पिता श्री रामनारायण सिंह नि० पवई जिला पन्ना म०प्र०	बछीन	51 / 1	1.90	01.04.2011 से 31.03.16	पवई	फर्शी पत्थर	घोष विक्रय	संचालित
58	श्री राजेन्द्र तिवारी पिता श्री जागेश्वरदीन तिवारी नि० घटारी	बछीन	19	1.00	01.04.2011 से 31.03.16	पवई	फर्शी पत्थर	घोष विक्रय	संचालित
59	श्री रमाकान्त चौरसिया पिता श्री सरमन चौरसिया नि० पटना तमोली जिला पन्ना	बछीन	19	2.00	01.04.2011 से 31.03.16	पवई	फर्शी पत्थर	घोष विक्रय	संचालित
60	श्री रामशिरामणि मिश्रा पिता श्री कृष्णानन्द मिश्रा नि० बन्धीरा तह० गुनीर पन्ना म०प्र०	बीजादोह खिलसारी	250 / 11	1.480	01.04.2011 से 31.03.16	पवई	फर्शी पत्थर	घोष विक्रय	संचालित
61	श्री सुखसाहब सिंह निवासी कुदरा	मलघान	49,81	2.00	25.08.2014 से 31.03.17	शाहनगर	फर्शी पत्थर	घोष विक्रय	संचालित
62	श्री कैशरी सिंह पिता श्री बीरेन्द्र सिंह निवासी अमकुई तहसील नागौद जिला सतना	बीजादोह खिलसारी	42 / 1	1.00	28.10.2015 से 31.03.20	पवई	फर्शी पत्थर	घोष विक्रय	संचालित
63	श्री राजेश कुमार द्विवेदी पिता श्री जगप्रसाद द्विवेदी निवासी बेनीसागर मोहल्ला पन्ना	कोलकरहिया	1287	2.84	23.10.2010 से 22.10.20	पवई	केशर गिट्टी	उत्खनि पट्टा	संचालित
64	म० डायमण्ड स्टोन केशर प्र० श्रीकान्त दीक्षित निवासी टिकुरिया मोहल्ला पन्ना	बिलघाडी	3361,3362	1.00	25.09.2008 से 24.09.18	गुनीर	केशर गिट्टी	उत्खनि पट्टा	संचालित
65	म० जुगल किशोर जी स्टोन केशर प्र० श्रीमति सुमन पाठक	सिली	228 / 1क, 228 / 1क, 228 / 4	3.563	08.06.2007 से 07.06.17	गुनीर	केशर गिट्टी	उत्खनि पट्टा	संचालित
66	श्री पुष्परज सिंह निवासी कोडर	बिल्हा	2567,2568	1.30	18.08.2012 से 17.08.17	गुनीर	केशर गिट्टी	उत्खनि पट्टा	संचालित
67	श्री दुर्गत सिंह पिता श्री जगत प्रताप सिंह निवासी सुगरहा जिला पन्ना	लुहरगाँव	386	0.65	18.07.06 से 17.07.16	गुनीर	केशर गिट्टी	उत्खनि पट्टा	संचालित
68	म० जुगल किशोर स्टोन केशर प्र० सुमन पाठक निवासी पन्ना	सिली	228 / 1क, 228 / 1क	3.563	08.06.07 से 07.06.17	गुनीर	केशर गिट्टी	उत्खनि पट्टा	संचालित
69	श्री मति नंदिता सिंह पति श्री वृजेन्द्र सिंह निवासी ग्राम इटौरी तहसील पवई	टाई	995 / 6	1.85	24.08.07 से 23.08.17	गुनीर	केशर गिट्टी	उत्खनि पट्टा	संचालित
70	श्री शैलेश नगायक पिता श्री जगदीश प्रसाद निवासी पवई जिला पन्ना	टाई	10, 251, 059	1.39	12.07.07 से 1.07.17	गुनीर	केशर गिट्टी	उत्खनि पट्टा	संचालित
71	म० जुगल किशोर एण्ड सप्लायर प्र० श्री क०पी० सिंह	बीरा नं०-1	1	7.00	06.11.2015 से 05.11.20	अजयगढ़	रेत	घोष विक्रय	संचालित
72	श्री देवेन्द्र शर्मा निवासी ग्वालियर	भीना	1	11.00	24.11.15 से 31.03.20	अजयगढ़	रेत	घोष विक्रय	संचालित
73	म० ए एण्ड ए इन्टर प्राईजेज प्र० शिववंशल होसंगाबाद	गुडा	24	5.10	01.12.2015 से 31.03.20	पवई	रेत	घोष विक्रय	संचालित
74	म० ए एण्ड ए इन्टर प्राईजेज प्र० शिववंशल होसंगाबाद	उडला	605	5.50	01.12.2015 से 31.03.20	पवई	रेत	घोष विक्रय	संचालित
75	म० एस०आर० ट्रेडर्स प्र० शिववंशल होसंगाबाद	उदयपुर	1	10.00	01.12.2015 से 31.03.20	अजयगढ़	रेत	घोष विक्रय	संचालित



**CHAPTER – IV**

**DETAILS OF ROYALTY OR REVENUE RECEIVED IN LAST  
THREE YEARS**

**Mining Section**

<b>Year</b>	<b>Royalty</b>
2012-13	5,68,45,407
2013-14	14,99,17,316
2014-15	10,95,22,769

**Details of Royalty :**

**Diamond office-**

<b>S.No.</b>	<b>Years</b>	<b>Royalty of NMDC</b>	<b>Shallow Mines Diamond Royalty</b>	<b>Total</b>
1.	2012-13	20077355	1070942	21148297
2.	2013-14	52961667	357999	83319666
3.	2014-15	80961908	1337811	82299719

## CHAPTER – V

### DETAIL OF PRODUCTION OF SAND OR BAJARI OR MINOR MINERAL IN LAST THREE YEARS

<b>Financial Year</b>	<b>Sand (Cu.mts)</b>	<b>Gitti (Cu.mts)</b>	<b>Murum (Cu.mts)</b>	<b>Flagston (Cu.mts)</b>	<b>Granite (Cu.mts)</b>	<b>Boulder (Cu.mts)</b>
2012-13	2160	2700	3500	10000	600	1000
2013-14	276	3500	4500	20000	1100	1500
2014-15	85506	3600	5000	15000	1200	2000

## **CHAPTER – VI**

### **PROCESS OF DEPOSITION OF SEDIMENTS IN THE RIVERS OF THE DISTRICT**

Deposition of sediments by small streams, riverlet, nala, and river are generally controlled by geological set up & structures, Elevation, Rainfall, catchment area, Gradient, Weathering & erosion involving deposition of sediments, during floods huge amount of sediments, sand, Bajiri, etc. deposit at meanders, islands, deltas, culverts, etc.

District lies in the Ganga Drainage System, most of it drains into the Yamuna through the Ken. The north eastern part of the District flows into the Yamuna through the Baghain. A very small area around Devendranagar flows to the east and feeds the Ganga through the Satna and the Tons. The drainage is an established one, developed on a dendritic pattern.

All streams of the district are seasonal and turbulent during the rains, in summer, they are dry or mere threads between the wide sandy bed. The channels are deep in the hilly areas.

The whole district is available with a good quantity of sand, as the local river passes majorily through Vidhyan formations.

The Ken river flows for 40km in the north and receives water from stream of Aloni, Sumidra and Gurne on the right bank, again on entering upper plateau it turns west and is joined by Patne a tributary from southern hills, then it takes a north-westerly trend and is met by sonar river on left bank.

Sonar is fed by Bearma from western side and flows about 16km.

Mirhasan river receives water and sediments from the southern slopes of the Panna ranges. It is very narrow along the Panna ranges and falls near Khami

and Patharpur village in a succession of 48mts & 45mts respectively . Two small dams at Gangau and another at Bariarpur have been worked out for irrigation purpose.

#### **Sonar :-**

It comes from lower trappean hills in the south-west of sagar distt. The total length is about 187km while flows 16 km in Panna district forming western boundary and finally joins ken river.

#### **Bearma :-**

A comes from NE hills of kaimur range of Sagar district and is narrow and deep channel, the fall is 1.1 mts per km, therefore its velocity in floods is very high, its runs for about 33km marking west boundary and meets sonar river.

#### **Baghain :-**

It runs for 15km and flows is NE direction and rises above Ukri and meets the Yamuna. The sediments are poor & scanty.

#### **Ranj :-**

It runs for 5km north of Panna and flows through western range meeting Baghain in U.P. Sediments are poor and scanty.

#### **Satna :-**

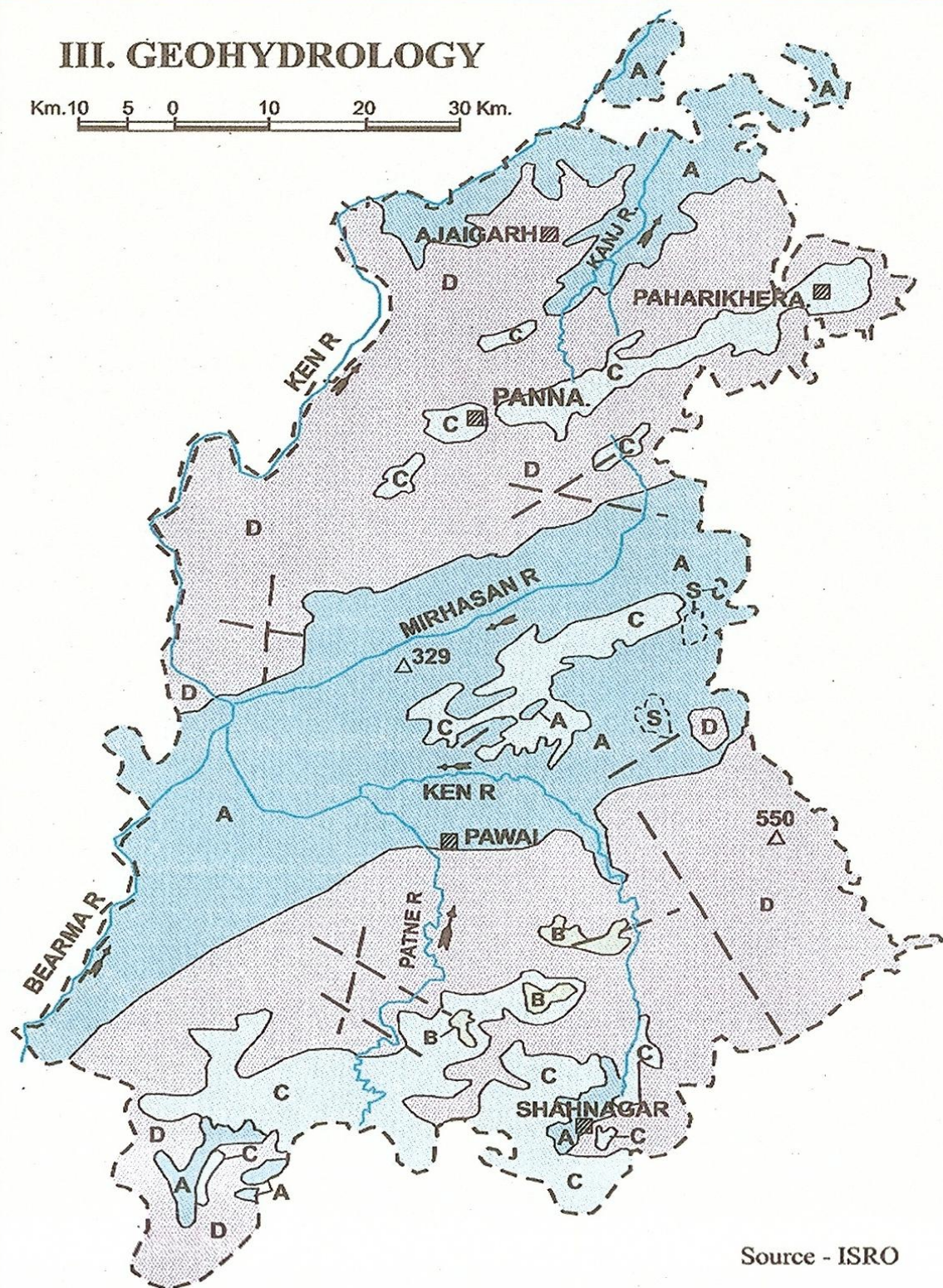
It flows from hills of Rampura village in SE direction for 10km. sediments are poor & scanty. It meets tons in satna district.

#### **Kurser :-**

It comes from eastern extremity of Kaimour hills and drains a small area and finally meets tons.

### III. GEOHYDROLOGY

Km. 10 5 0 10 20 30 Km.



Source - ISRO

#### Ground water potential zone

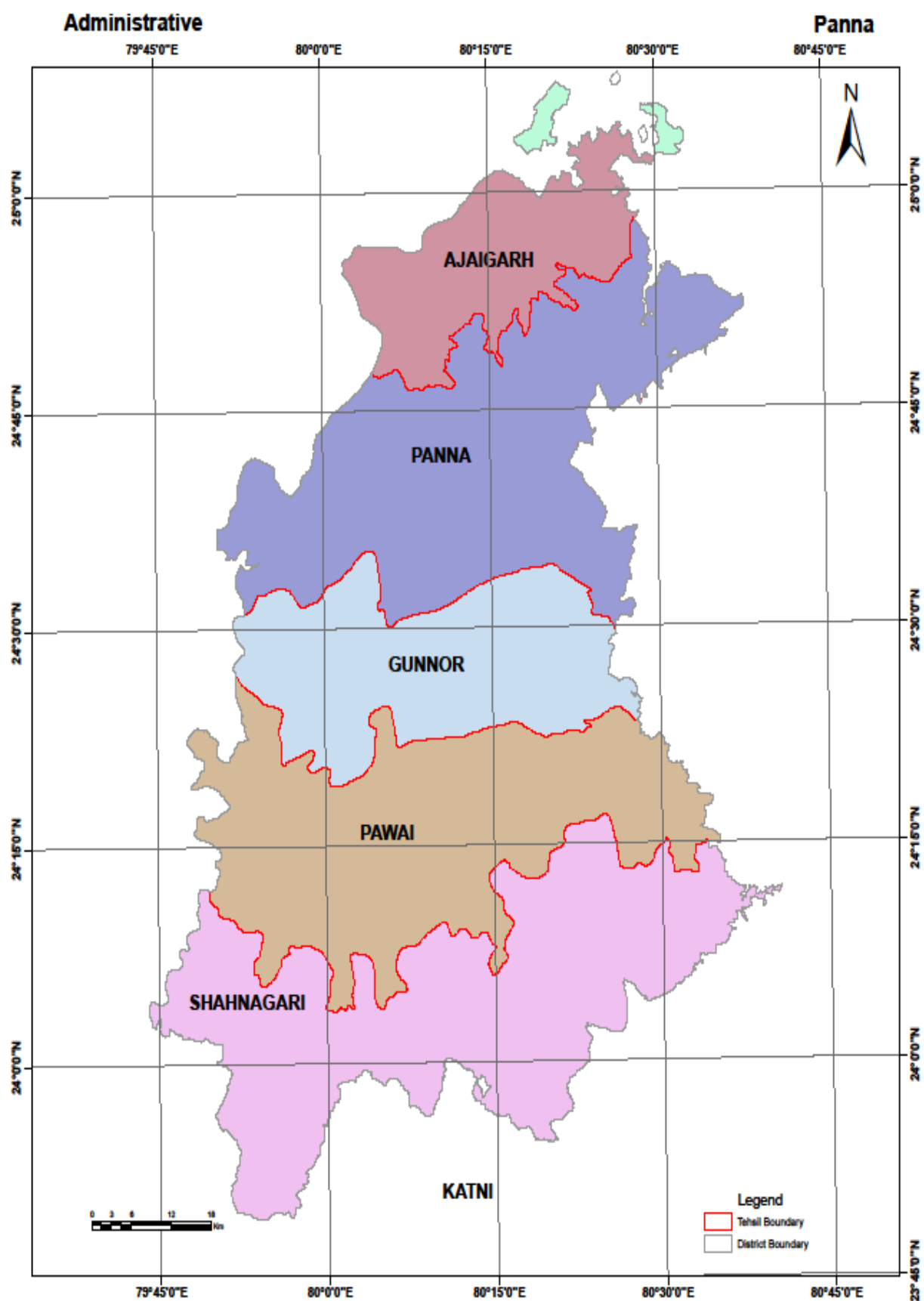
<b>A</b>	Excellent	<b>C</b>	Moderate
<b>B</b>	Good to excellent	<b>D</b>	Poor

## **CHAPTER-VII**

### **GENERAL PROFILE OF THE DISTRICT**

Panna is the northern most part of sagar division.

District is divided into 09 tehsil and 05 blocks. viz, Panna, Gunnor, Pawai, Shahnagar, Ajaygarh, Raipura, Amanganj, Devendranagar and Simariya and blocks are Panna, Gunnor, Pawai, Shahnagar, Ajaygarh. The population of male is 1016520 and femalre are 483040. Literacy percentage is 80.6 in urban and 65.9 in rural areas. Scheduled caste population is 20.5 while schedule tribe 16.8. Irrigated area is 32.7 of the total gross cropped area, number of fair price shop in urban is 20 and in rural is 399, electrified village percetage is 88.90 as per census till 2010-2011. The district is well connected by road with tehsils and blocks.



## **CHAPTER-VIII**

### **LAND UTILIZATION PATTERN IN THE DISTRICT : FOREST, AGRICULTURE, HORTICULTURE, MINING ETC**

#### **Agriculture :-**

Total land is 702924 hectares in which 57107 hectares is cultivated i.e. 12.31% percentage of land is used for wheat, paddy etc. Crops are being irrigated by canals and tube wells.

#### **Forests :-**

The forests cover an area of 246951 hectares i.e. 35% of 702924 hectares land. The forests is divided into two divisions the north and south. North division is developed well on deep soil on deccan trap, shales, granite, sandstone and laterite. They are best developed along the ravines of ken and Bearma in the western part of the district. The quality decreases gradually with less favourable environments towards the east. Also the forests of the South Panna division exhibit a lesser quality of forest then those of the North Division in their corresponding longitudinal sections. Thus, the Teak forests stand in three groups of different qualities. The western part of Hinota range and Madla and Ajaigarh Ranges of North division have the richest teak forests classed as quality III. Here the proportion of teak reaches up to 70 percent of the growing stock, corresponding to this are the patches of teak forests on alluvium in the western parts of Amanganj, Mohendra and Raipura Ranges of South Panna division.

Moving east, one finds a gradual change in the quality, class and composition of forest. In the eastern part of Ajaigrah, Madla and Hinota ranges and western parts of Panna and Bisramganj Ranges., covering an area of 9,500 hectares, the quality of teak forests comes down to IV-a with the percentage of the species ranging between 40 to 60 in the tree stock. A large area of



Amanganj, Mohendra and Raipura ranges (south division) also fall in this category.

Further east in eastern parts of Ajaigarh and Bistrampur Ranges and adjoining parts of Dharampur range in the north, and eastern part of amanganj, central parts of Mohendra and Raipura ranges and some patches in all parts of south panna division carry IV-b quality of teak forest where the percentage of teak varies between 20 to 30.

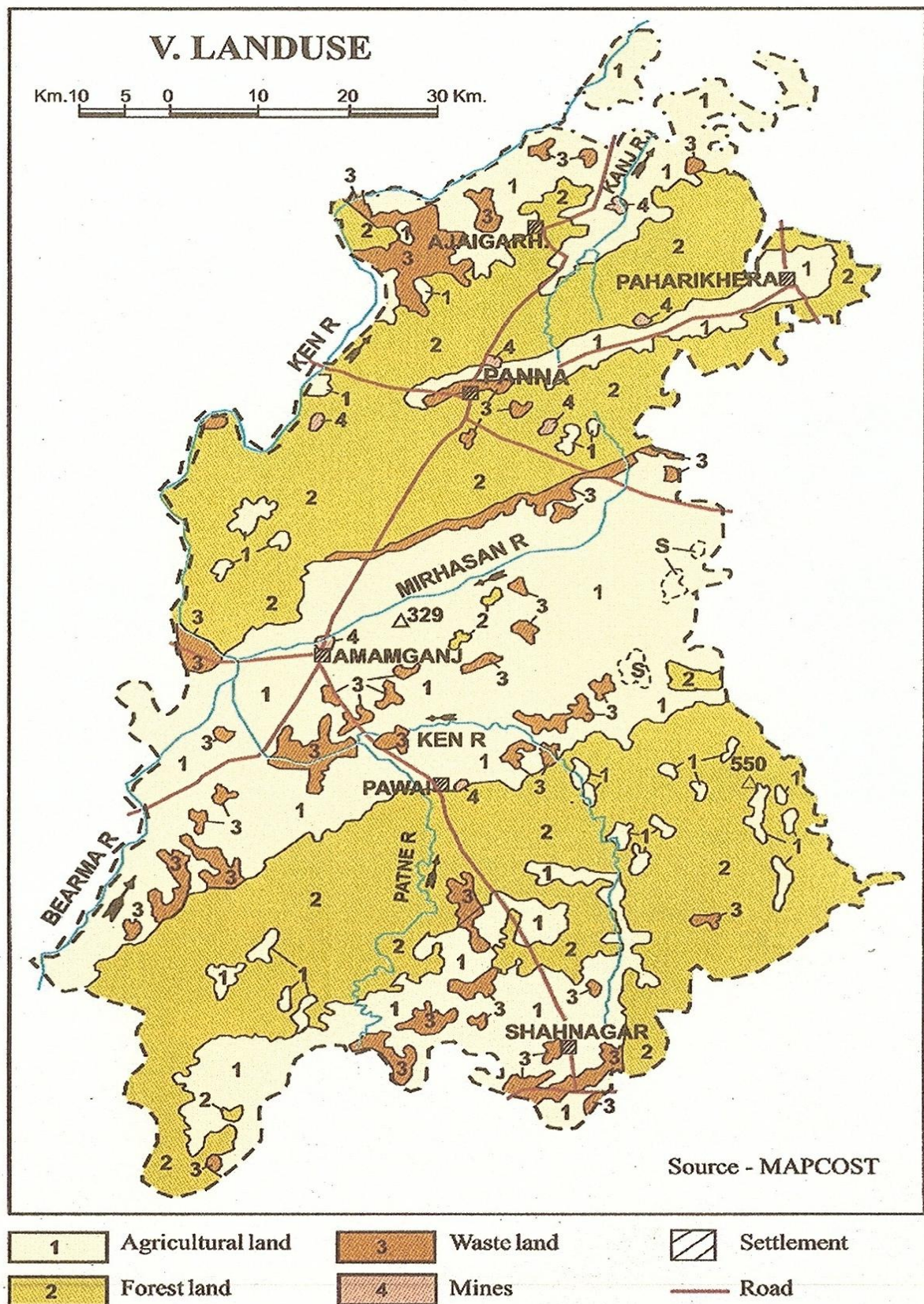
East of the Teak forests, the proportion of teak decreases as compared to other species but the quality of the crop increases due to higher water retaining capacity of the soil. The miscellaneous species get proper opportunity to grow upto class III on deep soil. The best of Mixed forests occur in patches and account for 2720 hectares largely in North Panna division, and in Kalda Pathar of south division.

The general span of Mixed forests east of the teak belt bears IV-a in central parts of Dharampur and eastern parts of Bishramganj and Panna Ranges. The area under mixed forests of IV-a quality is 25,000 hectares in North Division. They also occur in the Pawai and Shahnagar Ranges of South Division.

An area of 33,001 hectares in Devendranganj and Dharampur Ranges bear Class IV-b quality forests. In the south division this corresponds to the hilly areas of kalda, and eastern parts of Shahnagar and Pawai Ranges.

### **Mining :-**

The district is famous for its gem quality diamonds, limestone, flagstone, granite, sand, gitti, small and scanty pockets of clay, laterite, murum and shale are observed all around district covering an area of 66283 hect. out of which major mineral is 132 hect. and minor minerals is 524.90 hect. mining percentage of land use is 0.99%.



## **CHAPTER-IX**

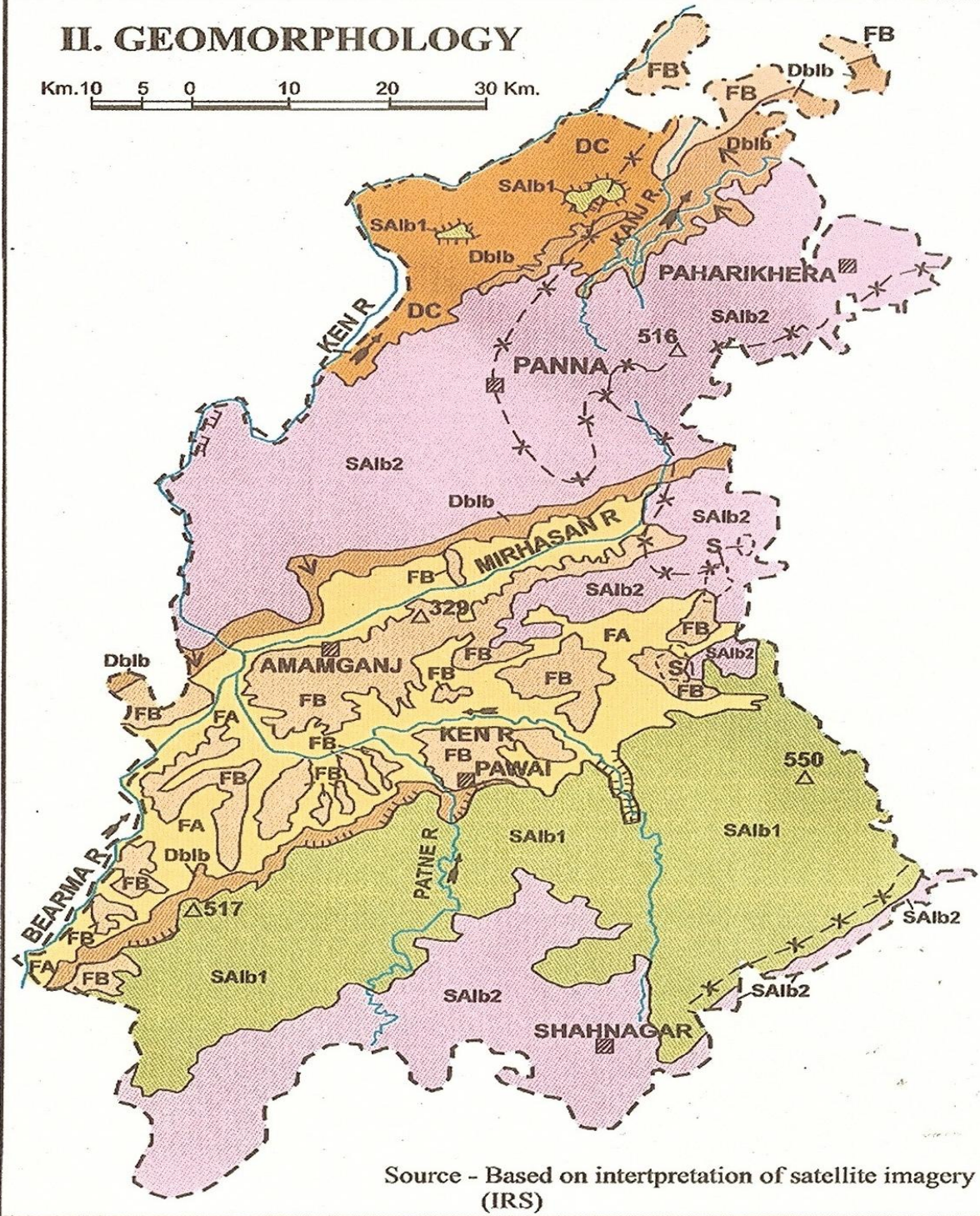
### **PHYSIOGRAPHY OF THE DISTRICT**

The district forms part of vindhyachal ranges in the north followed by bundelkhand upland in the south. The vindhyachal range consists of two linear step like table lands trending ENE-WSW separated by an uneven narrow valley having an average elevation of 440mtr above msl. The Bundelkhand upland having an average elevation of 170mtr above msl, is a peneplained surface dotted with mesa and linear ridges. Ken river with its tributaries Ranj and Baghain control the drainage of Panna District. Draniage pattern is dendritic type.



## II. GEOMORPHOLOGY

Km. 10 5 0 10 20 30 Km.



Salb	Upper level plateaus on Proterozoic rocks
Salb	Lower level plateaus on Proterozoic rocks
Dblb	Denudational slope on Proterozoic rocks
DC	Pediplain
FA	Flood plain (including in-filled river beds)
FB	Older flood plain

	Mesa
	Escarpment
	Basin divide (Main/sub-basin)
	River/drainage

# CHAPTER-X

## RAINFALL MONTHWISE

**Year 2013-14**

S.No.	Month's Name	Rainfall Till Month Ending	Rainfall During The Month
1	June	1743.9	1743.9
2	July	3653.1	1909.2
3	August	4654.8, 6513.9	4604.7
4	September	1995.9, 6650.7	2046
5	October	5512.1, 7508.0	546.2
6	November	1995.9, 7508.0	2046
7	December	7508.07	5462
8	January	7826.6	2046
9	February	8159.6	6113.6
10	March	8206.2	2092.6
11	April	820.2	6113.6
12	May	8210.2	8210.2

Note :- 1 June 2013 to 31 May 2014

**Year 2014-15**

S.No.	Month's Name	Rainfall Till Month Ending	Rainfall During The Month
1	June	265.2	265.2
2	July	1505.9	1240.7
3	August	2796.5	1555.8
4	September	3303.01	1747.21
5	October	3509.5	1746.29
6	November	3509.5	1763.21
7	December	3570.1	1806.89
8	January	3744.0	1937.11
9	February	3778.6	1841.49
10	March	4172.0	2330.5
11	April	4324.4	1993.9
12	May	4329.4	

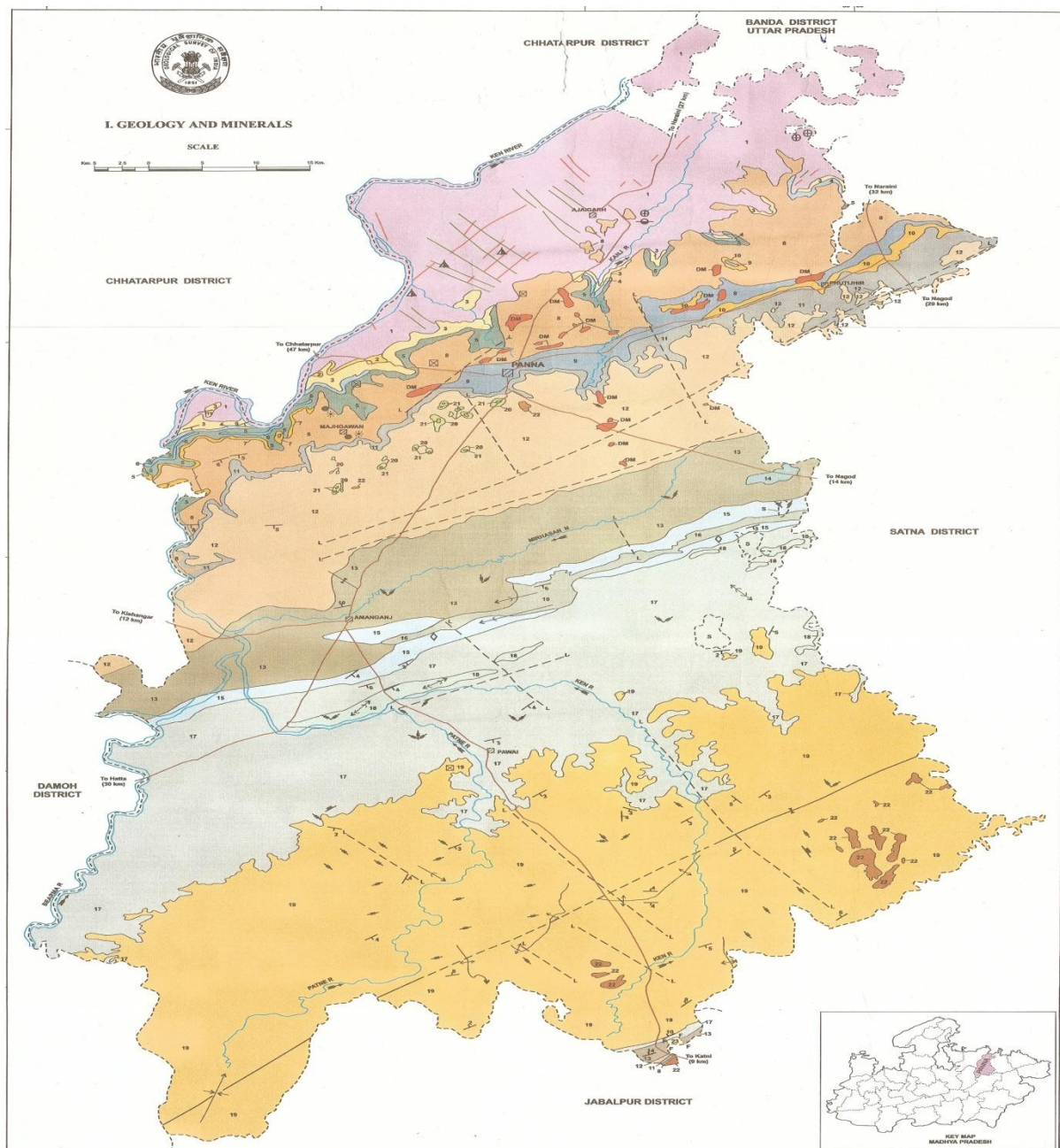
## CHAPTER-XI

### GEOLOGY AND MINERAL WEALTH

**General geology of the area is as under:-**

Lithology	Statgraphic Status	Age
Alluvium		Quaternary
Laterite		Canoizoic
Basalt	Deccantrap	Upper cretaceous to palaezoic
Silty shale with pockets of clay	Lameta Group	Cretaceous
Sandstone		
Shale/Limestone with interbads within shale		
Limestone/shale interbeds within limestone	Bhander Group	VINDHYAN SUPERGROUP
Shale/Limestone interbeds within shale		
Sandstone		
Shale		
Sandstone	Rewa Group	
Shale		
Kimberlite diatremes		
Sandstone		
Conglomerates	Kaimour Group	
Shale with porcellanite dolomitic limestone, interbeds with shale	Semri Group	
Limestone		
Quartzitic sandstone		
Quartzite and Chert Breecia	Bijawar Group	Paleo Proterozoic
Basic Dykes & Quartz reefs.		
Granite, gneisses & migmatities	Bundelkhand Gneissic Complex	Archaeans





LITHOLOGY		STRATIGRAPHIC STATUS		AGE	
23	Alluvium		Deccan Trap		QUATERNARY
22	Laterite		Lameta Group		CAINOZOIC
21	Basalt				UPPER CRETACEOUS TO PALAEOGENE
20	Silty shale with pockets of clay				CRETACEOUS
19	Sandstone				
17 18	Shale/limestone interbeds within shale		Bhander Group	VINDHYAN SUPERGROUP	
15 16	Limestone/shale interbeds within limestone				
13 14	Shale/limestone interbeds within shale				
12	Sandstone				NEO-PROTEROZOIC
11	Shale		Rewa Group		
10	Sandstone				
9	Shale				
8	Kimberlite diatreme		Kaimur Group		MESO-PROTEROZOIC
7	Conglomerate				
5 6	Shale with porcellanite/dolomitic limestone interbeds within shale				
4	Limestone		Semri Group		
3	Quartzite/sandstone				
2	Quartzite and chert breccia		Bijawar Group		PALAEO-PROTEROZOIC
D/G	Basic dykes/Quartz reefs				
1	Granite, gneiss and migmatite		Bundelkhand Gneissic Complex		ARCHAEOAN

### **Granite Gneisses and Migmatites :-**

The oldest rock in the district belongs to the Bundelkhand granite, under which are grouped suits of various types of granite, gneisses, migmatites, pegmatite and intrusive Quartz reefs, dolerite and other dykes. They occupy the low lying area to the north of Panna range. These rocks were subjected to erosion for a long period and developed highly uneven and irregular surfaces. In a very small area phyllites and quartz schist which are tentatively referred to the Dharwars.

Bundelkhand granite form a vast outcrop in the area and have been considered to be of meta somatic origin. The granites are intruded by quartz reefs which form prominent linear hills. The basic dikes which cut through the granites are roughly at right angles to the reefs.

Granites are generally of three types

- (1) Greyish white, fine to medium grained leucocratic.
  - (2) Grey to dark-grey, medium to coarse grained melanocratic.
  - (3) Pink porphyritic granites.
- (1) Greyish white, fine to medium grained in texture and is composed of grey white feldspars and quartz. It is deficient in ferro magnesian minerals and highly weathered and never seen occurring in higher grounds.
  - (2) The grey to dark grey medium to coarse grained is sporadic in nature and is seen exposed in the area north of Pandwafall. The quartz and grey feldspars are the main constituent and is closely jointed, sheared and at places fairly weathered.
  - (3) The pink porphyritic granite consists of large crystals of potash feldspars together with quartz and ferromagnesian minerals in



subordinate quantity. The rock is closely jointed and sheared. The shear zones are generally followed by both acid and basic intrusives. The rock is hard and massive and is more resistant to weathering and forms the hills and mounds-bouldary in nature.

The dykes cutting across the granites show that they are of gabbroic, doleritic and ultra-basic composition. Some metasediments exposed in a narrow outcrop in the Pandwafall gorge comprising quartz-muscovite-schists, schistose, phyllites are found associated with granites. They are referred to as Dharwars.

#### **Bijawar Group :-**

Few exposures of some sandstone are found in isolation in the Panna district. These overlying occurrences described here appear to have been exposed due to erosion of overlying Vindhyan rocks. The Bijawar consists of grey coloured, hard, massive, thickly bedded sandstone. It is traversed by quartz veins. Thin strips between granite and semri sandstone near Pathar Chauki SE of Baharganj. At Baharganj characteristic Bijawar conglomerate consisting of bright-red, jasper, dark-red, haematitic jasper-rock, black-quartzite, yellow, siliceous pebbles, hornstone and quartz vein in a coarse siliceous matrix. Pegmatite beds, quartzites, ferromagnesian sandstone, cherty limestone and siliceous hornstone.

Basic dikes, ash-beds and lava flows Bijawar jasper breccia.

**Basic dikes of Bijawar :-** They cut granite as well as quartz reefs common in north of diamond fields between longitude  $80^{\circ} - 80^{\circ}30'$ . They are seen exposed near Bhajbai, Ajaygarh, nala in Bishramganj ghat sections. They are fine to coarse grained, greenish in colour, plagioclase and augite with less

quartz, texture is mostly granophyric to ophitic in nature. Magnetite is common.

**Breecia :-** They lie in streams between Bharganj and Dibar. Jasper is common which is bright-red, dark-red haematitic, quartzite, yellow siliceous rocks, hornblende and milky quartz. They are set in coarse siliceous ground mass.

### **Vindhyan Super Group**

#### **Semri Group :-**

The rock of the semri group comprise Pandwafall sandstone and Kajrahat limestone. Pandwafall sandstone is generally light grey to dirty-white in colour, medium – grained and thickly bedded, and grades downward into a glauconitic sandstone horizon. The sandstone below the glauconitic sandstone are somewhat calcareous. The quartz grains of sandstone are generally well – rounded. The Pandwafall sandstone is directly overlain by Ken limestone along the Baghain river. The limestone are made of pisolites and solites of calcareous and cherty material. The limestone is somewhat impersistent. Palkawan shale is the most persistent and prominent formation of the semri group. The formation of different types of sandy and argillaceous shale and porcellanite bands along with breccia and brecciated chert, generally light grey to green in colour, soft and mostly fragmented. The porcellanite shales and porcellanite generally occur in the lower part of the formation. The shales are almost black near Pipratola and contain pyrite nodules.

### **Kaimour Group :-**

It is represented by Pipratola conglomerate and Dhandraul Quartzite. Pipratola conglomerate occurs only in a small part of the area and assumes a maximum thickness of about 15m. The main constituents of this conglomerate are subangular to rounded pebbles of variously coloured jaspers, with quartz sandstone and haematite occurring in subordinate amounts, with siliceous matrix. It abruptly thins out when followed eastward. Baghain sandstone is massive, hard, compact, thick bedded and generally fine-grained. The colour is mostly white. Individual bed attains a thickness of 1.25mtr. The quartz grains seen to have been welded together by authigenic growth of silica. The lower part of this formation at some places consists of some what laminated arkosic to sub-arkosic sandstone.

### **Rewa Group :-**

It is divided into Paisuni formation Panna shales, Itwah sandstone Jhirri shales and Gahadra sandstone, above the slightly eroded surface of the Baghain sandstone. A succession of beds of flaggy limestone, shales and thin bedded glauconitic sandstone and has been termed as Paisuni formation.

Panna shales are composed mainly of shales with inter-bedded strata of siltstones and sandstone. The shales are generally of green colour and on the surface they look red due to oxidation. The shales are quite soft, and highly fragmented. The intercalated siltstones are generally composed of fine-grained quartz. The sandstone intercalations are very thin and appear to some sort of sub-grey wacks.

Itwah sandstone, very much limited in thickness, occurs sandwiched between the underlying Panna shales and overlying Jhirri shales. Since the sandstone is very hard, and massive, wherever it crops out it tends to make a

platform. This formation pinches out rapidly westwards. The sandstone in the upper part are thin-bedded, pinkish to purplish, flaggy quartz arenite with thin bands of calcite and ferroginous matter. Thin bands of diamond bearing conglomerate are found at places at several levels in the formation. The lower bed of the Itwah sandstone are generally chloritic.

Itwah sandstone are overlain by Jhirri shales which are identical in lithology with those of Panna shales. Discontinuous Patches of diamond bearing conglomerate occur at the base of Jhirri shales at Panna. Sometimes it is seen resting directly on the top of Dhandraul quartzite. A notable feature is that this conglomerate is found at the base of the Jhirri shales in the areas where Panna shales are not present.

Gahadra sandstone is massive, fine grained, generally white in colour on freshly broken surface but purplish to brownish on the weathered surface. The diamond bearing conglomerate associated with the Gahadra sandstone occur towards the top of this formation.

**Lameta** – They are exposed south west of Panna near Sukuha, Manki, Kherband.

**Deccan Trap** – On the top of lameta beds they occur as outlier near Buxwaho. Laterite occur on top of lameta cappings are found over the sandstone and shale of Kaimour, Rewa and Bhandar out crops. Laterite is purple to redish brown in colour and massive. They occur as spongy, vesicular & pisolitic form near Manki, Jardobha etc.

**Calc-tuff** – They are seen along Gorges of Kaimasan river near Barour, Kuchha, Waterfall near Pathak Chauki.



## Mineral Economics

### Granite :-

Granite and other dimensional stones have acquired enhanced commercial importance in the past about a decades time. This has resulted in the demand of Indian granite in the International market, the boom in civil construction industry in Europe, Gulf, and to a large extent in communist countries. Certain administrative policy decisions brought the granite of M.P. to the lime light as the state encompasses large tracts of variety of Granites. The red pink granite of Bundelkhand region, at present forms a premium item for export.

The Bundelkhand massive of Archaean age is closely related to the Vindhyan formation. The granite deposit of the area is mainly sheeted to bouldery in nature as seen near villages Harseni, Pista etc.

The rock is very hard, compact in nature and highly resistant to weathering and erosion, topography is rugged with high to very high relief, large batholiths are seen exposed.

Localities are Pista 24°58'-80°18', Harseni village 24°58'30"-80°17', Harbanspur village 24°58'40"- 80°19', Ajaygarh 24°53'40"- 80°16', Basaura 24°52'-80°19', Tikaranpur 24°52'40"-80°19'45", Pratapur 24°52'35"-80°16'40", Tirauni 24°52'30"-80°16'30", Singhpur village 24°53'55"- 80°17'30"

## **Limestone :-**

Limestone extends upto a total length of about 45km in length 1 to 1.5 km in width in toposheet number 63/D6, 7, 3 to 54/P15 from east to west on 1:50,000 scale, between village Bhilsai to east of river Bearmar on the west, and then further continuing in Damoh district.

On seeing megascopically the limestone seems to be of cement grade to S.M.S. grade, but at places the limestone is highly siliceous. The limestone is striking in NNE-SSW directions with a very low S-Easterly dip. The overburden in the area range from 0.00m to as much as 15.00mtr. Limestone of the region shows frequent variation in quality and thickness both laterally and vertically. At places high grade Limestone beds are overlain & also interlayered with inferior grade limestone. Limestone is well bedded, interbedding of high grade limestone, shale and impure siliceous limestone is very common in the area near village Banjarha, jhiria, Lohargawan, Tinduhai etc.

## **Shale**

Shale were encountered in Semri, Kaimour, Rewa and Bhandar group of rocks. Shale is used by the local people/road contractors for building and road construction. The thickness of these beds is very good also shale associated with sandstones beds make them mineable for flagstone quarries.

## **Sandstone**

Sandstones are exposed in Kaimour, Rewa and Bhandar groups. Sandstone of Kaimour group are fine-grained, hard, massive and thickly bedded. They are striking NE-SW with a low angle dip of  $5^{\circ}$  to  $6^{\circ}$  SE. Here sandstone is being mined at different villages like Khajuri, Baror, Manor, Dalhan Chowki. They are dirty white to off-white in colour with little overburden 1m to 1.5m these sandstone could find a good use for silica sand manufacturing, after crushing & washing process.

Sandstone of Rewa group are hard, with interbeds of shale, siltstone and limestone. Exposures are very scanty, whereas Upper-Rewa group sandstone are reddish brown, hard, massive coarse grained, thick bedded with shale interbed. Few flagstone quarries exist in and around village Devendranagar, Rajapur, Baror.

Sandstone of Bhandar group are purple to reddish brown, fine-grained thick to massive trending NE-SW with a low angle dip of  $4^{\circ}$  SE. These sandstone are highly jointed, with two set of joint planes i.e., NE-SW and NW-SE, which make them easily mineable for flagstone.

### **Diamond**

The 80km long and 4-5km wide ENE-WSW to NE-SW trending Panna Diamond Belt. The Diamond belt occurs on the Northern fringes of Vindhyan Plateau in Panna and adjoining district of M.P. Diamond occur in recent gravels conglomeratic horizons in the Vindhyan Super Group sediments and in kimberlite/lamproite pipes intrusive into the above sediments. Even lateritic caps over sandstone are diamond bearing. The diamond are mostly of gem quality and off colour.

The western part of the diamond belt is in the Panna National Park and is not available for exploration.

Diamond is in the Kimberlite pipes or other forms of ultrabasic intrusives. Diamond pipes are vertical or carrot shaped. Diamonds occur as crystals sparsely disseminated in the kimberlite rock, a few occurs in eclogite inclusions.

The pipe decreases in size with depth and the diamond content diminishes.

They also occur in conglomerate intercalated with Panna shales, the lowest bed among the lower Rewah series of Vindhyan formations.

Mostly diamond occurs in three forms in the district,

- (1) In alluvial gravel
- (2) In beds of conglomerates and
- (3) In agglomeratic pipe.

### **River Gravels**

Diamond occurs as traces along the banks of Ken-Ranj-Baghain rivers. The river gravel occurs over a length of 15km and width of 1 to 2km. Diamondiferous gravel is restricted to the basal part of the alluvial pipe and its thickness varies from 30cm to 4m. It comprises boulders and pebbles of sandstone, shale and laterite set in sandy matrix. Ramkheria gravels along the Baghain river have been worked for diamond by NMDC till 1984. Here the diamond resource of 1,15,000 carats with a grade of about 16 carat per hectare were proved by GSI. The gravels indicate higher diamond incidence than the Majgawan mine and percentage of gem quality diamonds is also higher.

The diamondiferous gravel, locally called as "Kakaru" is generally widespread for a length of about 40km with a width of 1 to 2km in NE direction in the district, but is often covered by sand, silt, or clay. The gravels are composed of pebbles of quartzite, jasper, sandstone and vein quartz, derived from the original conglomerate mixed with laterite pebbles occurring in the soil. The thickness may be 0.3 meters. The gravels are occasionally found in the cracks and crevices of the underlying sandstone and therefore has to be exposed by breaking up the superficial sandstone bed. The diamondiferous conglomerate bed locally known as "Muddha" is found in two horizons, one occupying a position between the Kaimour sandstone and the Jhirri shales and the other in the upper Rewa sandstone. The Jhirri



conglomerate is very hard and tough and consists usually of pebbles of quartzite, jasper, vein quartz, hematite and limonite, cemented together by a siliceous matrix. At times the conglomerate is very coarse and yield of diamond is good in such a coarse-rock. Deep workings are those in which the conglomerate lying underneath the Jhirri shales. The depth of pits may be 7.5 mtr and above upto a maximum of 22mtrs.

Shallow workings locally known as "Chhilla" are those in which diamondiferous gravel or conglomerate occur at depth of 1.5 to 3.25 metres below the surface over the Baghain and Gahadra sandstone formations. The incidence is low in these lateritic gravels and is widely spread in the district.

The Vindhya host a major share of diamonds of Panna Diamond Belt because of the occurrence of Majhgawan and Hinota diamondiferous kimberlite/lamproite and the diamondiferous conglomerate towards top of the Itwa sandstones, at the base of Jhirri shale, and towards top of the Gadahara sandstone.

#### **Localities where diamonds :-**

Majhgawan village, Hinouta village, Dongraha Ultrabasic, Harsa Ultrabasic rock, Bariarpur village, Hatupur village, Shahidan village, Ganja Shahpur village, Ramkhiria village.

### **Laterite**

They form cappings over the sandstone and shale beds of Kaimour, Rewa and Bhandar group of Vindhyan super group. It is purple to reddish brown in colour, massive and occurs as spongy, vesicular and pisolitic form and exposed near village Manki Jandobha, Kheraband, Sukuha.

No economic significance as the deposit scanty in nature.

### **Calc-tuff**

They are mostly localised along the gorges of Kaimasan river near Baror, Kuchha, Waterfall near Pathak chauki, Waterfall of Baghain river near Kohari. Large dirty-white highly calcareous big boulders are seen on the lower side of the waterfalls.

Deposit is very restricted and hence of no economic importance, only at times it is being burnt by local villagers for lime purpose.

### **Some minor minerals in the district also attracts attention which are summarised below.**

Fireclay is seen near villages Sungarh, Karondia in Shahnagar Tehsil of Panna district.

Ochres and white earth are seen near villages west of Jaumabia, Samaria, Tehsil/Distt Panna.

Whiteclay near village Lahar in Tehsil/Distt Panna.

Clay is found near village Rajapur, Devendranagar for making bricks in Tehsil/Distt Panna.

Native sulphur is found near village Kauhari in tehsil/distt Panna in traces in the form of Box-Work structure.

**(A) District wise detail of river or stream and other sand source.**

**KEN-**

Length in the district is approximate 40km. and flows in north and northwest direction joining river Yamuna.

**Mirhasan-**

Length in the district is approximate 25km. and flows south to north with 2 waterfalls each of 48 and 45 meters, turbulence is very high during rains.

**Ranj-**

Flows 5km. in north direction and meets Baghain river.

**Baghain-**

Flows 15km. in north east direction and meets Yamuna river.

**Bearma-**

Flows for 33km. in north south direction meeting sonar river. Its velocity is very high in rains.

**Sutne-**

It flows 10km. in south east direction and meets Tons.

**Patne-**

It flows 45km in north east and north west direction and meets Ken.

**Kurser-**

It flows 10km. in east west direction.

The different geological formation found in the district through which small riverlets, nalas flows during the process of denudation bring along with them huge quantity of sediments and sand and interm deposits along river edges, meanders etc. giving rise to sand deposits.

**(B) District wise availability of sand or gravel or aggregate resources**

Within the district 25 sand quarries are found in different rivers, which are mostly in Ajaygarh, Pawai Tehsil also 177 Quarries of different minor minerals are present in the district.

**(C) District wise detail of existing mining leases of sand and aggregates.**

In the district 01 mining lease of diamond is sanctioned in Panna Tehsil on an area of approximate 132 hec. till 2020, apart from this 69 auction quarries are sanctioned of different minor minerals.

**(D) Drainage system with description of main rivers-**

S.No.	Name of the river	Area drained (Sq. Km)	% Area drained in the District
1	Ken	500Hect. or more Search for new quarries are in progress	100%
2.	Mirhasan	400Hect. or more Search for new quarries are in progress	100%
3.	Berma	150Hect. or more Search for new quarries are in progress	100%
4.	Patne	400Hect. or more Search for new quarries are in progress	100%
5.	Sonar	50Hect. or more Search for new quarries are in progress	100%

Search for new sand quarries are in progress so that mining can be taken up.

**(E) Salient Features of Important Rivers and Stream :**

S.No.	Name of the River or Stream	Total Length in the Disrtict (in Km)	Place of origin	Altitude at Origin
1.	Ken	40	Plateau of Bhandar Group of sand stone	560-510mts
2.	Sonar	16	Lower Trappean hills of sagar district	700-650mts
3.	Patne	45	Plateau of Bhandar Group of sand stone	560-510mts
4.	Mirhasan	40	Plateau of lower Bhandar Group of shales	510-450mts
5.	Ranj	5	Plateau of Upper Rewa Group of sand stone	400mts
6.	Baghain	15	Plateau of Kaimour Group of sand stone	410mts
7.	Bearma	33	Plateau of Kaimour group of sandstone of sagar district.	410-400mts.

**(F) Salient Features of Important Rivers and Stream :**

Portion of the river or stream recommended for Mineral Concession	Length of area recommended for mineral concession (in km)	Average width of area recommended for mineral concession (in meters)	Area recommended for mineral concession (in square meter)	Mineable mineral potential (in metric tonne)(60% of total mineral potenial)
Sonar	Khasra no 155(Sunwani khurd)	Approximate 5.30Hect.	200×50 mts.	18000cu.mts.
Berma	Khasra no. 582 (Kol karihya) Chandrawal No.-1, 1 Chandrawal No.- 1,526, 549 Moharkakra-1	Approximate 22.5Hect.	2000×20	72000cu.mts.
Ken	Khasra no. 605 (Udla) Puraina 468 Badkhera kala-1 Singhasar-1,96 Kathi-2 Gudha-24 Bira No.-1,1 Bira No.- 2,1 Bira No.-3,1 Udaipur-1 Barkola-1 Majhgaya-2 Mohana No.- 1,1463 Mohana No. – 2, 55 Ramnai-1 Chandaura-1 Bhina- 1 Sunhara-1 Farswaha-1	Approximate 99.9 Hect.	18000×50mts	1620000mts
Mirhasan	Pipariya Khasra No. -96	5.50Hect	600×10mts	10800cu.mts
Other local Small Rivers, Riverlets, Nalas, Waterfalls	Khasra No. – Nil	50Hect.	5000×50mts	450000cu.mts

**Note :-** No lease/permit should be granted on & along Ranj and Baghain rivers as they are diamondiferous.

## Mineral Potential

Boulder, Gitti, Murum	Unlimited reserves, but in recent year as per mining section record approximate 1709657cu.mts. mineral has been extracted.
Sand	Annual deposition of sand is 2170800 cu.mts. as per mining section records, this year 86916cu.mts sand has been excavated.
Daimond	In NMDC mine 105181.93carat has been mined out where as in shallow mines reserve could not be calculated as the deposit is secondary but as per records 1713.92 carate has been mined recently of gem-off colour-industrial value.
Flag stone	Unlimited reserve but as per records so far 45000 cu.mts has been mined out.
Limestone	As per records 10.67m.tons cement grade limestone is shyamadanda block, while in Gunor and Shahnagar tehsil the area has been lease out for PL to different agencies for setting up cement Industry.
Total Minalbe mineral reserve in m.t.	The mineral present in the district has unlimited reserve of flagstone, boulder, stone for crusher, for another 100 years, while sand reserve is 2170800 cu.mts with annual deposition.

## Annual Deposition-

S.No.	Name of River	Annual Deposition (Cu.mts.)
1	Sonar	30000
2	Berma	120000
3	Ken	2700000
4	Mirhasan	180000
5	Others	750000
<b>Total</b>		<b>3780000</b>

Note – 60% of the total annual deposition of sand is mineable.

Portion of the river or stream recommended for Mineral Concession	Length of area recommended for mineral concession (in km)	Average width of area recommended for mineral concession (in meters)	Area recommended for mineral concession (in square meter)	Mineable mineral potential (in metric tonne)(60% of total mineral potenial)
Sonar	Khasra no 155(Sunwani khurd)	Approximate 5.30Hect.	200×50 mts.	18000cu.mts.
Berma	Khasra no. 582 (Kol karihya) Chandrawal No.- 1, 1 Chandrawal No.- 1,526, 549 Moharkakra-1	Approximate 22.5Hect.	2000×20	72000cu.mts.
Ken	Khasra no. 605 (Udla) Puraina 468 Badkhera kala-1 Singhasar-1,96 Kathi-2 Gudha-24 Bira No.-1,1 Bira No.- 2,1 Bira No.-3,1 Udaipur-1 Barkola-1 Majhgaya-2 Mohana No.-	Approximate 99.9 Hect.	18000×50mts	1620000mts



	1,1463 Mohana No. – 2, 55 Ramnai-1 Chandaura-1 Bhina- 1 Sunhara-1 Farswaha-1			
Mirhasan	Pipariya Khasra No. -96	5.50Hect	600×10mts	10800cu.mts
Other local Small Rivers, Riverlets, Nalas, Waterfalls	Khasra No. – Nil	50Hect.	5000×50mts	450000cu.mts