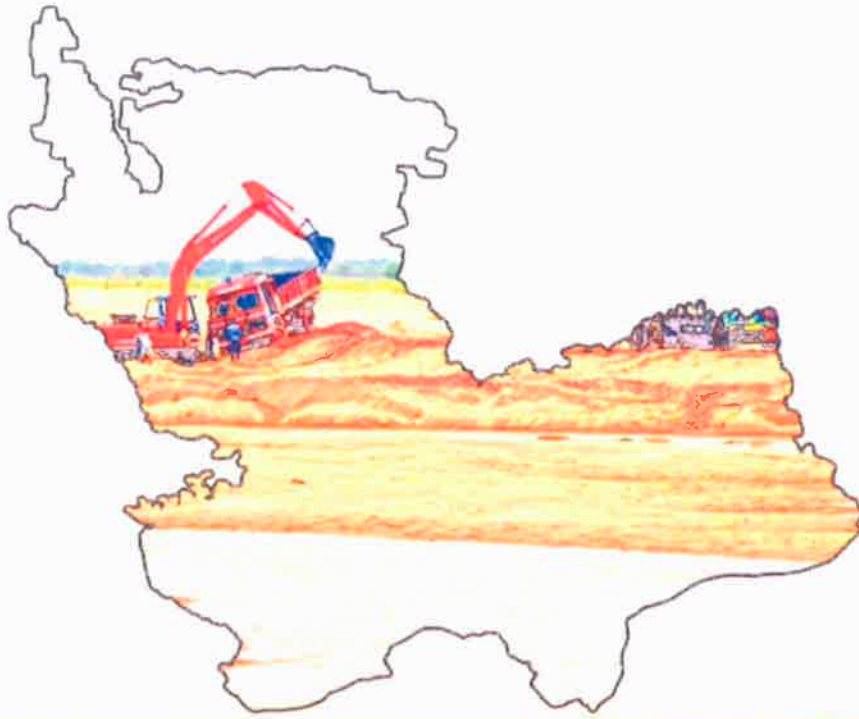


**DISTRICT SURVEY REPORT
DISTRICT DEWAS MADHYA PRADESH
FOR SAND MINING OR RIVER BED MINING**



In pursuance to the Gazette Notification, Ministry of Environment, Forest and Climate Change (MoEF& CC), the Government of India Notification No S.O. 141 (E) Appendix- X, Dated 15.01.2016 & S.O. 3611 (E) New Delhi, 25th July 2018 laid procedure for preparation of District Survey Report of sand mining or river bed mining keeping in mind the "Sustainable Sand Management Guidelines 2016" which focuses on the Management of Sand Mining in the Country and "Enforcement & Monitoring Guidelines for Sand Mining-2020" which focus on prevention of illegal mining in the country.

**SUBMITTED BY
DISTRICT COLLECTOR OFFICE (KHANUJ) DISTRICT DEWAS MADHYA
PRADESH**

2022

(Signature)
District Collector
District Dewas
E-5, Ajeeta Colony, Bhopal (M.P.)

कार्यालय कलेक्टर (खनिज) जिला देवास म. प्र.

पृ. क्रमांक/ खनिज/22
प्रति.

दिनांक 27/08/2022


सदस्य सचिव SEAC
पर्यावरण परिसर,
भोपाल मध्य प्रदेश

विषय :- जिले की जिला संशोधित एवं अद्यतन सर्वेक्षण रिपोर्ट (खनिज रेत) प्रस्तुत करने के संबंध में।

संदर्भ:- SEAC की 591वी बैठक दिनांक 27/08/2022

महोदय,

उपरोक्त विषयान्तर्गत लेख है की, देवास जिले की खनिज रेत की जिला सर्वेक्षण रिपोर्ट संशोधित एवं अद्यतन किये जाकर अनुमोदन हेतु प्रस्तुत है।


27.8.22
प्रभारी अधिकारी
खनिज
जिला देवास म. प्र.

पृ. क्रमांक/ /खनिज/22

प्रतिलिपि :-

दिनांक 27/08/2022

1. सदस्य सचिव SEIAA कार्यालय भोपाल की और सूचनार्थ एवं आगामी कार्यवाही हेतु प्रेषित।
2. संचालक, भौमिकी तथा खनिकर्म, 29-A अरेरा हिल्स भोपाल की और सूचनार्थ


प्रभारी अधिकारी
खनिज
जिला देवास म. प्र.


INDEX

S. No	Contents	Page No
1.	Introduction	1-1
	1.1 Guidelines to Monitor Sand Mining	1-1
	1.2 Enforcement and Monitoring Guidelines for Sand Mining 2020	1-2
	1.3 Location and accessibility of the District	3-3
	1.4 Drainage System	4-4
	1.4.1 The Narmada	4-4
	1.4.2 The Kali Sindh	5-5
	1.4.3 The Shipra	5-5
2.	Overview of Mining Activity in the District	6-6
3.	The List of Mining Leases in the District with location, area and period of validity	7-16
4.	Details of Royalty or Revenue received in last three years	17-17
5.	Detail of Production of Sand or Bajri minor mineral in last three years	17-19
6.	Process of Deposition of Sediments in the rivers of the District	20-23
7.	General Profile of the District	24-25
8.	land Utilization Pattern in the district: Forest, Agriculture, Horticulture, Mining etc	26-26
9.	Physiography of the District	27-27

(Signature)

State Level Project
Accession
E-5, A...

	9.1 The Malwa Plateau	27-27
	9.2 The Vindhya Range and Scarps	28-29
	9.3 Narmada Valley	29-29
10.	Rainfall: Month-wise	30-30
11.	Geology and Mineral Wealth	31-31
	11.1 Regional Geology	31-35
	11.2 Economic Geology	35-36
12.	Drainage System with description of main Rivers	37-37
13.	Salient features of Important Rivers and Streams	37-37
14.	Portion of the district or Stream recommended for Mineral concession	38-40
15.	Mineral Potential	41-42
16.	Length, width and thickness of sand deposit available for mining within the recommended area during post-monsoon period	43-44
17.	Length, width and thickness of sand deposit available for mining within the recommended area during pre-monsoon period	45-46


 State Level Environmental Impact
 Assessment
 Report
 for
 M.P.
 5, Arora Road, Bhopal (M.P.)

List of Maps

S. No	Maps	Plate No
1	Location Map	Plate-1
2	District Administrative Map	Plate-2
3	Drainage Map	Plate-3
4	Location of Sand Quarries in the District	Plate-4
5	Land use Land Cover Map	Plate-5
6	Geological Map of the District	Plate-6


State Level Environmental Impact
Assessment Authority, M.P.
(Bhopal)
Paryavaran Bhawan
C-5, Arera Colony, Bhopal (M.P.)

1. INTRODUCTION

In pursuance to the Gazette Notification, Ministry of Environment, Forest and Climate Change (MoEF & CC), the Government of India Notification No S.O. 141 (E) Appendix- X, Dated 15.01.2016 & S.O. 3611 (E) New Delhi, 25th July 2018 laid procedure for preparation of District Survey Report of sand mining or river bed mining. The main purpose of preparation of District Survey Report (DSR) is to identify the Sand resources and developing the sand mining activities along with other relevant data of the district.

1.1 Guidelines to Monitor Sand Mining

For the first time, the Ministry of Environment, Forests and Climate Change (MoEF&CC) has released guidelines to monitor and check illegal sand mining in the country.

- Sustainable Sand Management Guidelines (SSMG), 2016 focuses on the management of sand mining, but there was a need to have guidelines for effective enforcement of regulatory provisions and their monitoring.
- The 2020 guidelines are to be enforced simultaneously with the SSMG, 2016, in case of conflict; the new set will hold legal precedence. The Mines and Minerals (Development and Regulation) Act, 1957 has empowered state governments to make rules to prevent illegal mining, transportation, and storage of minerals.
- However, there were a large number of illegal mining cases in the country and in some cases, many of the officers lost their lives while executing their duties to curb illegal mining.
- Illegal and uncontrolled illegal mining also leads to loss of revenue to the State and degradation of the environment.

1.2 Enforcement and Monitoring Guidelines for Sand Mining 2020

The fair and rapid advancement of technology in country has enabled surveillance and remote monitoring in the field of mining for the effective monitoring of the mining activities, particularly, sand mining. States are now utilizing remote sensing to prevent

DISTRICT SURVEY REPORT OF DEWAS FOR SAND MINING OR RIVER BED MINING

illegal mining. Rules have been made to prevent illegal mining, transportation and storage of minerals but in the recent past, it has been observed that there was large number of illegal mining cases in the country and in some cases, many of the officers lost their lives while executing their duties for curbing illegal mining incidence. The illegal and uncontrolled illegal mining leads to loss of revenue to the State and degradation of the environment. Thus, an effective policy for monitoring of sand mining in the Country has been enforced focusing on the effective monitoring of the sand mining since from the identification of sand mineral sources to its dispatch and end-use by consumers and the general public.

- **Source to Destination Monitoring:** The new set of guidelines focuses on the effective monitoring of sand mining from the identification of sand mineral sources to its dispatch and end-use by consumers and the general public and look at a uniform protocol for the whole country.
- **Audits:** States to carry out river audits and put detailed survey reports of all mining areas in the public domain.
- **Transparency:** Online sales and purchase of sand and other riverbed materials (RBM) for transparency in the process.
- **Enforcement:** It gives directions to states to set up dedicated task forces at district levels.
- **In cases where rivers become district boundaries or state boundaries,** the districts or states sharing the boundary shall constitute the combined task force for monitoring of mined materials, mining activity and participate in the preparation of District Survey Reports (DSR) by providing appropriate inputs.
- **Sustainability:** Conduct replenishment study for river bed sand in order to nullify the adverse impacts arising due to excessive sand extraction.
- **While the Sustainable Sand Mining Guidelines, 2016, require the preparation of District Survey Reports (DSR),** which is an important initial step before grant of mining lease, the government has found that the DSRs carried out by state and district administrations are often not comprehensive enough, allowing space for illegal mining.

1.3 Location and accessibility of the District

Dewas District in Ujjain Revenue Division, it situated on the Malwa plateau in the West-central part of Madhya Pradesh and lies between the latitude 22° 17' 27" N and 23° 19' 20" N and longitude 75° 53' 30" E and 77° 7' 30" E and occupying an area of around 7020 sq. Kms. The district extends for about 106 km. from north to south and about 102 km. from east to west. It falling in Survey of India topo sheet Nos 46M, 46N, 55A, 55B & 55F. The district is bounded by Ujjain district in the north, Indore district in the west, Khargone district in the south-west, Khandwa district in the south, Hoshangabad district in the South East, Sehore district in the east and Shajapur district in the North-East.

The district is now divided in to 9 tehsils viz. Sonkatch, Dewas, Bagli, Kannod, Tonk-Khurd, Khategaon, Satwas, Hatpipliya and Udainagar. Dewas tehsil is situated on the north-western part of the district, Sonkatch on the north-eastern part, Bagli on the south, Kannod on the south-central part and Khategaon on the South-east.

All weather road connects all the tehsil headquarters. The Head-quarters of Dewas tehsil, which is also the district headquarters, is situated on The Bombay-Agra National Highway No.3 and is also connected by broad-gauge railway line of western Railway. Dewas is about 152 kilometers from Bhopal and 40 kilometers from Indore by road.

The Vindhyaçal range traverses almost across the central part of the district. North of it is the vast Malwa plateau. The southern part of the district lies in the Narmada valley. Thus there are three distinct physiographic divisions in the district, viz. The Malwa plateau, The Vindhyaçal range, and The Narmada valley. The Malwa plateau extends in the north from the foothills of the Vindhyaçal range, and covers the northern part of Bagli tahsil and all the northern tahsils.

The surface of the Malwa plateau is generally undulating in the river valley but is marked by knolls and offshoots of the Vindhyaçal along the water divides. The Plateau is drained by Kali sindh, Chhoti Kali Sindh and Kshipra rivers. The Narmada valley extends from east to west and occupies the southern part of the district.

Location and District Administrative Map is enclosed as Plate No-1 & 2

1.4 Drainage System

The District lies in the drainage systems of the Narmada and the Ganga. Vindhyan hills above the scarp form the water divide line between the two drainage systems. The Narmada itself flows along the greater part of the southern boundary of the District, and receives the Kanar, the Khari, the Datuni, the Bagli and the Jamner. The north flowing rivers, namely, the Kali Sindh, the Chhoti Kali Sindh and the Shipra, join the Ganga through the Chambal. The tributary streams of the Narmada do not maintain their flow beyond the month of November but have several perennial pools along their beds. The north flowing streams of the Malwa flow for a few months more. The floods are sudden and violent in all the streams. The general drainage pattern of the area is of dendritic type.

1.4.1 The Narmada

The Narmada rises from the western flank of the Amarkantak plateau on the Maikala range. The source is marked by a sacred tank, at 22° 40' N and 81° 46' E in Anuppur district. The stream falls at Kapildhara and meanders through the hills of Mandla and Jabalpur districts. It has a picturesque gorge cut through the magnesian rocks, called Marble Rocks, near Jabalpur. The cliff of the Marble rocks was measured 40.5 m. (133 ft.) from the water level on the 16th December, 1965'. Visitors find pleasure in boating in moon lit nights. The river forms the boundaries of Narsimhapur, Hoshangabad, East-Nimar and West-Nimar on the left and Raisen, Sehore, Dewas, Dhar and Jhabua districts of Madhya Pradesh on the right bank.

The important tributaries of the Narmada are the Banjar, the Sher, the Shakkar, the Dudhi, the Ganjal, the Tawa, the Chhota Tawa, and the Kaveri on the left bank in Madhya Pradesh. The right bank tributaries are the Hiran, the Barna, the Jamner, the Datuni, the Khari, the Kanar, and the Choral. The left bank tributaries have wider catchment areas and are more important. The Karanjan, the Orsang, the Amravati and the Bhukhi are the tributaries in the lover plain, Shukla Tirth is an important pilgrim centre at the confluence of the Kaveri. The course of the Narmada is about 1290 km. of which about 70 km. marches along the Dewas District boundaries.

1.4.2 The Kali Sindh

It rises from the Vindhyaachal range (723 metres) at 22° 35' N. 76° 20' E. and flows to the north. It traverses the northern part of Bagli tahsil, and Sonkatch tahsil. Further it flow in shajapur District and receives the Lakhandar on the left bank. The Kali Sindh is one of the principal tributaries of the Chambal, Its course in this District is about 70 km. It is a typical river of the Malwa Plateau with long narrow valley parallel to many others on the trap bed. The channel is deep and the flow seasonal. Sundersi, Kall Sindh and Jhalawar are located on its banks. The Chhoti Kall Sindh The Chhoti Kali Sindh rises form the vicinity of Dewas, a few kilometres to the north-east. It flows to the north-west in the districts of Dewas, Ujjain and Jhalawar (Rajasthan State) before it joins the Chambal.

1.4.3 The Shipra

The river is variously spelt as the Sipra, Shipra, Kshipra or Avantinadi. The sacred village Shipra is situated on it. The river is said to have sprang from the blood of Vishnu. It rises from Kakri Bardi hill (747.06 m.), about 11 km. south-east of Indore.

It flows to the north-east in that district for 21 km. but turns to the north-west after reaching the western boundary of Dewas. Here its course is about 56 km. on the Trap. Later it receives the Khan, and then joins the Chambal. Ujjain is located on the right bank of the Shipra. Its waters flow into the Ganga.

Drainage Map is enclosed as Plate No-3


State Level Environment Impact
Assessment Authority, M.P.
(E.P. 3)
Paryavaran Parisar
E-5, Arera Colony, Bhopal (M.P.)

2. OVERVIEW OF MINING ACTIVITY IN THE DISTRICT

Land and water are the basic aspects of development of any economy. Economic development is the output of development of these natural resources in a sustainable manner. District is well endowed with fabulous amount of building material like sand, Stone (Gitti), Marble and Murum. In all a sum total of 163 quarry leases including 28 sand quarries, have been sanctioned in the Dewas district of M.P. having a sum total of 422 hectare area, which is 0.06% of the area of the district, and fetches 100.40 crores of revenue during 2019-20 to 2021-22.

Location of Sand Quarries in the District, Map is enclosed as Plate No-4


State Level Environment Impact
Assessment Authority, M.P.
(EFLD)
Paryavaran Parisar
E-5, Atera Colony, Bhopal (M.P.)


DISTRICT SURVEY REPORT OF DEWAS FOR SAND MINING OR RIVER BED MINING

3. LIST OF MINING LEASES IN THE DISTRICT WITH LOCATION, AREA AND PERIOD OF VALIDITY

S.No	Khasra Number	Area in Ha.	Name of The River	Village	Tehsil	Coordinates	Capacity m ³	Period
1.	441	2.00	Narmada	Bijalgaon-I	Khategaon	22°53'40.1331"N, 77°10'547.327"E 22°53'40.5414"N, 77°10'552.403"E 22°53'40.4449"N, 77°10'553.957"E 22°53'40.5.721"N, 77°10'552.293"E	36,000	19/06/2020 to 30/06/2023
2.	430	20.00	Narmada	Chichli-I	Khategaon	22°30'31.25"N 77°04'08.97"E 22°30'34.09"N 77°04'32.12"E 22°30'33.77"N 77°04'32.25"E 22°30'35.39"N 77°04'08.83"E	342000	19/06/2020 to 30/06/2023
3.	227	6.00	Narmada	Murjhal (Dayyat)	Khategaon	22°30'5.54"N, 77°2'39.64"E 22°30'10.12"N, 77°2'56.39"E 22°30'6.72"N, 77°2'57.62"E 22°30'1.99"N, 77°2'40.97"E	90000	19/06/2020 to 30/06/2023
4.	153	4.00	Narmada	Murjhal (Kundgaon-1)	Khategaon	22°29'41.41"N, 77°00'14.90"E 22°29'41.41"N, 77°00'25.952"E 22°29'46.33"N, 77°00'24.01"E 22°29'46.46"N, 77°00'13.85"E	72,000	19/06/2020 to 30/06/2023
5.	153	2.00	Narmada	Murjhal (Kundgaon-2)	Khategaon	22°29'38.99"N, 77°00'41.56"E 22°29'39.26"N, 77°00'46.68"E 22°29'43.68"N, 77°00'45.94"E 22°29'43.60"N, 77°00'40.48"E	36000	19/06/2020 to 30/06/2023
6.	153	2.00	Narmada	Murjhal (Kundgaon-3)	Khategaon	22°29'38.99"N, 77°00'41.56"E 22°29'39.26"N, 77°00'46.68"E 22°29'43.68"N, 77°00'45.94"E 22°29'43.60"N, 77°00'40.48"E	36000	19/06/2020 to 30/06/2023

DISTRICT SURVEY REPORT OF DEWAS FOR SAND MINING OR RIVER BED MINING


7.	153	2.00	Narmada	Murjhal (Kundgaon-4)	Khategaon	22°32'12.53"N, 77°06'31.35"E 22°32'16.95"N, 77°06'36.47"E 22°32'20.13"N, 77°06'33.56"E 22°32'15.12"N, 77°06'28.59"E 22°29'45.28"N, 76°59'34.44"E 22°29'45.31"N, 76°59'37.38"E 22°29'43.14"N, 76°59'37.45"E 22°29'43.09"N, 76°59'34.41"E	36,000	19/06/2020 to 30/06/2023
8.	527	0.418	Narmada	Nemawar-2	Khategaon	22°27'29.803"N, 76°51'12.899"E 22°27'30.524"N, 76°51'14.466"E 22°27'31.097"N, 76°51'16.102"E 22°27'31.660"N, 76°51'17.743"E 22°27'31.949"N, 76°51'18.774"E 22°27'30.734"N, 76°51'19.463"E 22°27'30.103"N, 76°51'17.851"E 22°27'29.504"N, 76°51'16.226"E 22°27'28.593"N, 76°51'13.731"E	8200	19/06/2020 to 30/06/2023
9.	76	0.820	Narmada	Mirjapur (Bhanjakhedi-1)	Khategaon	22°26'18.294"N, 76°48'18.75"E 22°26'32.41"N, 76°48'32.73"E 22°26'29.87"N, 76°48'37.42"E 22°26'30.30"N, 76°48'23.10"E	13000	19/06/2020 to 30/06/2023
10.	164	10.00	Narmada	Rijhi (Ravlas)	Khategaon	22°25'41.74"N, 76°47'24.30"E 22°25'48.29"N, 76°47'30.74"E 22°25'45.10"N, 76°47'34.35"E 22°25'38.72"N, 76°47'27.59"E	15000	19/06/2020 to 30/06/2023
11.	105	4.00	Narmada	Melpipliya	Khategaon	22°30'46.984"N, 77°4'44.718"E 22°30'47.728"N, 77°4'46.273"E 22°30'48.472"N, 77°4'47.828"E 22°30'49.215"N, 77°4'49.383"E 22°30'49.959"N, 77°4'50.939"E 22°30'50.703"N, 77°4'52.494"E 22°30'51.446"N, 77°4'54.049"E	2000	19/06/2020 to 30/06/2023
12.	369	6.00	Narmada	Karondmafi	Khategaon			


 State Environment Impact Assessment Authority, M.P.
 (E-5, Arera Colony, Bhopal (M.P.))
 Paryavaran Prasthiti
 E-5, Arera Colony, Bhopal (M.P.)

DISTRICT SURVEY REPORT OF DEWAS FOR SAND MINING OR RIVER BED MINING

22°30'52.190"N, 77°4'55.605"E 22°30'52.934"N, 77°4'57.160"E 22°30'53.677"N, 77°4'58.716"E 22°30'54.257"N, 77°4'59.929"E 22°30'52.755"N, 77°5'5.595"E 22°30'51.060"N, 77°5'1.347"E 22°30'50.213"N, 77°4'59.854"E 22°30'49.366"N, 77°4'58.361"E 22°30'48.519"N, 77°4'56.868"E 22°30'47.672"N, 77°4'55.375"E 22°30'46.825"N, 77°4'53.883"E 22°30'45.978"N, 77°4'52.390"E 22°30'45.130"N, 77°4'50.897"E 22°30'44.283"N, 77°4'49.404"E 22°30'43.436"N, 77°4'47.911"E 22°30'42.864"N, 77°4'46.902"E 22°30'44.321"N, 77°4'46.129"E 22°30'45.779"N, 77°4'45.356"E					
23°10'31.393"N, 76°25'25.337"E 23°10'37.854"N, 76°25'24.548"E 23°10'44.338"N, 76°25'25.063"E 23°10'50.564"N, 76°25'27.093"E 23°10'56.190"N, 76°25'30.611"E 23°10'777"N, 76°25'35.60"E 23°10'3.788"N, 76°25'41.837"E 23°10'1.797"N, 76°25'48.532"E 23°10'55.661"N, 76°25'51.947"E 23°10'55.743"N, 76°26'486"E 23°10'55.164"N, 76°26'872"E 23°10'53.926"N, 76°25'53.968"E 23°10'58.722"N, 76°25'49.219"E 23°10'3.102"N, 76°25'46.280"E				50000	19/06/2020 to 30/06/2023

13. 221 4.00 Narmada Pipalneriya Khategaon


 State Environment Impact
 Assessment Authority, M.P.
 (E-5)
 Paryavaran Parishad
 E-5, Arera Colony, Bhopal (M.P.)

DISTRICT SURVEY REPORT OF DEWAS FOR SAND MINING OR RIVER BED MINING

14.	76	4.00	Narmada	Mirjapur (Bhanjakhed i-2)	Khategaon	23°10'140"N, 76°25'37.380"E	25000	19/06/2020 to 30/06/2023
						23°10'55.934"N, 76°25'32.016"E		
						23°10'50.324"N, 76°25'28.766"E		
						23°10'44.009"N, 76°25'26.783"E		
						23°10'37.552"N, 76°25'25.949"E		
						23°10'31.544"N, 76°25'26.582"E		
						22°27'24.175"N, 76°50'55.067"E		
						22°27'24.884"N, 76°50'56.640"E		
						22°27'25.593"N, 76°50'58.214"E		
						22°27'26.303"N, 76°50'59.787"E		
						22°27'27.012"N, 76°50'1.360"E		
						22°27'27.722"N, 76°51'2.934"E		
						22°27'28.431"N, 76°51'4.507"E		
						22°27'29.140"N, 76°51'6.081"E		
22°27'29.850"N, 76°51'7.654"E								
22°27'30.559"N, 76°51'9.227"E								
22°27'31.268"N, 76°51'10.801"E								
22°27'31.978"N, 76°51'12.374"E								
22°27'32.436"N, 76°51'13.392"E								
22°27'30.573"N, 76°51'14.571"E								
22°27'29.851"N, 76°51'13.005"E								
22°27'29.130"N, 76°51'11.437"E								
22°27'28.408"N, 76°51'9.870"E								
22°27'27.687"N, 76°51'8.304"E								
22°27'26.965"N, 76°51'6.736"E								
22°27'26.243"N, 76°51'5.170"E								
22°27'25.522"N, 76°51'3.603"E								
22°27'24.801"N, 76°51'2.036"E								
22°27'24.078"N, 76°51'469"E								
22°27'23.357"N, 76°50'58.902"E								
22°27'22.636"N, 76°50'57.335"E								
22°27'22.120"N, 76°50'56.215"E								

DISTRICT SURVEY REPORT OF DEWAS FOR SAND MINING OR RIVER BED MINING

15.	414	7.00	Narmada	Bijalgaon-2	Khategaon	22°32'15.36"N, 77°62'55.5"E 22°32'28.92"N, 77°64'3.79"E 22°32'26.44"N, 77°6'46.25"E 22°32'12.70"N, 77°6'30.38"E	15000	19/06/2020 to 30/06/2023
16.	430	10.00	Narmada	Chichli-1	Khategaon	22°30'33.17"N, 77°4'13.95"E 22°30'42.86"N, 77°4'41.35"E 22°30'38.64"N, 77°4'43.14"E 22°30'29.54"N, 77°4'15.74"E	60,000	19/06/2020 to 30/06/2023
17.	527	3.784	Narmada	Nemawar-4	Khategaon	22°29'33.74"N, 76°59'23.75"E 22°29'35.81"N, 76°59'33.71"E 22°29'44.02"N, 76°59'33.71"E 22°29'43.70"N, 76°59'23.50"E	40,000	19/06/2020 to 30/06/2023
18.	527	3.784	Narmada	Nemawar-5	Khategaon	22°30'31.25"N, 77°04'08.97"E 22°30'34.09"N, 77°04'32.12"E 22°30'36.33"N, 77°04'32.25"E 22°30'35.39"N, 77°04'08.87"E	68,112	19/06/2020 to 30/06/2023
19.	55	2.00	Narmada	Bajwada (Gajanpur-4)	Khategaon	22°29'31.42"N, 76°58'07.57"E 22°29'31.58"N, 76°58'12.06"E 22°29'36.01"N, 76°58'11.79"E 22°29'36.01"N, 76°58'07.56"E	36,000	19/06/2020 to 30/06/2023
20.	55	2.00	Narmada	Bajwada (Gajanpur-5)	Khategaon	22°29'30.78"N, 76°58'03.20"E 22°29'30.45"N, 76°58'08.83"E 22°29'35.94"N, 76°58'09.32"E 22°29'36.39"N, 76°58'03.30"E	36,000	19/06/2020 to 30/06/2023
21.	1,58	6.7	Kali Sindh	Pirpadlya	Sonkatch	23°10'30.28"N, 76°25'25.61"E 23°10'45.33"N, 76°25'26.29"E 23°11'02.53"N, 76°25'41.04"E 23°11'12.24"N, 76°26'03.60"E	10,000	19/06/2020 to 30/06/2023
22.	1 and 279	3.500	Kali Sindh	Pirpalya (Surjana)	Sonkatch	23°10'18.77"N, 76°25'27.08"E 23°10'18.80"N, 76°25'28.89"E 23°8'59.63"N, 76°24'56.25"E 23°9'0.24"N, 76°24'55.16"E	2350	19/06/2020 to 30/06/2023

DISTRICT SURVEY REPORT OF DEWAS FOR SAND MINING OR RIVER BED MINING

23.	1	4.00	Kali Sindh	Patadiya Taj	Sonkatch	23°5'11.500"N, 76°21'45.406"E 23°5'18.299"N, 76°21'47.099"E 23°5'24.764"N, 76°21'45.737"E 23°5'31.250"N, 76°21'46.231"E 23°5'37.647"N, 76°21'47.494"E 23°5'44.032"N, 76°21'48.822"E 23°5'49.470"N, 76°21'52.675"E 23°5'55.761"N, 76°21'57.495"E 23°5'55.451"N, 76°21'58.029"E 23°5'50.245"N, 76°21'53.817"E 23°5'44.872"N, 76°21'49.860"E 23°5'38.456"N, 76°21'48.714"E 23°5'32.164"N, 76°21'46.9408"E 23°5'25.692"N, 76°21'56.257"E 23°5'23.227"N, 76°21'48.367"E 23°5'16.725"N, 76°21'48.474"E 23°5'11.017"N, 76°21'47.395"E	1080	19/06/2020 to 30/06/2023
24.	6, 224,271 and 576	9.220	Kali Sindh	Inabad (Kalukhedhi)	Sonkatch	23°2'46.108"N, 76°20'41.442"E 23°2'51.769"N, 76°20'44.898"E 23°2'57.928"N, 76°20'47.154"E 23°3'4.340"N, 76°20'48.319"E 23°3'10.774"N, 76°20'49.337"E 23°3'16.561"N, 76°20'52.541"E 23°3'22.064"N, 76°20'56.285"E 23°3'28.206"N, 76°20'58.590"E 23°3'34.702"N, 76°20'58.272"E 23°3'40.761"N, 76°20'55.721"E 23°3'46.991"N, 76°20'53.708"E 23°3'53.216"N, 76°20'51.676"E	1000	19/06/2020 to 30/06/2023

DISTRICT SURVEY REPORT OF DEWAS FOR SAND MINING OR RIVER BED MINING

23°3'59.601"N, 76°20'50.346"E						
23°4'6.096"N, 76°20'50.6651"E						
23°4'12.127"N, 76°20'51.738"E						
23°4'11.952"N, 76°20'52.722"E						
23°4'5.504"N, 76°20'51.811"E						
23°3'59.021"N, 76°20'52.051"E						
23°3'52.668"N, 76°20'53.612"E						
23°3'46.330"N, 76°20'55.181"E						
23°3'40.086"N, 76°20'57.146"E						
23°3'33.921"N, 76°20'59.376"E						
23°3'27.419"N, 76°20'59.524"E						
23°3'21.407"N, 76°20'56.848"E						
23°3'15.753"N, 76°20'53.378"E						
23°3'9.755"N, 76°20'50.663"E						
23°3'3.332"N, 76°20'49.566"E						
23°2'57.012"N, 76°20'47.914"E						
23°2'50.973"N, 76°20'45.309"E						
23°2'45.890"N, 76°20'41.871"E						
22°54'32.271"N, 76°20'21.313"E						
22°54'38.649"N, 76°20'22.680"E						
22°54'45.127"N, 76°20'22.067"E						
22°54'51.603"N, 76°20'21.470"E						
22°54'57.676"N, 76°20'18.920"E						
22°55'3.283"N, 76°20'15.365"E						
22°55'9.029"N, 76°20'12.077"E						
22°55'15.530"N, 76°20'12.222"E						
22°55'20.518"N, 76°20'16.726"E						
22°55'25.767"N, 76°20'20.870"E						
22°55'32.122"N, 76°20'22.355"E						
22°55'34.284"N, 76°20'23.023"E						
22°55'27.806"N, 76°20'22.412"E						
22°55'21.924"N, 76°20'19.420"E						
1.39 and 40	4.00	Kali Sindh	Jaleriya	Sonkatch	7088	19/06/2020 to 30/06/2023

State Level Environment Impact Assessment (EF-3)
 Paryavaran Parishad
 E-5, Aera Colony, Bhopal, M.P.

DISTRICT SURVEY REPORT OF DEWAS FOR SAND MINING OR RIVER BED MINING

26.	1117	4.00	Kali Sindh	Jivajigarh	Tonkkhurd	22°55'17.440"N, 76°20'14.336"E 22°55'11.349"N, 76°20'11.875"E 22°55'5.534"N, 76°20'15.017"E 22°55'022"N, 76°20'18.741"E 22°54'53.908"N, 76°20'21.129"E 22°54'47.550"N, 76°20'22.606"E 22°54'41.057"N, 76°20'22.983"E 22°54'34.575"N, 76°20'22.425"E 22°54'32.210"N, 76°20'21.763"E	1000	19/06/2020 to 30/06/2023
						23°5'56.075"N, 76°21'56.141"E 23°6'2.538"N, 76°21'58.973"E 23°6'8.013"N, 76°22'2.766"E 23°6'10.974"N, 76°22'8.469"E 23°6'10.030"N, 76°22'8.991"E 23°6'11.622"N, 76°22'12.683"E 23°6'12.471"N, 76°22'12.208"E 23°6'15.673"N, 76°22'18.327"E 23°6'17.168"N, 76°22'25.149"E 23°6'17.728"N, 76°22'30.050"E 23°6'17.115"N, 76°22'37.048"E 23°6'18.235"N, 76°22'43.632"E 23°6'20.500"N, 76°22'46.244"E 23°6'24.096"N, 76°22'52.166"E 23°6'31.786"N, 76°22'54.122"E 23°6'31.397"N, 76°22'54.738"E 23°6'25.113"N, 76°22'52.940"E 23°6'20.336"N, 76°22'48.170"E 23°6'17.140"N, 76°22'42.049"E 23°6'16.729"N, 76°22'35.034"E 23°6'16.587"N, 76°22'28.006"E 23°6'15.568"N, 76°22'21.064"E 23°6'12.827"N, 76°22'14.689"E		

DISTRICT SURVEY REPORT OF DEWAS FOR SAND MINING OR RIVER BED MINING

27.	1982	4.00	Kali Sindh	Chobaradhir a-A	Tonkkhurd	<p>23°6'55.55"N, 76°22'2.383"E</p> <p>23°6'8.12"N, 76°21'59.088"E</p> <p>23°6'55.916"N, 76°21'56.360"E</p> <p>23°5'8.108"N, 76°21'37.781"E</p> <p>23°5'14.124"N, 76°21'40.449"E</p> <p>23°5'20.426"N, 76°21'42.178"E</p> <p>23°5'26.857"N, 76°21'43.219"E</p> <p>23°5'35.353"N, 76°21'43.526"E</p> <p>23°5'39.841"N, 76°21'43.990"E</p> <p>23°5'42.410"N, 76°21'44.798"E</p> <p>23°5'42.083"N, 76°21'45.863"E</p> <p>23°5'35.665"N, 76°21'44.74"E</p> <p>23°5'29.168"N, 76°21'44.452"E</p> <p>23°5'22.680"N, 76°21'43.982"E</p> <p>23°5'16.273"N, 76°21'42.781"E</p> <p>23°5'10.235"N, 76°21'40.173"E</p> <p>23°5'7.712"N, 76°21'38.833"E</p>	4680	
28.	1982, 2087	4.990	Kali Sindh	Chobaradhir a-B	Tonkkhurd	<p>23°4'12.397"N, 76°20'51.174"E</p> <p>23°4'18.757"N, 76°20'52.638"E</p> <p>23°4'24.819"N, 76°20'55.096"E</p> <p>23°4'30.238"N, 76°20'59.034"E</p> <p>23°4'33.281"N, 76°21'3.469"E</p> <p>23°4'39.616"N, 76°21'8.709"E</p> <p>23°4'43.438"N, 76°21'14.394"E</p> <p>23°4'47.562"N, 76°21'19.828"E</p> <p>23°4'52.484"N, 76°21'25.401"E</p> <p>23°4'51.801"N, 76°21'26.225"E</p> <p>23°4'47.374"N, 76°21'21.077"E</p> <p>23°4'43.190"N, 76°21'15.697"E</p> <p>23°4'39.200"N, 76°21'10.148"E</p> <p>23°4'34.860"N, 76°21'4.914"E</p> <p>23°4'30.051"N, 76°21'184"E</p>	4680	19/06/2020 to 30/06/2023

DISTRICT SURVEY REPORT OF DEWAS FOR SAND MINING OR RIVER BED MINING

23°4'24.673"N, 76°20'56.233"E
23°4'18.612"N, 76°20'53.689"E
23°4'12.148"N, 76°20'51.821"E



State Level Environment Impact
Assessment Authority, M.P.
(E-5)
Paryavaran Parisar
E-5, Atrera Colony, Bhopal (M.P.)

DISTRICT SURVEY REPORT OF DEWAS FOR SAND MINING OR RIVER BED MINING

4. DETAILS OF ROYALTY OR REVENUE RECEIVED IN LAST THREE YEARS


(Financial Year wise)

YEAR	REVENUE FROM SAND (in Crore)
2019-20	0.0
2020-21	30.8700000
2021-22	44.7968234
Total	75.6668234

5. DETAIL OF PRODUCTION OF SAND OR BAJRI MINOR MINERAL IN LAST THREE YEARS

(Financial Year wise)

MINERAL	YEAR WISE PRODUCTION IN M ³			Total
	2019-20	2020-21	2021-22	
SAND	0	519,554	824774.41	1,344,328


 State Level Environment Impact
 Assessment Authority, M.P.
 (EPCO)
 Paryavaran Parisar
 E-5, Arera Colony, Bhopal (M.P.)

DISTRICT SURVEY REPORT OF DEWAS FOR SAND MINING OR RIVER BED MINING


Last 3 year Lease wise production details

Sr. no	Village	YEAR WISE PRODUCTION IN M ³			Total
		2019-20	2020-21	21-22	
1	Bijalgaon	0	58,494	56999.87	115,494
2	Chichli-1	0	241203.22	314604.99	555,808
3	Daiyat	0	0	101498.77	101,499
4	Kundgaon-1	0	46374	54906.36	101,280
5	Kundgaon-2	0	1021.25	23999.49	25,021
6	Kundgaon-3	0	0	46182.01	46,182
7	Kundgaon-4	0	0	10000	10,000
8	Nemavar-2	0	0	9000	9,000
9	Bhanjakhedi	0	0	16400	16,400
10	Rawlas	0*	0*	0*	0*
11	Melpipliya	0*	0*	0*	0*
12	Karodmafi	0*	0*	0*	0*
13	Pipalneriya	0	40217	59782.99	100,000
14	Bhanjakhedi	0*	0*	0*	0*
15	Bijalgaon-2	0*	0*	0*	0*
16	Chichli-2	0*	0*	0*	0*
17	Nemavar-4	0	40005	40000	80,005
18	Nemavar-5	0	40833.36	40000	80,833
19	Gajanpur-4	0	30171	30000	60,171
20	Gajanpur-5	0	21235	11399.93	32,635
21	Pirpandliya	0	0	10000	10,000
22	Surjana	0*	0*	0*	0*
23	Patadiya Taj	0*	0*	0*	0*
24	Kalukhedi	0*	0*	0*	0*

DISTRICT SURVEY REPORT OF DEWAS FOR SAND MINING OR RIVER BED MINING

25	Jaleriya	0*	0*	0*	0*
26	Jivajigarh	0*	0*	0*	0*
27	Chobara Dhira	0*	0*	0*	0*
28	Chobara Dhira	0*	0*	0*	0*
	Total	0	519,554	824774.41	1,344,328

* Production of sand not done in above 13 mentioned mines during the last three period (2019-20 to 2021-22)


 State Level Environment Impact
 Assessment Authority, M.P.
 (EPCO)
 Paryavaran Parisar
 E-5, Arera Colony, Bhopal (M.P.)

6. PROCESS OF DEPOSITION OF SEDIMENTS IN THE RIVERS OF THE DISTRICT

Rivers have a lot of energy and because they have energy, they do stuff. The obvious things rivers do with their energy is flow but, besides this, they also transport load, erode load and erode the channel through which they flow.

Erosion

Erosion is the breaking down of material by an agent. In the case of a river, the agent is water. The water can erode the river's channel and the river's load. A river's load is bits of eroded material, generally rocks, which the river transports until it deposits its load. A river's channel is eroded laterally and vertically making the channel wider and deeper. The intensity of lateral and vertical erosion is dictated by the stage in the river's course, discussed in more detail here but essentially, in the upper stage of the river's course (close to the source of the river) there is little horizontal erosion and lots of vertical erosion. In the middle and lower stages vertical erosion is reduced and more horizontal erosion takes place. There are several different ways that a river erodes its bed and banks. The first is hydraulic action, where the force of the water removes rock particles from the bed and banks. This type of erosion is strongest at rapids and waterfalls where the water has a high velocity. The next type of erosion is corrasion. This is where the river's load acts almost like sandpaper, removing pieces of rock as the load rubs against the bed & banks. This sort of erosion is strongest when the river is transporting large chunks of rock or after heavy rainfall when the river's flow is turbulent. Corrosion is a special type of erosion that only affects certain types of rocks. Water, being ever so slightly acidic, will react with certain rocks and dissolve them. Corrosion is highly effective if the rock type of the channel is chalk or limestone (anything containing calcium carbonate) otherwise, it doesn't have much of an effect. Cavitation is an interesting method of erosion. Air bubbles trapped in the water get compressed into small spaces like cracks in the river's banks. These bubbles eventually implode creating a small shockwave that weakens the rocks. The shockwaves are very weak but over time the rock will be weakened to the point at which it falls apart. The final type of erosion is attrition. Attrition is a way of eroding the river's load, not the

bed and banks. Attrition is where pieces of rock in the river's load knock together, breaking chunks of rock off of one another and gradually rounding and shrinking the load.

Transportation

When a river erodes the eroded material becomes the river's load and the river will then transport this load through its course until it deposits the load. There are a few different ways that a river will transport load depending on how much energy the river has and how big the load is. The largest of particles such as boulders are transported by traction. These particles are rolled along the bed of the river, eroding the bed and the particles in the process, because the river doesn't have enough energy to move these large particles in any other way. Slightly smaller particles, such as pebbles and gravel, are transported by saltation. This is where the load bounces along the bed of the river because the river has enough energy to lift the particles off the bed but the particles are too heavy to travel by suspension. Fine particles like clay and silt are transported in suspension; they are suspended in the water. Most of a river's load is transported by suspension. Solution is a special method of transportation. This is where particles are dissolved into the water so only rocks that are soluble, such as limestone or chalk, can be transported in solution.

Capacity & Competence

Rivers can only carry so much load depending on their energy. The maximum volume of load that a river can carry at a specific point in its course is called the river's capacity. The biggest solid particle that a river could carry at a specific point is called the river's competence.


State Level Environment Impact
Assessment Authority, M.P.
(EPCO)
Paryavaran Parisar
F-5, Arda Colony, Bhopal (M.P.)

DISTRICT SURVEY REPORT OF DEWAS FOR SAND MINING OR RIVER BED MINING

Deposition

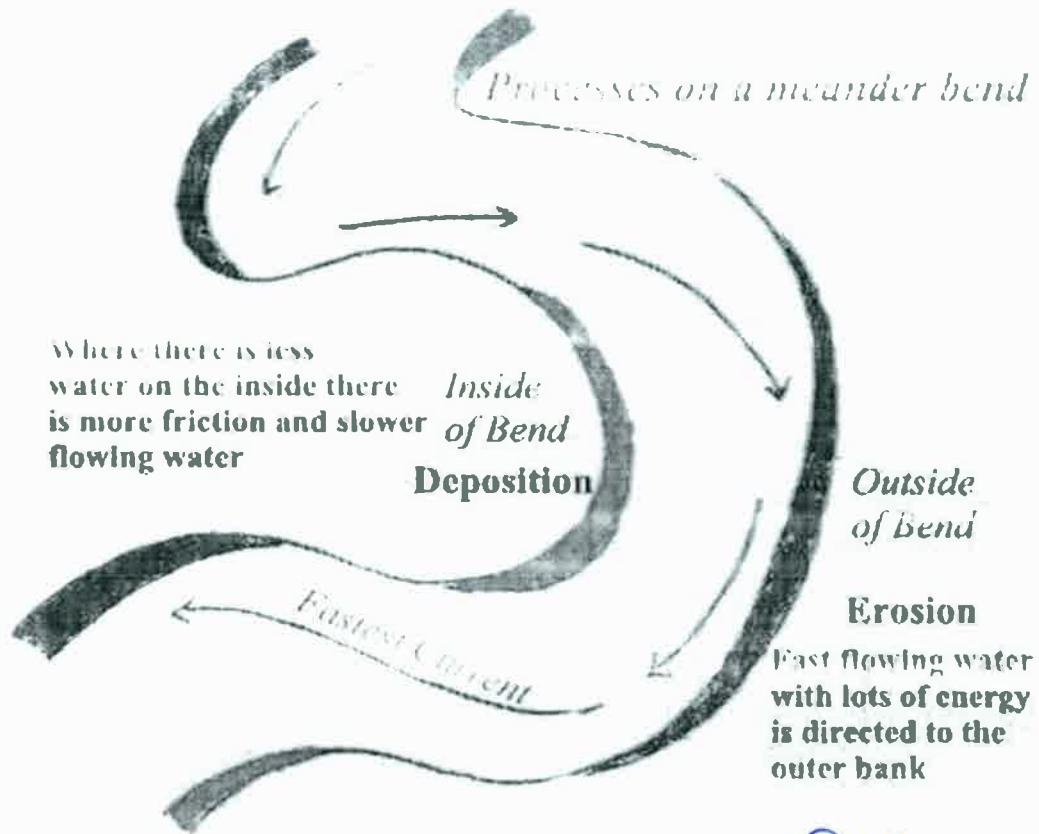
To transport load a river needs to have energy so when a river loses energy it is forced to deposit its load. There's several reasons why a river could lose energy. If the river's discharge is reduced then the river will lose energy because it isn't flowing as quickly anymore. This could happen because of a lack of precipitation or an increase in evaporation. Increased human use (abstraction) of a river could also reduce its discharge forcing it deposit its load. If the gradient of the river's course flattens out, the river will deposit its load because it will be travelling a lot slower. When a river meets the sea a river will deposit its load because the gradient is generally reduced at sea level and the sea will absorb a lot of energy.

As rivers get nearer to their mouths they flow in increasingly wide, gentle sided valleys. The channel increases in size to hold the extra water which the river has to receive from its tributaries. As the river gets bigger it can carry larger amounts of material. This material will be small in size, as larger rocks will have broken up on their way from the mountains. Much of the material will be carried in suspension and will erode the river banks by abrasion. When rivers flow over flatter land, they develop large bends called meanders. As a river goes around a bend most of the water is pushed towards the outside causing increased erosion. The river is now eroding sideways into its banks rather than downwards into its bed, a process called lateral erosion. On the inside of the bend, in contrast, there is much less water. The river will therefore be shallow and slow-flowing. It cannot carry as much material and so sand and shingle will be deposited. This is called a point bar or slip off slope.

Due to erosion on the outside of a bend and deposition on the inside, the shape of a meander will change over a period of time. Notice how erosion narrows the neck of the land within the meander. In time, and usually during a flood, the river will cut right through the neck. The river will then take the new, shorter route. The fastest current, called the thalweg, will now tend to be in the centre of the river, and so deposition is likely to occur in gentler water next to the banks. Eventually deposition will block off the old meander to leave an oxbow lake. The oxbow lake will slowly dry up, only refilling after heavy rain or during a flood. Streams lose velocity and make deposits when their gradient decreases, when the volume of water decreases, when there is an

DISTRICT SURVY REPORT OF DEWAS FOR SAND MINING OR RIVER BED MINING

increase in cross section, when they encounter obstructions, or when they enter still water. They deposit alluvial fans, alluvial cones, piedmont alluvial plains, channel fill, bars, flood plains and deltas.



Process of Deposition

Atkani
State Level Environment Impact
Assessment Authority, M.P.
(EPCO)
Paryavaran Parisar
E-5, Arera Colony, Bhopal (M.P.)

DISTRICT SURVEY REPORT OF DEWAS FOR SAND MINING OR RIVER BED MINING

7. GENERAL PROFILE OF THE DISTRICT

S. No	ITEM	STATISTICS	
1	GENERAL INFORMATION		
	i) Geographical area (sq. km)	7020.84	
	ii) Administrative Divisions (As on 2011)	6	
	Number of Tehsil	6	
	Number of Blocks	497	
	Number of Panchayats	1127	
	Number of Villages	289438	
	iii) Population (Census 2011)	1083	
	iv) Normal Rainfall (mm)		
2	GEOMORPHOLOGY		
	i) Major Physiographic Units	1. Dewas Plateau	
		2. Kali Sindh Basin	
		3. Vindhyan Range	
		4. Middle Narmada Valley	
	ii) Major Drainage	Kshipra sub-basin	
		Kali Sindh sub-basin	
		Chotti Kali Sindh sub-basin	
		Kanhra sub-basin	
		Khari sub-basin	
		Datuni sub-basin	
		Jamner sub-basin	
		Narmada direct catchment	
3.	LAND USE (ha.)		
	i) Forest area:	206600	
	ii) Net area sown:	388400	
	iii) Cultivable area:	624500	
4.	MAJOR SOIL TYPES	Black cotton, Sandy loam, Clayey loam, Murram	
5.	AREA UNDER PRINCIPAL CROPS	Wheat, Soyabean, Groundnut, Cotton, etc	
6.	IRRIGATION BY DIFFERENT SOURCES	No of Structures	Area (ha)
	Dug wells	36531	65900
	Tube wells/Bore wells	23119	93100
	Tanks/Ponds	169	4760
	Canals	15	6760
	Other Sources		11044
	Net Irrigated Area		193640
7.	NUMBER OF GROUND WATER MONITORING WELLS OF CGWB (As on 31.3.2013)		
	No. of Dug Wells	16	
	No. of Piezometers	11	

DISTRICT SURVY REPORT OF DEWAS FOR SAND MINING OR RIVER BED MINING

8.	PREDOMINANT GEOLOGICAL FORMATIONS	Deccan trap lava flows
9.	HYDROGEOLOGY	
	Major Water Bearing Formation (Pre-monsoon depth to water level during 2012)	Weathered/Fractured Basalt 2.90 - 24.47 mbgl
	(Post-monsoon depth to water level during 2012)	0.06 - 15.19 mbgl
	Long Term water level trend in 10 years (2003- 2012) in m/yr	0.007 to 2.74 m (Rise) 0.109 to 0.27 m (Fall)
10.	GROUND WATER EXPLORATION BY CGWB (As on 31.3.2012)	
	No of wells drilled (EW,OW,PZ,SH, Total)	EW-32, PZ-12, Total -44
	Depth Range (m)	150m - 200m
	Discharge (litres per second)	1 - 5.28lps
	Storativity (S)	-
	Transmissivity (m ² /day)	5-40 m ² / day
11.	GROUND WATER QUALITY	
	Presence of Chemical constituents more than permissible limit (eg EC, F, As,Fe)	Fluoride
	Type of Water	Alkaline earth- bicarbonate
12.	DYNAMIC GROUND WATER RESOURCES	
	Net annual Ground Water availability	79141
	Gross Annual Ground Water Draft for all uses	63383
	Projected Demand for Domestic and Industrial Uses upto 2033	3449
	Stage of Ground Water Development	80 %
13.	EFFORTS OF ARTIFICIAL RECHARGE & RAINWATER HARVESTING	
	Projects completed by CGWB (No.)	4
	Projects under technical guidance of CGWB (Numbers)	5
14.	Ground Water Control and Regulation	
	Number of OE Blocks	02 (Dewas & Sonkutch)
	Number of Semi-Critical Blocks	01 (Khategaon)
	Number of Notified Blocks	Nil


 State Level Environment Impact
 Assessment Authority, M.P.
 (EPCO)
 Paryavaran Parisar
 E-5, Arera Colony, Bhopal (M.P.)

DISTRICT SURVEY REPORT OF DEWAS FOR SAND MINING OR RIVER BED MINING

8. LAND UTILIZATION PATTERN IN THE DISTRICT: FOREST, AGRICULTURE, HORTICULTURE, MINING ETC.

I 1	I 2	Area in Sq Km	Area Percentage
Agriculture	Crop land	4472.42	63.71 %
	Crop land Current Shifting cultivation		
	Fallow	38.28	0.55 %
	Plantation	0.11	0.002 %
Barren/unculturable/ Wastelands	Barren Rocky	1.83	0.03 %
	Gullied / Ravinous Land	4.78	0.07 %
	Rann		
	Salt Affected Land		
	Sandy Area		
Builtup	Scrub Land	218.24	3.11 %
	Mining	7.42	0.11 %
	Rural	91.86	1.31 %
Forest	Urban	44.12	0.63 %
	Deciduous	1580.79	22.52 %
	Evergreen/Semi evergreen		
	Forest Plantation		
	Scrub Forest	459.46	6.55 %
Grass / Grazing	Swamp / Mangroves		
Snow and Glacier	Grass / Grazing		
Wet lands / Water bodies	Snow and Glacier		
	Inland Wetland		
	Coastal Wetland		
	River/Stream/Canals	34.37	0.49 %
	Water bodies	66.33	0.94 %

Source: NRSC

Land use Land Cover Map is enclosed as Plate No-4


 State Level Environment Impact
 Assessment Authority, M.P.
 (EPCO)
 Paryavaran Parisar
 E-5, Arera Colony, Bhopal (M.P.)

9. PHYSIOGRAPHY OF THE DISTRICT

Dewas district comprises hilly as well as plain area and physiographically divided into three parts. (1) Malwa Plateau, (2) Vindhyan range, (3) Plains of Eastern part. The slope of the Malwa plateau is towards North. The Vindhychal Range traverses almost across the central part of the District. North of it is the vast Malwa Plateau. The southern part of the district lies in the Narmada valley. Thus there are three distinct physiographic divisions in the District as described below.

9.1 The Malwa Plateau

The Plateau extends in the north from the foot hills of the Vindhychal range, just below Bagli town. It covers the northern part of Bagli tahsil and the whole of the northern tahsils, viz., Dewas and Sonkatch tahsils. The surface of the Malwa Plateau is generally undulating in the river valleys but is marked by knolls and offshoots of the Vindhychal along the water divides. The hills are low with gentle sides, unless the sub-trappean sandstone rocks are exposed due to erosion at the top. The surface is essentially made up of trap rocks and the mantle of Black Cotton soil in the depressions. The Malwa Plateau slopes to the north and is drained by the Kali Sindh, Chhoti Kali Sindh and the Shipra.

The general elevations is about 500 metres although the lowest point (448 metre) lies on the bed of the Shipra. The longest alignment of hills and knolls crosses the plateau from south-west to north-east pass the District town. The highest point, 698.8 metres, lies to the south of Nagda village. An offshoot of the Vindhychal Range also extends from Bhaisorahill (758.3 metre) to Newari, about 25 km. The Kadapura group of knolls lies along the Ashta-Sonkatch boundary.

9.2 The Vindhychal Range and Scarps

The Vindhychal has been mentioned in the Valmiki Ramayana. Sugriva refers to the mountain with thousand heads with varied trees and creepers. Agastya muni is said to have subdued this mountain, disciple who in a fit to surpass the sumeru mountain rose to such heights as to obstruct the celestial path of the Sun. To relieve the world from disaster Agastaya marched to the south. When his mountain disciple, Vindhychal bowed to touched his feet, the sage asked him to remain in the pose until he returned

DISTRICT SURVEY REPORT OF DEWAS FOR SAND MINING OR RIVER BED MINING

and since he never returned, the mountain remained lower than the Sumeru, traditional by the mountain on the earths central place.

The Vindhya range extends from Mandvi on the west coast to the junction of the Son-Ganga valleys. It runs closely along the northern bank of the Narmada, and further along the north-west of the Hiran and the Son in succession, under the names, Bhandar and Kaimur. The range rises at the southern margins of the great landmass, the Malwa-Bundelkhand plateau, composed of fluvio-marine deposits from an arid or sub-arid region perhaps in the Cambrian age and uplifted and peneplained several times before the lava eruptions took place at the end of Eocene. The topography is represented by the trap covered flat-topped sandstone hills in synclines. It has a gentler slope towards the northern plateau and an abrupt continuous scarp along the southern or south-eastern face. The strong sandstones of Bhandar, Rewa and Kaimur series of the Vindhyan system are layers marked in the scarp face ascending from east to west. They also form the surface of the three constituent plateaus. The topography near the scarps is much cut up by the up streams which at places, e.g., in Raisen District, have extended headward on the Mawa-Plateau across the main Vindhyan Range. Generally the southern escarpment is more prominently marked than the hill range which is either mingled with or less distinct from the offshoot ranges.

The Vindhyan scarps enter the District from the western extremity of Bagli tahsil and cross it from west to east. The scarps bend to the north-east for a short while and again, run east along the northern boundaries of Kannod and Khategeon tahsils of Dewas District common with Sehore. The range of Vindhyan hills enters the District much later than the scarps in the west, which it towers. It enters from Indore actually at Bhaisorahill, which is also the highest point. It crosses the District in Bagli tahsil only, and runs in a crescent line bulging to the north-east. Further east it enters Sehore District and runs close to the northern boundary of Kannod Sub Division of Dewas District. The Kangiruhill (723 metres) is the second high peak in Bagli tahsil. The Tinmohani Pathar and Gopipur hill also rise above 600 metres (616 m. and 635 m.) and are visible from the Indore-Nemawar Road. The Vindhyan hills mark the sources of

the tributary streams of the Narmada in the south, and the Chambal in the north, important among which are the Kali Sindh, the Chhoti Kali Sindh and the Shipra.

9.3 Narmada Valley

The Narmada extends from east to west and occupies the southern part of the District. Although, the valley is very narrow on the right bank elsewhere, in Dewas District it is 30 to 40 km. wide. It occupies over two fifths of the District but most of it is covered by the forests. The valley is broken stretch of a level plain of sandy alluvium, studded with low flat-topped hillocks right from the foot of the Vindhyan scarps to the close proximity of the Narmada river. The terrain is intercepted by numerous streams originating from the Vindhyachal range and joining the Narmada. It has a low southward gradient. The soil of the valley where deep, is fertile.



State Level Environment Impact
Assessment Authority, M.P.
(EPCO)
Paryatan Bhawan
E-5, Ashoka Road, Bhopal (M.P.)

DISTRICT SURVEY REPORT OF DEWAS FOR SAND MINING OR RIVER BED MINING

10. RAINFALL: MONTH-WISE

Monthly rainfall (in mm) trends for Dewas from 01-Jan-2017 to 31-Dec-2021											
Rainfall			Rainfall			Rainfall			Rainfall		
Month	Rainfall (mm)	Month	Rainfall (mm)	Month	Rainfall (mm)	Month	Rainfall (mm)	Month	Rainfall (mm)	Month	Rainfall (mm)
Jan-17	2.22	Jan-18	0	Jan-19	0	Jan-20	1.03	Jan-21	2.46	Jan-21	2.46
Feb-17	0.26	Feb-18	2.34	Feb-19	1	Feb-20	0	Feb-21	2.81	Feb-21	2.81
Mar-17	1	Mar-18	0.09	Mar-19	0.68	Mar-20	7.38	Mar-21	5.93	Mar-21	5.93
Apr-17	0	Apr-18	0.29	Apr-19	0.31	Apr-20	0.42	Apr-21	0	Apr-21	0
May-17	0.35	May-18	0	May-19	0.72	May-20	0.65	May-21	13.32	May-21	13.32
Jun-17	147.17	Jun-18	264.11	Jun-19	76.4	Jun-20	371.77	Jun-21	118.43	Jun-21	118.43
Jul-17	265.73	Jul-18	247.75	Jul-19	437.25	Jul-20	69.23	Jul-21	206.08	Jul-21	206.08
Aug-17	207.97	Aug-18	163.42	Aug-19	433.81	Aug-20	630.94	Aug-21	227.6	Aug-21	227.6
Sep-17	211.67	Sep-18	80.85	Sep-19	587.98	Sep-20	268.95	Sep-21	272.86	Sep-21	272.86
Oct-17	11.42	Oct-18	3.15	Oct-19	41.88	Oct-20	2.53	Oct-21	86.95	Oct-21	86.95
Nov-17	0	Nov-18	0	Nov-19	6.13	Nov-20	0.19	Nov-21	0	Nov-21	0
Dec-17	0.02	Dec-18	0	Dec-19	0.83	Dec-20	8.72	Dec-21	1.81	Dec-21	1.81
Total	847.81	Total	762	Total	1586.99	Total	1361.81	Total	938.25	Total	938.25

Source: IMD Grid


 State Level Environment Impact
 Assessment Authority, M.P.
 (EPCO)
 Paryavaran Parisar
 -5, Arera Colony, Bhopal (M.P.)

11 GEOLOGY AND MINERAL WEALTH

11.1 Regional Geology

The oldest rocks of the district are basement granite, granitic gneisses etc. Exposed mainly in the eastern part of the district. The porphyritic granite has been found in an area near village Rajor and Chandwana Quartzite occurs as thin bands in granitic gneisses especially near village Bandariya, Narayanpura. Dolerite as an intrusive rock is widely exposed at many places, well developed columnar joints are developed near village Pipri in the proximity of Narmada River.

The Bijawars which are exposed mostly in the southern part of the district are represented by Dolomite, cherty breccia and Quartzite.

The Bijawars are overlain by the rocks of Vindhyan Supergroup comprising Sandstone, Shale, Quartzite and Conglomerate. The Vindhyan are exposed mostly in the southern and south-western part of the district. The Vindhyan near the village Potla is intruded by a big basic dyke. In this dyke columnar joints are very well developed. In Potla, Hexagonal, Pentagonal columns occur horizontally and are disposed in such a beautiful manner, that they have become a spectacular sight and are unique in nature.

Lameta beds comprised of calcareous sandstone and siliceous limestone and exposed near villages Ambara, Ratway, Udainagar, Mirzapur etc. Silica sand is presently exploited from this bed.

The major part of the district covered by Deccan trap basalt. In the district trap covers the northern part, which includes Dewas, Bagali and Sonkatch tehsils.




State Level Environment Impact
Assessment Authority, M.P.
(EPCO)
Paryavaran Bhawan
E-5, Arera Colony, Bhopal (M.P.)

DISTRICT SURVEY REPORT OF DEWAS FOR SAND MINING OR RIVER BED MINING

STRATIGRAPHY

Age	Formation	Rocks
Recent and Pleistocene		Older and Later Alluvium
Upper Cretaceous to Eocene	Deccan Trap	Different lava flows
Cretaceous	Lametas	Buff to yellow colored sandstone
^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^	^^^^^Unconformity^^^^^	^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^
Late Pre-Cambrian	Vindhya's	Kanar Sandstone, Quartzite's, Shale, Siltstone and Dykes Dolomite, Chert and Quartzite
	Bijawars	
^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^	^^^^^Unconformity^^^^^	^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^
Archeans	Basic Gneissic Complex	Granite, Granitic gneisses, Schists, Phyllite, Basic/ Acid Intrusive

Source :GSI


 State Level Environment Impact
 Assessment Authority, M.P.
 (EPCO)
 Paryavaran Parisar
 F-5, Aruna Colony, Bhopal (M.P.)

DISTRICT SURVEY REPORT OF DEWAS FOR SAND MINING OR RIVER BED MINING

11.1.1 ARCHEANS:

The Archean rocks are the oldest formation, which are forming the basement of the area. They occur as inliers under exposed beneath the sedimentary rocks of Bijawar group, Vindhyan group and also the flows of Deccan Trap. The archeans generally are represented by metamorphic ledge rocks now occur as xenoliths within younger granitoids. The metamorphosed sedimentary rocks are represented by Calc-Chlorite-Phyllite, Quartzite etc. The Phyllites are rich in quartz and have generally well developed foliation. Quartzite occurs as discontinuous bands within phyllite with gradational contact. This rock is dirty white in color and medium to fine grained, large patches of pyroxene, hornblendite which are older than granite as present in the beds of Kanar river in Semlikala village. Unfoliated and massive granitoids is exposed over a large area around Khategaon, in Satwas reserve forest and also as smaller patches in SE of Kannod reserve forest, NE of Kantafor and near Udainagar and Kishangarh. The granite is medium to coarse grained generally with little ferro-magnesium minerals. They are pink grey and occasionally intense structural disturbance. The rocks are folded with high dip and are affected by different phases of tectonism.

11.1.2 BIJAWARS

Bijawar group of rocks occur unconformably over the Archeans. They are represented by dolomite, quartzite and cherty breccia. The main rock type of the group is dolomite which covers extensive area east of Kanar river and south of Udainagar. Further east the dolomites are exposed overlying chert breccia. Dolomites are pink to grey in color and are fine grained. The rocks weather peculiarly and have rough pointed and hardly cut up surface giving the appearance of an elephant skin. Dolomite has been traversed by lenses and ribbons of quartz, which are hard, compact and ferruginous. Chert breccia is most extensive horizon between the Kanar and Khari river. This is also extensively exposed in the area south of Undel and Nimanpur. These rocks are composed of angular pieces of chert, quartz and some times quartzite within silicified cherty matrix. The Bijawar sedimentary rocks generally trend NE to SW and ENE to WSW with dip varying between 350 to 550.



State Level Environment Impact
Assessment Authority, M.P.
(EPCO)
Paryavaran Parisar
E-5, Arera Colony, Bhopal (M.P.)

DISTRICT SURVEY REPORT OF DEWAS FOR SAND MINING OR RIVER BED MINING

11.1.3 VINDHYANS:

The Kanar sandstone formation which forms part of Vindhyan super group and is similar in character to sandstone of Rewa group lie unconformable on the Archeans and Bijawar rocks. The Kanar sandstone formation was lain down of uneven post-Bijawar surface as a result of which the Bijawar rocks sometimes protrude through rocks of Kanar sandstone formation. In the district this sandstone covers a large part of the Narmada valley in the areas covered by Nimanpur reserved forest, Kaneri forest and part of Satwas forest.

They fall in Kantaphor, Punjabura and Udainagar forest ranges. The sandstone, which forms the major part of this formation, is fine to medium grained, light brown, pink and purple colored. Streaks of gritty sandstone and conglomerate are also present. This sandstone forms the upper part of the flat- topped hills and ridges while pink and brownish, but also greenish to purplish shale and siltstone occupy the lower grounds. The sandstone is generally well bedded. The Kanar sandstone formation does not show any intense structural disturbance but show open warping resulting in broad elongated flat domes and basins with comparatively steeper sides, where the dip varies form 90 to 120. The comparatively smaller domes and basins appear to form part of a larger region of domes and basins. A number of basaltic dykes occur in E-W direction through the Vindhyan. Small patches of lava flow are also seen e.g. near Potla village and they form a chain of hillocks resulting from the intrusions. These are hexagonal or polygonal, dark steel grey and sound like metal on hammering.

11.1.4 CRETACEOUS

The younger sedimentaries represented in a small area by Katkut sandstone formation are considered to be of Intra-trappean cretaceous age. The major exposure of Katkut sandstone formation covers a flat area of 60 km² around Katkut village. This formation occurs unconformably over the Bijawar group of sedimentaries and the Kanar sandstone formation. These formations consist of gritty sandstone, streaks of conglomerate between the sandstone and the trap. The sandstone is medium to coarse grained, white to pink in color with red streaks and mottling. At places they are calcareous and ferruginous and contain pieces of cherty material or gritty limestone. Sometimes they are very friable. Bedding is not clear in

DISTRICT SURVEY REPORT OF DEWAS FOR SAND MINING OR RIVER BED MINING

Katkut sandstone and joints are generally absent. These sedimentary bed rocks are generally almost horizontal with local dips up to 60. The upper surface is frequently quartzitic due to its contact with overlying trap rocks.

11.1.5 DECCAN TRAP

The district comprises of basaltic lava flows in three fourth of its area in the north and forming the part of Malwa plateau. The basalts also occupy some area in the Narmada valley in the south. The different trappean flows are well distinguished at many places by presence of Inter-trappean horizons and red colored shale bands known as red boles between the flows. Inter trappean beds consisting of impure siliceous limestone, chert and sometime clays. The detached and scattered patches of lava flows overlies the pre-existing rocks are also present, in the south of Udainagar area. Near Potla village, the huge pieces or blocks of basalt bounded wholly by joints and have a rhomboidal shape like a beam or rods have developed due to effect of columnar joints.

11.1.6 RECENTS

Deep alluvium deposits are found along the Narmada River. The lower strata consist of older Alluvium or the buried alluvium. The alluvium also occurs along the tributary streams and foot of the Vindhyan scarps below the boulder beds. The basaltic areas are mostly covered with black cotton soil whereas the reddish, brownish colored ferruginous soil is present at some places in Narmada valley.

11.2 ECONOMIC GEOLOGY

The District is poor in economic minerals. Except dolomite, they occur in very small quantity and of poor grade.

11.2.1 Manganese: Small isolated and segregated lenticular bodies of manganese ore are found in the chert breccia of Bijawar Group and also in the top beds of dolomites near the confluence of the Kanar and the Lohar rivers, upstream of Ratagarh village, near village kand, and near Polakhhal along the Ghorapachhar river. The manganese ore occurs in very small quality and is of low grade. Though in the past some small quantities of ore was excavated, the deposits are not of any economic significance.

DISTRICT SURVEY REPORT OF DEWAS FOR SAND MINING OR RIVER BED MINING

11.2.2 Iron Ore: Scattered small bodies of haematite iron ore are present in chert breccia with calcareous and ferruginous matrix. They are found around Tarania, Ratagarh, Mehdikhera, Badel, etc. The small size of the ore body as well as its low grade render them uneconomic for working on any appreciable scale. Heaps of slags have also been noticed at places in the vicinity of ferrugeneous sandstone of Vindhyan formations.

11.2.3 Dolomites: Though the dolomites at places are of good grade, difficult communication makes their working uneconomical except for lime burning.

11.2.4 Copper: Ancient workings of copper have been noted near Tamakhan on the bank of the river Narmada about 30 km. West of Nemawar. The occurrence, however, does not appear to be of major significance.


11.2.5 Galena: Very Small specks of galena are seen in quartz near Bagda east of Dudwas

11.2.6 Barytes: Quartz veins comprising barytes have been noted east of Giri on Khategaon Kantaphor road.

11.2.7 Building Material: Huge quantity of building material is available in the district. The massive granites could be utilized for building material and road meral. The basalts could largely be used as a road metal and as a construction material.

11.2.8 Sand: Major river of the district having good sand deposit. In the district quarrying of sand is being done from River Narmada and Kali Sindh. It is a fine quality white-grey sand used in concrete and masonry work. It can also be used for plastering, brick-works, RCC etc. This sand has a better grain shape with a smooth texture and demands less moisture since water is already trapped within its particles.

Geological Map is enclosed as Plate No-6


State Level Environment Impact
Assessment Authority, M.P.
(EPA)
P.O. Parisar
Bhopal (M.P.)


DISTRICT SURVEY REPORT OF DEWAS FOR SAND MINING OR RIVER BED MINING

12. DRAINAGE SYSTEM WITH DESCRIPTION OF MAIN RIVERS

Basin	S.No	Name of the River	Area drained (Sq.Km.)	% Area drained in the District
Narmada	1	Datuni River	1102	15.70%
	2	Lohar River	645	9.19%
	5	Jamner River	568	8.09%
	3	Khari River	564	8.03%
	4	Bagdi River	349	4.97%
	6	Goni River	142	2.02%
	8	Bhutkata River	76	1.08%
	7	Kakri River	61	0.81%
	9	Others	424	6.04%
Ganga	1	Kali Sindh & Lodri River	1954	27.84%
	2	Chhoti Kali Sindh	668	9.52%
	3	Shipra River	467	6.65%
Total			7020	100%

13. SALIENT FEATURES OF IMPORTANT RIVERS AND STREAMS:

S. No.	Name of the River or Stream	Total Length in the District (in Km)	Place of origin	Altitude at Origin
1	Narmada	75	Amarkantak	1057 m
2	Kali Sindh	78	Bagli	554 m
3	Chhoti Kali Sindh	32	Jetpura Dewas	538 m
4	Shipra	46	Kakri Bardi Hills	560 m
5	Lodri	37	Guradiya Bhil	566 m
6	Datuni	62	Mawada	560 m
7	Lohar	45	Near Kampel	550 m
8	Jamner	53	Dolatpur	536 m
9	Khari	55	Boraniya	530 m
10	Bagdi	40	Hathlay	365 m
11	Goni	32	Ganora	360 m
12	Bhutkata	14	Nimanpur	270 m
13	Kakri	16	Bachgaon	350 m


 State Level Environment Impact
 Assessment Authority, M.P.
 (EPCC)
 Paryavaran Parisar
 E-5, Arera Colony, Bhopal (M.P.)


DISTRICT SURVEY REPORT OF DEWAS FOR SAND MINING OR RIVER BED MINING

14. PORTION OF THE DISTRICT OR STREAM RECOMMENDED FOR MINERAL CONCESSION

Sr. no	River or stream	Village	Portion of the district or stream recommended for mineral concession (Survey No)	Length of Area recommended for mineral concession (in meter)	Width of Area recommended for mineral concession (in meter)	Area recommended for mineral concession (in Sq m)	Length of sand deposition (in meter)	Width of sand deposition (in meter)	Thickness of sand deposition (in meter)	Total mineral potential (in m ³)	Mineable mineral potential (in cubic meter) (60% of total mineral potential)	Mineable mineral potential (in Metric Tonne) (60% of total mineral potential)
1	Narmada	Bijalgaon	441	190	106	20000	190	106	3	60000	36000	50400
2	Narmada	Chichli-1	430	1090	183	200000	1056	179.03	3	570000	342000	478800
3	Narmada	Daiyat	227	400	150	60000	400	125	3	150000	90000	126000
4	Narmada	Kundgaon-1	153	270	148	40000	270	148	3	120000	72000	100800
5	Narmada	Kundgaon-2	153	135	148	20000	135	148	3	60000	36000	50400
6	Narmada	Kundgaon-3	153	135	148	20000	135	148	3	60000	36000	50400
7	Narmada	Kundgaon-4	153	135	148	20000	135	148	3	60000	36000	50400
8	Narmada	Nemavar-2	527	60	70	4180	60	70	3	12500	7524	10533.6
	Narmada	Bhanjakhedi	76	175	47	8200	170	40	2	13,667	8200.02	11480.028

DISTRICT SURVEY REPORT OF DEWAS FOR SAND MINING OR RIVER BED MINING

10	Narmada	RAWLAS	164	740	135	100000	434	50	1	21666.7	10000.02	18200.028
11	Narmada	Melpiyya	105	245	163	40000	200	100	1.25	25000	15000	21000
12	Narmada	Karodmafi	369	485	124	60000	150	45	0.5	3333.4	2000.04	2800.056
13	Narmada	Pipalneriya	221	465	86	40000	397	70	3	83,333	50000.04	70000.056
14	Narmada	Bhanjakhe di	76	585	68	40000	347	60	2	41,667	25000.02	35000.028
15	Narmada	Bijalgaon-2	414	645	109	70000	357	70	1	25000	15000	21000
16	Narmada	Chichli-2	430	615	163	100000	500	100	2	100000	60000	84000
17	Narmada	Nemavar-4	527	200	189	37840	200	133	2.5	66,666.70	40000.02	56000.028
18	Narmada	Nemavar-5	527	200	189	37840	200	189	3	113520	68112	95356.8
19	Narmada	Gajanpur-4	55	135	148	20000	135	146	3	60000	36000	50400
20	Narmada	Gajanpur-5	55	140	143	20000	140	141	3	60000	36000	50400
21	Kali Sindh	Pirpandliya	1, 58	1825	37	67000	195	28	1.2	16,667	10000.02	14000.028
22	Kali Sindh	Surjana	1, 279	800	44	35000	245	20	0.8	3,916.70	2350.02	3290.028
23	Kali Sindh	Patadiya Taj	1	1475	27	40000	240	15	0.5	1800	1080	1512
24	Kali Sindh	Kalukhedi	6, 224, 271, 576	2785	33	92200	222	15	0.5	1666.7	1000.02	1400.028


 State Level Environment Impact Assessment Authority, M.P.
 (EPCO)
 Parvatharaj
 E-5, A.P. Road, Bhopal (M.P.)

DISTRICT SURVEY REPORT OF DEWAS FOR SAND MINING OR RIVER BED MINING

		1, 39, 40	2050	20	40000	590	20	1	11,81,40	7088.04	6923.256
25	Kali Sindh	Jahariya	2050	20	40000	590	20	1	11,81,40	7088.04	6923.256
26	Kali Sindh	Jivajgarh	2060	15	40000	221	15	0.5	1,80,70	1000.02	1400.028
27	Kali Sindh	Chobara Dhira	1086	30	40000	520	30	0.5	7800	4680	6552
28	Kali Sindh	Chobara Dhira	1606	30	49900	520	30	0.5	7800	4680	6552
					136216 Sqm				1759524	1055714.28	1477999.99

It is pertinent to mention here that, sand is not deposited in the entire Portion of the River or Stream Recommended for Mineral Concession., However deposition of sand is found in the part of the recommended area for Mineral Concession, hence in column no 8, 9 and 10, the length, width and depth of the sand deposition area have been given separately in the prescribed format and the total mineral capacity and 60 percent of its mineable capacity has been estimated.


 State Level Environment Impact
 Assessment Authority, M.P.
 (EPCO)

DISTRICT SURVEY REPORT OF DEWAS FOR SAND MINING OR RIVER BED MINING

MINERAL POTENTIAL

Boulder (In MT)	Bajri (In MT)	Sand (In MT)	Total Mineable mineral potential (In MT)	Annual Deposition (In MT)
It is associated with river sand as unsorted material. as per volume it constitutes approximately 3% of total deposition/ Mineable mineral potential i.e. 14,77,999 MT in the stream. hence the volume of boulder and Bajri is about 43,010 MT.		It is found mainly in Narmada and Kalisindh River, as per volume it constitutes approximately 97 % of total Mineable mineral potential i.e. 14,77,999 MT in the stream. hence the volume of sand is 1,433,659 (97%) MT.	Huge, immense because river Narmada flows nearly 75 km. It is a perineal river. Kali Sindh flows 78 in the Dewas district. The total Minable reserve at designated sand quarries are 60% of Annual deposition at deposition site, is the sum of Boulder, Bajri and Sand i.e. 14,77,999 MT.	Approx. 24,63,333 MT is annual deposit, of which 40% of this have to be left for the protection of bank.

The process of sand replenishment is highly dependent upon the rainfall received in the catchment areas of rivers and their tributaries and velocity of river. It is a dynamic process. Thus it is difficult to predict, what quantity of sand may be Reclaimed/replenished by river. Because, in case of less rain, less water in the river, there may be less erosion and transportation may also be minimal and as a result deposition too will be less. Moreover, in case of floods, the sudden gush of water may force the change in the river course, thus old sites of sand deposition may not be relevant. Thus, the above figures may just be a mere prediction, based on the production in the preceding years. More so, practically, it is not possible that in such a short period, single person can visit each spot within the district and determine how much quantity of sand may be replenished every year. The data narrated in the report, regarding annual deposition of sand and associated aggregates and mineable mineral potential is concerned, is only estimation based on the production data provided by the district mining office. Thus, the figures may vary from area to area and year on year basis. Therefore, this document is not static one but have to be a dynamic one, the figures of which may vary with respect to time. The SEAC committee is at liberty to make the spot inspection of the area under question for which the prior environmental clearance will be sought. In order to establish a safe extraction limit, such that the extracted sand gets replenished annually, a replenishment study is to be carried out. For this purpose, the river bed RL at

DISTRICT SURVEY REPORT OF DEWAS FOR SAND MINING OR RIVER BED MINING

selected points in the dry portions of Riverbed will be measured during pre-monsoon period and again during post -monsoon period in order to assess the annual quantum of sand deposition. If it is observed that, there is an average increase in riverbed RL, it shows that it is due to deposition of sand during the monsoon flow of the river and by multiplying it with the area of lease one can measure the quantity of sand replenished every year.

Manufactured Sand

Manufactured sand (M-Sand) is artificial sand produced from crushing hard stones into small sand sized angular shaped particles (rock particles with a particle size of less than 4.75 mm and is made by artificial crushing and sieving after soil removal treatment), washed and finely graded to be used as construction aggregate. It is a superior alternative to River Sand for construction purpose. The main technical indicators of artificial sand are particle gradation, fineness modulus, stone powder content, void ratio, apparent density, bulk density, methylene blue value (MB), crushing value index, mica content, light-matter content, etc. Excessive sand mining can alter the river bed, force the river to change course, erode banks and lead to flooding. Therefore, alternate source of river sand like M-Sand, Sand derived from desilting of Dams should be promote.



State Level Environment Impact
Assessment Authority, M.P.
(EPCO)
Parvatnagar, Bhopal
E-5, A.T. Road, Bhopal (M.P.)

DISTRICT SURVEY REPORT OF DEWAS FOR SAND MINING OR RIVER BED MINING

16. LENGTH, WIDTH AND THICKNESS OF SAND DEPOSIT AVAILABLE FOR MINING WITHIN THE RECOMMENDED AREA DURING POST-MONSOON PERIOD

Sr. no	River or stream	Village	Portion of the district or stream recommended for mineral concession (Survey No)	Area recommended for mineral concession (in Sq m)	Length of sand deposition (in meter)	Width of sand deposition (in meter)	Thickness of sand deposition (in meter)	Total mineral potential (in m ³)	Mineable mineral potential (in cubic meter) (60% of total mineral potential)
1	Narmada	Bijalgaon	441	20000	190	106	3	60000	36000
2	Narmada	Chichli-1	430	20000	1056	179.93	3	570000	342000
3	Narmada	Daiyat	227	60000	400	125	3	150000	90000
4	Narmada	Kundgaon-1	153	40000	270	148	3	120000	72000
5	Narmada	Kundgaon-2	153	20000	135	148	3	60000	36000
6	Narmada	Kundgaon-3	153	20000	135	148	3	60000	36000
7	Narmada	Kundgaon-4	153	20000	135	148	3	60000	36000
8	Narmada	Nemavar-2	527	4180	60	70	3	12540	7524
9	Narmada	Bhanjakhedi	76	8200	170	40	2	13,667	8200.02
10	Narmada	RAWLAS	164	100000	434	50	1	21666.7	13000.02
11	Narmada	Melpipliya	105	40000	200	100	1.25	25000	15000
12	Narmada	Karodmafi	369	60000	150	45	0.5	3333.4	2000.04
13	Narmada	Pipalneriya	221	40000	397	70	3	83,333	50000.04
14	Narmada	Bhanjakhedi	76	40000	347	60	2	41,667	25000.02
15	Narmada	Bijalgaon-2	414	70000	357	70	1	25000	15000



DISTRICT SURVEY REPORT OF DEWAS FOR SAND MINING OR RIVER BED MINING

16	Narmada	Chichli-2	430	100000	500	100	2	100000	60000
17	Narmada	Nemavar-4	527	37810	200	133	2.5	66,666.70	40000.02
18	Narmada	Nemavar-5	527	37810	200	189	3	113520	68112
19	Narmada	Gajanpur-4	55	20000	135	146	3	60000	36000
20	Narmada	Gajanpur-5	55	20000	140	141	3	60000	36000
21	Kali Sindh	Pirpandliya	1, 58	67000	495	28	1.2	16,667	10000.02
22	Kali Sindh	Surjana	1, 279	35000	245	20	0.8	3,916.70	2350.02
23	Kali Sindh	Patadiya Taj	1	40000	240	15	0.5	1800	1080
24	Kali Sindh	Kalukhedi	6, 224, 271, 576	92200	222	15	0.5	1666.7	1000.02
25	Kali Sindh	Jaleriya	1, 39, 40	40000	590	20	1	11,813.40	7088.04
26	Kali Sindh	Jivajigarh	1117	40000	221	15	0.5	1,666.70	1000.02
27	Kali Sindh	Chobara Dhira	1982	40000	520	30	0.5	7800	4680
28	Kali Sindh	Chobara Dhira	1982, 2087	49900	520	30	0.5	7800	4680

(Signature)

State Level Environment Impact
Assessment Authority, M.P.
(EPCO)
Paryavaran
J, A/E, B-1, Indraprastha, New Delhi (M.P.)

DISTRICT SURVEY REPORT OF DEWAS FOR SAND MINING OR RIVER BED MINING

17. LENGTH, WIDTH AND THICKNESS OF SAND DEPOSIT AVAILABLE FOR MINING WITHIN THE RECOMMENDED AREA DURING PRE-MONSOON PERIOD

Sr. no	River or stream	Village	Portion of the district or stream recommended for mineral concession (Survey No)	Area recommended for mineral concession (in Sq m)	Length of sand deposition (in meter)	Width of sand deposition (in meter)	Thickness of sand deposition (in meter)	Total mineral potential (in m ³)	Mineable mineral potential (in cubic meter) (60% of total mineral potential)	Remark
1	Narmada	Bijalgaon	441	20000	190	106	1.19	24000	0	Note: If contractor/Lessee exploited the permissible quantity of sand during post monsoon season, the Minable mineral potential will exhaust prior to the commencement of monsoon season.
2	Narmada	Chichli-1	430	200000	1056	179.93	1.20	228000	0	
3	Narmada	Daiyat	227	60000	400	125	1.20	60000	0	
4	Narmada	Kundgaon-1	153	40000	270	148	1.20	48000	0	
5	Narmada	Kundgaon-2	153	20000	135	148	1.20	24000	0	
6	Narmada	Kundgaon-3	153	20000	135	148	1.20	24000	0	
7	Narmada	Kundgaon-4	153	20000	135	148	1.20	24000	0	
8	Narmada	Nemavar-2	527	4180	60	70	1.19	5016	0	
9	Narmada	Bhanjakhedi	76	8200	170	40	0.80	5466.8	0	

State Level Environment
Assessment Authority, M.P.

Paryavaran Parisar
E-5, Arera Colony, Bhopal (M.P.)

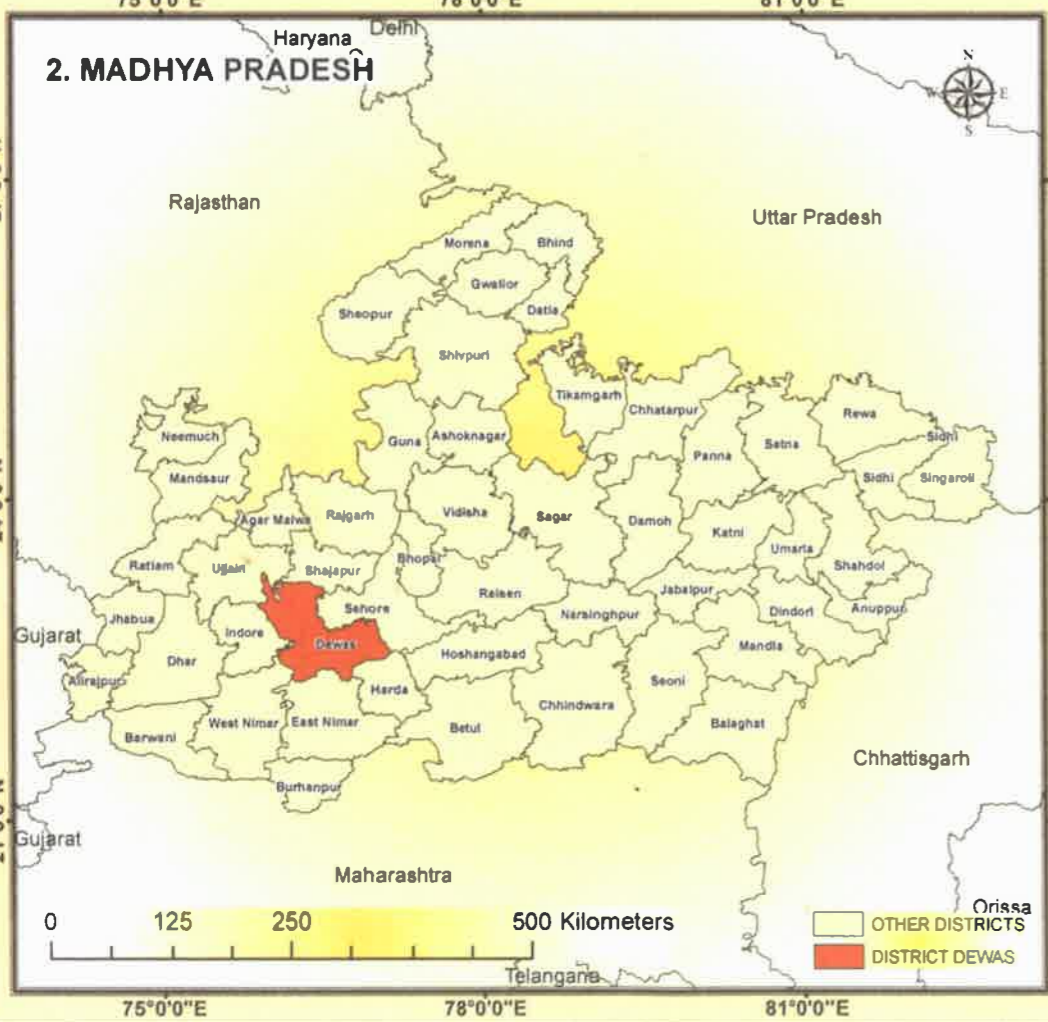
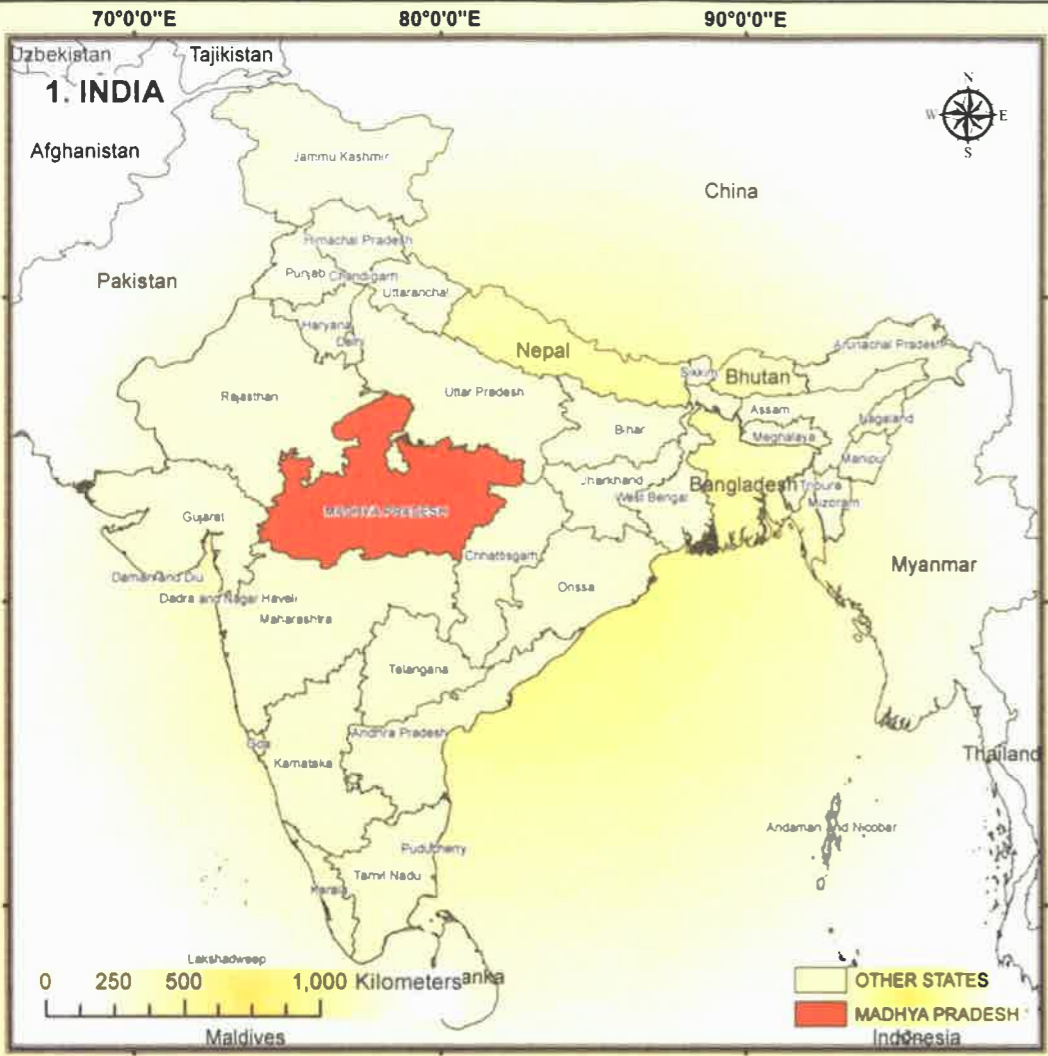
DISTRICT SURVEY REPORT OF DEWAS FOR SAND MINING OR RIVER BED MINING

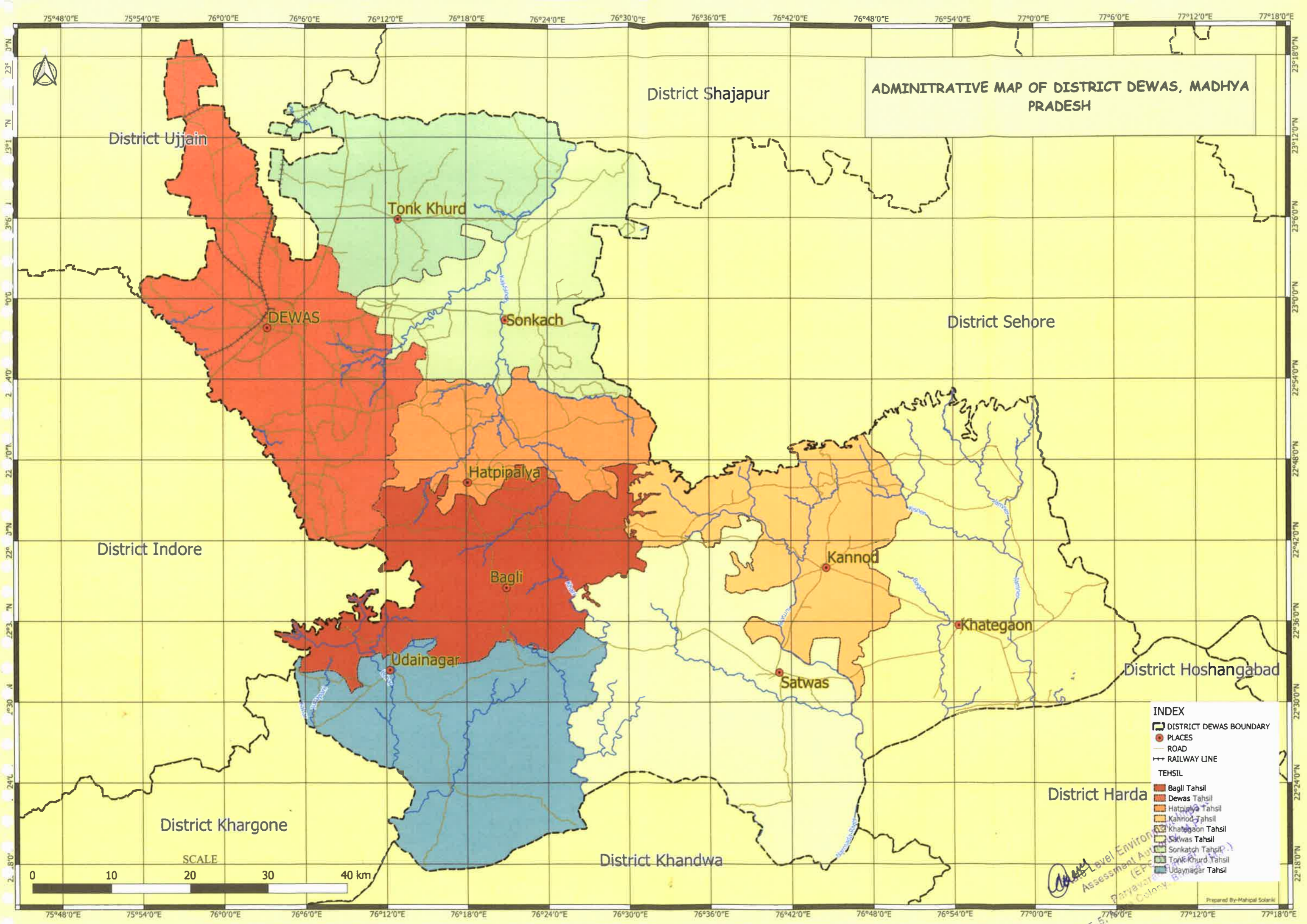
10	Narmada	RAWLAS	164	100000	434	50	0.40	8666.68	0
11	Narmada	Melipliya	105	40000	200	100	0.50	10000	0
12	Narmada	Karodmafi	369	60000	150	45	0.20	1333.30	0
13	Narmada	Pipalneriya	221	40000	397	70	1.20	3333.32	0
14	Narmada	Bhanjakhedi	76	40000	347	60	0.80	1666.68	0
15	Narmada	Bijalgaon-2	414	70000	357	70	0.40	10000	0
16	Narmada	Chichli-2	430	100000	500	100	0.80	40000	0
17	Narmada	Nemavar-4	527	37840	200	133	1.00	26666.68	0
18	Narmada	Nemavar-5	527	37840	200	189	1.20	45408	0
19	Narmada	Gajanpur-4	55	20000	135	146	1.22	24000	0
20	Narmada	Gajanpur-5	55	20000	140	141	1.22	24000	0
21	Kali Sindh	Pirpandliya	1, 58	67000	495	28	0.48	6666.8	0
22	Kali Sindh	Surjana	1, 279	35000	245	20	0.32	1566.68	0
23	Kali Sindh	Patadiya Taj	1	40000	240	15	0.20	720	0

DISTRICT SURVEY REPORT OF DEWAS FOR SAND MINING OR RIVER BED MINING

24	Kali Sindh	Kalukheddi	6, 224, 271, 576	92200	222	15	0.20	666.68	0
25	Kali Sindh	Jaleriya	1, 39, 40	40000	590	20	0.40	4725.36	0
26	Kali Sindh	Jivajigarh	1117	40000	221	15	0.20	666.68	0
27	Kali Sindh	Chobara Dhira	1982	40000	520	30	0.20	3120	0
28	Kali Sindh	Chobara Dhira	1982, 2087	49900	520	30	0.20	3120	0


 State Level Environment Impact
 Assessment Authority, M.P.
 (EPC)





ADMINISTRATIVE MAP OF DISTRICT DEWAS, MADHYA PRADESH

District Shajapur

District Ujjain

District Sehore

District Indore

District Hoshangabad

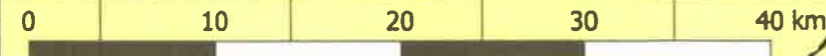
District Khargone

District Khandwa

District Harda

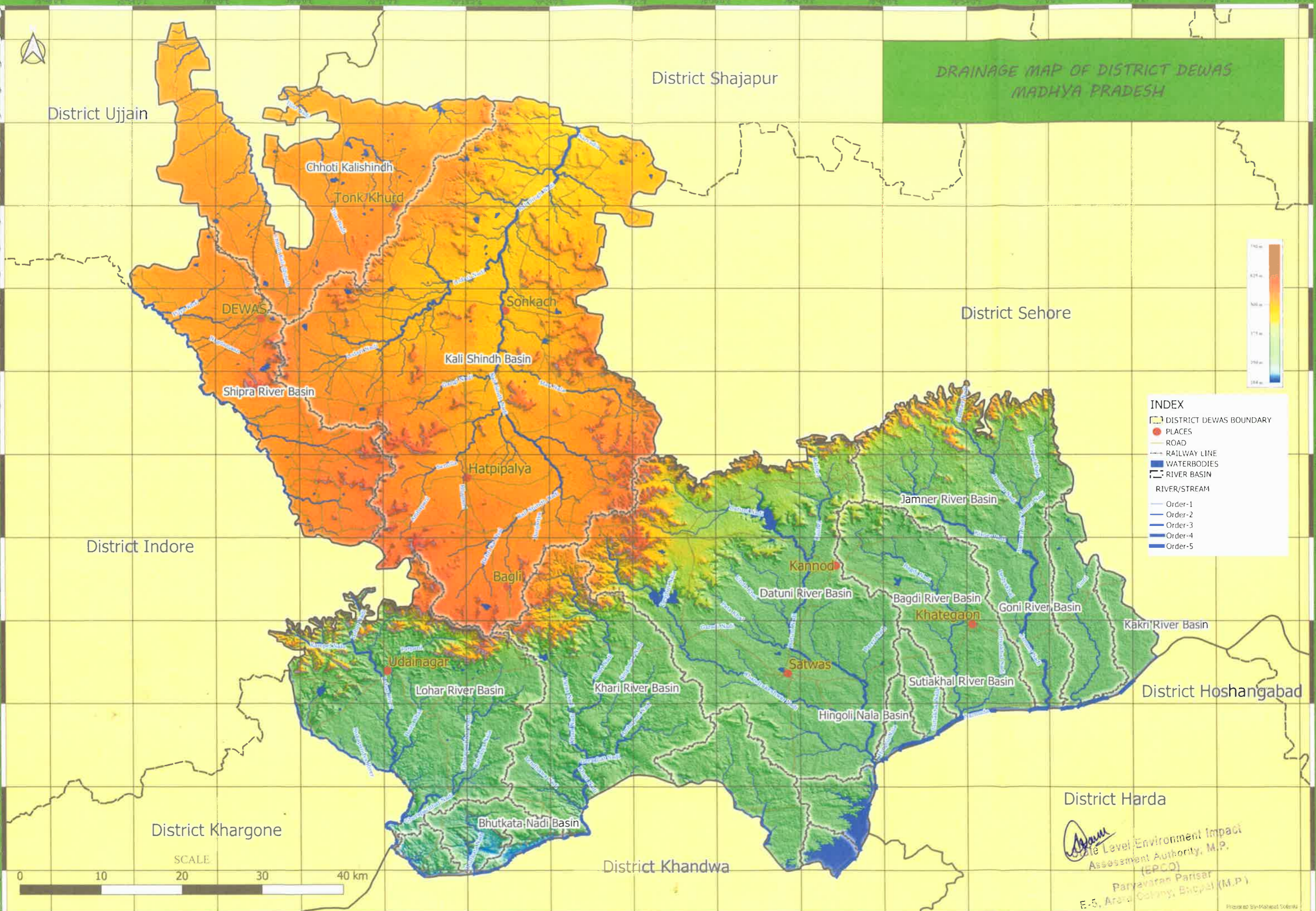
- INDEX**
- DISTRICT DEWAS BOUNDARY
 - PLACES
 - ROAD
 - RAILWAY LINE
 - TEHSIL
 - Bagli Tahsil
 - Dewas Tahsil
 - Hatpipalya Tahsil
 - Kannod Tahsil
 - Khategaon Tahsil
 - Satwas Tahsil
 - Sonkatch Tahsil
 - Tonk Khurd Tahsil
 - Udainagar Tahsil

SCALE



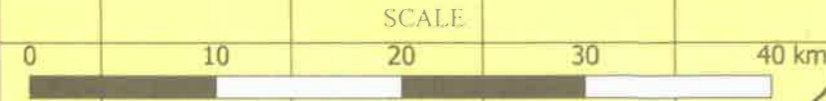
Level Environment Assessment Authority (EPA) Bhopal
 Prepared By: Mahipal Solanki

DRAINAGE MAP OF DISTRICT DEWAS MADHYA PRADESH



INDEX

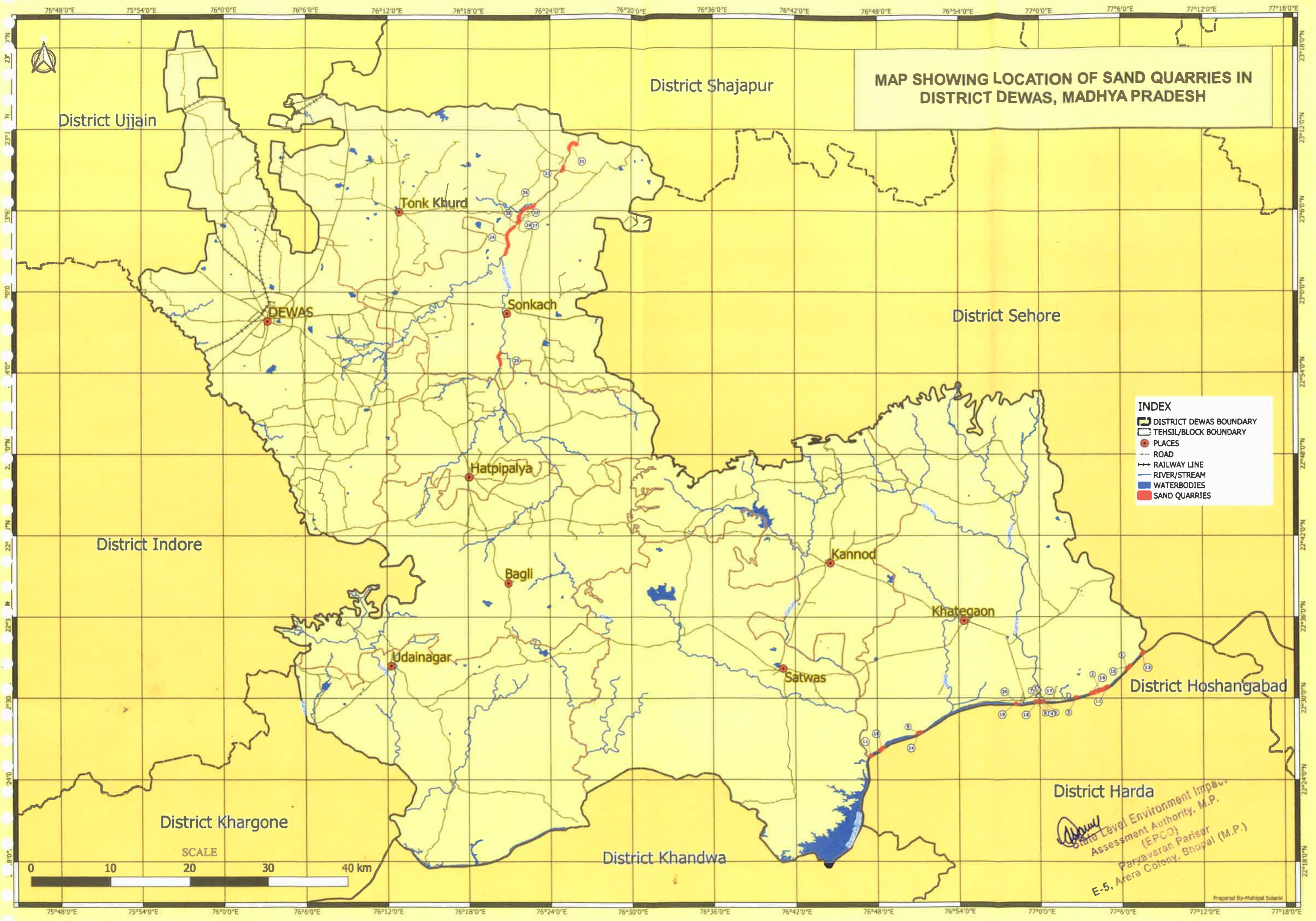
- DISTRICT DEWAS BOUNDARY
- PLACES
- ROAD
- RAILWAY LINE
- WATERBODIES
- RIVER BASIN
- RIVER/STREAM
- Order-1
- Order-2
- Order-3
- Order-4
- Order-5



District Harda

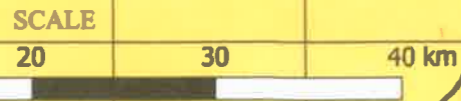
[Signature]
State Level Environment Impact
Assessment Authority, M.P.
(EPCO)
Paryavaran Parisar
E-5, Arera Colony, Bhopal (M.P.)

MAP SHOWING LOCATION OF SAND QUARRIES IN DISTRICT DEWAS, MADHYA PRADESH



INDEX

- DISTRICT DEWAS BOUNDARY
- TEHSIL/BLOCK BOUNDARY
- PLACES
- ROAD
- RAILWAY LINE
- RIVER/STREAM
- WATERBODIES
- SAND QUARRIES



District Harda

(Signature)
State Level Environment Impact
Assessment Authority, M.P.
(EPCO)
पर्यावरण परिषद
E-5, Aera Colony, Bhopal (M.P.)

Prepared By: Mahipal Solanki

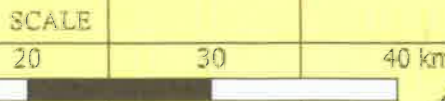
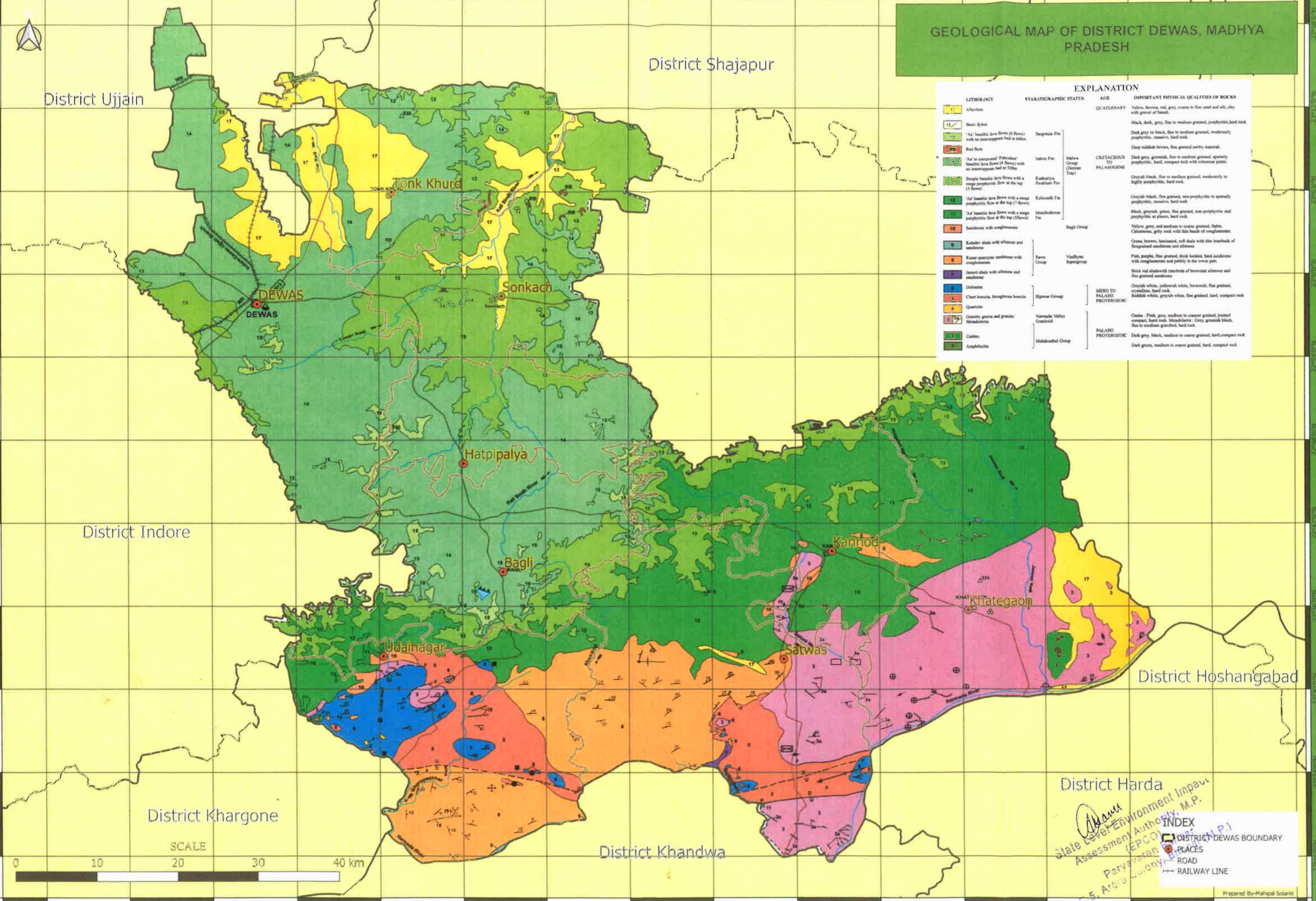
GEOLOGICAL MAP OF DISTRICT DEWAS, MADHYA PRADESH

District Shajapur

District Ujjain

EXPLANATION

LITHOLOGY	STRATIGRAPHIC STATUS	AGE	IMPORTANT PHYSICAL QUALITIES OF ROCKS
17	Chyavan	QUATERNARY	Yellow, brown, red, grey, coarse to fine sand and silt, clay with gravel of beach.
16	Basalt dykes		Black, dark, grey, fine to medium grained, porphyritic, hard rock
15	'A' basaltic lava flows (4 flows) with an intertuff bed at 100m	Sargaha Pin	Dark grey to black, fine to medium grained, moderately porphyritic, massive, hard rock.
14	Basalt		Dark reddish brown, fine grained sandy material.
13	'A' to unsorted 'Felsites' basaltic lava flows (4 flows) with an intertuff bed at 120m	Jabra Pin	Dark grey, greenish, fine to medium grained, sparsely porphyritic, hard, compact rock with columnar joints.
12	Single basaltic lava flows with a mega porphyritic flow at the top (1 flow)		Greyish black, fine to medium grained, moderately to highly porphyritic, hard rock.
11	'A' basaltic lava flows with a mega porphyritic flow at the top (1 flow)	Kalinath Pin	Greyish black, fine grained, non-porphyritic to sparsely porphyritic, massive, hard rock.
10	'A' basaltic lava flows with a mega porphyritic flow at the top (1 flow)		Black, greyish, green, fine grained, non-porphyritic and porphyritic in places, hard rock.
9	Sandstone with conglomerates	Mandla Pin	Yellow, grey, and medium to coarse grained, feldic, calcareous, gritty rock with thin beds of conglomerates.
8	Kalshir shale with siltstone and sandstone		Green, brown, laminated, soft shale with thin beds of conglomerates and siltstone.
7	Kuar quartzite sandstone with conglomerates	Bawa Group	Pink, purple, fine grained, thick bedded, hard sandstone with conglomerates and pebbles in the lower part.
6	Zircon shale with siltstone and sandstone		Black red shales with beds of brownish siltstone and fine grained sandstone.
5	Dolomite	Bijawar Group	Greyish white, yellowish white, brownish, fine grained, crystalline, hard rock.
4	Chert breccia, conglomerate breccia		Reddish white, greyish white, fine grained, hard, compact rock.
3	Quartzite	Narmada Valley Group	White / Pink, grey, medium to coarse grained, jointed compact, hard rock. Mandla Pin: Grey, greenish black, fine to medium grained, hard rock.
2	Granite gneiss and gneiss		Dark grey, black, medium to coarse grained, hard, compact rock.
1	Gabbro	Mandla Group	Dark green, medium to coarse grained, hard, compact rock.
0	Amphibole		



State Level Environment Impact Assessment Authority, M.P.
 Paryavaran (EPCO) Prant P.
 5, Arera Colony, Bhopal (M.P.)

INDEX

- DISTRICT DEWAS BOUNDARY
- PLACES
- ROAD
- RAILWAY LINE

Prepared By-Mahpal Solanki



राज्य स्तरीय पर्यावरण समाघात निर्धारण प्राधिकरण, म.प्र.
(पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय, भारत सरकार)

पर्यावरण नियोजन एवं समन्वय संगठन
पर्यावरण परिसर, ई-5, अरेरा कॉलोनी
भोपाल-462016 (म.प्र.)

वेबसाइट- <http://www.mpseiaa.nic.in>

दूरभाष नं. - 0755-2466970, 2466859

फैक्स नं. - 0755-2462136

No: 1579/SEIAA/2022

Date: 9/9/22

प्रति,

कलेक्टर

जिला - देवास (म.प्र.)

विषय: नवीन जिला सर्वेक्षण रिपोर्ट - देवास (रेत खनिज)

संदर्भ: आपका पत्र क्र. Q दिनांक 27.08.2022।

राज्य स्तरीय समाघात निर्धारण प्राधिकरण द्वारा 745वीं बैठक दिनांक 05.09.2022 में निम्नानुसार निर्णय लिया गया :-

राज्य स्तरीय विशेषज्ञ मूल्यांकन समिति (SEAC) की 591वीं बैठक दिनांक 27/08/2022 में जिला देवास की जिला सर्वेक्षण रिपोर्ट में निम्नानुसार सुझाव सहित अनुशंसा की गई है।

".....समिति ने जिला सर्वेक्षण रिपोर्टों के प्रस्तुतीकरण एवं परीक्षण में पाया कि रेत की कई स्वीकृत खदानों में 60 प्रतिशत माइनेबल पोटेन्शियल तथा विगत् 03 से 05 वर्षों के उत्पादन की मात्रा में 10 गुना से भी अधिक का अंतर है जिसके संदर्भ में उपस्थित खनन अधिकारियों द्वारा बताया गया कि विगत् 02 से 03 वर्षों में कोविड महामारी, मांग कम होने इत्यादि के कारण कुछ खदानों से रेत की निकासी काफी कम हुई है जिस कारण यह अंतर परिलक्षित हो रहा है। समिति ने चर्चा उपरांत निर्णय लिया कि रेत खनन के ऐसे प्रकरण जहां 60 प्रतिशत माइनेबल पोटेन्शियल तथा विगत् 03 से 05 वर्षों के उत्पादन की मात्रा में 05 गुना या उससे से भी अधिक का अंतर है ऐसे सभी प्रकरणों में पर्यावरणीय अभिस्वीकृती हेतु प्रकरण ऑन लाईन प्रस्तुत करते समय उनकी अनुमोदित खनन योजना में उस स्थल की सारगर्भित रिप्लेनिशमेंट स्टडी प्रस्तुत की जाये तथा 60 प्रतिशत माइनेबल पोटेन्शियल के विरुद्ध 05 गुना या उससे से भी अधिक रेत की मात्रा के अंतर का औचित्य दर्शाया जाये।

समिति की यह भी अनुशंसा है कि जिला स्तर पर जिला सर्वेक्षण रिपोर्ट तैयार करने हेतु गठित जिला समिति की अनुशंसा तथा की गई रिप्लेनिशमेंट स्टडी की जानकारी (जिसके आधार पर जिला सर्वेक्षण रिपोर्ट तैयार की गई हैं) संबंधित जिला खनिज अधिकारी कार्यालय में सुरक्षित रखी जाये।

अतः समिति द्वारा सुझाई गई उपरोक्त अनुशंसाओं के साथ देवास जिले की जिला सर्वेक्षण रिपोर्ट (रेत खनिज) अनुमोदन हेतु विचारार्थ एवं आगामी कार्यवाही हेतु राज्य स्तरीय पर्यावरण समाघात निर्धारण प्राधिकरण की ओर प्रेषित किया जाये।"

राज्य स्तरीय समाघात निर्धारण प्राधिकरण (SEIAA) द्वारा विस्तृत चर्चा एवं विचार विमर्श उपरांत SEAC की 591वीं बैठक दिनांक 27/08/2022 की अनुशंसा को मान्य करते हुए देवास जिले की अद्यतन जिला सर्वेक्षण रिपोर्ट का अनुमोदन SEAC द्वारा सुझाई की उपरोक्त अनुशंसाओं के साथ किया जाता है। तदनुसार जिला कलेक्टर, देवास को पुनरीक्षित जिला सर्वेक्षण रिपोर्ट जिला पोर्टल पर अपलोड करवाये जाने एवं संचालक भौमिकी तथा खनिकर्म को सूचित किया जाये।

उपरोक्त निर्णयानुसार कृपया अनुमोदित नवीन जिला सर्वेक्षण रिपोर्ट जिला पोर्टल पर अपलोड करने का कष्ट करें। सुलभ संदर्भ हेतु अनुमोदित नवीन जिला सर्वेक्षण रिपोर्ट की साफ्टकॉपी ई-मेल के माध्यम से आपकी ओर प्रेषित है।

(श्रीमन् शुक्ला)
सदस्य सचिव



राज्य स्तरीय पर्यावरण समाघात निर्धारण प्राधिकरण, म.प्र.
(पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय, भारत सरकार)

पर्यावरण नियोजन एवं समन्वय संगठन
पर्यावरण परिसर, ई-5, अरेरा कॉलोनी
भोपाल-462016 (म.प्र.)

वेबसाइट- <http://www.mpseiaa.nic.in>

दूरभाष नं. - 0755-2466970, 2466859

फैक्स नं. - 0755-2462136

No: / SEIAA/2022

Date:

क्र. 1560


/ SEIAA / 2022 भोपाल

दिनांक

9/9/22

प्रतिलिपि :-

1. प्रमुख सचिव, म.प्र. शासन, पर्यावरण विभाग, मंत्रालय, भोपाल की ओर कृपया सूचनार्थ ।
2. संचालक, प्रशासन/तकनीकी, संचालनालय, भौमिकी तथा खनिकर्म, 29-ए, खनिज भवन, अरेरा हिल्स, भोपाल (म.प्र.)
3. सदस्य सचिव, राज्य स्तरीय विशेषज्ञ मूल्यांकन समिति (SEAC), अनुसंधान एवं विकास विंग, म.प्र. प्रदूषण नियंत्रण बोर्ड, पर्यावरण परिसर, ई-5, अरेरा कॉलोनी, भोपाल (म.प्र.) - 462016 की ओर सूचनार्थ ।


सदस्य सचिव

19. जिला सर्वेक्षण रिपोर्ट, जिला - देवास (रेत खनिज)

राज्य स्तरीय समाघात निर्धारण प्राधिकरण द्वारा 745वी बैठक दिनांक 05.09.2022 में निम्नानुसार निर्णय लिया गया :-

राज्य स्तरीय विशेषज्ञ मूल्यांकन समिति (SEAC) की 591वीं बैठक दिनांक 27/08/2022 में जिला देवास की जिला सर्वेक्षण रिपोर्ट में निम्नानुसार सुझाव सहित अनुशंसा की गई है।

.....समिति ने जिला सर्वेक्षण रिपोर्टों के प्रस्तुतीकरण एवं परीक्षण में पाया कि रेत की कई स्वीकृत खदानों में 60 प्रतिशत माइनेबल पोर्टेशियल तथा विगत 03 से 05 वर्षों के उत्पादन की मात्रा में 10 गुना से भी अधिक का अंतर है जिसके संदर्भ में उपस्थित खनन अधिकारियों द्वारा बताया गया कि विगत 02 से 03 वर्षों में कोविड महामारी, मांग कम होने इत्यादि के कारण कुछ खदानों से रेत की निकासी काफी कम हुई है जिस कारण यह अंतर परिलक्षित हो रहा है। समिति ने चर्चा उपरांत निर्णय लिया कि रेत खनन के ऐसे प्रकरण जहां 60 प्रतिशत माइनेबल पोर्टेशियल तथा विगत 03 से 05 वर्षों के उत्पादन की मात्रा में 05 गुना या उससे से भी अधिक का अंतर है ऐसे सभी प्रकरणों में पर्यावरणीय अभिसूची हेतु प्रकरण ऑन लाईन प्रस्तुत करते समय उनकी अनुमोदित खनन योजना में उस स्थल की सारगर्भित रिप्लेनिशमेंट स्टडी प्रस्तुत की जाये तथा 60 प्रतिशत माइनेबल पोर्टेशियल के विरुद्ध 05 गुना या उससे से भी अधिक रेत की मात्रा के अंतर का औचित्य दर्शाया जाये ।

समिति की यह भी अनुशंसा है कि जिला स्तर पर जिला सर्वेक्षण रिपोर्ट तैयार करने हेतु गठित जिला समिति की अनुशंसा तथा की गई रिप्लेनिशमेंट स्टडी की जानकारी (जिसके आधार पर जिला सर्वेक्षण रिपोर्ट तैयार की गई है) संबंधित जिला खनिज अधिकारी कार्यालय में सुरक्षित रखी जाये ।

अतः समिति द्वारा सुझाई गई उपरोक्त अनुशंसाओं के साथ देवास जिले की जिला सर्वेक्षण रिपोर्ट (रेत खनिज) अनुमोदन हेतु विचारार्थ एवं आगामी कार्यवाही हेतु राज्य स्तरीय पर्यावरण समाघात निर्धारण प्राधिकरण की ओर प्रेषित किया जाये।”


राज्य स्तरीय समाघात निर्धारण प्राधिकरण (SEIAA) द्वारा विस्तृत चर्चा एवं विचार विमर्श उपरांत SEAC की 591वीं बैठक दिनांक 27/08/2022 की अनुशंसा को मान्य करते हुए देवास जिले की अद्यतन जिला सर्वेक्षण रिपोर्ट का अनुमोदन SEAC द्वारा सुझाई की उपरोक्त अनुशंसाओं के साथ किया जाता है।

तदनुसार जिला कलेक्टर, देवास को पुनरीक्षित जिला सर्वेक्षण रिपोर्ट जिला पोर्टल पर अपलोड करवाये जाने एवं संचालक भौमिकी तथा खनिकर्म को सूचित किया जाये।

20. जिला सर्वेक्षण रिपोर्ट, जिला - अनूपपुर

अ. रेत खनिज

राज्य स्तरीय समाघात निर्धारण प्राधिकरण द्वारा 745वी बैठक दिनांक 05.09.2022 में निम्नानुसार निर्णय लिया गया :-


(श्रीमन् शुक्ला)
सदस्य सचिव


(अरुण कुमार भट्ट)
अध्यक्ष

591वीं राज्य स्तरीय विशेषज्ञ मूल्यांकन समिति की बैठक
दिनांक 27 अगस्त 2022

ब. रेत खनिज जिला, अलीराजपुर -

जिले की संशोधित अलीराजपुर जिला सर्वेक्षण रिपोर्ट (रेत खनिज) में पाया गया कि:-

1. पेज 55 में दर्शित तालिका जिसमें लीजवार लंबाई, चौड़ाई, एवं गहराई के साथ 60: मिनरल पोर्टेंशियल दर्शाया गया है इस तालिका में प्रत्येक लीज में अलग-अलग गहराई दर्शायी गयी है। अतएव रिमार्क में अथवा टेबल के आखिर में लीज में गहराई अलग-अलग क्यों ली गयी है इस पर टिप्पणी करें। साथ ही इस टेबल रेत की 60 प्रतिशत माइनेबल पोर्टेंशियल (रेत खनन हेतु) में टन यूनिट में भी दर्शायें।
2. डी.एस.आर. के पेज न0. 23-24 में जो तालिका में विगत तीन वर्षों के Production details दर्शाये गये हैं। उन्हें 60: मिनरल पोर्टेंशियल दर्शाने वाली तालिका में सम्मिलित करें। जिससे कि एक साथ ही Mineral Potencial एवं विगत तीन वर्षों के Production details का आंकलन कर दें।
3. इसी प्रकार जिले में स्वीकृत/प्रस्तावित खदानों (रेत खदानों एवं गौण खनिज) के बतकपदंजमें लीजवार डिजिटाइज्ड (आर्क व्यू/गूगल अर्थ कम्पटेबल) सी.डी. में संलग्न किया जायें ताकि पर्यावरण अभिस्वीकृति के समय खदानों की सही स्थिति ज्ञात करने में तथा 500 मी. के अंडर अन्य स्थित अन्य खदानों की जानकारी प्राप्त करने में सुविधा हो।

चर्चा उपरांत समिति की यह अनुशंसा है कि अलीराजपुर जिले की जिला सर्वेक्षण रिपोर्ट गौण खनिज एवं रेत खनिज को समिति की सुझाई गयी उपरोक्त अनुशंसाओं के तारतम्य में अद्यतन (अपडेट) किया जाये तथा संशोधित जिला सर्वेक्षण रिपोर्ट पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय की अधिसूचना दिनांक 25/07/18 के अनुसार पुनः प्रस्तुत की जावे तत्संबंध में उपस्थित खनिज अधिकारी श्री रविन्द्र परमार को भी उपरोक्त संदर्भ में समझाईश दी गयी।

3. जिला सर्वेक्षण रिपोर्ट, देवास -

जिला सर्वेक्षण रिपोर्ट, जिला - देवास - रेत खनिज

Mineral	Sand
Earlier DSR Discussed	SEAC 591 th , & 581 th , Meeting dated 27.08.2022 & 24.06.22.
Approved /or recommend for Updation (if Updation then elaborate issues)	Recommended for DSR Updation (Sand Mineral)
Deliberation in the SEAC SEAC 591 th , & 581 th , Meeting dated 27.08.2022 & 24.06.22.	राज्य स्तरीय मूल्यांकन समिति की 581 वीं बैठक दिनांक 24/08/22 जिला सर्वेक्षण रिपोर्ट, जिला देवास (म.प्र.)

591वीं राज्य स्तरीय विशेषज्ञ मूल्यांकन समिति की बैठक दिनांक 27 अगस्त 2022

राज्य स्तरीय पर्यावरण समाघात निर्धारण प्राधिकरण (सिया) ने पत्र क्रमांक 814 दिनांक 21/06/22 के माध्यम से देवास जिले की जिला सर्वेक्षण रिपोर्ट राज्य स्तरीय विशेषज्ञ मूल्यांकन समिति के परीक्षण हेतु भेजी गई है। उक्त जिला सर्वेक्षण रिपोर्ट, राज्य स्तरीय विशेषज्ञ मूल्यांकन समिति के सदस्यों को दिनांक 20/06/22 सांफ्टकापी को प्रेषित की गई थी तथा उस पर चर्चा हेतु राज्य स्तरीय विशेषज्ञ मूल्यांकन समिति की 581 वीं बैठक दिनांक 24/06/22 में प्रस्तावित है।

कार्यालय कलेक्टर (खनिज शाखा) जिला- देवास, म.प्र. के पत्र क्रमांक 1865 दिनांक 16/06/2022 के जिला सर्वेक्षण रिपोर्ट को सिया कार्यालय में ऑन लाईन जमा कराई गई। कार्यालय कलेक्टर (खनिज शाखा) जिला- देवास, म.प्र. ने पत्र क्रमांक 1657 दिनांक 23/05/2022 में यह उल्लेख किया गया है, कि जिला पोर्टल पर इसे 21 दिवस हेतु अपलोड कर प्राप्त दावों/आपत्तियों हेतु रखा गया। उक्त पत्र में यह भी उल्लेख है, कि सस्टेनेबल सेंड माइनिंग मैनेजमेन्ट गाईडलाइन 2016 एवं इन्फोर्समेन्ट मॉनिटरिंग फॉर सेंड माइनिंग गाईडलाइन 2020 के तहत जिला सर्वेक्षण रिपोर्ट गठित समिति के द्वारा तैयार कर प्रस्तुत की है।

राज्य स्तरीय विशेषज्ञ मूल्यांकन समिति की 581 वीं बैठक दिनांक 24/06/22 में देवास जिले की सर्वेक्षण रिपोर्ट पर चर्चा की गई जिस दौरान खनिज विभाग की ओर माइनिंग अधिकारी उपस्थित नहीं हुए। समिति ने प्राप्त रिपोर्ट पर चर्चा की तथा पाया कि :-

- ✓ जिला सर्वेक्षण रिपोर्ट के पेज नम्बर 93 में दर्शायी गयी टेबल जिसके अन्तर्गत "नदियों पर स्थित रेत का विवरण" दिया गया है में खनन योग्य खनिज क्षमता का 70% की दर से गणना की गयी है जबकि इसको खनिज क्षमता का 60% की दर से गणना की जानी है। साथ ही जो खनन क्षमता की 70% की दर से गणना की गयी है, वह गणना भी नर्मदा नदी के प्रकरण के मात्रा से अधिक दर्शायी गयी है, जबकि यह मात्रा निश्चित रूप से कम होगी। जिला सर्वेक्षण रिपोर्ट पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय, नई दिल्ली द्वारा जारी अधिसूचना दिनांक 25/07/2018 के अनुसार नहीं बनाई गई तथा कई जानकारियां वांछित तालिका में नहीं दी गई है जिस कारण जिला सर्वेक्षण रिपोर्ट अपूर्ण है।
- ✓ जिला सर्वेक्षण रिपोर्ट में स्थित इको सेंसिटिव जोन की कोई भी जानकारी नहीं दी गई जिसमें बताया गया है जबकि खिवनी ईएसजेड जिले में स्थित है। चूंकि जिले पारिस्थितिक संवेदी जोन जिले का एक बहुत की महत्वपूर्ण घटक है। अतएव इसका वर्णन जिसमें नोटिफिकेशन का नं० दिनांक एवं विस्तार और सीमाएं एवं ई.एस.जेड. में आ रहे गांवों का नाम का समायोजन होना अपरिहार्य है।
- ✓ जिला सर्वेक्षण रिपोर्ट की तालिका में खनिज रेत हेतु लीजवार " माइनेबल मिनरल पोर्टेंशियल " (घनमीटर में) (60% टोटल मिनरल पोर्टेंशियल) लीजवार (लम्बाई एवं चौड़ाई के साथ) नहीं दिया गया है जो दिया जाना आवश्यक है।
- ✓ बिन्दु क्र०. 26 जी जानकारी जो माइनेर मिनरल (रेत छोड़कर) से संबंधित है में हरित क्षेत्र के विकास हेतु खदानों में वृक्षारोपण की जानकारी नहीं दी गई है, जिसको अद्यतन किया जाना चाहिए। साथ ही निर्धारित लक्ष्य के विरुद्ध कितना वृक्षारोपण किस वर्ष किया है, उसको भी अंकित किया जाना चाहिए।
- ✓ इसी प्रकार जिले में स्वीकृत/प्रस्तावित खदानों को को-आर्डिनेट के अनुसार डिजिटाइज मैप (आर्क व्यू / गूगल अर्थ कम्पैटिबल - सी.डी.में) भी संलग्न किया जाये ताकि पर्यावरण अभिस्वीकृति के समय खदानों की सही स्थिति ज्ञात करने में तथा 500 मीटर के अंदर स्थित अन्य स्वीकृत खदानों की जानकारी प्राप्त करने में सुविधा हो।
- ✓ प्रायः देखा जा रहा है जिला सर्वेक्षण रिपोर्ट में रेत निर्माण होने की भू-वैज्ञानिक विधि की सामान्य जानकारी दी जाती है जो सभी जिला सर्वेक्षण रिपोर्टों में एक जैसी ही है जिसके स्थान पर जिले में मिलने वाली नदी के अपस्ट्रीम क्षेत्र में मिलने वाली चट्टानों का (रॉक फार्मेशन) का समावेश होना चाहिए।
- ✓ जिला सर्वेक्षण रिपोर्ट में प्रदर्शित नक्शों में जो भी फीचर्स दिखाया जाता है उसको संबंधित नक्शों के लीजेंड में भी दिखाया जाना चाहिए एवं नक्शों का स्केल ऐसा होना चाहिए कि समस्त फीचर स्पष्ट दिख सकें। यदि ए-4 साईज में नक्शों नहीं आ पा रहे हो तो ए-3 साईज में नक्शों को बनाना चाहिए।
- ✓ समिति ने संबंधित जिलों के खनिज अधिकारियों को निर्देशित करती है कि इस बात का भी ध्यान रखा जाये कि नदियों में किसी स्थान पर मछलियों / कछुआ / घड़ियाल / मगरमच्छ आदि

591वीं राज्य स्तरीय विशेषज्ञ मूल्यांकन समिति की बैठक
दिनांक 27 अगस्त 2022

	<p>जलचरों का ग्रीडिंग ग्राउण्ड तो नहीं है यदि ऐसा कोई स्थानीय संवेदनशील क्षेत्र दृष्टिगत होता है तो खनन क्षेत्र की सीमा को 60 प्रतिशत से कम कर 50 प्रतिशत तक भी सीमित किया जा सकता है ।</p> <p>✓ समिति ने यह भी सुझाव दिया कि सभी खनिज अधिकारी अपनी साईट विजिट के दौरान खदान द्वारा किये जा रहे पर्यावरणीय एवं सामाजिक पहलुओं का भी अवलोकन करें एवं यदि कोई पर्यावरणीय संवेदनशीलता दृष्टिगत हो, जिस पर ध्यान दिया जाना आवश्यक हो तो संबंधित तथ्यों से राज्य स्तरीय पर्यावरण समारोह निर्धारण प्राधिकरण को उचित कार्यवाही हेतु अवगत करायें ।</p> <p>बर्चा उपरांत समिति की यह अनुशंसा है कि देवास जिले की जिला सर्वेक्षण रिपोर्ट को समिति द्वारा सुझाई गई उपरोक्त अनुशंसाओं के तारतम्य में अद्यतन (अपडेट) किया जाये तथा संशोधित जिला सर्वेक्षण रिपोर्ट पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय, नई दिल्ली द्वारा जारी अधिसूचना दिनांक 25/07/2018 के अनुसार पुनः प्रस्तुत की जाये तथा पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय, नई दिल्ली द्वारा जारी अधिसूचना दिनांक 25/07/2018 के निर्धारित फार्मेट अनुसार जिला सर्वेक्षण रिपोर्ट को अद्यतन कर लें। तदनुसार प्रकरण आगामी कार्यवाही राज्य स्तरीय पर्यावरण समारोह निर्धारण प्राधिकरण की ओर अग्रिम कार्यवाही हेतु प्रेषित है ।</p> <p>राज्य स्तरीय मूल्यांकन समिति की 591 वीं बैठक दिनांक 27/08/22 जिला सर्वेक्षण रिपोर्ट, जिला देवास – रेत खनिज – (संशोधित) जिला सर्वेक्षण रिपोर्ट देवास (रेत खनिज)– श्री आरिफ खान, खनिज अधिकारी।</p> <p>देवास जिले की नवीन जिला सर्वेक्षण रिपोर्ट रेत खनिज एवं अन्य गौण खनिज हेतु प्रस्तुत की गई। जिले की संशोधित देवास जिला सर्वेक्षण रिपोर्ट (रेत खनिज) में पाया कि –</p> <p>✓ इसी प्रकार तालिका क्र०. 14 पेज न. 36-37 में जो नदी-वार एवं लीज-वार आंकड़े (लंबाई चौड़ाई के साथ) दर्शाये गये तत्पश्चात् प्राप्त क्षेत्रफल का 60 प्रतिशत मिनरल पोटेन्शियल बताया गया है परन्तु मिनरल पोटेन्शियल मीट्रिक टन में रेत की मात्रा प्रदर्शित करने के लिए जो गणना की गयी है, की गयी है वह सही प्रतीत नहीं होती है तालिका क्र०. 14 को करे पुनरिक्षित करें।</p> <p>उपस्थित श्री आरिफ खॉन, खनिज अधिकारी को भी उपरोक्त संदर्भ में समझाईश दी गई तथा पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय, नई दिल्ली द्वारा जारी अधिसूचना दिनांक 25/07/2018 के निर्धारित फार्मेट अनुसार जिला सर्वेक्षण रिपोर्ट को अद्यतन कर प्रस्तुत करें ।</p>
<p>Revised DSR received from District Collectorate (Mining)</p>	<p>Received soft copy vide District Collectorate (Mining) Office, Dewas, No. Q dated 27.08.2022.</p>
<p>Hard Copy Soft Copy or both</p>	<p>Hard copy & Soft copy.</p>
<p>SEAC meeting dated 27/08/22</p>	<ul style="list-style-type: none"> ● जिले की जिला सर्वेक्षण रिपोर्ट में पेज न०. 43 में दर्शित तालिका में माइनेबल मिनरल पोटेन्शियल (घनमीटर में) 60: टोटल मिनरल पोटेन्शियल, लीजवार, लंबाई, चौड़ाई एवं गहराई के साथ दर्शाया है एवं पेज न०. 18 विगत 03 वर्षों के उत्खनित रेत की मात्रा का लीजवार पोटेन्शियल दिया गया है। जिससे ज्ञात हो सके कि उस स्थल पर खदान का मिनरल पोटेन्शियल विगत 03 वर्षों में कितना रहा। ● मिनरल पोटेन्शियल की गणना दर्शाने वाली टेबल में आवश्यक संशोधन कर रेत की 60 प्रतिशत माइनेबल पोटेन्शियल (रेत

591वीं राज्य स्तरीय विशेषज्ञ मूल्यांकन समिति की बैठक
दिनांक 27 अगस्त 2022

खनन हेतु) मीट्रिक टन यूनिट में प्रस्तुत कर दी गई है मिनरल पोर्टेशियल की गणना दर्शाने वाली टेबल में आवश्यक संशोधन कर रेत की 60 प्रतिशत माइनेबल पोर्टेशियल (रेत खनन हेतु) मीट्रिक टन यूनिट में प्रस्तुत कर दी गई है।

आज दिनांक 27/8/22 को जिला सर्वेक्षण रिपोर्टों के प्रस्तुतीकरण के दौरान संचानालय, भौमिकी एवं खनिकर्म, विभाग भोपाल से श्री पी.पी. राय एवं श्री आरिफ खान, खनिज अधिकारी के साथ उपस्थित रहे।

समिति ने पाया कि देवास जिले की जिला सर्वेक्षण रिपोर्ट को समिति द्वारा सुझाई गई 03 वर्षों में उत्खनित रेत की खदानवार मात्रा भी दर्शाई गई है, एवं विगत 03 वर्षों में उत्खनित रेत की खदानवार मात्रा भी पोर्टेशियल विगत 03 वर्षों में कितना रहा है भी दर्शाया गया है। देवास जिले की जिला सर्वेक्षण रिपोर्ट में आमजन के सुझाव आमंत्रित कर इनका अनुमोदन जिले में गठित समिति द्वारा किया जा चुका है तथा खनि. अधिकारी, कार्यालय कलेक्टर, (खनिज शाखा) जिला- देवास ने पत्र क्रमांक Q दिनांक 27/08/2022 के माध्यम से "माइनेबल मिनरल पोर्टेशियल" (घनमीटर में) (60 प्रतिशत टोटल मिनरल पोर्टेशियल) लीजवार विवरण की जानकारी भी प्रस्तुत कर दी गई है। तथा मिनरल पोर्टेशियल की गणना दर्शाने वाली टेबल में आवश्यक संशोधन कर रेत की 60 प्रतिशत माइनेबल पोर्टेशियल (रेत खनन हेतु) मीट्रिक टन यूनिट में प्रस्तुत कर दी गई है।

समिति ने जिला सर्वेक्षण रिपोर्टों के प्रस्तुतीकरण एवं परीक्षण में पाया कि रेत की कई स्वीकृत खदानों में 60 प्रतिशत माइनेबल पोर्टेशियल तथा विगत 03 से 05 वर्षों के उत्पादन की मात्रा में 10 गुना से भी अधिक का अंतर है जिसके संदर्भ में उपस्थित खनन अधिकारियों द्वारा बताया गया कि विगत 02 से 03 वर्षों में कोविड महामारी, मांग कम होने इत्यादि के कारण कुछ खदानों से रेत की निकासी काफी कम हुई है जिस कारण यह अंतर परिलक्षित हो रहा है। समिति ने चर्चा उपरांत निर्णय लिया कि रेत खनन के ऐसे प्रकरण जहां 60 प्रतिशत माइनेबल पोर्टेशियल तथा विगत 03 से 05 वर्षों के उत्पादन की मात्रा में 05 गुना या उससे से भी अधिक का अंतर है ऐसे सभी प्रकरणों में पर्यावरणीय अभिस्वीकृती हेतु प्रकरण ऑन लाईन प्रस्तुत करते समय उनकी अनुमोदित खनन योजना में उस स्थल की सारगर्भित रिप्लेनिशमेंट स्टडी प्रस्तुत की जाये तथा 60 प्रतिशत माइनेबल पोर्टेशियल के विरुद्ध 05 गुना या उससे से भी अधिक रेत की मात्रा के अंतर का औचित्य दर्शाया जाये।

समिति की यह भी अनुशांसा है कि जिला स्तर पर जिला सर्वेक्षण रिपोर्ट तैयार करने हेतु गठित जिला समिति की अनुशांसा तथा की गई रिप्लेनिशमेंट स्टडी की जानकारी (जिसके आधार पर जिला सर्वेक्षण रिपोर्ट तैयार की गई हैं) संबंधित जिला खनिज अधिकारी कार्यालय में सुरक्षित रखी जाये।

अतः समिति द्वारा सुझाई गई उपरोक्त अनुशांसाओं के साथ देवास जिले की जिला सर्वेक्षण रिपोर्ट (रेत खनिज) अनुमोदन हेतु विचारार्थ एवं आगामी कार्यवाही हेतु राज्य स्तरीय पर्यावरण समाघात निर्धारण प्राधिकारण की ओर प्रेषित किया जाये।