



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: 529 / SEIAA/2022

Date: 23/5/22

प्रति,

कलेक्टर,
जिला रायसेन (म.प्र.)

विषय :- नवीन जिला सर्वेक्षण रिपोर्ट - जिला रायसेन के अनुमोदन बावत्।

संदर्भ :- आपका पत्र क्र. 250 दिनांक 02.05.2022 एवं 297 दिनांक 09.05.2022।

उपरोक्त विषयान्तर्गत संदर्भित पत्र के संबंध में लेख है कि SEIAA द्वारा 725वी बैठक दिनांक 23.05.2022 में जिला रायसेन की नवीन जिला सर्वेक्षण रिपोर्ट अनुमोदन हेतु निम्नानुसार निर्णय लिया गया

"राज्य स्तरीय समाघात निर्धारण प्राधिकरण (SEIAA) द्वारा विस्तृत चर्चा एवं विचार विमर्श उपरांत सर्व सम्मति से SEIAA की 711वी बैठक दिनांक 09.03.2022 में नवीन जिला सर्वेक्षण रिपोर्ट हेतु लिये गये नीतिगत निर्णय के अनुसार भारत सरकार के पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय द्वारा जारी अधिसूचना दिनांक 15 जनवरी 2016 एवं 25 जुलाई 2018 तथा Sustainable Sand Mining Guidelines 2016 तथा Enforcement and Monitoring Guidelines for Sand 2020 के परिपालन के साथ ही माननीय NGT (स्पेशल बेंच) नई दिल्ली के आदेश दिनांक 22.02.2022 एवं तदोपरांत माननीय NGT (CZ) के द्वारा ओ.ए. नम्बर 10/2022 में पारित आदेश दिनांक 04.03.2022 में दिये गये दिशा निर्देशों के परिपालन में कार्यालय कलेक्टर (खनिज शाखा) जिला रायसेन द्वारा गठित जिला स्तरीय/उप संभागीय समिति के परीक्षण एवं अनुशंसा, जिला पोर्टल पर निर्धारित अवधि तक रखे जाने के उपरांत प्राप्त सुझावों के समावेश किये जाने तथा SEAC की 570वी बैठक दिनांक 11.05.2022 की अनुशंसा को मान्य करते हुए सर्व सम्मति से नवीन जिला सर्वेक्षण रिपोर्ट रायसेन का अनुमोदन किया जाता है। तदनुसार जिला कलेक्टर, रायसेन एवं संचालक भौमिकी तथा खनिकर्म को सूचित किया जाये।"

उपरोक्त निर्णयानुसार के परिपालन में कृपया प्राधिकरण द्वारा अनुमोदित नवीन जिला सर्वेक्षण रिपोर्ट को रायसेन जिले के 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

क्र..

/SEIAA/2022

भोपाल दिनांक

प्रतिलिपि :-

1. संचालक, प्रशासन/तकनीकी, संचालनालय, भौमिकी तथा खनिकर्म, 29-ए, खनिज भवन, अरेरा हिल्स, भोपाल (म.प्र.) की ओर सूचनार्थ।

सदस्य सचिव

कार्यालय कलेक्टर, (खनिज शाखा), जिला रायसेन (म0प्र0)

कमांक / 297 / खनिज / 2022

रायसेन, दिनांक 09/05/2022

प्रति,

सदस्य सचिव
राज्य स्तरीय पर्यावरण समाघात
निर्धारण प्राधिकरण (SEIAA)
ई-5, पर्यावरण परिसर, अरेरा कॉलोनी
भोपाल (म0प्र0)

विषय:- जिला रायसेन की संशोधित जिला सर्वेक्षण रिपोर्ट (D.S.R) में टंकण त्रुटि का सुधार कर पुनः जमा करने विषयक।

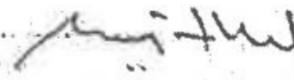
संदर्भ:- संचालक, प्रशासन एवं खनिकर्म, संचालनालय भौमिकी तथा खनिकर्म भोपाल का पत्र कमांक 2981 / खनिज / विविध / न.क. / 2022 भोपाल दिनांक 03.03.2022

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उपरोक्त विषयांतर्गत संदर्भित पत्र के पालन में जिला रायसेन हेतु तैयार प्रारूप जिला सर्वेक्षण रिपोर्ट (D.S.R) में संशोधन उपरांत अनुमोदन गठित समिति द्वारा किया गया है। उक्त गठित समिति द्वारा अनुमोदित जिला सर्वेक्षण रिपोर्ट (D.S.R) टंकण त्रुटि होने से पृष्ठ कमांक 67, 68, 69, 71, 72 एवं 73 में सुधार कर पुनः जिला सर्वेक्षण रिपोर्ट (D.S.R) में संलग्न करने हेतु प्रेषित है।

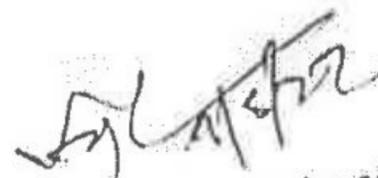
उक्त जिला सर्वेक्षण रिपोर्ट (D.S.R) आम जनों के सुझाव हेतु पोर्टल पर उपलब्ध कराई गई थी। जिनमें 03 व्यक्तियों के सुझाव प्राप्त हुए, जिनका समायोजन जिला सर्वेक्षण रिपोर्ट (D.S.R) में किया गया।

संलग्न:- उपरोक्तानुसार


खनि अधिकारी
जिला रायसेन
रायसेन दिनांक

पृ. क्रमांक / / खनिज / 2022

प्रतिलिपि :- राज्य स्तरीय विशेषज्ञ आंकलन समिति (SEAC) भोपाल ओर सूचनार्थ।


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

खनि अधिकारी
जिला रायसेन

District Survey Report: Raisen

Table 20 Sand Mining Area based on Pre-Monsoon Map

List of Sand Mines, Dist.- Raisen							
Sr. No	District	Tehsil	Name of Mines	Mines Status	Pre-Monsoon Area Based on Satellite Data		
				Status	Total Area in sqm	Standard Depth in meters	Sand Mines Capacity (Cubic meters)
1	Raisen	Badi	Bharkatchkula	New	1,38,150	3	2,52,000.00
2	Raisen	Badi	Bhouti	New	57,600	3	42,000.00
3	Raisen	Badi	Goramachuvai- 5	New	57,600	3	63,000.00
4	Raisen	Badi	Goramachuvai- 1	Operational	1,24,875	3	2,10,000.00
5	Raisen	Badi	Goramachuvai	Non-Operational	8,550	3	16,989.00
6	Raisen	Badi	Goramachuvai- 2	Operational	2,46,150	3	4,20,000.00
7	Raisen	Badi	Goramachuvai- 3	New	1,21,950	3	1,89,000.00
8	Raisen	Badi	Goramachuvai- 4	New	7,64,775	3	11,34,000.00
9	Raisen	Badi	Biser	Non-Operational	18,900	3	21,000.00
10	Raisen	Badi	Biser- 1	New	72,675	3	1,17,600.00
11	Raisen	Badi	Sankheda- 1	New	36,450	3	63,000.00
12	Raisen	Badi	Sankheda	Non-Operational	1,81,350	3	3,15,000.00
13	Raisen	Bareli	Motalsir	Non-Operational	1,27,800	3	84,000.00
14	Raisen	Bareli	Satravan- 1	New	1,76,850	3	2,94,000.00
15	Raisen	Bareli	Satravan	Non-Operational	56,700	3	55,860.00
16	Raisen	Bareli	Muar	New	26,593	3	1,05,000.00
17	Raisen	Bareli	Ghatpipariya- 3	New	84,150	3	1,68,000.00
18	Raisen	Bareli	Ghatpipariya- 1	Non-Operational	48,600	3	1,03,950.00
19	Raisen	Bareli	Ghatpipariya- 2	Non-Operational	38,025	3	84,000.00
20	Raisen	Bareli	Ghatpipariya- 4	New	22,275	3	63,000.00

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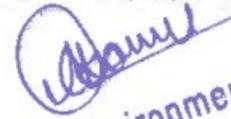
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 State Level Environment Impact
 Assessment Authority, M.P.
 (EPCO)
 Paryavaran Parisar
 E-5, Aera Colony, Bhopal (M.P.)

District Survey Report: Raisen

21	Raisen	Bareilly	Sojani	Non-Operational	1,88,325	3	4,20,000.00
22	Raisen	Bareilly	Dhabla	New	91,350	3	2,73,000.00
23	Raisen	Bareilly	Kotparmahant- 1	New	81,000	3	1,26,000.00
24	Raisen	Bareilly	Kotparmahant- A	Non-Operational	76,050	3	2,10,000.00
25	Raisen	Bareilly	Kotparmahant- B	Operational	9,000	3	84,000.00
26	Raisen	Bareilly	Kotparmahant- C	Operational	58,926	3	25,410.00
27	Raisen	Bareilly	Kotparmahant- 2	New	12,248	3	69,300.00
28	Raisen	Bareilly	Aliganj	Non-Operational	1,65,600	3	84,966.00
29	Raisen	Bareilly	Aliganj- 1	New	73,800	3	1,57,500.00
30	Raisen	Bareilly	Seoni	Non-Operational	4,050	3	8,505.00
31	Raisen	Bareilly	Seoni- 1	New	1,43,100	3	3,15,000.00
32	Raisen	Udaipura	Ketudhan- A	Non-Operational	20,475	3	50,988.00
33	Raisen	Udaipura	Ketudhan- B	Non-Operational	33,075	3	50,988.00
34	Raisen	Udaipura	Ketudhan- C	Non-Operational	21,375	3	50,988.00
35	Raisen	Udaipura	Ketudhan- D	Operational	33,075	3	50,988.00
36	Raisen	Udaipura	Ketudhan- 1	New	68,175	3	1,08,150.00
37	Raisen	Udaipura	Ketudhan- 2	New	27,000	3	63,000.00
38	Raisen	Udaipura	Mohadkala	New	23,400	3	64,050.00
39	Raisen	Udaipura	Sultanpur	New	56,025	3	1,05,000.00
40	Raisen	Udaipura	Boras	Operational	24,975	3	42,483.00
41	Raisen	Udaipura	Boras- 1	New	68,400	3	84,000.00

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

District Survey Report: Raisen

42	Raisen	Udaipura	Andhya	Non-Operational	1,07,325	3	3,15,000.00
43	Raisen	Udaipura	Kelkachh- A	Non-Operational	34,200	3	76,482.00
44	Raisen	Udaipura	Kelkachh- B	Non-Operational	35,100	3	76,482.00
45	Raisen	Udaipura	Kelkachh- C	Non-Operational	34,200	3	76,482.00
46	Raisen	Udaipura	Kelkachh- D	Non-Operational	13,275	3	50,988.00
47	Raisen	Udaipura	Kelkachh- 1	New	1,60,425	3	3,36,000.00
48	Raisen	Udaipura	Kelkachh- 2	New	79,200	3	1,76,400.00
49	Raisen	Deori	Patai	New	2,55,600	3	5,04,000.00
50	Raisen	Deori	Pipaliya Khurd (Richhawar)	New	60,075	3	1,05,000.00
51	Raisen	Deori	Nayakheda	New	17,550	3	16,989.00
52	Raisen	Deori	Nayakheda- 1	New	59,850	3	1,32,090.00
53	Raisen	Deori	Nayakheda- 2	New	10,105	3	14,910.00
54	Raisen	Raisen	Berkhedi Ghat	New	5,400	3	16,170.00
55	Raisen	Raisen	Tijalpur	New	8,400	3	8,400.00
56	Raisen	Raisen	Barla	New	9,900	3	9,900.00


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

District Survey Report: Raisen

Table 19 Sand Mining Area based on Post Monsoon Map

List of Sand Mines, District- Raisen							
Sl. No.	District	Tehsil	Name of Mines	Mines Status	Post-Monsoon Area Based on Satellite Data		
				Status	Total Area in sqm	Standard Depth in meters	Sand Mines Capacity (Cubic meters)
1	Raisen	Badi	Bharkatchkala	New	1,41,525	3	3,60,000.00
2	Raisen	Badi	Bhouti	New	59,625	3	60,000.00
3	Raisen	Badi	Goramachuvai- 5	New	61,200	3	90,000.00
4	Raisen	Badi	Goramachuvai- 1	Operational	1,23,300	3	3,00,000.00
5	Raisen	Badi	Goramachuvai	Non-Operational	9,000	3	24,270.00
6	Raisen	Badi	Goramachuvai- 2	Operational	2,62,575	3	6,00,000.00
7	Raisen	Badi	Goramachuvai- 3	New	1,26,000	3	2,70,000.00
8	Raisen	Badi	Goramachuvai- 4	New	8,75,925	3	16,20,000.00
9	Raisen	Badi	Biser	Non-Operational	19,757	3	30,000.00
10	Raisen	Badi	Biser- 1	New	76,725	3	1,68,000.00
11	Raisen	Badi	Sankheda- 1	New	36,675	3	90,000.00
12	Raisen	Badi	Sankheda	Non-Operational	1,59,975	3	4,50,000.00
13	Raisen	Bareli	Motalsir	Non-Operational	1,32,300	3	1,20,000.00
14	Raisen	Bareli	Satravan- 1	New	1,79,100	3	4,20,000.00
15	Raisen	Bareli	Satravan	Non-Operational	58,500	3	79,800.00
16	Raisen	Bareli	Muar	New	23,558	3	1,50,000.00
17	Raisen	Bareli	Ghatpipariya- 3	New	79,650	3	2,40,000.00
18	Raisen	Bareli	Ghatpipariya- 1	Non-Operational	45,675	3	1,48,500.00
19	Raisen	Bareli	Ghatpipariya- 2	Non-Operational	31,275	3	1,20,000.00



State Level Environmental Impact
Assessment Authority, M.P.
(EPCO) 67
Paryavaran Parisar
E-5, Arera Colony, Bhopal (M.P.)

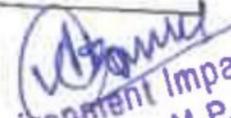
District Survey Report: Raisen

20	Raisen	Bareilly	Ghatpipariya- 4	New	19,350	3	90,000.00
21	Raisen	Bareilly	Sojani	Non-Operational	1,25,100	3	6,00,000.00
22	Raisen	Bareilly	Dhabla	New	93,375	3	3,90,000.00
23	Raisen	Bareilly	Kotparmahant- 1	New	63,450	3	1,80,000.00
24	Raisen	Bareilly	Kotparmahant- A	Non-Operational	57,375	3	3,00,000.00
25	Raisen	Bareilly	Kotparmahant- B	Operational	9,675	3	1,20,000.00
26	Raisen	Bareilly	Kotparmahant- C	Operational	52,675	3	36,300.00
27	Raisen	Bareilly	Kotparmahant- 2	New	11,672	3	99,000.00
28	Raisen	Bareilly	Aliganj	Non-Operational	32,625	3	1,21,380.00
29	Raisen	Bareilly	Aliganj- 1	New	77,625	3	2,25,000.00
30	Raisen	Bareilly	Seoni	Non-Operational	3,825	3	12,150.00
31	Raisen	Bareilly	Seoni- 1	New	1,39,275	3	4,50,000.00
32	Raisen	Udaipura	Ketudhan- A	Non-Operational	13,950	3	72,840.00
33	Raisen	Udaipura	Ketudhan- B	Non-Operational	19,800	3	72,840.00
34	Raisen	Udaipura	Ketudhan- C	Non-Operational	23,175	3	72,840.00
35	Raisen	Udaipura	Ketudhan- D	Operational	34,425	3	72,840.00
36	Raisen	Udaipura	Ketudhan- 1	New	58,050	3	1,54,500.00
37	Raisen	Udaipura	Ketudhan- 2	New	31,275	3	90,000.00
38	Raisen	Udaipura	Mohadkala	New	30,375	3	91,500.00
39	Raisen	Udaipura	Sultanganj	New	53,325	3	1,50,000.00
40	Raisen	Udaipura	Boras	Operational	25,650	3	60,690.00
41	Raisen	Udaipura	Boras- 1	New	67,050	3	1,20,000.00
42	Raisen	Udaipura	Andiya	Non-Operational	1,12,950	3	4,50,000.00
43	Raisen	Udaipura	Kelkachh- A	Non-Operational	35,100	3	1,09,260.00

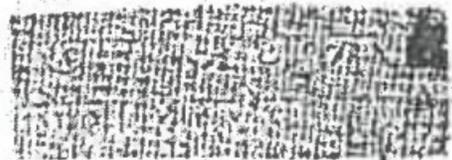

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 Assessment Authority, M.P.
 (EPCO)
 Paryavaran Parisar
 E-5, Arera Colony, Bhopal (M.P.)

District Survey Report: Raisen

44	Raisen	Udaipur	Kelkachh- B	Non-Operational	36,675	3	1,09,260.00
45	Raisen	Udaipura	Kelkachh- C	Non-Operational	32,400	3	1,09,260.00
46	Raisen	Udaipura	Kelkachh- D	Non-Operational	13,950	3	72,840.00
47	Raisen	Udaipura	Kelkachh- 1	New	1,61,100	3	4,80,000.00
48	Raisen	Udaipura	Kelkachh- 2	New	84,350	3	2,52,000.00
49	Raisen	Deori	Patai	New	2,46,600	3	7,20,000.00
50	Raisen	Deori	Pipaliya Khurd (Richhawar)	New	67,050	3	1,50,000.00
51	Raisen	Deori	Nayakheda	New	19,350	3	24,270.00
52	Raisen	Deori	Nayakheda- 1	New	63,450	3	1,88,700.00
53	Raisen	Deori	Nayakheda- 2	New	10,575	3	21,300.00
54	Raisen	Raisen	Berkhedi Ghat	New	5,400	3	23,100.00
55	Raisen	Raisen	Tijalpur	New	3,375	3	12,000.00
56	Raisen	Raisen	Barla	New	2,475	3	9,900.00


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

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कार्यालय कलेक्टर, (खनिज शाखा), जिला रायसेन (म0प्र0)

क्रमांक / / खनिज / 2022

रायसेन, दिनांक

प्रति,

सदस्य सचिव
राज्य स्तरीय पर्यावरण समाघात
निर्धारण प्राधिकरण (SEIAA)
ई-5, पर्यावरण परिसर, अरेरा कॉलोनी
भोपाल (म0प्र0)

विषय:- जिला रायसेन की संशोधित जिला सर्वेक्षण रिपोर्ट (D.S.R) में टंकण त्रुटि का सुधार कर पुनः जमा करने विषयक।

संदर्भ:- संचालक, प्रशासन एवं खनिकर्म, संचालनालय भौमिकी तथा खनिकर्म भोपाल का पत्र क्रमांक 2981 / खनिज / विविध / न.क. / 2022 भोपाल दिनांक 03.03. 2022

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उपरोक्त विषयांतर्गत संदर्भित पत्र के पालन में जिला रायसेन हेतु तैयार प्रारूप जिला सर्वेक्षण रिपोर्ट (D.S.R) में संशोधन उपरांत अनुमोदन गठित समिति द्वारा किया गया है। उक्त गठित समिति द्वारा अनुमोदित जिला सर्वेक्षण रिपोर्ट (D.S.R) टंकण त्रुटि होने से पृष्ठ क्रमांक 67, 68, 69, 71, 72 एवं 73 में सुधार कर पुनः जिला सर्वेक्षण रिपोर्ट (D.S.R) में संलग्न करने हेतु प्रेषित है।

उक्त जिला सर्वेक्षण रिपोर्ट (D.S.R) आम जनों के सुझाव हेतु पोर्टल पर उपलब्ध कराई गई थी। जिनमें 03 व्यक्तियों के सुझाव प्राप्त हुए, जिनका समायोजन जिला सर्वेक्षण रिपोर्ट (D.S.R) में किया गया।

संलग्न:- उपरोक्तानुसार

पू. क्रमांक / 298 / खनिज / 2022

रायसेन दिनांक

प्रतिलिपि :- राज्य स्तरीय विशेषज्ञ आंकलन समिति (SEAC) भोपाल ओर सूचनार्थ।

खनि अधिकारी
जिला रायसेन

खनि अधिकारी
जिला रायसेन

District Survey Report: Raisen

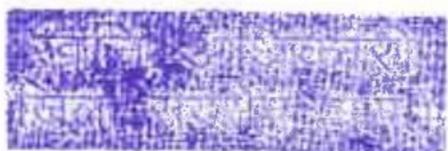
Table 20 Sand Mining Area based on Pre-Monsoon Map

List of Sand Mines, Dist.- Raisen							
Sr. No.	District	Tehsil	Name of Mines	Mines Status	Pre-Monsoon Area Based on Satellite Data		
				Status	Total Area in sqm	Standard Depth in meters	Sand Mines Capacity (Cubic meters)
1	Raisen	Badi	Bharkatchkala	New	1,38,150	3	2,52,000.00
2	Raisen	Badi	Bhouti	New	57,600	3	42,000.00
3	Raisen	Badi	Goramachuvai- 5	New	57,600	3	63,000.00
4	Raisen	Badi	Goramachuvai- 1	Operational	1,24,875	3	2,10,000.00
5	Raisen	Badi	Goramachuvai	Non-Operational	8,550	3	16,989.00
6	Raisen	Badi	Goramachuvai- 2	Operational	2,46,150	3	4,20,000.00
7	Raisen	Badi	Goramachuvai- 3	New	1,21,950	3	1,89,000.00
8	Raisen	Badi	Goramachuvai- 4	New	7,64,775	3	11,34,000.00
9	Raisen	Badi	Biser	Non-Operational	18,900	3	21,000.00
10	Raisen	Badi	Biser- 1	New	72,675	3	1,17,600.00
11	Raisen	Badi	Sankheda- 1	New	36,450	3	63,000.00
12	Raisen	Badi	Sankheda	Non-Operational	1,81,350	3	3,15,000.00
13	Raisen	Bareli	Motalsir	Non-Operational	1,27,800	3	84,000.00
14	Raisen	Bareli	Satravan- 1	New	1,76,850	3	2,94,000.00
15	Raisen	Bareli	Satravan	Non-Operational	56,700	3	55,860.00
16	Raisen	Bareli	Muar	New	26,593	3	1,05,000.00
17	Raisen	Bareli	Ghatpipariya- 3	New	84,150	3	1,68,000.00
18	Raisen	Bareli	Ghatpipariya- 1	Non-Operational	48,600	3	1,03,950.00
19	Raisen	Bareli	Ghatpipariya- 2	Non-Operational	38,025	3	84,000.00
20	Raisen	Bareli	Ghatpipariya- 4	New	22,275	3	63,000.00

(Signature)
 State Level Environment Impact
 Assessment Authority, M.P.
 (EPCO) 71
 Paryavaran Parisar
 E-5, Arera Colony, Bhopal (M.P.)

District Survey Report: Raisen

21	Raisen	Bareli	Sojani	Non-Operational	1,88,325	3	4,20,000.00
22	Raisen	Bareli	Dhabla	New	91,350	3	2,73,000.00
23	Raisen	Bareli	Kotparmahant- 1	New	81,000	3	1,26,000.00
24	Raisen	Bareli	Kotparmahant- A	Non-Operational	76,050	3	2,10,000.00
25	Raisen	Bareli	Kotparmahant- B	Operational	9,000	3	84,000.00
26	Raisen	Bareli	Kotparmahant- C	Operational	58,926	3	25,410.00
27	Raisen	Bareli	Kotparmahant- 2	New	12,248	3	69,300.00
28	Raisen	Bareli	Aliganj	Non-Operational	1,65,600	3	84,966.00
29	Raisen	Bareli	Aliganj- 1	New	73,800	3	1,57,500.00
30	Raisen	Bareli	Seoni	Non-Operational	4,050	3	8,505.00
31	Raisen	Bareli	Seoni- 1	New	1,43,100	3	3,15,000.00
32	Raisen	Udaipura	Ketudhan- A	Non-Operational	20,475	3	50,988.00
33	Raisen	Udaipura	Ketudhan- B	Non-Operational	33,075	3	50,988.00
34	Raisen	Udaipura	Ketudhan- C	Non-Operational	21,375	3	50,988.00
35	Raisen	Udaipura	Ketudhan- D	Operational	33,075	3	50,988.00
36	Raisen	Udaipura	Ketudhan- 1	New	68,175	3	1,08,150.00
37	Raisen	Udaipura	Ketudhan- 2	New	27,000	3	63,000.00
38	Raisen	Udaipura	Mohadkala	New	23,400	3	64,050.00
39	Raisen	Udaipura	Sultanganj	New	56,025	3	1,05,000.00
40	Raisen	Udaipura	Boras	Operational	24,975	3	42,483.00
41	Raisen	Udaipura	Boras- 1	New	68,400	3	84,000.00




 State Level Environment Impact
 Assessment Authority, M.P.
 (EPCO) 72
 Paryavaran Parisar
 E-5, Arera Colony, Bhopal (M.P.)

District Survey Report: Raisen

42	Raisen	Udaipura	Andiya	Non-Operational	1,07,325	3	3,15,000.00
43	Raisen	Udaipura	Kelkachh- A	Non-Operational	34,200	3	76,482.00
44	Raisen	Udaipura	Kelkachh- B	Non-Operational	35,100	3	76,482.00
45	Raisen	Udaipura	Kelkachh- C	Non-Operational	34,200	3	76,482.00
46	Raisen	Udaipura	Kelkachh- D	Non-Operational	13,275	3	50,988.00
47	Raisen	Udaipura	Kelkachh- 1	New	1,60,425	3	3,36,000.00
48	Raisen	Udaipura	Kelkachh- 2	New	79,200	3	1,76,400.00
49	Raisen	Deori	Patai	New	2,55,600	3	5,04,000.00
50	Raisen	Deori	Pipaliya Khurd (Richhawar)	New	60,075	3	1,05,000.00
51	Raisen	Deori	Nayakheda	New	17,550	3	16,989.00
52	Raisen	Deori	Nayakheda- 1	New	59,850	3	1,32,090.00
53	Raisen	Deori	Nayakheda- 2	New	10,105	3	14,910.00
54	Raisen	Raisen	Berkhedi Ghat	New	5,400	3	16,170.00
55	Raisen	Raisen	Tijalpur	New	8,400	3	8,400.00
56	Raisen	Raisen	Barla	New	9,900	3	9,900.00

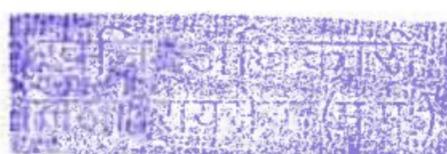

 State Level Environment Impact
 Assessment Authority, M.P.
 (EPCO)
 Paryavaran Parisar
 E-5, Arera Colony, Bhopal (M.P.)



District Survey Report: Raisen

Table 19 Sand Mining Area based on Post Monsoon Map

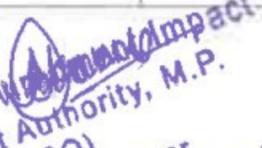
List of Sand Mines, District- Raisen							
Sl. No.	District	Tehsil	Name of Mines	Mines Status	Post-Monsoon Area Based on Satellite Data		
				Status	Total Area in sqm	Standard Depth in meters	Sand Mines Capacity (Cubic meters)
1	Raisen	Badi	Bharkatchkala	New	1,41,525	3	3,60,000.00
2	Raisen	Badi	Bhouti	New	59,625	3	60,000.00
3	Raisen	Badi	Goramachuvai- 5	New	61,200	3	90,000.00
4	Raisen	Badi	Goramachuvai- 1	Operational	1,23,300	3	3,00,000.00
5	Raisen	Badi	Goramachuvai	Non-Operational	9,000	3	24,270.00
6	Raisen	Badi	Goramachuvai- 2	Operational	2,62,575	3	6,00,000.00
7	Raisen	Badi	Goramachuvai- 3	New	1,26,000	3	2,70,000.00
8	Raisen	Badi	Goramachuvai- 4	New	8,75,925	3	16,20,000.00
9	Raisen	Badi	Biser	Non-Operational	19,757	3	30,000.00
10	Raisen	Badi	Biser- 1	New	76,725	3	1,68,000.00
11	Raisen	Badi	Sankheda- 1	New	36,675	3	90,000.00
12	Raisen	Badi	Sankheda	Non-Operational	1,59,975	3	4,50,000.00
13	Raisen	Bareli	Motalsir	Non-Operational	1,32,300	3	1,20,000.00
14	Raisen	Bareli	Satravan- 1	New	1,79,100	3	4,20,000.00
15	Raisen	Bareli	Satravan	Non-Operational	58,500	3	79,800.00
16	Raisen	Bareli	Muar	New	23,558	3	1,50,000.00
17	Raisen	Bareli	Ghatpipariya- 3	New	79,650	3	2,40,000.00
18	Raisen	Bareli	Ghatpipariya- 1	Non-Operational	45,675	3	1,48,500.00
19	Raisen	Bareli	Ghatpipariya- 2	Non-Operational	31,275	3	1,20,000.00

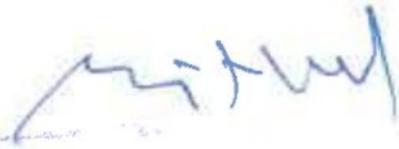


State Level Environmental Impact Assessment Authority, M.P. (EPCO) 67
 Paryavaran Parisar
 E-5, Arera Colony, Bhopal (M.P.)

District Survey Report: Raisen

44	Raisen	Udaipura	Kelkachh- B	Non-Operational	36,675	3	1,09,260.00
45	Raisen	Udaipura	Kelkachh- C	Non-Operational	32,400	3	1,09,260.00
46	Raisen	Udaipura	Kelkachh- D	Non-Operational	13,950	3	72,840.00
47	Raisen	Udaipura	Kelkachh- 1	New	1,61,100	3	4,80,000.00
48	Raisen	Udaipura	Kelkachh- 2	New	84,350	3	2,52,000.00
49	Raisen	Deori	Patai	New	2,46,600	3	7,20,000.00
50	Raisen	Deori	Pipaliya Khurd (Richhawar)	New	67,050	3	1,50,000.00
51	Raisen	Deori	Nayakheda	New	19,350	3	24,270.00
52	Raisen	Deori	Nayakheda- 1	New	63,450	3	1,88,700.00
53	Raisen	Deori	Nayakheda- 2	New	10,575	3	21,300.00
54	Raisen	Raisen	Berkhedi Ghat	New	5,400	3	23,100.00
55	Raisen	Raisen	Tijalpur	New	3,375	3	12,000.00
56	Raisen	Raisen	Barla	New	2,475	3	9,900.00


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




District Survey Report: Raisen

20	Raisen	Bareli	Ghatpipariya- 4	New	19,350	3	90,000.00
21	Raisen	Bareli	Sojani	Non-Operational	1,25,100	3	6,00,000.00
22	Raisen	Bareli	Dhabla	New	93,375	3	3,90,000.00
23	Raisen	Bareli	Kotparmahant- 1	New	63,450	3	1,80,000.00
24	Raisen	Bareli	Kotparmahant- A	Non-Operational	57,375	3	3,00,000.00
25	Raisen	Bareli	Kotparmahant- B	Operational	9,675	3	1,20,000.00
26	Raisen	Bareli	Kotparmahant- C	Operational	52,675	3	36,300.00
27	Raisen	Bareli	Kotparmahant- 2	New	11,672	3	99,000.00
28	Raisen	Bareli	Aliganj	Non-Operational	32,625	3	1,21,380.00
29	Raisen	Bareli	Aliganj- 1	New	77,625	3	2,25,000.00
30	Raisen	Bareli	Seoni	Non-Operational	3,825	3	12,150.00
31	Raisen	Bareli	Seoni- 1	New	1,39,275	3	4,50,000.00
32	Raisen	Udaipura	Ketudhan- A	Non-Operational	13,950	3	72,840.00
33	Raisen	Udaipura	Ketudhan- B	Non-Operational	19,800	3	72,840.00
34	Raisen	Udaipura	Ketudhan- C	Non-Operational	23,175	3	72,840.00
35	Raisen	Udaipura	Ketudhan- D	Operational	34,425	3	72,840.00
36	Raisen	Udaipura	Ketudhan- 1	New	58,050	3	1,54,500.00
37	Raisen	Udaipura	Ketudhan- 2	New	31,275	3	90,000.00
38	Raisen	Udaipura	Mohadkala	New	30,375	3	91,500.00
39	Raisen	Udaipura	Sultanganj	New	53,325	3	1,50,000.00
40	Raisen	Udaipura	Boras	Operational	25,650	3	60,690.00
41	Raisen	Udaipura	Boras- 1	New	67,050	3	1,20,000.00
42	Raisen	Udaipura	Andiya	Non-Operational	1,12,950	3	4,50,000.00
43	Raisen	Udaipura	Kelkachh- A	Non-Operational	35,100	3	1,09,260.00




State Level Environmental Impact Assessment Authority, M.P.
 (EIAA)
 Prakash Chandra Pariser
 E-5, A. U. Colony, Bhopal (M.P.) 462 008



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: 318 / SEIAA/2022

Date: 5/5/22

प्रति,

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

विषय: जिला रायसेन की नवीन जिला सर्वेक्षण रिपोर्ट के परीक्षण बावत्।

संदर्भ: कलेक्टर, रायसेन के पत्र क्र. 250/खनिज/2022 दिनांक 02.05.2022।

उपरोक्त विषयांतर्गत संदर्भ में लेख है कि पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय, भारत सरकार की अधिसूचना 15 जनवरी 2016 व 25 जुलाई 2018 एवं Sustainable Sand Mining Guidelines 2016 तथा Enforcement and Monitoring Guideline for Sand 2020 (www.moef.gov.in पर उपलब्ध) के परिपेक्ष्य में माननीय राष्ट्रीय हरित अधिकरण, नई दिल्ली के ओ.ए. 456/2018, 726/2018 में दिनांक 04.11.2020 में दिये गये दिशा-निर्देशों के परिपालन में जिला कलेक्टर, जिला - रायसेन की अनुशंसा उपरांत जिला सर्वेक्षण रिपोर्ट उपसंभागीय समिति की अनुशंसा एवं जिला पोर्टल पर 21 दिवस की कार्यवाही पूर्ण कर SEAC समिति के परीक्षण एवं SEIAA कार्यालय को अनुमोदन हेतु प्राप्त हुई है।

हाल ही में माननीय उच्चतम न्यायालय द्वारा अपील क्र. 3661-3662/2020 में पारित आदेश दिनांक 10.11.2021 के परिपालन में खनिज साधन विभाग/जिला स्तर पर जिला सर्वेक्षण रिपोर्ट तैयार करने एवं SEAC द्वारा परीक्षण उपरांत SEIAA से अनुमोदन की निर्धारित प्रक्रिया एवं मापदंडों के परिपालन में उपरोक्त जिले की जिला सर्वेक्षण रिपोर्ट का यथाशीघ्र परीक्षण कर तदानुसार अनुमोदन हेतु प्रेषित करें।

संलग्न-उपरोक्तानुसार

(श्रीमन् शुक्ला)
सदस्य सचिव

क्र. /SEIAA/2022 भोपाल दिनांक

प्रतिलिपि :-

1. संचालक, प्रशासन/तकनीकी, संचालनालय, भौमिकी तथा खनिकर्म, 29-ए, खनिज भवन, अरेरा हिल्स, भोपाल (म.प्र.) की ओर सूचनार्थ।
2. जिला कलेक्टर, जिला रायसेन की सूचनार्थ।

SSO(SEAC)

सदस्य सचिव

कार्यालय कलेक्टर, (खनिज शाखा), जिला रायसेन (म0प्र0)

क्रमांक / 250 / खनिज / 2022

रायसेन, दिनांक 02/05/2022

प्रति,

सदस्य सचिव
राज्य स्तरीय पर्यावरण समाघात
निर्धारण प्राधिकरण (SEIAA)
ई-5, पर्यावरण परिसर, अरेरा कॉलोनी
भोपाल (म0प्र0)

विषय:- जिला रायसेन की संशोधित जिला सर्वेक्षण रिपोर्ट (D.S.R) प्रेषित किये जाने बावत्।

संदर्भ:- संचालक, प्रशासन एवं खनिकर्म, संचालनालय भौमिकी तथा खनिकर्म भोपाल
का पत्र क्रमांक 2981 / खनिज / विविध / न.क. / 2022 भोपाल दिनांक 03.03.2022

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उपरोक्त विषयांतर्गत संदर्भित पत्र के पालन में जिला रायसेन हेतु तैयार प्रारूप जिला सर्वेक्षण रिपोर्ट (D.S.R) में संशोधन उपरांत अनुमोदन गठित समिति द्वारा किया गया है। उक्त गठित समिति द्वारा अनुमोदित जिला सर्वेक्षण रिपोर्ट (D.S.R) मूलतः आवश्यक कार्यवाही हेतु प्रेषित है।

संलग्न:-1. जिला सर्वेक्षण रिपोर्ट (D.S.R)
2. गठित समिति का कार्यवाही विवरण।

कलेक्टर
जिला रायसेन

2377

PF (CS) / PFC AS
examined ✓ OA (S)
P/ post up.
4/5/22

State Level Environment Impact
Assessment Authority, M.P.
(EPCO)
Receipt No. 298
Date 4/5/22

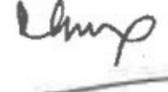
जिला सर्वेक्षण रिपोर्ट के संबंध में बैठक दिनांक 29.04.2022

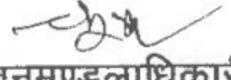
का कार्यवाही विवरण

आज दिनांक 29.04.2022 को In Situ Enviro Care पता:- ई-7/829, अरेरा कालोनी, शाहपुरा, भोपाल द्वारा प्रस्तुत संशोधित जिला सर्वेक्षण रिपोर्ट (DSR) के परीक्षण हेतु गठित समिति की बैठक आयोजित की गई। उक्त बैठक में प्रस्तुत संशोधित जिला सर्वेक्षण रिपोर्ट (DSR) में उल्लेखित बिन्दुओं का अवलोकन कर चर्चा की गयी। जिला सर्वेक्षण रिपोर्ट के संबंध में प्रारूप जिला सर्वेक्षण रिपोर्ट (DSR) को आमजनों के सुझाव, दावें एवं आपत्तियों हेतु पब्लिक डोमेन (पोर्टल) पर उपलब्ध कराने के पश्चात् कुल तीन सुझाव एवं आपत्तियों कमशः रोहित शर्मा, अंकित अकोडिया एवं अभिमन्यु द्वारा खनिज कार्यालय रायसेन को प्राप्त हुई। आज की बैठक में समिति द्वारा प्राप्त हुये सुझाव एवं आपत्तियों पर विस्तृत चर्चा उपरांत निराकरण किया गया जोकि पृथक से कार्यवाही विवरण के साथ परिशिष्ट-अ, परिशिष्ट-ब एवं परिशिष्ट-स के रूप में संलग्न है। उपस्थित सभी सदस्यों द्वारा सर्वसम्मति से जिला सर्वेक्षण रिपोर्ट (DSR) का अनुमोदन किया गया। अनुमोदन उपरांत गठित समिति द्वारा अनुमोदित जिला सर्वेक्षण रिपोर्ट (DSR) आगामी कार्यवाही हेतु कलेक्टर महोदय को प्रेषित किये जाने का निर्णय लिया गया।

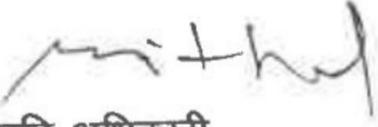

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जिला-रायसेन


अनुविभागीय अधिकारी
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जिला-रायसेन

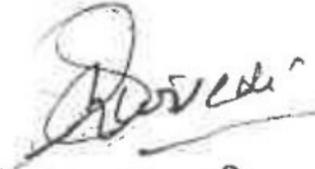

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अनुभाग-रायसेन
जिला-रायसेन


उप वनमण्डलाधिकारी
देवरी
जिला-रायसेन


अनुविभागीय अधिकारी (रा.)
अनुभाग-बरेली
जिला-रायसेन


खनि अधिकारी
जिला-रायसेन


उप वनमण्डलाधिकारी
सा0 वनमण्डल रायसेन
जिला-रायसेन


नामांकित अधिकारी
क्षे.का. म.प्र. प्रदूषण नियंत्रण
बोर्ड. मण्डीदीप-रायसेन

DISTRICT SURVEY REPORT

DISTRICT: RAISEN
MADHYA PRADESH

*(AS PER NOTIFICATION OF MINISTRY OF ENVIRONMENT, FOREST
AND CLIMATE CHANGE, GOVT. OF INDIA, NEW DELHI, NO. S. O.
141(E), THE 15TH JANUARY, 2016)*


State Level Environment Impact
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C-5, Arera Colony, Bhopal (M.P.)




MINING OFFICER

DISTRICT RAISEN

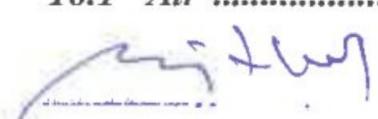
MINERAL RESOURCE DEPARTMENT,

GOVT. OF M P, BHOPAL, M.P.

District Survey Report: Raisen

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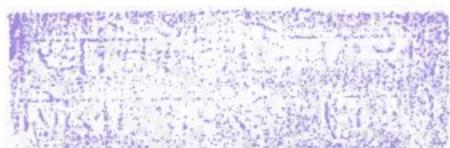
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1. Introduction

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.

The process of making a DSR includes:

- Collection of baseline data from the department.
- Development of related maps from satellite and secondary sources.
- Understanding river flows and sedimentation vis-à-vis sand mining.
- Tabulation and mapping of existing sand mining locations and yield.
- Correlation with satellite data for pre and post monsoon sand yield.
- Suggesting new locations for sand mining approvals.
- Design and Development of DSR as per MoEF guidelines.
- Interaction with line department for data / document ownership.

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.



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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 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.
- Constantly monitor mining with drones and night surveillance of mining activity through night-vision drones.
- Audits: States to carry out river audits 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



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administrations are often not comprehensive enough, allowing space for illegal mining.

Raisen district is lying in the central part of Madhya Pradesh. It comes in Bhopal Commissioner's Division and is well connected by roads and railway. National Highway 67, connecting Bhopal and Sagar passes through the district. There are 10 tehsils and 7 blocks in the district. Namely tehsils are Raisen, Gairatganj, Begamganj, Silwani, Goharganj, Sultanpur, Badi, Bareli, Udaipura and Deori. And the block headquarters are Sanchi, Gairatganj, Begamganj, Obaidullahganj, Bareli, Silwani and Udaipur. Raisen district with an area of 16974 kms lying between the North Latitudes $22^{\circ} 45' 00''$ and $23^{\circ} 45' 00''$ and East Longitudes $77^{\circ} 21' 00''$ and $78^{\circ} 49' 00''$ and falls under the Survey of India Toposheet No. 55 E, F, I and J. It is enclaved by Vidisha district in north, Sagar district in northeast, Narsinghpur, Hoshangabad and Sehore district in south and Bhopal district in the west. The Narmada River flowing along the southeastern boundary of the district, detached it from the Narsinghpur and Hoshangabad district boundaries.

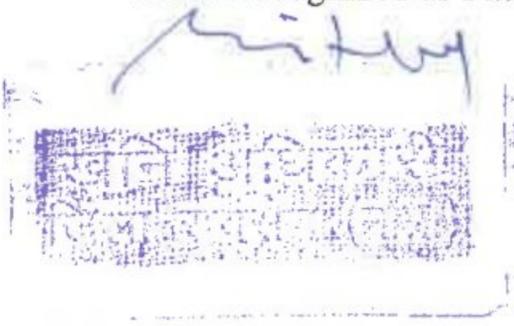
Location and Boundaries:

Raisen District lies in the central part of Madhya Pradesh. The District is situated between the latitude $22^{\circ} 47'$ and $23^{\circ} 33'$ north and the longitude $77^{\circ} 21'$ and $78^{\circ} 49'$ east. It is bounded in the west by Sehore district, in the north by Vidisha district, in the east and south-east by Sagar district, in the south-east by Narsinghpur district, and in the south by Hoshangabad and Sehore district. The total area of the District is 8,395 sq.kms., which contains the 1.93 % of the State's area.

Origin of the Name:

Raisen District takes its name from massive Fort. This fort is build on a sandstone hill, at the foot of which settles the town. The name is probably a corruption of Rajavasini or Rajasayan, the royal residence.

History: Raisen with a strong fort was an important centre of administration from the period of its foundation from Hindu times. In the fifteenth this fort was ruled by the Sultans of Mandu, from whom it passed to the Rajputs. In 1543 Shershah Suri captured from Purnamal. In Akbar's time Raisen was the Headquarter of a Sarkar in the Subah of Ujjain in Malwa. Fiaz Mohammad Khan, the third Nawab of Bhopal State occupied it in about 1760, later got himself recognized as Faujdar of Raisen by Emperor Alamgir II.



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District Survey Report: Raisen

During the Mugal period Khamkhera was the Headquarter of the area noe falls in Gairatganj Tehsil. It receives its present name during the same Mugal rule. Shahpur was the Headquarter of the Pargana. Later on it was shifted to Sagoni, which falls in Begamganj Tehsil.

After Bhopal State became a part 'C' State of the Union of India, the present district came into existence on 5th May, 1950, with headquarter at Raisen. It was decided to retain only seven Tehsils in the district.

Table 1 Administrative Setup of the District

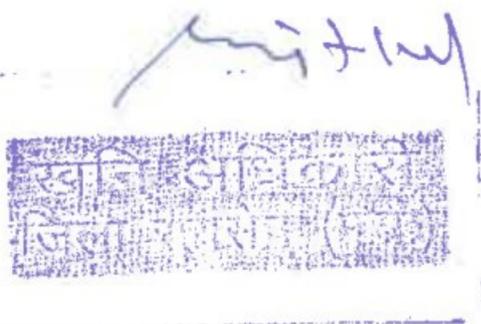
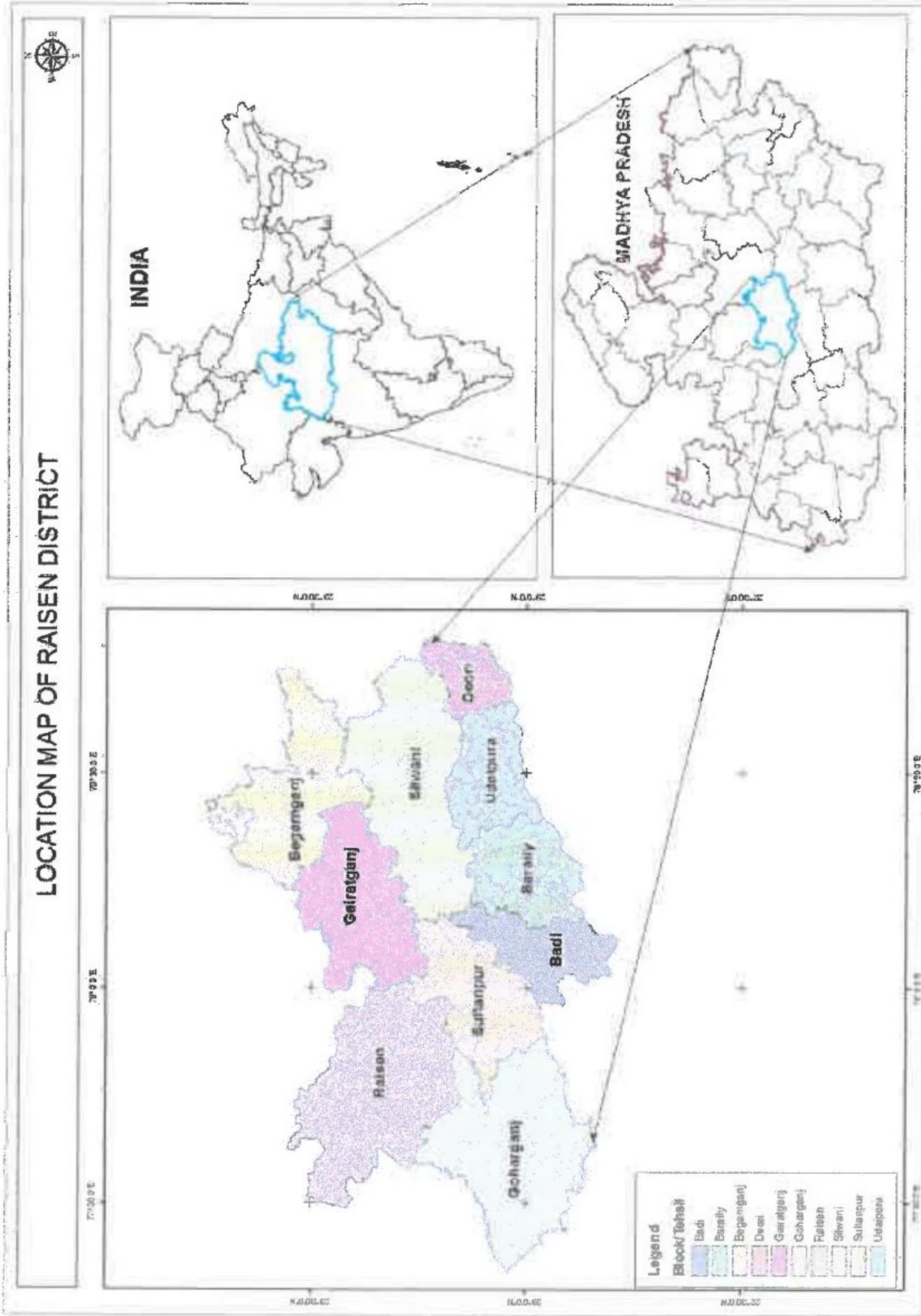
DISTRICT	BLOCK/TEHSIL
Raisen	Badi
	Bareli
	Begumganj
	Gairatganj
	Goharganj
	Raisen
	Silwani
	Sultanpur
	Udaipur
	Deori


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District Survey Report: Raisen

1.1 Location of the District



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Figure 1 Location Map of the District

District Survey Report: Raisen

2. Overview of Mining Activities in the District

The mineral found in Raisen include Sandstone and China Clay. The major industries established in Raisen are for Zinc Ingots Galena. The raw material is acquired from other localities since no Economic mineral is found in this district. Minor minerals found in Raisen are mainly Gitti, Brick, Murrum, Flagstone and Sand. Also, as per the guidelines, if sand is deposited in agricultural land, the owner can sell the sand as per his will and this shall be acceptable as per the law.

Table 2 Minor Minerals Mining in the District

S. No.	Mineral	No. of Leases	Total Area (Hectare)	Production of Minerals (In cu.m)
1	Gitti/Black Stone (Basalt)	119	275.882	118144923.00
2	Brick/ Soil	25	54.993	3709608.00
3	Murrum	12	21.816	2007037.00
4	Flagstone	15	33.544	6150553.00
5	Sand	56	388.928	462138.42
	Total	227	775.163 Ha (i.e.7.75 sq. kms)	130474259.42 cu.m

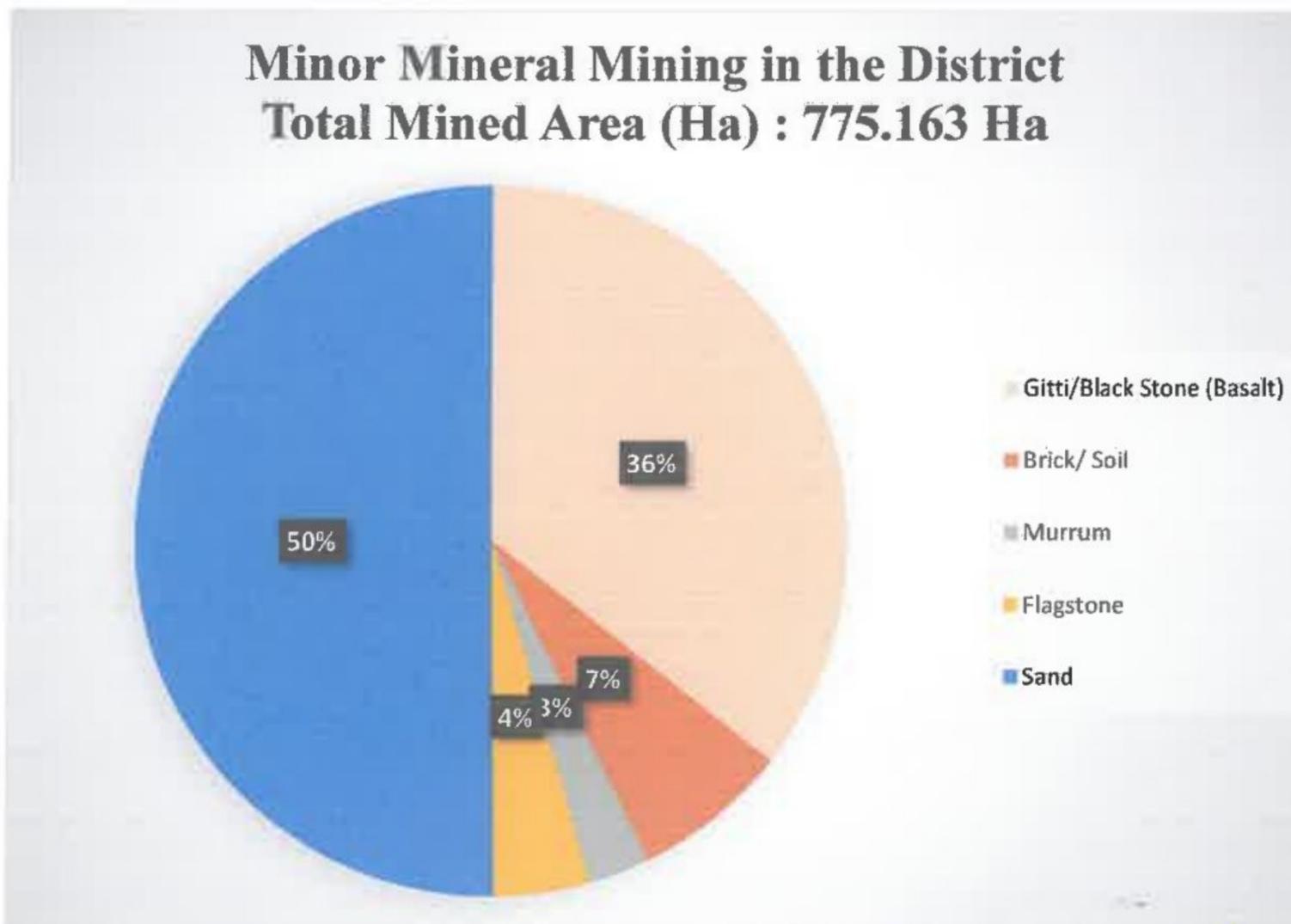


Figure 2 Area Breakup for Minor Mineral Mining in the District



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Table 3 Sand Deposits in the District

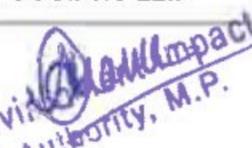
S.No.	Tehsil	Sand Mine Area	Khasra No.	Area in Ha.
1	Badi	Bharkatchkala	614	12.000
2		Bhouti	104	2.000
3		Goramachuvai- 5	392	3.000
4		Goramachuvai- 1	404	10.000
5		Goramachuvai	475	0.809
6		Goramachuvai- 2	475	20.00
7		Goramachuvai- 3	475	9.000
8		Goramachuvai- 4	468	54.000
9		Biser	242	1.000
10		Biser- 1	194	5.600
11		Sankheda- 1	405	3.000
12		Sankheda	405	15.000
13	Bareli	Motalsir	551	4.000
14		Satravan- 1	225/1	14.000
15		Satravan	305	2.660
16		Muar	73	5.000
17		Ghatpipariya- 3	306	8.000
18		Ghatpipariya- 1	306	4.950
19		Ghatpipariya- 2	299	4.000
20		Ghatpipariya- 4	299	3.000
21		Sojani	235	20.000
22		Dhabla	259	13.000
23		Kotparmahant- 1	51	6.000
24		Kotparmahant- A	51	10.000
25		Kotparmahant- B	187	4.000
26		Kotparmahant- C	187	1.210
27		Kotparmahant- 2	187	3.300
28		Aliganj	422	4.046
29		Aliganj- 1	423	7.500
30		Seoni	317	0.405
31		Seoni- 1	317	15.000

खानि आधिकारिक
जिला रसायन (म.प्र.)

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32	Udaipura	Ketudhan- A	510	2.428
33		Ketudhan- B	510	2.428
34		Ketudhan- C	510	2.428
35		Ketudhan- D	510	2.428
36		Ketudhan- 1	510	5.150
37		Ketudhan- 2	510	3.000
38		Mohadkala	229	3.050
39		Sultanganj	385	5.000
40		Boras	735	2.023
41		Boras- 1	735	4.000
42		Andiya	398	15.000
43		Kelkachh- A	299	3.642
44		Kelkachh- B	299	3.642
45		Kelkachh- C	385	3.642
46		Kelkachh- D	385	2.428
47		Kelkachh- 1	299	16.000
48		Kelkachh- 2	385	8.400
49		Deori	Patai	336, 284
50	Pipaliya Khurd (Richhawar)		256	5.000
51	Nayakheda		246	0.809
52	Nayakheda- 1		246	6.290
53	Nayakheda- 2		245	0.710
54	Raisen	Berkhedi Ghat	245	0.770
55		Tijalpur	123	0.400
56		Barla	30	0.330
Total				388.928 Ha


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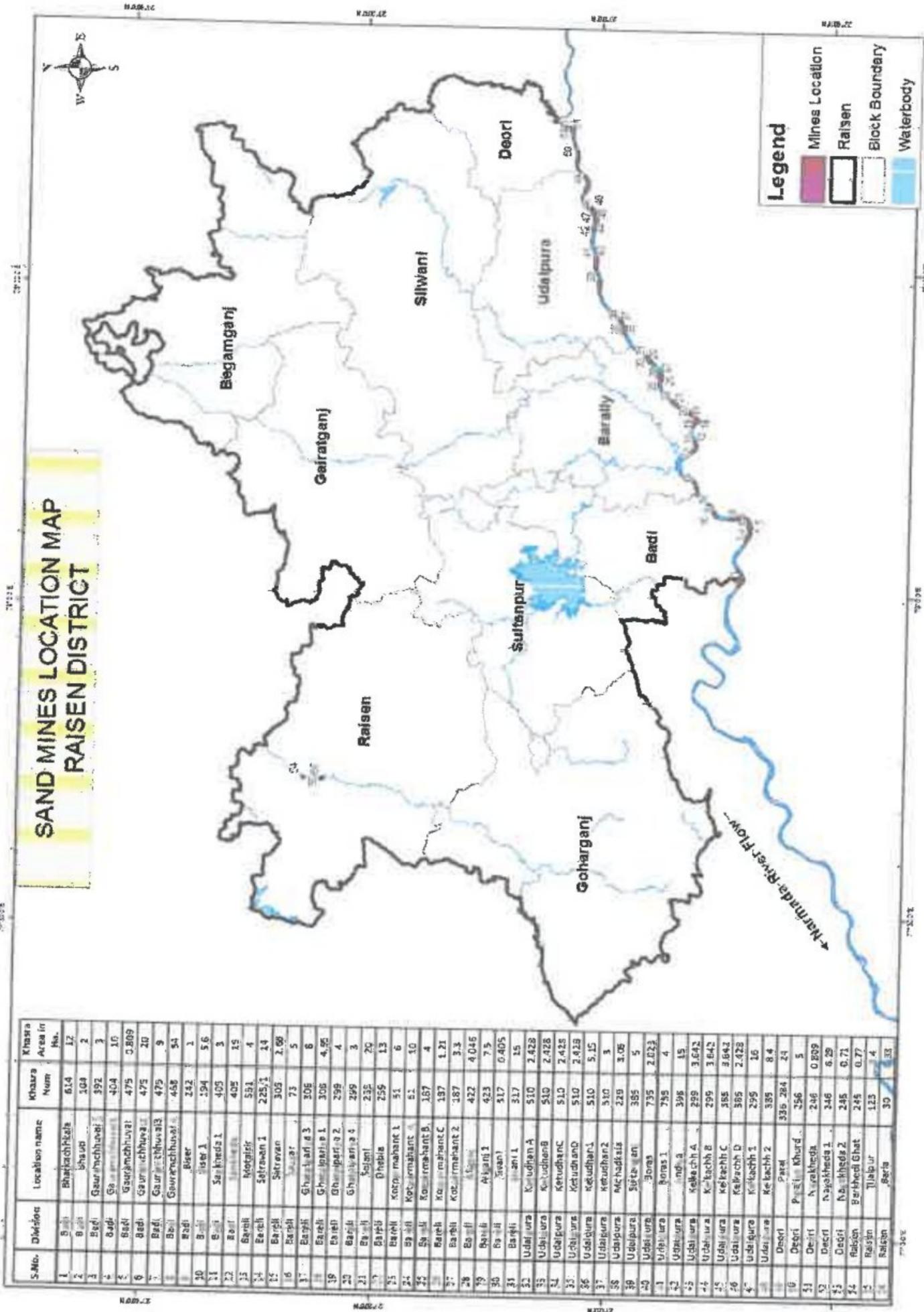


Figure 3 Sand Mining Map of the District

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3. Minor Minerals Mines in the District :

Table 4 Stone Crusher Mines

S.N o.	Name of the Lessee	Village	Tehsil	Type of Lease	Khasra No.	Area in Ha.	Period of Lease	Plantation Status
1	Shri Govind Rai	Samnapurkala	Goharganj	Stone Crusher	308/1	0.971	21-10-12 to 20-10-2022	43 Plants (Neem, Pipal, Aawla)
2	Smt Mohini Goswami	Samnapurkala	Goharganj	Stone Crusher	346	2.8	06-06-2016 to 05-06-2026	65 Plants (Arjun, Neem, Mango, Pipal,)
3	Shri Gaurav Pachauri	Samnapurkala	Goharganj	Stone Crusher	179/3, 179/4/1, 179/4/2	2.63	10-07-2016 to 09-07-2026	48 Plants (Aawla, Neem, Jamun)
4	Dilip Metals, Partner Shri Satyendra Pandey	Samnapurkala	Goharganj	Stone Crusher	196/2/2/1, 196/2/2/2, 192	3.935	31-12-2020 to 30-12-2030	-
5	Shri Sanjay Kothari	Samnapurkala	Goharganj	Stone Crusher	318/2/1	1	20-4-2012 to 19-4-2022	75 Plants (Lemon, Guava)
6	Shri Sanjay Kothari	Samnapurkala	Goharganj	Stone Crusher	322	1.619	24-9-13 to 23-9-2023	34 Plants (Mango, Guava, Lemon)
7	Shri Sanjay Kothari	Samnapurkala	Goharganj	Stone Crusher	247/1, 247/2, 248, 249, 250/1	2.955	29-09-2018 to 28-09-2028	-
8	Smt Babita Jain	Samnapurkala	Goharganj	Stone Crusher	353/2/1	2	28-10-2020 to 27-10-2030	-
9	Shri Autar Singh	Kamton Kasiya	Goharganj	Stone Crusher	376/1	2	28-09-2020 to 27-09-2030	-
10	Shri Govind Rai	Samnapurkala	Goharganj	Stone Crusher	306/2/3	1.262	25-04-12 to 24-04-2022	23 Plants (Neem, Pipal, Aawla)

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11	Shri Mukesh Tehlani	Samnapurkala	Goharganj	Stone Crusher	344	3.73	16-09-2020 to 15-09-2030	-
12	M/s Bansal Construction Works (Shri Sunil Bansal)	Samnapurkala	Goharganj	Stone Crusher	354/2	3.9	4-10-2013 to 3-10-2023	25 Plants (Neem, Palm, Bougainvillea)
13	Shri Mangesh Namdev	Samnapurkala	Goharganj	Stone Crusher	308/4	1.619	2-9-14 to 1-9-2024	14 Plants (Neem, Pipal, Emli)
14	Shri Gaurav Pachauri	Samnapurkala	Goharganj	Stone Crusher	179/2	3.358	30-9-2013 to 29-9-2023	-
15	Shri Krishna Kumar Pachauri	Samnapurkala	Goharganj	Stone Crusher	179/1/1, 179/1/2	2.549	30-9-2013 to 29-9-2023	-
16	Shri Rajesh Sharma	Samnapurkala	Goharganj	Stone Crusher	183/1/4	2.225	18-12-2013 to 17-12-2023	-
17	Shri Jafar Mohammad	Samnapurkala	Goharganj	Stone Crusher	252/1	2.834	26-2-2013 to 25-2-2023	38 Plants (Neem, Palm, Bougainvillea)
18	Shri Shahwar Khalid	Kamton Kasiya	Goharganj	Stone Crusher	37/2	2.429	07-05-2012 to 06-05-2022	25 Plants (Bougainvillea, Oranges)
19	Smt Vandana Chaukse	Samnapurkala	Goharganj	Stone Crusher	183/1/2	1.862	16-9-13 to 15-9-2023	-
20	Shri Saiyyad Nurulhassan Parvez	Jamunia Viran	Goharganj	Stone Crusher	67, 68	2.024	23-9-2013 to 22-9-2023	23 Plants (Neem, Emli, Aawlia)
21	M/s Vidushi Stone Crusher Shri Tarun Solanki	Pipaliya Goli	Goharganj	Stone Crusher	14	2.004	11-2-2021 to 10-2-2031	-
22	M/s Maa Rewa Shri Deepak Agarwal	Pipaliya Goli	Goharganj	Stone Crusher	2/1, 2/2	0.567	2-11-2011 to 1-11-2021	-
23	Smt Vandana Pathak	Dob	Goharganj	Stone Crusher	65/2	2.024	11-1-2020 to 10-1-2030	55 Plants (Lemon, Neem, Palm, Bougainvillea)

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24	M/S Pioneer Infrastructure Sanjay Kothari	Agaria	Goharganj	Stone Crusher	95, 107/1/1/1	3.397	27-9-2010 to 26-9-2030	14 Plants (Oranges, Palm, Bougainvillea)
25	Shri Govind Kumar Khanna	Agaria	Goharganj	Stone Crusher	12/2/1	1.619	21-07-18 to 20-07-2028	-
26	Shri Govind Kumar Khanna	Agaria	Goharganj	Stone Crusher	15	1.9	18-07-2017 to 17-07-2027	-
27	Shri Kailash Kumar Pal	Agaria	Goharganj	Stone Crusher	181/1/4/1 /2/2/2	1.72	8-3-2021 to 7-3-2031	-
28	Shri Ashok Sharma	Agaria	Goharganj	Stone Crusher	141/3/1, 141/4,14 1/5	4	01.10.15 to 30.09.2025	-
29	Shri Jasant Singh Chauhan	Agaria	Goharganj	Stone Crusher	106/1/1, 107/2/1	3.643	25-10-2010 to 24-10-2030	26 Plants (Neem, Palm, Bougainvillea)
30	Smt Meena Chauhan	Agaria	Goharganj	Stone Crusher	106/1/2, 107/2/2	3.643	25-10-2010 to 24-10-2030	
31	Shri Abdul Gani	Agaria	Goharganj	Stone Crusher	17/2/4, 17/2/5, 17/2/6	1.74	16-05-2018 to 15-05-2028	
32	Shri Arif Khan	Samnapurkala	Goharganj	Stone Crusher	311/1/4	1	24-07-2020 to 23-07-2030	18 Plants (Neem, Palm, Bougainvillea)
33	M/s Pioneer Infrastructure Shri Sanjay Kothari	Agaria	Goharganj	Stone Crusher	94/2, 119/1/2	3.684	19-01-2016 to 18-01-2026	-
34	Truptesh Agarwal	Baharkheda	Goharganj	Stone Crusher	3/14/11/2, 6/1/1/2,6 /4/2	2.834	17-08-2016 to 16-08-2026	22 Plants (Cheeku, Pomegranate)
35	Kamal Kishor Gulati	Itkheti	Goharganj	Stone Crusher	22/1	2	01-04-2017 to 31-03-2027	-



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36	Shri Pankaj Sharma	Agaria	Goharganj	Stone Crusher	20, 21/1	3.29	24-9-2013 to 23-9-2023	-
37	Shri Nirajan Singh Pal	Agaria	Goharganj	Stone Crusher	16/1, 12/2/2	1.914	26-10-2016 to 25-10-2026	-
38	Shri Lokendra Sikarwar	Sauther	Goharganj	Stone Crusher	79/3	1.5	08-07-15 to 07-07-2025	12 Plants (Neem, Palm, Bougainvillea)
39	Shri Dharmendra Singh Chauhan	Champaner	Goharganj	Stone Crusher	127/3/1	1.923	25-2-2012 to 24-2-2022	66 Plants (Neem, Palm, Bougainvillea)
40	M/s Brij Gopal Construction Company	Champaner	Goharganj	Stone Crusher	186/2	2.915	12-11-2012 to 11-11-2022	-
41	Shri Asim Ali S/o Shri Ashiq Ali	Champaner	Goharganj	Stone Crusher	124/1/1, 134/1/2	2	06-06-2019 to 05-06-2029	30 Plants (Lemon, Neem, Bougainvillea)
42	Shri Om Prakash Malviya	Bamhori	Goharganj	Stone Crusher	13/1/1/1/2	1.7	2-2-2012 to 1-2-2022	-
43	Shri Mohammad Rashid	Bamhori	Goharganj	Stone Crusher	15/1/1, 15/2	1.618	02-02-2012 to 01-02-2022	75 Plants (Lemon, Pomegranate, Neem, Palm, Bougainvillea, Pipal)
44	Shri Amit Kumar Malpani, Yamuna Industries	Rasulia	Goharganj	Stone Crusher	1/1/1	3.843	21-10-2011 to 20-10-2021	-
45	Shri Praveen Singh Chauhan	Sauther	Goharganj	Stone Crusher	80/1,80/2	2.489	13-06-2016 to 12-06-2026	-
46	Shri Pankaj Sharma	Samnapurkala	Goharganj	Stone Crusher	184/1	4	20-08-2017 to 19-08-2027	-
47	Smt Kalpana Chouksey	Samnapurkala	Goharganj	Stone Crusher	183/1/1	0.834	14-12-15 to 13-12-2025	29 Plants (Oranges, Palm, Bougainvillea)
48	Shri Deepesh Parmar	Samnapurkala	Goharganj	Stone Crusher	308/1	2	11-08-16 to 10-08-2026	-



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49	(Shri Jaswant Chauhan) Nikhil Agrawal	Agaria	Goharganj	Stone Crusher	120	2.834	04-07-2017 to 03-07-2027	18 Plants (Lemon, Emli, Aawla)
50	(M/s Pioneer) Shubham Minerals	Agaria	Goharganj	Stone Crusher	13, 14	4	09-01-18 to 08-01-2028	-
51	Shri Rajkumar Malviya	Dob	Goharganj	Stone Crusher	111/2/1, 111/2/2	3	30-10-2017 to 29-10-2027	10 Plants (Neem, Palm, Bougainvillea)
52	Shri Abdul Gani	Agaria	Goharganj	Stone Crusher	17/2/1, 17/2/5/1, 17/2/6	3	30-10-2017 to 29-10-2027	-
53	Shri Sunil Kumar Malviya	Khodra	Goharganj	Stone Crusher	109	4	30-10-2017 to 29-10-2027	-
54	Shri Naved Khan	Champaner	Goharganj	Stone Crusher	181/1/2	2	30-10-2017 to 29-10-2027	-
55	M/s Centrodorstroy India Pvt. Ltd.	Jamunia Viran	Goharganj	Stone Crusher	68/1	2	20-06-18 to 19-06-2028	43 Plants (Palm, Bougainvillea)
56	Shri Jaswant Singh Chauhan	Agaria	Goharganj	Stone Crusher	96/2	4	16-06-18 to 15-06-2028	-
57	Shri Anas Hussain	Chaplasir	Goharganj	Stone Crusher	194/1	2	04-06-2018 to 03-06-2028	-
58	Shri Jaspal Singh Atwal	Bhartipur	Goharganj	Stone Crusher	62/1/2, 63/5	1.5	10-09-2018 to 09-09-2028	62 Plants (Neem, Pipal, Mango)
59	M/s Pioneer Shri Sanjay Kothari	Agaria	Goharganj	Stone Crusher	94/1/2	1.226	16-06-2018 to 15-06-2028	-
60	Shri Sanjay Kothari	Agaria	Goharganj	Stone Crusher	74	4	06-10-2017 to 05-10-27	14 Plants (Pipal, Neem)
61	Shri Ashok Sharma	Agaria	Goharganj	Stone Crusher	191/1/2	2	25-05-2019 to 24-05-2029	-

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62	Shri Prem Singh	Samnapurkala	Goharganj	Stone Crusher	304/2/5/1	2.73	31-05-2019 to 30-05-2029	-
63	Shri Mukesh Kumar Chouksey	Samnapurkala	Goharganj	Stone Crusher	304/2/5/1	2	31-05-2019 to 30-05-2029	12 Plants (Gulmohar, Mango, Sheesham)
64	Smt Arif Jahan	Champaner	Goharganj	Stone Crusher	124/2/3	1.214	30-09-2018 to 29-09-2028	-
65	Shri Saiyyad Fazal Mehmood	Sauther	Goharganj	Stone Crusher	45/3, 45/2, 45/5	2.023	30-09-2018 to 29-09-2028	-
66	Kasana Builders Pvt Ltd Proprietor Ajay Kasana	Samnapurkala	Goharganj	Stone Crusher	178/1/1/1 /1, 178/1/1/1 /2	3	19-10-2020 to 18-10-2030	-
67	Shri Sumit Pachauri	Samnapurkala	Goharganj	Stone Crusher	168/1, 168/2	3.6	16-09-2020 to 15-09-2030	15 Plants (Lemon, Oranges)
68	Smt Vandana Pathak	Dob	Goharganj	Stone Crusher	64/2/2, 64/2	1.213	07/01/2021 to 06/01/2031	-
69	Shri Ajay Gupta	Barhakheda	Goharganj	Stone Crusher	6/9/3,6/9/ 4,6/9/5	1.982	15/09/2020 to 16/09/2030	-
70	Shri Ankur Agarwal	Champaner	Goharganj	Stone Crusher	112/1,11 2/2/2	1.214	05/04/2021 to 04/04/2031	-
71	Shri Jasveer Singh	Champaner	Goharganj	Stone Crusher	128/2	2.255	21/05/2020 to 20/05/2030	-
72	Shri Rajesh Patel S/o Shri Durga Prasad	Puraina	Udaipura	Stone Crusher	79/1	0.960	02-09-2016 to 01-09-2026	-
73	Shri Mahendra Gangoliya S/o Shri J.P. Gangoliya	Uchakheda	Udaipura	Stone Crusher	188/1	1.200	23-6-2015 to 22-6-2025	-

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74	Shri Durgesh Singh Rajput S/o Shri Rampal Singh Rajput	Puraina	Udaipura	Stone Crusher	79/1	4.000	15-06-2016 to 14-06-2026	55 Plants (Mango, Neem, Jamun, Pipal)
75	Shri Ravindra Kumar Singh Mento Karlo Ltd	Noornagar	Udaipura	Stone Crusher	297/1	2.834	25-6-2015 to 24-06-2025	-
76	Shri Devendra Sharma S/o Ramsahay Basedia	Puraina	Udaipura	Stone Crusher	16/2/2	2.000	28-10-16 to 27-10-26	-
77	Shri Umashankar Sharma S/o Vishnu Prasad Sharma	Puraina	Udaipura	Stone Crusher	16/2/1, 18	2.000	28-10-16 to 27-10-26	28 Plants (Jamun, Pipal, Neem)
78	Shri Devendra Singh Raghuvanshi S/o Shri Balakram	Chhind	Udaipura	Stone Crusher	117/1	3.000	24-11-16 to 23-11-26	-
79	Shri Mahendra Raghuvanshi S/o Shri Ghanshyam Raghuvanshi	Shobhapur	Udaipura	Stone Crusher	140	2.340	22-09-2017 to 21-09-2027	-
80	Shri Jeewan Singh Rajput	Chhind	Udaipura	Stone Crusher	94/1	7.340	12-01-2018 to 11-01-2028	-
81	Shri Balakram Raghuvanshi S/o Shri Gyansingh Raghuvanshi	Dungariyakala	Udaipura	Stone Crusher	57	2.000	26-03-18 to 25-03-2028	12 Plants (Gulmohar, Bougainvillea)
82	Smt Jaykuwar Bai	Chhind	Udaipura	Stone Crusher	90	3.286	10-03-2021 to 09-03-2031	-
83	Shri Saurabh Patel S/o Shri Bhavarlal Patel	Gondra	Raisen	Stone Crusher	48,57	2.737	22/09/15 to 21/09/25	51 Plants (Palm, Jamun, Sheesham)



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84	Smt Shanti Bai W/o Shri Gopal Sisodiya	Bhawarkhedhi	Raisen	Stone Crusher	1	1.023	23-12-14 to 22-12-2024	-
85	Shri Shubham Patel S/o Shri Badamilal Patel	Gondra	Raisen	Stone Crusher	26/1	1.401	03-10-2016 to 02-10-2026	14 Plants (Mango, Neem)
86	Shri Satyendra Singh Yadav S/o Shri Sodan Singh Yadav	Kamka	Raisen	Stone Crusher	39/1	1.000	13-10-16 to 12-10-2026	-
87	Ku. Rani Thakur D/o Shri Gopal Singh	Gondra	Raisen	Stone Crusher	17/6	1.000	02-05-2017 to 01-05-2027	-
88	Shri Manikandan D/o Shri Gunasekaran	Gondra	Raisen	Stone Crusher	27/2	1.000	12-06-2017 to 11-06-2027	31 Plants (Neem, Mango, Emli)
89	Shri Nilesh Chauhan S/o Shri Ganesh Patel	Gundrai	Raisen	Stone Crusher	140/1/2, 140/1/3, 140/1/4	3.000	25-10-2017 to 24-10-2027	-
90	Shri Pradeep Patel S/o Shri Badami Patel	Gondra	Raisen	Stone Crusher	3	2.105	08-08-2018 to 07-08-2028	-
91	Shri Tanveer Qureshi	Bhusimeta	Raisen	Stone Crusher	1/2	0.809	31-01-2006 to 30-01-2026	-
92	Smt Seema Jain W/o Shri Kailash Chandra Jain	Khamera	Silwani	Stone Crusher	33	1.214	-	-
93	Shri Sanjiv Samaiyya S/o Shri Babulal Samaiyya	Kakrua Khamera	Silwani	Stone Crusher	2/1/1/1	2.43	07/02/2017 to 06/02/2027	-
94	Shri Kamlesh Jain	Khamera	Silwani	Stone Crusher	30/1/1/1	0.809	-	-




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95	Shri Aashu Khan S/o Shri Irfan Khan	Khamera	Silwani	Stone Crusher	30/9/2	4.000	02-02-2021 to 01-02-2031	25 Plants (Neem, Jamun)
96	Smt Hemlata W/o Shri Mathura Prasad	Uchehra Jamunia	Silwani	Stone Crusher	55,56, 68/1	3.000	12-09-2016 to 11-09-2026	-
97	Shri Rahul Jain S/o Shri Krishna Kumar Jain	Siyarmau	Silwani	Stone Crusher	75, 90, 92	2.820	14-10-2017 to 13-10-2027	16 Plants (Oranges, Lemon)
98	Shri Virendra Singh Rajput S/o Shri Shivpal Singh Rajput	Kakrua	Silwani	Stone Crusher	86	4.000	08-01-2018 to 07-01-2028	-
99	Shri Shatrughan Singh Rajput S/o Shri Shivpal Rajput	Kakrua	Silwani	Stone Crusher	86	4.000	08-01-2018 to 07-01-2028	-
100	Shri Nitiraj Singh Rajput S/o Tarubar Singh Rajput	Pehriya	Silwani	Stone Crusher	2/2	4.000	16-01-2018 to 15-01-2028	-
101	Shri Vaibhav Jain S/o Shri Vimal Jain	Ghoorpur	Silwani	Stone Crusher	117/2	1.688	04-06-2021 to 03-06-2031	-
102	Shri Jeevan Singh Patel S/o Shri Pannalal Patel	Uchera	Beganganj	Stone Crusher	14/2, 15/2	0.971	28-3-2012 to 27-3-2022	22 Plants (Neem, Pipal, Jamun)
103	Shri Bhagat Singh Rajput S/o Shri Ram Singh Rajput	Sehora Jagir	Beganganj	Stone Crusher	261/35	0.72	20-09-2016 to 19-09-2026	-

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104	Shri Waseem Khan S/o Shri Naseem Khan	Madla, Kakrua	Begamganj	Stone Crusher	4/1/2/1/1 /1, 4/1/2/1/2 /3	0.850	29-01-2016 to 28-01-2024	52 Plants (Jamun, Neem, Mango, Lemon)
105	Shri Sachin Tomar S/o Shri Gopal Singh Tomar	Tulsipar	Begamganj	Stone Crusher	461/4, 467/1/1, 467/2/2, 467/2/3, 591/469/ 1	2.023	21-03-2016 to 20-03-2026	34 Plants (Neem, Jamun, Palm, Bougainvillea)
106	Shri Naseer Khan S/o Shri Nazeer Khan	Uchehra	Begamganj	Stone Crusher	55, 56/1, 109, 110	1.211	10-01-2017 to 09-01-2027	-
107	Shri Rajendra Singh S/o Shri Daryab Singh	Lakhanpura	Begamganj	Stone Crusher	19/2/1	1.296	15-07-2017 to 14-07-2027	-
108	Shri Lalit Lodhi	Hinotiya	Begamganj	Stone Crusher	54/2/1/1/ 2/1	1.821	20-06-2018 to 19-06-2028	-
109	Shri Arun Patel S/o Shri Shivraj Singh Patel	Mehgaon	Begamganj	Stone Crusher	19/2/1, 30, 32	2.249	15-08-2018 to 14-08-2028	-
110	Shri Sanjesh Raghuvanshi	Madhiya Gusai	Begamganj	Stone Crusher	324, 323, 365/322, 366/324	2.834	08-08-2018 to 07-08-2028	-
111	Shri Rajendra Singh Yadav	Bhajiya	Begamganj	Stone Crusher	176/2	1.214	14-09-2020 to 13-09-2030	-
112	Shri Amar Singh Kiledar	Jarua	Begamganj	Stone Crusher	42,43/1,4 3/2,43/3, 44,45,28 8/41/1,28 8/41/2	2	20-01-2020 to 19-01-2030	-

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113	Shri Virendra Singh Rajput S/o Shri Shivpal Singh Rajput	Jarun	Beganganj	Stone Crusher	36/2	2.5	20-01-2020 to 19-01-2030	18 Plants (Oranges, Lemon, Pomegranate)
114	Shri Naveen Jain	Pipalpani	Gairatganj	Stone Crusher	126/1, 125/4	1.906	31-1-2012 to 30-1-2022	-
115	Shri Naveen Jain	Pipalpani	Gairatganj	Stone Crusher	106/1/1	3.036	02-11-15 to 01-11-25	22 Plants (Anjeer, Jamun, Oranges)
116	Shri Anil Kumar S/o Shri Mathura Prasad	Khamkheda	Gairatganj	Stone Crusher	284/2	1.821	20-03-17 to 19-03-2027	-
117	Shri Balwant Singh	Mehgava	Gairatganj	Stone Crusher	32, 33, 245/33	2	12-12-17 to 11-12-2027	-
118	Shri Anil Dhakad	Chandonigadhi	Gairatganj	Stone Crusher	240, 241/2	2.3	10-01-2018 to 09-01-2028	-
119	Shri Rohit Jain	Bhanpurganj	Gairatganj	Stone Crusher	146/1/1/2 146/1/1/1/2	1.840	02-01-19 to 01-01-29	-



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Table 5 Murrum Mines

S. No	Name of the Lessee	Village	Mineral	Tehsil	Khasra No.	Area in Ha.	Sanctioned Period	Plantation Status
1	Shri Sunil Kumar	Sauther	Murrum	Goharganj	84/2/1	1.000	03-01-2020 to 02-01-2025	-
2	Grijesh Pratap	Shobhapur	Murrum	Udaipura	30/1, 28	3.553	11-06-2016 to 10-06-2026	-
3	Shri Ajj Khan S/o Shri Latif Khan	Morikodi	Murrum	Raisen	1	2.000	03.10.15 to 02.10.25	22 Plants (Neelgiri, Jamun, Neem)
4	Ankur Gupta	Mehgaon	Murrum	Raisen	89	2.000	17-05-2016 to 16-05-2026	-
5	Shri Mahendra Yadav	Tajpursur	Murrum	Raisen	90/1	1.263	07-09-16 to 06-09-2026	-
6	Shri Raghuvver Singh	Dhakna Chapna	Murrum	Raisen	58	1.000	02-05-17 to 01-05-2027	-
7	Shri Harisingh Meena	Bejakheda	Murrum	Raisen	53/3	1.000	01-05-17 to 30-04-2027	27 Plants (Jamun, Nilgiri)
8	Shri Govind Chaurasiya	Khoha	Murrum	Raisen	198	3.000	15-12-2017 to 14-12-2027	-
9	Shri Neeraj Dubey	Nayapura	Murrum	Raisen	68/1/1	3.000	31-07-2018 to 30-07-2028	-
10	Shri Salman Khan S/o Tahir Khan	Parsora	Murrum	Raisen	223, 225	2.000	31-12-2019 to 30-12-2029	-
11	Shri Om Prakash Maina	Dhakna Chapna	Murrum	Raisen	70/1/3	1	25-09-2020 to 24-09-2030	16 Plants (Jamun, Lemon)
12	Shri Rajendra Meena	Khoha	Murrum	Raisen	198	1.000	26-11-2020 to 25-11-2030	-

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Table 6 Flagstone Mines

S.No.	Name of the Lessee	Name of the Village	Tehsil	Name of the Mineral	Khasra Number	Area in Ha.	Lease Period	Plantation Status
1	Smt Nafeesa Bee	Bhadner	Raisen	Flagstone	133/1, 106/2	1	20-08-16 to 19-08-2026	-
2	Shri Farukh Khan S/o Shri Bhure Khan	Bavaliya	Raisen	Flagstone	102/2	1.255	06-04-2016 to 05-04-2026	-
3	Shri Rajkumar Jain	Murelkhard	Raisen	Flagstone	70/1/2	1.141	11-02-2017 to 10-02-2027	-
4	Shri Surendra Singh S/o Shri Bhagat Singh	Chandna	Raisen	Flagstone	638/1	1.087	25-03-2017 to 24-03-2027	16 Plants (Jamun, Neem)
5	Shri Nitesh Kumar Samarvar S/o Shri Puralal Samarvar	Kanpohra	Raisen	Flagstone	1/1	1.000	20-02-2018 to 19-09-2028	-
6	Shri Kapil Patel	Nevli	Raisen	Flagstone	7, 8/3/1	1.000	07-08-2020 to 06-08-2030	16 Plants (Ashok, Mango)
7	Shri Jagdish Kumar Asnani	Mirzapurpali	Raisen	Flagstone	9/1/1/3, 9/1/1/4	1.210	06-02-2021 to 05-02-2031	16 Plants (Ashok, Palm, Neem)

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Table 7 Flagstone Auctioned Leases

S.No	Name of the Lessee	Name of the Mine	Tehsil	Khasra No.	Area in Ha.	Validity	Plantation
1	Shri Sanaulhak	Sund	Raisen	209	1.214	1-4-2012 to 31-3-2022	12 Plants (Ashok, Neem)
2	Shri Sanaulhak	Andol Bahed- 4	Raisen	191/1/1	3.64	1-4-2012 to 31-3-2022	-
3	Shri Md. Tahir Khan	Karhod	Raisen	75/1	3.237	1-4-2013 to 31-3-2023	-
4	Shri Md. Tahir Khan	Murelkala- 3	Raisen	254/1	0.809	1-4-2011 to 31-3-2026	16 Plants (Ashok, Mango)
5	Shri Prakash Patel	Andol Bahed- 2	Raisen	191/1/1/1	4.99	07-01-2019 to 31-03-2023	-
6	Shri Vinod Kumar	Andol Bahed- 3	Raisen	191/1/1/1	4.99	07-01-2019 to 31-03-2023	-
7	Shri Mardan Singh Dhakad	Murelkala- 3	Raisen	254/1	3.55	01-04-2020 to 31-03-2023	-
8	Shri Navneet Ram Dhakad	Sund	Raisen	211	3.421	01-10-2020 to 31-03-2023	-

Table 8 Brick Chimney Mines

S. No	Name of the Lessee	Name of the Mine	Tehsil	Name of the Mineral	Khasra No.	Area in Ha.	Period	Plantation Status
1	Shri Mukesh Khanna	Dehri	Goharganj	Brick Chimney	128,133,132, 106/2, 131, 134, 135, 94, 92, 91, 90, 88, 86	2.361	24-9-13 to 23-9-2023	28 Plants (Ashok, Neem)

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2	Smt Neelam Kothari	Umaria	Goharganj	Brick Chimney	211, 213/3	1.335	5-10-2013 to 6-10-2023	16 Plants (Palm, Ashok)
3	Smt Anju Mittal	Ramkhedi	Goharganj	Brick Chimney	54/1	4	23-9-2013 to 22-9-2023	-
4	Shri Avadhnarayan	Rasulia	Goharganj	Brick Chimney	16	2	14-10-2011 to 13-10-2021	-
5	Shri Mazhar Ali	Chaplasir	Goharganj	Brick Chimney	168/5/1, 168/3/1	4.9	8-11-2011 to 8-11-2021	48 Plants (Lemon, Ashok, Mango, Oranges)
6	Shri Paramjeet Gill S/o Shri Darshan Singh Gill,	Divatiya	Goharganj	Brick Chimney	899	1.902	20-03-2017 to 19-03-2027	-
7	Shri Narendra Singh	Dhabla	Goharganj	Brick Chimney	37	1.2	24-12-2017 to 23-12-2027	-
8	Shri Dwarka Patel	Divatiya	Goharganj	Brick Chimney	955/1/7, 958/2	1	31-05-2019 to 30-05-2029	-
9	Smt Anita Pal	Chauka	Silwani	Brick Chimney	14/2//1/3	2	25-08-18 to 24-08-2028	-
10	Shri Shrichand Takhtani	Agaria Chopra	Raisen	Brick Chimney	75/1/1/2	2.630	19-2-2014 to 18-2-2024	21 Plants (Oranges, Ashok, Mango)
11	Shri Krishna Industries Bhopal	Pipalkhiriya	Raisen	Brick Chimney	4/1/2, 4/1/3, 4/1/1, 4/1/4	2.642	27-10-2012 to 23-10-2022	37 Plants (Pipal, Ashok, Jamun)
12	Shri Ramesh Yadav	Pipalkhiriya	Raisen	Brick Chimney	16/2/1	1.214	13-9-2013 to 12-9-2023	28 Plants (Neem, Ashok, Mango)

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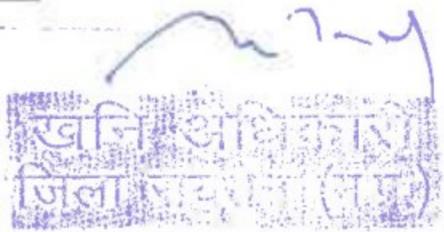
13	Shri Kishanlal Ashirwad Association	Agariya Chopda	Raisen	Brick Chimney	38, 48	7.20	04-10-2011 to 03-10-2031	19 Plants (Palm, Ashok, Mango)
14	Smt Shalini Garg	Pipalkhiriya	Raisen	Brick Chimney	37/1	1.498	27-10-13 to 28-7-2023	-
15	Shri Naveen Khubchandani	Bamhori	Raisen	Brick Chimney	21/175	1.36	20-08-2016 to 19-08-2026	-
16	Shri Naveen Andani	Pipalkhiriya	Raisen	Brick Chimney	4/3, 4/4, 5/1, 5/2, 5/3	1.324	22-01-2014 to 21-01-2024	-
17	Shri Mahesh Andani	Pipalkhiriya	Raisen	Brick Chimney	7/1,8	1.000	31-10-15 to 30-10-25	47 Plants (Oranges, Lemon)
18	Smt Nida Khan	Barukhar	Raisen	Brick Chimney	71/2/1	2.206	16-10-15 to 15-10-25	36 Plants (Palm, Ashok, Pomegranate)
19	Shri Mukesh Sharma	Kharbai	Raisen	Brick Chimney	69/169/2	2.998	07-12-15 to 06-12-25	-
20	Shri Rajesh Rathore	Khargavli	Raisen	Brick Chimney	147	1.000	16-08-16 to 15-08-2026	-
21	Shri Suresh Kumar Indoriya	Bilarkho	Raisen	Brick Chimney	23/2	1.447	16-09-2016 to 15-09-2026	-
22	Shri Shailesh Kushwaha	Khargawali	Raisen	Brick Chimney	152/2/2	2.000	12-09-16 to 11-09-2026	-
23	Shri Maharaj Singh Kushwaha	Bhadner	Raisen	Brick Chimney	113/1/3, 113/2/2	2.428	15-03-2017 to 14-03-2027	-
24	Shri Virendra Singh Thakur	Agaria Chopda	Raisen	Brick Chimney	42/1/1	1.490	04-11-16 to 03-11-26	48 Plants (Guava, Mango, Lemon)




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25	Shri Om Prakash Moolchandani,	Pipalkhiriya	Raisen	Brick Chimney	44/2, 45	1.858	28-03-2018 to 27-03-2028	27 Plants (Ashok, Jamun, Mango)
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4. Details of Royalty and Revenue received in last three years for Sand Mines and Minor Mineral leases (2018-19, 2019-20, and 2020-2021):

Table 9 Revenue received in last three years for Sand Mine leases

Year	Revenue (In Rs.)
2018 – 19	2,96,83,852.00
2019 – 20	2,01,58,528.00
2020 – 21	25,32,31,817.00

Table 10 Revenue received in last three years for Minor Minerals Mines leases

Year	Mineral	Revenue(In Rs.)
2018 – 19	Gitti	8,93,07,973.00
	Muram	60,85,436.00
	Soil	26,55,258.00
	Flag Stone	28,45,836.00
2019 – 20	Gitti	8,63,81,573.00
	Muram	36,74,808.00
	Soil	43,02,997.00
	Flag Stone	47,07,965.00
2020 – 21	Gitti	11,81,44,923.00
	Muram	20,07,037.00
	Soil	37,09,608.00
	Flag Stone	61,50,553.00


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5. Details of Sand and Minor Mineral Production in last 3 years (2018-19, 2019-20 and 2020-2021):

Table 11 Sand Production in last 3 years

Year	Production(In cu.m)
2018 – 19	296839.19
2019 – 20	201585.28
2020 – 21	462138.42

Table 12 Minor Mineral Production in last 3 years

Year	Mineral	Production(In cu.m)
2018 – 19	Gitti	893079.73
	Muram	121708.72
	Soil	26552.58
	Flag Stone	9486.12
2019 – 20	Gitti	808955.5
	Muram	73496.16
	Soil	43029.97
	Flag Stone	14975.95
2020 – 21	Gitti	984541.025
	Muram	40140.74
	Soil	37096.08
	Flag Stone	17573.0086

6. Uses of Minerals

Major and Minor Minerals are mainly use for construction purpose. Minor Minerals comprise of gravel, building stones, soil, ordinary clay, ordinary sand, and muram. Other sand used for prescribed purposes, and any other mineral which the Central Government may, by notification in the Official Gazette, declare to be a minor mineral.

Crushed stone (Gitti): Angular crushed stone is the key material for macadam road construction, which depends on the interlocking of the individual stones' angular faces for its

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strength. Also use as rip rap, as railroad track ballast, as composite material (with a binder) in concrete, tarmac, and asphalt concrete.

Sand: Sand is used to give strength, bulk and other properties to construction materials like asphalt and concrete. In landscaping, it is used as a decorative material. A particular type of sand is used for glass manufacturing. Likewise, it is used for metal casting as a moulding material.

Murram: It is a mixture of minerals, organic matters, gravels, rock particles etc. Murum is used in plinth filling, road pavements, backfilling in trenches, footing pits, etc. Given that it doesn't contain any organic matters and can be compacted easily forming hard surfaces, it is a soil suitable in the field of construction.

Soil: Ordinary earth soil used for filling the embankment, roads, railways and building.

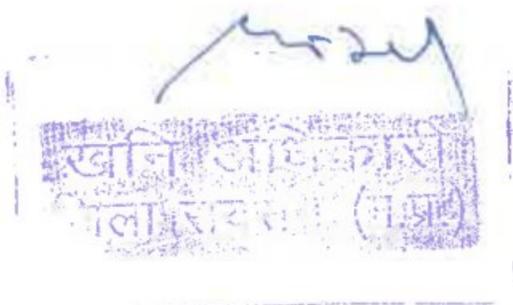
Brick Clay: Brick clay is rich in alumina, silica, calcium, oxides of iron, magnesium and organic matter. These are low grade clays used most for the manufacturing of building bricks and similar clay products.

7. Formation of sand

Majority of rivers originate from mountains and as they continue their journey with force, through these mountains, the bigger rocks and boulders disintegrate slowly, and over a period of time, starts rolling down as fragments. These fragments become smaller and smaller due to weathering process by water, wind and other rocks. Thus, developed sand particles are transported, washed and stored and again transported during floods and deposited at river beds and largely on river shores. In case the sand deposits are mined / removed, cavities are formed in their place and again filled during next cycle(s) of deposition.

River sand is preferred as a source of sand because of the following factors:

- Cities tend to be located near rivers so transport costs are low, the energy in a river grinds rocks into gravels and sands,
- Eliminating the costly step of mining, grinding, and sorting of rocks
- The material produced by rivers tends to consist of resilient minerals of angular shape that are preferred for construction.



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- Also, offer the advantages of being naturally sorted by grain-size, easily accessible, and able to be transported inexpensively using barges. Despite plentiful supplies of desert sand (Aeolian), which produce materials unsuitable for making concrete.

A meandering stream has a single channel those winds snakelike through its valley. As water flows around these curves, the outer edge of water is moving faster than the inner edge. This creates an erosion surface on the outer edge (a cut bank) and a depositional surface on the inner edge (a point bar). Where the bends of two meanders meet, they bypass the curve of river, creating an oxbow lake which may then be in-filled with over wash sediment.

Meanders change position by eroding sideways and slightly downstream. The sideways movement occurs because the maximum velocity of the stream shifts toward the outside of the bend, causing erosion of the outer bank. At the same time the reduced current at the inside of the meander results in the deposition of coarse sediment, especially sand. Thus by eroding its outer bank and depositing material along its inner bank, a stream moves sideways without changing its channel size. Due to the slope of the channel, erosion is more effective on the downstream side of a meander.

The specific gravity of an aggregate is considered as the measure of strength or quality of the material. Specific gravity is defined as the ratio of weight of a given volume of aggregate to the weight of equal volume of water. Aggregates having low specific gravity are generally weaker than those with aggregates having high specific gravity. This property helps in a general identification of aggregates. The specific gravity of (sand) is considered to be around 2.65 to 2.67. Sand particles composed of quartz have a specific gravity between 2.65 to 2.67. While inorganic clays generally range from 2.70 to 2.80. Soils with large amounts of organic matter or porous particles have specific gravity below 2.60 (Some range as low as 2.00).

7.1 Sources of sand

Sand is world's second most consumed natural resource after water. Rapid urbanization and global population growth have created unbound demand for this limited natural resource. With urbanization as key driving factor, construction industry has expanded considerably over the last few decades leading to overuse of river sand for construction purposes. This increasing discrepancy between the need for aggregates in the society and scarcity of natural sand due to exhaustion of resources and environmental considerations, has



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urged concrete manufacturers to look for a suitable and sustainable alternative fine aggregate. The economical and ecological alternative is manufactured sand.

7.1.1 Natural Sources

Natural sand is produced by natural forces, such as river sand and sea sand. Generally, sand found at foot of mountains is more weathered, containing more mud, organic impurities and light substances. Sea sand often contains shells and other impurities, and its components such as the chlorine, sulfate and magnesium salts may cause corrosion of steel bars. All the components will affect the performance of concrete. Sources of sand can be river bed material, de-siltation pits in reservoirs/dams, agricultural land etc. these can be broadly classified as:

Following are the natural types of the sand:

- **Pit Sand**

This sand is found as deposits in soil and it is obtained by forming pits into soils. It is excavated from a depth of about 1 m to 2 m from ground level. The pit sand consists of sharp angular grains which are free from salts and it proves to be excellent material for mortar or concrete work. For making mortar, the clean pit sand free from organic matter and clay should only be used.

- **River Sand**

This sand is obtained from banks or beds of rivers. The river sand consists of fine rounded grains probably due to mutual attrition under the action of water current. The colour of river sand is almost white. As river sand is usually available in clean condition, it is widely used for all purposes.

- **Sea Sand**

This sand is obtained from sea shores. The sea sand, like river sand, consists of fine rounded grains. The colour of sea sand is light brown. The sea sand contains salts. These salts attract moisture from the atmosphere. Such absorption causes dampness, efflorescence and disintegration of work. The sea sand also retards the setting action of cement. Due to all such reasons, it is the general rule to avoid the use of sea sand for engineering purposes except for filling of basement, etc. It can however be used as a local material after being thoroughly washed to remove the salt.

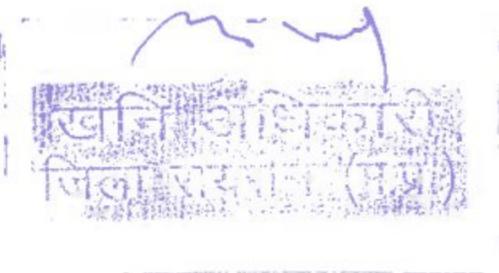


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7.1.2 Manufactured Sand

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.



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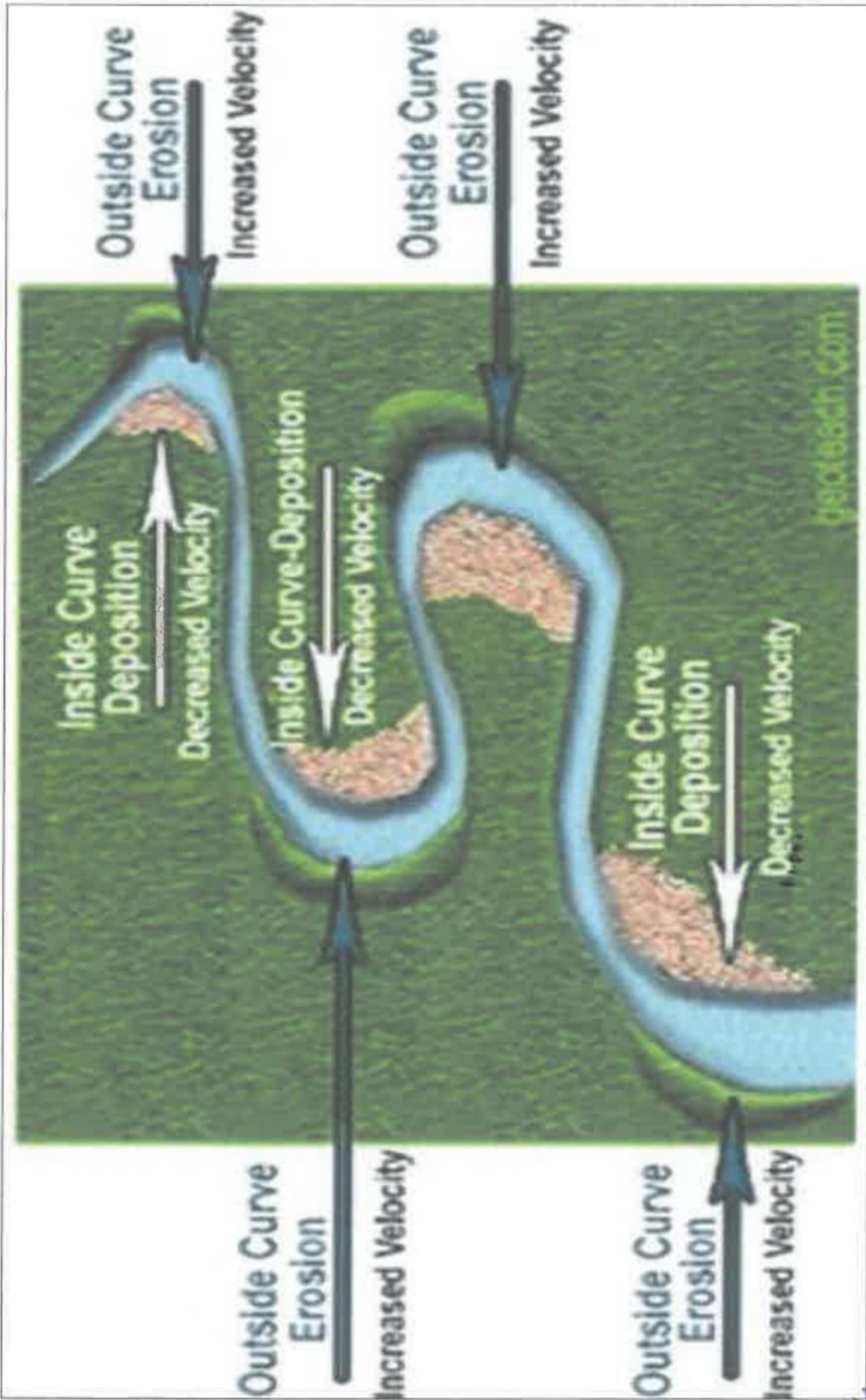
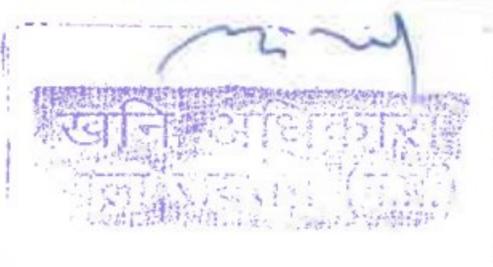


Figure 4 Conduive Areas for sand deposition



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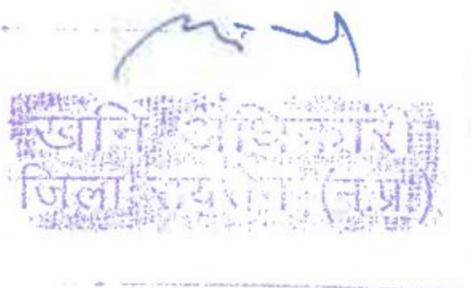
7.2 Sand Mining

Sand Mining is an activity referring to the process of the removal of sand from rivers, streams and lakes.

- Sand is mined from beaches and dredged from river beds.
- There are no official figures for the amount of sand mined illegally, but in 2015-16, there were over 19,000 cases of illegal mining of minor minerals, which include sand, in the country.
- To stop illegal mining, the Ministry of Environment, Forest and Climate Change (MoEF) issued Enforcement and Monitoring Guidelines for Sand mining.
- These guidelines focus on the effective monitoring of the sand mining.

Following considerations shall be kept in mind for sand mining:

- Parts of the river reach that experience deposition or aggradations shall be identified. The Leaseholder/ Environmental Clearance holder may be allowed to extract the sand and gravel deposit in these locations to manage aggradations problem.
- Sand and gravel may be extracted across the entire active channel during the dry season.
- Abandoned stream channels on the terrace and inactive floodplains are to be preferred rather than active channels and their deltas and flood plains. The stream should not be diverted to form the inactive channel.
- Layers of sand which could be removed from the river bed shall depend on the width of the river and replenishment rate of the river.
- Sand shall not be allowed to be extracted where erosion may occur, such as at the concave bank.
- Segments of the braided river system should be used preferably falling within the lateral migration area of the river regime that enhances the feasibility of sediment replenishment.
- Sand and gravel shall not be extracted up to a distance of 1 kilometer (1 km) from major bridges and highways on both sides, or five times (5x) of the span (x) of a bridge/public civil structure (including water intake points) on up-stream side and ten times (10x) the span of such bridge on down-stream side, subjected to



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minimum of 250 meters on the upstream side and 500 meters on the downstream side.

- Sand and gravel could be extracted from the downstream of the sand bar at river bends. Retaining the upstream one to two-thirds of the bar and riparian vegetation is accepted as a method to promote channel stability.
- The flood discharge capacity of the river could be maintained in areas where there is a significant flood hazard to existing structures or infrastructure. Sand and gravel mining may be allowed to maintain the natural flow capacity based on surveyed cross-section history. Alternatively, off-channel or floodplain extraction is recommended to allow rivers to replenish the quantity taken out during mining.
- The Piedmont Zone (Bhabhar area) particularly in the Himalayan foothills, where riverbed material is mined, and this sandy-gravelly track constitute excellent conduits and hold the greater potential for groundwater recharge. Mining in such areas should be preferred in locations selected away from the channel bank stretches.
- Mining depth should be restricted to 3 meters and distance from the bank should be $\frac{1}{4}$ th or river width and should not be less than 7.5 meters.
- Demarcation of mining area with pillars and geo-referencing should be done prior to the start of mining.
- A buffer distance /un-mined block of 50 meters after every block of 1000 meters over which mining is undertaken or at such distance as may be the directed/prescribed by the regulatory authority shall be maintained.
- River bed sand mining shall be restricted within the central $\frac{3}{4}$ th width of the river/rivulet or 7.5 meters (inward) from river banks but up to 10% of the width of the river, as the case may be and decided by regulatory authority while granting environmental clearance in consultation with irrigation department. Regulating authority while regulating the zone of river bed mining shall ensure that the objective to minimize the effects of riverbank erosion and consequential channel migration are achieved to the extent possible. In general, the area for removal of minerals shall not exceed 60% of the mine lease area, and any deviation or relaxation in this regard shall be adequately supported by the scientific report.


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- The mining from the area outside river bed shall be permitted subject to the condition that a safety margin of two meters (2 m) shall be maintained above the groundwater table while undertaking mining and no mining operation shall be permissible below this level unless specific permission is obtained from the Competent Authority. Further, the mining should not exceed nine-meter (9 m) at any point in time.
- The permanent boundary pillars need to be erected after identification of an area of aggradations and deposition outside the bank of the river at a safe location for future surveying. The distance between boundary pillars on each side of the bank shall not be more than 100 meters.

8. General Profile of the District

1. Geographical Position	Raisen district with an area of 16,974 sq.kms lying between the North Latitudes 22 ⁰ 45' 00" and 23 ⁰ 45' 00" and East Longitudes 77 ⁰ 21' 00" and 78 ⁰ 49' 00" and falls under the Survey of India toposheet Nos. 55 E, F, I and J.
2. Area and Population	<p>I. Geographical Area (Sq.Km) Total Area (Sq.Km): 8466 Km²</p> <p>II. CENSUS 2011</p> <p>I. Population</p> <p>a) Total Population: 1,331,597</p> <p>b) Male Population: 700,358</p> <p>c) Female Population: 631,239</p> <p>II. Literates</p> <p>a) Total Literates: 820,220</p> <p>b) Male: 479,093</p> <p>c) Female: 341,127</p> <p>III. Main Workers (Census 2011)</p> <p>a) Total Workers: 517,838</p> <p>b) Male Workers: 370,366</p> <p>c) Female Workers: 147,472</p> <p>d) Cultivators: 138,725</p> <p>e) Agricultural Labourers: 228,151</p>



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f) Other Workers: 133,646	IV. Languages Spoken in the District Hindi, Urdu and Punjabi
Plains - Maximum: 42°C Plains - Minimum: 5°C	3. Temperature
Normal - South West Monsoon: 1143.2 mm Annual Rainfall: 1207.3mm	4. Rainfall (In mm)
a) Total Cultivated Area (Ha): 435.0 b) Net Area Sown (Ha): 431.1 c) Area Sown more than once (Ha): 79.3	5. Agriculture
Name of the Rivers: Bewas, Dudhi, Bina, Nion, Betwa, Barma, Chamorsh, Ghogra, Tendon, Begum and Nahar	6. Rivers, etc.
Revenue Divisions: a. Revenue Blocks: 7 b. Revenue Villages: 147	7. Revenue Administrative Divisions
a. Corporations: Nil b. Municipalities: 6 c. Town Panchayats: 6 d. Village Panchayats: 498	8. Local Bodies

8.1 Census Data 2011
Table 13 Census Data for year 2011

2011	Description
1,331,597	Actual Population
700,358	Male
631,239	Female
18.35%	Population Growth
8,466	Area Sq. km.
157	Density/KM ²
1.83%	Proportion to population of Madhya Pradesh
901	Sex Ratio (Per 1000)
932	Child Sex Ratio (0-6 Age)
72.98	Average Literacy

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Male Literacy	80.81
Female Literacy	64.24
Total Child Population (0-6 Age)	207,699
Male Population (0-6 Age)	107,499
Female Population (0-6 Age)	100,200
Literates	820,220
Male Literates	479,093
Female Literates	341,127
Child Proportion (0-6 Age)	15.60%
Boys Proportion (0-6 Age)	15.35%
Girls Proportion (0-6 Age)	15.87%

9. Land Utilization Pattern in the District: Forest, Agricultural, Mining, etc.,

Land use/land cover (LULC) changes are main issues of universal environment change. The Satellite remote sensing data with their monotonous nature have proved to be rather useful in mapping land use/land cover decorations and changes with time. Quantification of such a change is conceivable through GIS techniques even if the subsequent spatial datasets are of dissimilar scales or resolutions. Such studies have helped in considerate the dynamics of human happenings in space and time. Land use refers to man's activities.

The major portal of the district covered by agricultural land that consist 56.87% of total land user pattern area. Followed by second largest area deciduous forest with 24.92% area.

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Table 14 Land Use Pattern of the Study Area

Sr. No.	Class	Area in Ha.	Percentage of coverage
1	Agricultural Plantation	48.08	0.01%
2	Barren rocky	798.32	0.09%
3	Canal/drain	352.05	0.04%
4	Cropland	482201.96	56.87%
5	Deciduous (Dry/Moist/Thorn)	211308.07	24.92%
6	Fallow land	1021.39	0.12%
7	Forest Plantation	225.48	0.03%
8	Gullied/Ravenous land	92.17	0.01%
9	Industrial Land	1401.52	0.17%
10	Lake/Ponds	969.19	0.11%
11	Mining / Quarry	1606.14	0.19%
12	Reservoir/Tank	13138.77	1.55%
13	River	5450.69	0.64%
14	Rural	8985.04	1.06%
15	Scrub Forest	31277.02	3.69%
16	Scrub land	35050.07	4.13%
17	Tree Clad Area	52353.55	6.17%
18	Urban	1637.90	0.19%
	Total	847917.40	100.00%


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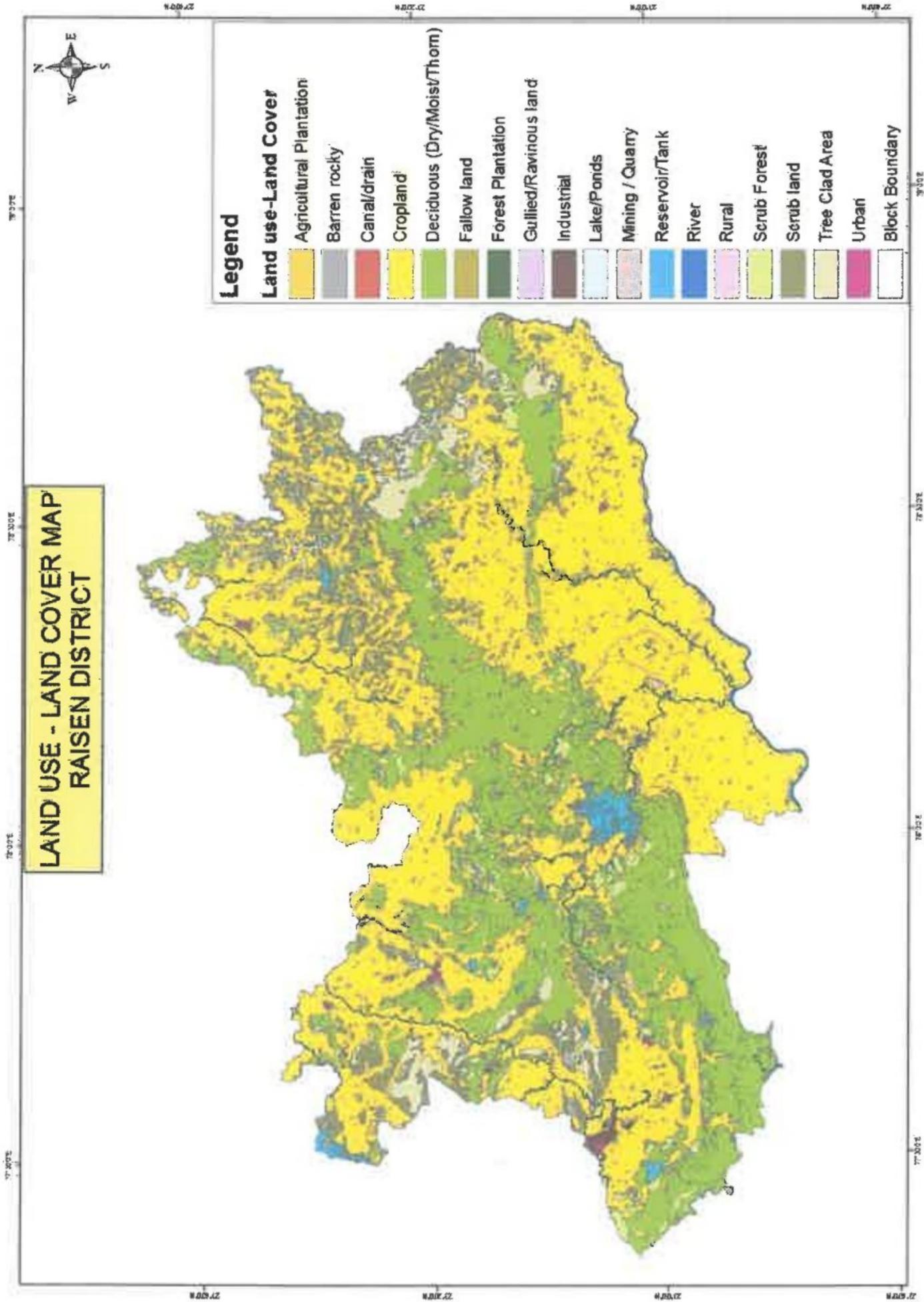


Figure 5 Land Use and Land Cover Map of the District



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LULC Breakup of the District

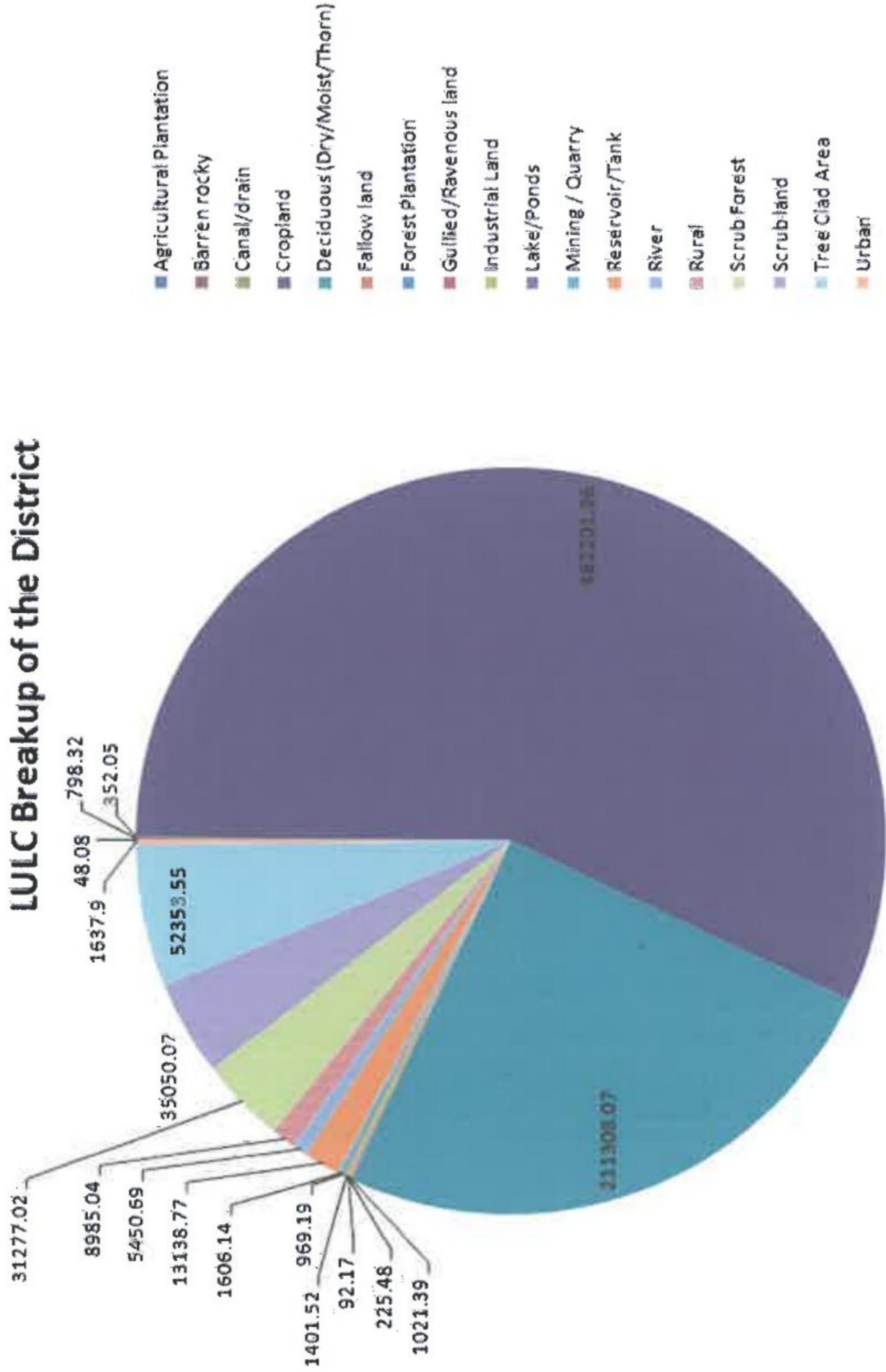


Figure 6 Land Use and Land Cover Breakup of the District



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10. Physiography of the District

Physiographically, the area in the district has NE-SW trending elevated spurs ranging in the altitude from 414 m to 719 m MSL and belonging to the north-eastern limb of the Vindhyan range, which forms the two physiographic divisions of the district area, the northern part constituting the undulating terrain in higher altitude sloping down gently towards northwest sparsely dotted with isolated knolls/hills as erosional remnants and forming the table land away from the escarpment and ultimately a plain terrain. The southern half constitute the hilly and rugged terrain at higher elevation and slopes down gently towards south forming a very gentle sloping or plain terrain in the vicinity of the westerly flowing Narmada River which forms the southern boundary of the district.


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11 Details of Month wise Rainfall Data of 1 Year

Table 15 Details of Month wise Rainfall Data in mm (2021)

Months	Tehsils										
	Raisen	Gairatganj	Beganganj	Silwani	Goharganj	Bareli	Udaipura	Badi	Sultanpur	Deori	
Jan	5.2	2.4	0.0	1.0	0.0	1.0	0.0	1.50	0.5	-	
Feb	0.0	2.4	0.0	8.0	2.5	2.0	0.0	0.0	1.0	-	
Mar	36.6	31.0	31.0	12.8	33.0	6.0	22.0	13.0	12.6	-	
Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
May	32.6	57.0	93.6	38.0	34.0	39.0	13.8	71.5	32.0	-	
Jun	340.8	104.2	207.8	204.8	296.0	177.0	426.0	217.5	157.6	418.9	
Jul	150.6	258.2	376.4	245.0	228.0	160.0	263.3	175.0	182.4	276.4	
Aug	236.2	405.6	318.0	314.4	304.0	352.0	396.1	213.0	328.6	257.6	
Sep	221.8	198.4	216.0	166.8	241.0	216.0	243.3	246.5	258.6	169.1	
Oct	57.0	34.8	47.0	16.6	72.0	9.0	17.3	30.0	38.4	20.5	
Nov	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Dec	4.6	8.0	8.0	5.2	0.0	20.0	19.0	9.5	0.7	29.0	


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12. Rainfall of the District and Climate Conditions

12.1 Rainfall

The normal rainfall of Raisen district is 1,207.3 mm. It receives maximum rainfall during southwest monsoon period. About 92.2% of the annual rainfall received during monsoon seasons. Only 7.8 % of the annual rainfalls take place during October to May period. The surplus water for groundwater recharge is available only during the southwest monsoon period. The maximum rainfall received in district at Udaipura i.e. 1389.8 mm and minimum at Bareli i.e. 1150.3 mm.

12.2 Climatic Conditions

The climate of the district is characterized by a hot summer and general dryness except during the southwest monsoon season. The year may be divided into four seasons. The cold season, December to February is followed by the hot season from March to about middle of June. The period from the middle of June to September is the southwest monsoon season. October and November form the post monsoon or transition period.

The normal maximum temperature attained during the month of May is 41.5°C and minimum during the month of January is 6.8°C. The normal annual means maximum and minimum temperature of Raisen district is 32.0°C and 17.5°C respectively. During the southwest monsoon season the relative humidity generally exceeds 87% (August month). The rest of the year is drier. The driest part of the year is the summer season, when relative humidity is less than 29%. April is the driest month of the year. The wind velocity is higher during the pre-monsoon period as compared to post monsoon period. The maximum wind velocity 10.8 km/hr observed during the month of June and is minimum 2.2 km/hr during the month of December. The average normal annual wind velocity of Raisen district is 5.9 km/hr.


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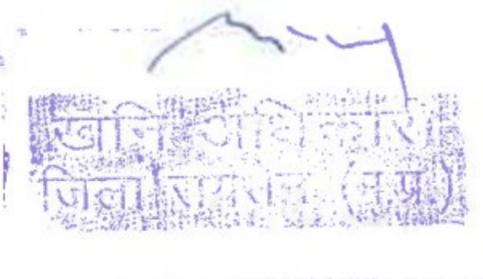
13. Geology of the District :

The generalized lithology of the District is as follow

Table 16 Geological Profile of the District

Lithology	Age		
Clay with kankar Sand and river alluvium	Alluvium	Recent to Pleistocene	
Small capping of lateritic soil on hills and patches in river valley	Laterite		
Lava flows of basalt with red bole and intertrappean beds	Deccan Trap	Upper Cretaceous to Lower Eocene	
Small irregular patches in the Vindhyan	Lametas		
Upper Bhander sandstones Sirbu shales at the base of scarps.	Upper Bhander series	Upper Vindhyan System	Upper Pre-Cambrian to lower Paleozoic
Lower Bhander sandstone but intercalated bands of shales known as Sanchi shale, Bhander limestone and ganurgarh shale	Lower Bhander series		

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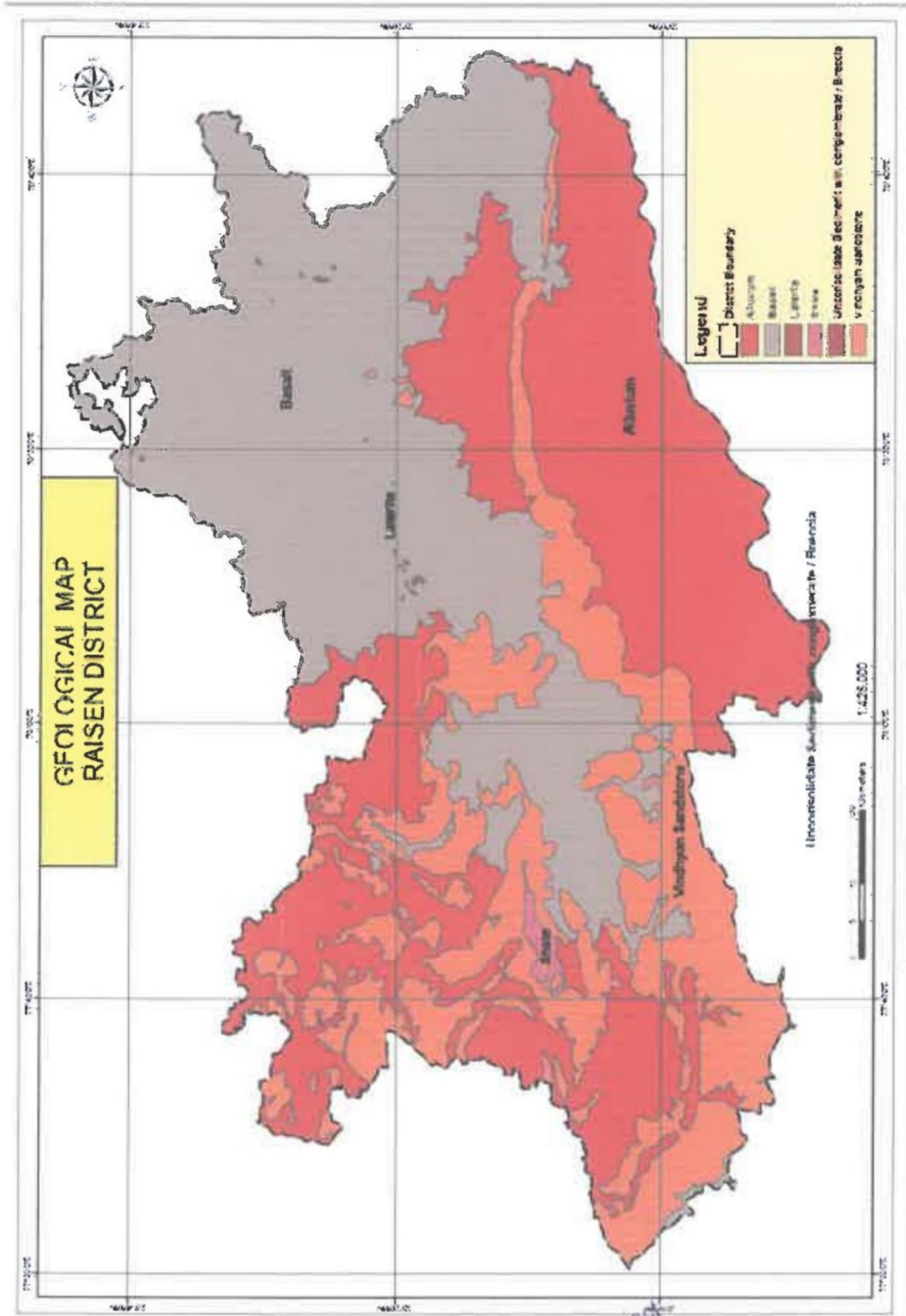
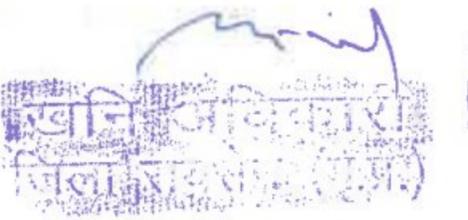


Figure 7 Geological Map of the District



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14. Drainage and Irrigation Pattern

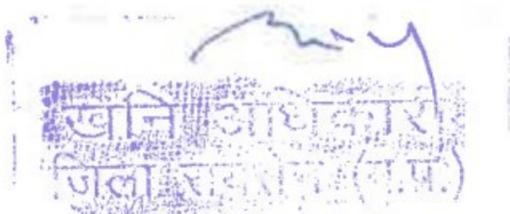
14.1 Drainage Pattern

The district lies in the drainage basin of the two great rivers, the Yamuna and Narmada. The northern portion of the district is drained by the Betwa River and Bina River and three tributaries, which ultimately flow towards north and join Yamuna. These water drains into the Bay of Bengal through Ganga. The other series of streams is formed of those, which flow southward to join Narmada. The Narmada itself forms about half the southern boundary of the district. It contains a large amount of water throughout the year. Many tributaries in the district of which feed it, but the most important tributaries are the Sindor, the Tondoni and the Barna. The water of the Narmada drainage area drains into the Arabian Sea.

14.2 Irrigation Practices

Irrigation is the artificial application of water to the soil for normal growth of plants. Water is an important determinant factor for production of crops in agriculture sector. Intensive and extensive cultivation of land depends mainly on the availability of water. Medium and minor irrigation schemes are implemented in the state for augmenting the water supply for agriculture. The various sources of irrigation are canals, tanks, tube wells, ordinary wells, springs and channels.


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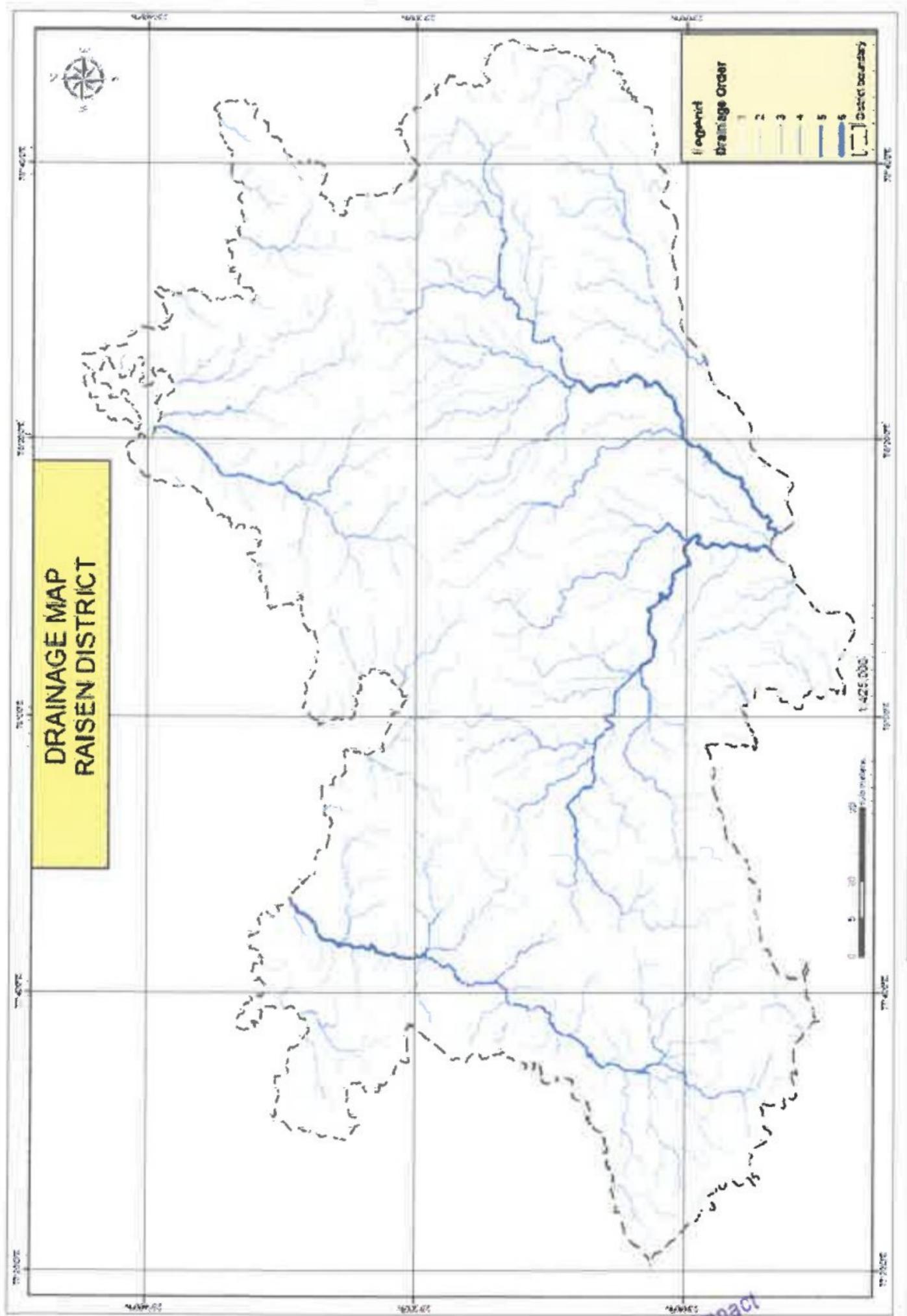


Figure 8 Drainage Map of the District

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15. Surface Water and Ground water scenario of the District

15.1 Ground Water

Ground Water is found beneath the earth's surface and is an important source of water in most of the Districts in the State. Ground Water is withdrawn for Agriculture, Municipal and industrial use. The depth at which the ground water is called Ground water Table.

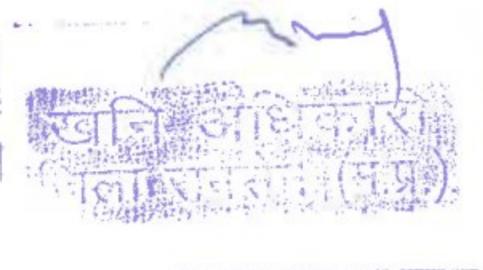
Decadal average water level, an average of water levels of a particular monitoring station for the last 10 consecutive years, gives a more realistic picture of the area as the water level of any particular year depends on rainfall and draft and may vary widely during the particular year. It is noticed that there is a fall of 0.05-0.39 m/annum fall in Post-monsoon and rise of 0.02-2.53 m/annum rise in pre monsoon. It is evident from the analysis of the data that the unplanned groundwater abstraction is going on in the district.

Dynamic Ground water resource estimation of the district has been computed for Base Year 2008-09, on block wise basis. All blocks of the district are categorized as safe. The highest stage of ground water development is computed as 70 % in Obaidullahganj block. The net ground water availability in the district 75,209 ham and ground water draft for all uses is 38,165 ham, making stage of ground water development 51 % (34 % in 2003-04) as a whole for district. After making allocation for future domestic and industrial supply for next 25 years, balance available ground water for future irrigation would be 35,863 ham.(Source: Central Ground Water Board –District Report)

15.2 Surface Water

The district has two prominent rivers namely Narmada and Dhasan. While Narmada flows in the middle of the district starting from Jabalpur, Dhasan River originates within Raisen district from Begamganj block.

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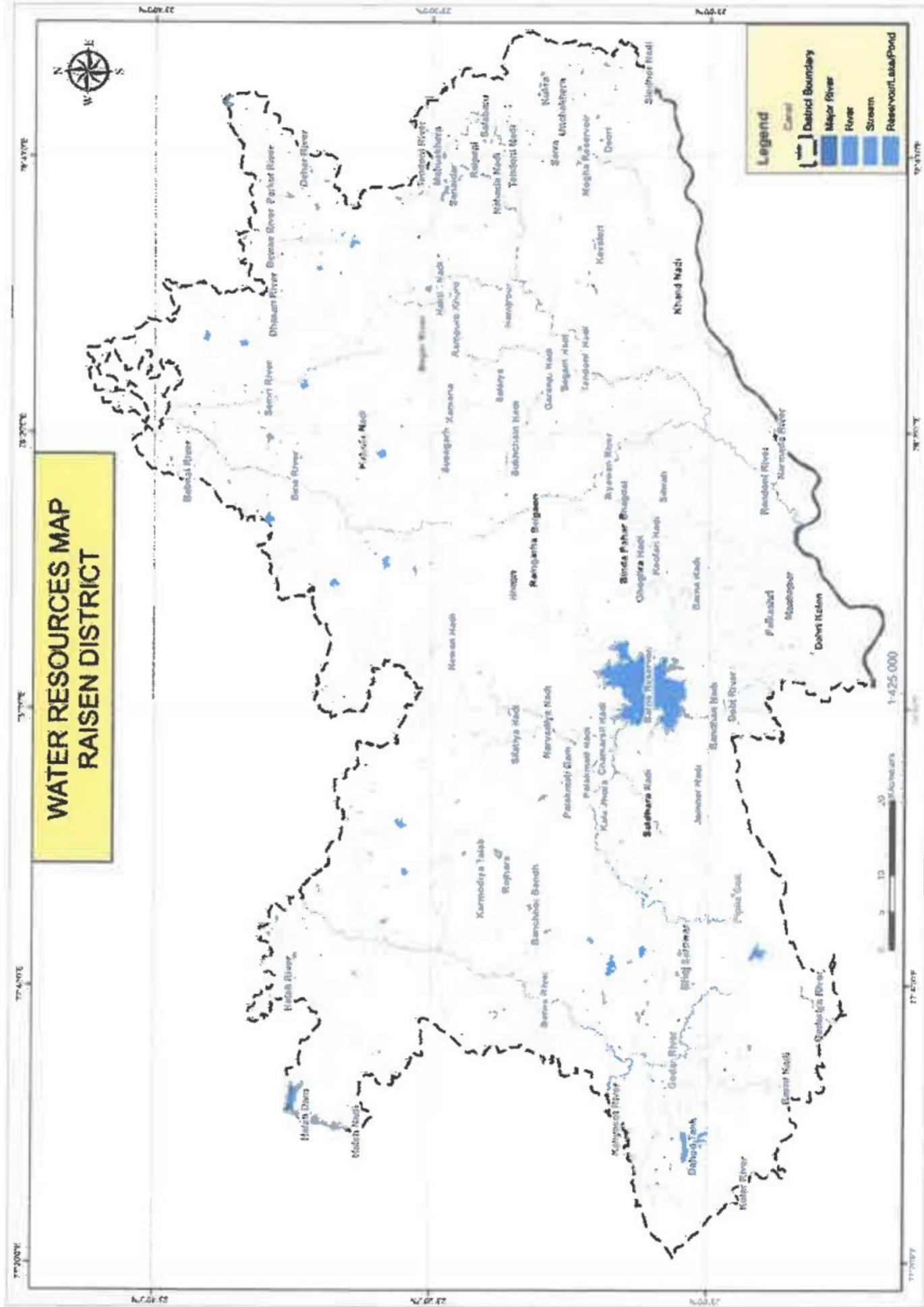


Figure 9 Water Resources Map of the District

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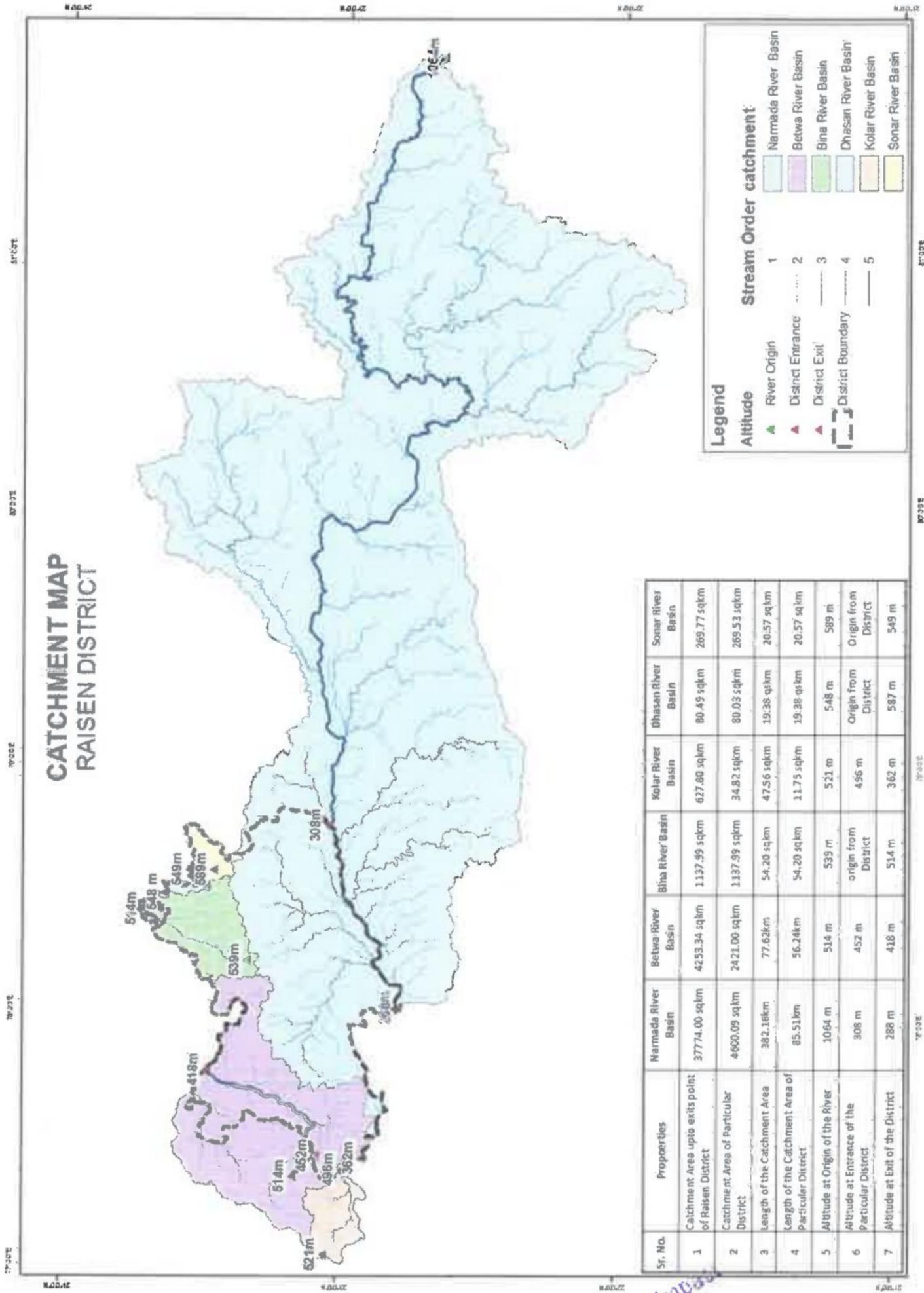


Figure 10 Catchment Area of the District

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Table 17 Details of the Catchment Area

Sr. No.	Properties	Narmada River Basin	Betwa River Basin	Bina River Basin	Kolar River Basin	Dhasan River Basin	Sonar River Basin
1	Catchment Area upto exit point of Raisen District	37774.00 sq.km.	4253.34 sq.km.	1137.99 sq.km.	627.80 sq.km.	80.49 sq.km.	269.77 sq.km.
2	Catchment Area of Particular District	4600.09 sq.km.	2421.00 sq.km.	1137.99 sq.km.	34.82 sq.km.	80.03 sq.km.	269.53 sq.km.
3	Length of the Catchment Area	382.16 km	77.62 km	54.20 km	47.56 km	19.38 km	20.57 km
4	Length of the Catchment Area of Particular District	85.51 km	56.24 km	54.20 km	11.75 km	19.38 km	20.57 km
5	Altitude at Origin of the River	1064 m	514 m	539 m	521 m	548 m	589 m
6	Altitude at Entrance of the Particular District	308 m	452 m	Origin from District	496 m	Origin from District	Origin from District
7	Altitude at Exit of the District	288 m	418 m	514 m	362 m	587 m	549 m



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16. Mineral Map of the District

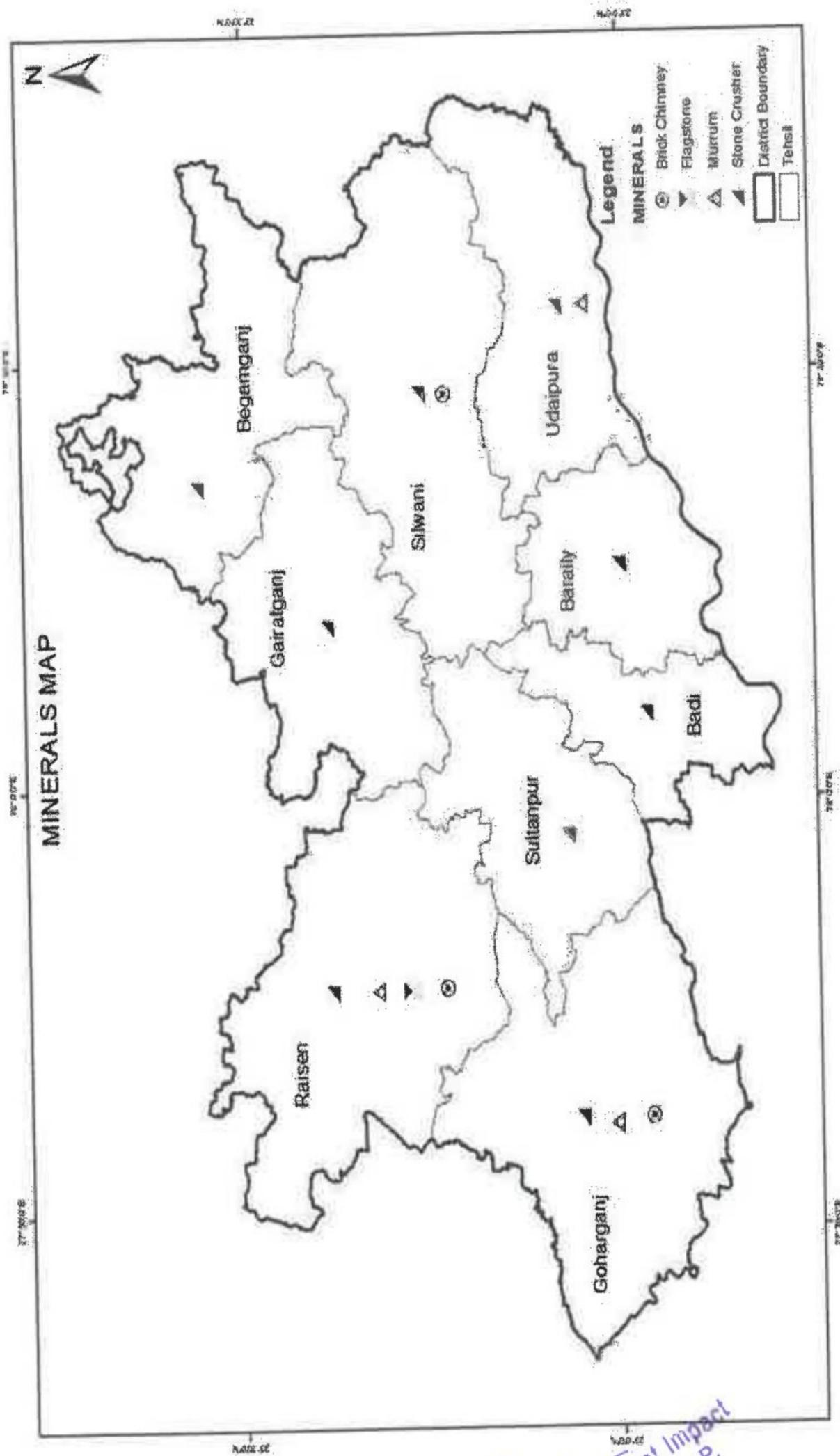


Figure 11 Mineral Map of the District



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17. Details of Eco – Sensitive Area, if any, in the District

The most important eco sensitive zone in Raisen district is Ratapani Tiger Reserve. It is located in Vindhyan Range of Madhya Pradesh. It is one of the finest teak forests in the state and is less than 50 kms away from the state capital Bhopal. The reserve is rich in flora and fauna and a wide variety of birds and mammals call it their home.

Singhori Wildlife sanctuary is another gem in the Raisen that remains rather unexplored. It is situated in Bari Tehsil of Raisen District. It is home for animal species like Royal Bengal Tiger, Leopard, Sambhar, Chital and Wild Boar.

The biodiversity may severely threatened by negative effects as the aquatic and riparian fauna and flora are not adapted to cope with excessive rates of erosion and sedimentation which might become a regular practice when the mining of sand in river is done.


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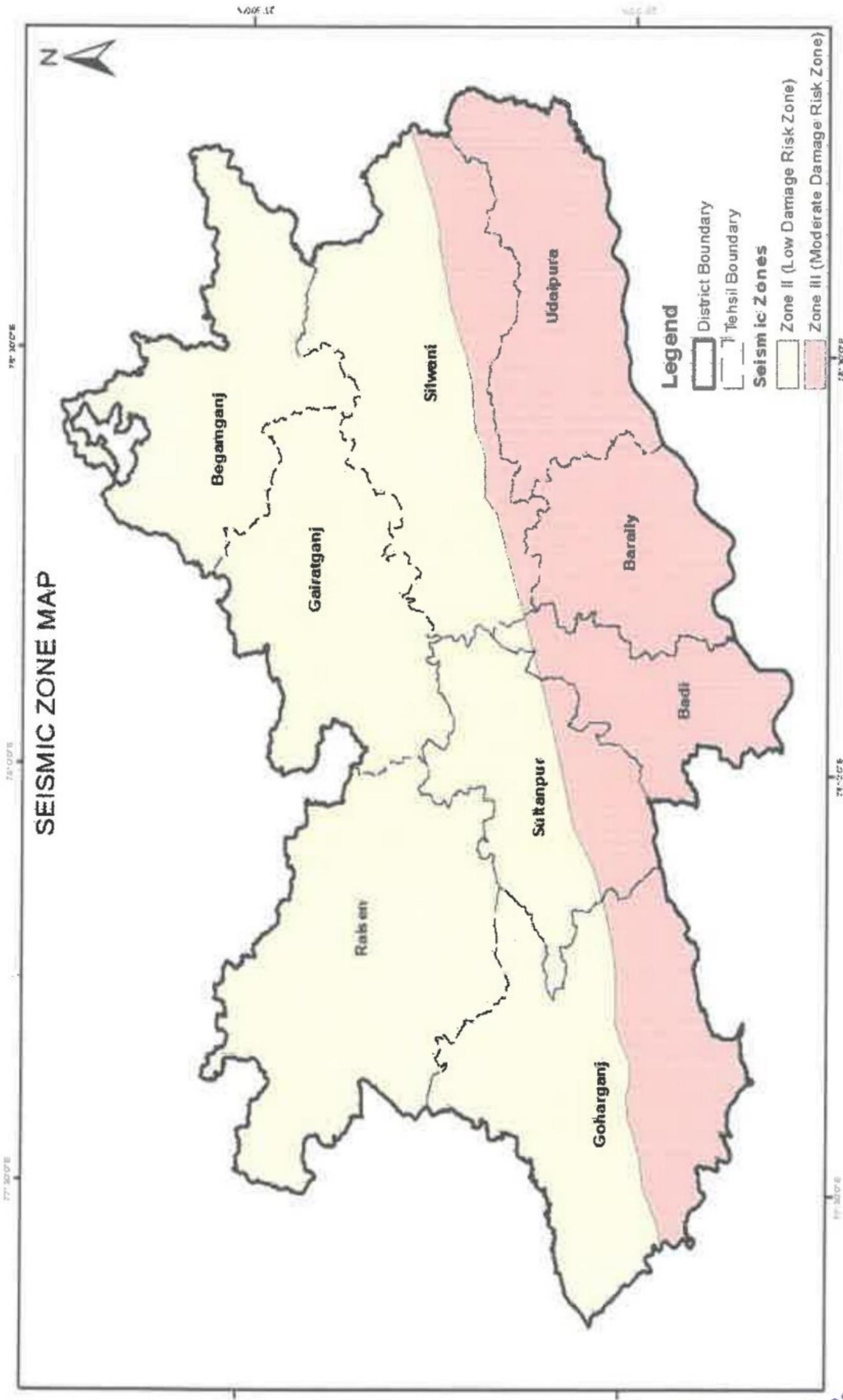


Figure 12 Details of the Eco-Sensitive Zone Map

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18. Impact on the Environment due to Mining Activity

Generally, the Environmental impacts can be categorized as either primary or secondary. Primary impacts are those, which are attributed directly by the project, secondary impacts are those, which are indirectly induced and typically include the associated investment and changed pattern of social and economic activities by the proposed action.

The impact has been ascertained for the project assuming that the pollution due to mining activity has been completely spelled out under the baseline environmental status for the entire ROM which is proposed to exploit from the mines.

18.1 Air

Mining Operations are carried out by opencast semi mechanized/ Mechanized method, dust particles are generated due to various activities like, Excavation, Loading, handling of mineral and transportation. The air quality in the mining area depends upon the nature and concentration of emissions and meteorological conditions.

The major air pollutants due to mining activity includes :-
Particulate Matter (Dust) of various sizes.

- Gases, such as, Sulphur Dioxide, Oxides of Nitrogen, Carbon Monoxide etc., from vehicular exhaust.
- Dust is the single Air pollutant observed in the open cast mines. Diesel operating drilling machines, small amount of blasting and movement of machinery/ vehicles produce gaseous (NO_x and SO_x) emissions, usually at low levels. Dust can be of significant nuisance surrounding land users and potential health risk in some circumstances.

18.2 Water Impact

The mining operation leads to intersection of the water table which causes ground water depletion. Due to the interruption surface water sources like River, Nallah, Odai etc., surface water system, Drainage pattern of the area is altered.




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18.3 Noise

Noise pollution is mainly due to operation of Machineries and occasional plying of machineries. These activities will create Noise pollution in the surrounding area.

18.4 Land Environment

The topography of the area will change; due to the Topographical changes the entire Eco system will be altered. Erosion might be promoted directly or indirectly through mining of sand.

18.5 Flora and Fauna

The impact on biodiversity is difficult to quantify because of its diverse and dynamic characteristics. Mining activities generally result in the deforestation, land degradation, water, air and noise pollution which directly or indirectly affect the faunal and floral status of the project area. However, occurrence and magnitude of these impacts are entirely dependent upon the project location, mode of operation and technology involved.

19. Remedial Measure to mitigate the impact of Mining on the Environment:

19.1 Air

Mitigated measures suggested for air pollution controls are based on the baseline ambient air quality o
The following measures are proposed to adopted in the mines such as,

- Dust generation shall be reduced by using sharp teeth of shovels.
- Wet drilling shall be carried out to contain the dust.
- Controlled blasting techniques shall be adopted.
- Water spraying on haul roads, service roads and overburden dumps will help in reducing considerable dust pollution.
- Proper and regular maintenance of mining equipment's have to be considered.
- Transport of material in trucks covered with tarpaulin.
- The mine pit water can be utilized for dust suppression in and around mine areas.



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- Information on wind direction and meteorology will be considered while planning, so that pollutants, which cannot be fully suppressed by engineering technique, will be prevented from reaching the nearby agriculture area.
- Comprehensive green belt around overburden dumps has to be carried out to reduce to fugitive dust emissions in order to create clean and healthy environment.

19.2 Water

- Construction of garland drains to divert surface run-off into the mining area.
- Construction of check dams / gully plugs at strategic places to arrest silt wash off from broken up area.
- Retaining walls with weep hole will be constructed around the mine boundaries to arrest silt wash off.
- The mined out pits shall be converted into the water reservoir at the end of mine life. This will help in recharging ground water table by acting as a water harvesting structure.
- Periodic analysis of mine pit water and ground water quality in nearby villages.
- Domestic sewage from site office & urinals/latrines provided in ML is discharged in septic tank followed by soak pits.

19.3 Noise

- Periodic maintenance of machinery, equipment shall be ensured to keep the noise generated at minimum.
- Development of thick green belt around mining area and haul roads to reduce the noise.
- Provision of earplugs to workers exposed to high noise generating activities. Workers and operators at work site will be provided with earmuffs.
- Conducting periodical medical check-up of all workers for any noise related health problems.
- Proper training to personnel to create awareness about adverse noise level effects.
- Periodic noise monitoring at suitable locations in the mining area and nearby habitations to assess efficacy of adopted control measures.



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- During the blasting, optimum Spacing, Burden and charging of holes will be made under the supervision of competent qualified mines foreman, Mate as approved by Director of Mines safety.

19.4 Land Environment

- Riparian vegetation should be developed that doesn't stress with changes over short period of time.
- Safety barrier zone should be left out in order to prevent quick sand condition or rapid erosion of river banks.
- Development of suitable greenbelt in safety and barrier zone
- Waste dumps should be stabilized taking proper measures
- Degradation of land environment should be checked by briefing the worker about routine works regarding cleanliness and proper mining measures.
- No such infrastructure or any construction should be done that might hinder the natural flow of the river.

19.5 Biological Environment

- Development of gap filling saplings in the safety barrier left around the quarry area.
- Carrying out thick greenbelt with local flora species predominantly with long canopy leaves on the inactive mined out upper benches.
- Development of dense poly-culture plantation using local flora species in the mining area at conceptual stage.
- Adoption of suitable air pollution control measures as suggested above.
- Transport of materials in trucks covered with tarpaulin.
- Construction of garland drains and settling tank to arrest silt wash off from lease area.
- Construction of retention walls around lower boundary of mining area to arrest silt wash off and roll down boulders.
- Retaining walls with weep hole will be constructed around the mine boundaries to arrest silt wash off.

20. Reclamation of Mined Out Area

Mine reclamation is the process of modifying land that has been mined to ecologically functional or economically usable state. Although the process of mine reclamation occurs once mining is completed, the planning of mine reclamation activities occurs prior to a mine



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being permitted or started. Mine reclamation creates useful landscapes that meet a variety of goals ranging from the restoration of productive ecosystems to the creation of industrial and municipal resources. In the United States, mine reclamation is a regular part of modern mining practices. Modern mine reclamation reduces the environmental effects of mining.

There is no proposal for backfilling, reclamation and rehabilitation. The quarry pit should be fenced by barbed wire to prevent inherent entry of public and cattle. The quarried out pit will be allowed to collect rain and seepage water which act as a reservoir for storage. The Quarried pit may be used as water reservoir for both Domestic and Agriculture purpose, in case of stone mining and inland sand mining. For Rover sand mining, the quarry should be demarcated using pillars and left for replenishment during monsoon season. No mining should be undertaken during monsoon period to avoid accidents and mishaps.

21. Details of the area of where there is a cluster of mining lease viz no. of mining lease location

Table 18 Details of the cluster of Mining Lease

S.No.	Division	Location name	KhasraNum	Khasra Area in Ha.	Cluster and Non Cluster
1	Badi	Bharkatchkala	614	12.000	Cluster
2	Badi	Bhouti	104	2.000	Cluster
3	Badi	Goramachuvai- 5	392	3.000	Cluster
4	Badi	Goramachuvai- 1	404	10.000	Cluster
5	Badi	Goramachuvai	475	0.809	Cluster
6	Badi	Goramachuvai- 2	475	20.00	Cluster
7	Badi	Goramachuvai- 3	475	9.000	Cluster
8	Badi	Goramachuvai- 4	468	54.000	Cluster
9	Badi	Biser	242	1.000	Cluster
10	Badi	Biser- 1	194	5.600	Cluster
11	Badi	Sankheda- 1	405	3.000	Cluster
12	Badi	Sankheda	405	15.000	Cluster
13	Bareli	Motalsir	551	4.000	Non-Cluster
14	Bareli	Satravan- 1	225/1	14.000	Cluster
15	Bareli	Satravan	305	2.660	Cluster

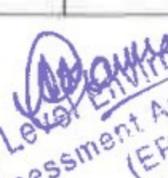
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16	Bareli	Muar	73	5.000	Cluster
17	Bareli	Ghatpipariya- 3	306	8.000	Cluster
18	Bareli	Ghatpipariya- 1	306	4.950	Cluster
19	Bareli	Ghatpipariya- 2	299	4.000	Cluster
20	Bareli	Ghatpipariya- 4	299	3.000	Non-Cluster
21	Bareli	Sojani	235	20.000	Cluster
22	Bareli	Dhabla	259	13.000	Cluster
23	Bareli	Kotparmahant- 1	51	6.000	Cluster
24	Bareli	Kotparmahant- A	51	10.000	Cluster
25	Bareli	Kotparmahant- B	187	4.000	Cluster
26	Bareli	Kotparmahant- C	187	1.210	Cluster
27	Bareli	Kotparmahant- 2	187	3.300	Cluster
28	Bareli	Aliganj	422	4.046	Cluster
29	Bareli	Aliganj- 1	423	7.500	Cluster
30	Bareli	Seoni	317	0.405	Cluster
31	Bareli	Seoni- 1	317	15.000	Cluster
32	Udaipura	Ketudhan- A	510	2.428	Cluster
33	Udaipura	Ketudhan- B	510	2.428	Cluster
34	Udaipura	Ketudhan- C	510	2.428	Cluster
35	Udaipura	Ketudhan- D	510	2.428	Cluster
36	Udaipura	Ketudhan- 1	510	5.150	Cluster
37	Udaipura	Ketudhan- 2	510	3.000	Cluster
38	Udaipura	Mohadkala	229	3.050	Cluster
39	Udaipura	Sultanganj	385	5.000	Non-Cluster
40	Udaipura	Boras	735	2.023	Cluster
41	Udaipura	Boras- 1	735	4.000	Cluster
42	Udaipura	Andiya	398	15.000	Cluster
43	Udaipura	Kelkachh- A	299	3.642	Cluster
44	Udaipura	Kelkachh- B	299	3.642	Cluster
45	Udaipura	Kelkachh- C	385	3.642	Cluster
46	Udaipura	Kelkachh- D	385	2.428	Cluster
47	Udaipura	Kelkachh- 1	299	16.000	Cluster
48	Udaipura	Kelkachh- 2	385	8.400	Cluster




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49	Deori	Patai	336, 284	24.000	Cluster
50	Deori	Pipaliya Khurd (Richhawar)	256	5.000	Non- Cluster
51	Deori	Nayakheda	246	0.809	Cluster
52	Deori	Nayakheda- 1	246	6.290	Cluster
53	Deori	Nayakheda- 2	245	0.710	Cluster
54	Raisen	Berkhedi Ghat	245	0.770	Non-Cluster
55	Raisen	Tijalpur	123	0.400	Non-Cluster
56	Raisen	Barla	30	0.330	Non-Cluster

22. Sand Replenishment Plan and Projections

22.1 Sand Replenishment Assessment

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 river course, thus old sites of sand deposition may not be relevant. Thus, the figures presented 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 minable mineral potential is concerned, is only an 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 a static one but have to be a dynamic one, the figures of which may vary with respect to 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 selected points in the dry portion of riverbed will be measured during pre-monsoon period and again during post- monsoon period in order to assess the annual quantum of sand



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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.

Sand quarrying from the river bed will have both positive and negative impacts.

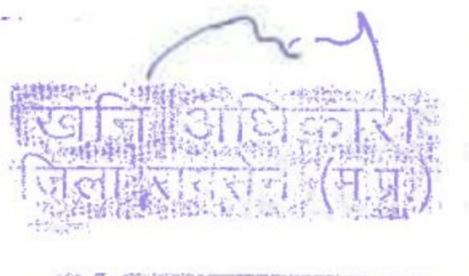
NEGATIVE IMPACTS

It includes destruction of natural river course, sand erosion, bank erosion, bank cutting and widening and deepening of river bed, change in hydrological status and recharging conditions and destruction to closely linked flora, fauna and aquatic life.

POSITIVE IMPACTS

Employment and socio-economic status of the habitats living besides the river depends on sand mining industries. Construction of concrete infrastructure, roads and some other related activities depends on the river bed sand. Continuous accumulation of sand ultimately leads to the reduction in water carrying capacity of the river leading excessive flood in the river. Sustainable extraction of sand from river will lead to overcoming the problem.

Initially replenishment study requires four surveys. The first survey needs to be carried out in the month of April for recording the level of mining lease before the monsoon. The second survey is at the time of closing of mines for monsoon season. This survey will provide the quantity of the material excavated before the offset of monsoon. The third survey needs to be carried out after the monsoon to know the quantum of material deposited/replenished in the mining lease. The fourth survey at the end of March to know the quantity of material excavated during the financial year. For the subsequent years, there will be a requirement of only three surveys. The results of year-wise surveys help the state government to establish the replenishment rate of the river. Based on the replenishment rate future auction may be planned. The replenishment period may vary on nature of the channel and season of deposition arising due to variation in the flow. Such period and season may vary on the geographical and precipitation characteristic of the region and requires to be defined by the local agencies preferable with the help of the Central Water Commission and Indian Meteorological Department. The excavation will, therefore, be limited to estimated replenishment estimated with consideration of other regulatory provisions.



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23. Need for Sand Replenishment Study and Factors to be considered

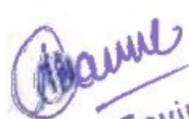
Environmental status of the mined out area may be affected badly if proper care is not taken to ensure sustainable extraction of sand from river bed. Proper study of the following factors must be taken into consideration to reveal the actual potential of sand deposition in river course after completion of periodical excavation annually. The main factors to be considered for the study of the replenishment potential of particular river course are:

Formation of sand comprises of the following:

- Catchment area and geographical strata
- Erosion, weathering and transportation of load
- Climatic conditions, precipitation
- Geomorphology, physiographic manmade structures and activity details

Deposition/sedimentation of material or sediment yield depends upon several factors like:

- Catchment area
- Span of river/ flood plain
- Travelling distance of suspended particles
- Slope/gradient/ depth of water channel;/meandering of river
- Geology traversed
- Climatic conditions
- Tributaries/ confluence
- Type/ stage of river and flow velocity
- Flow during lean period


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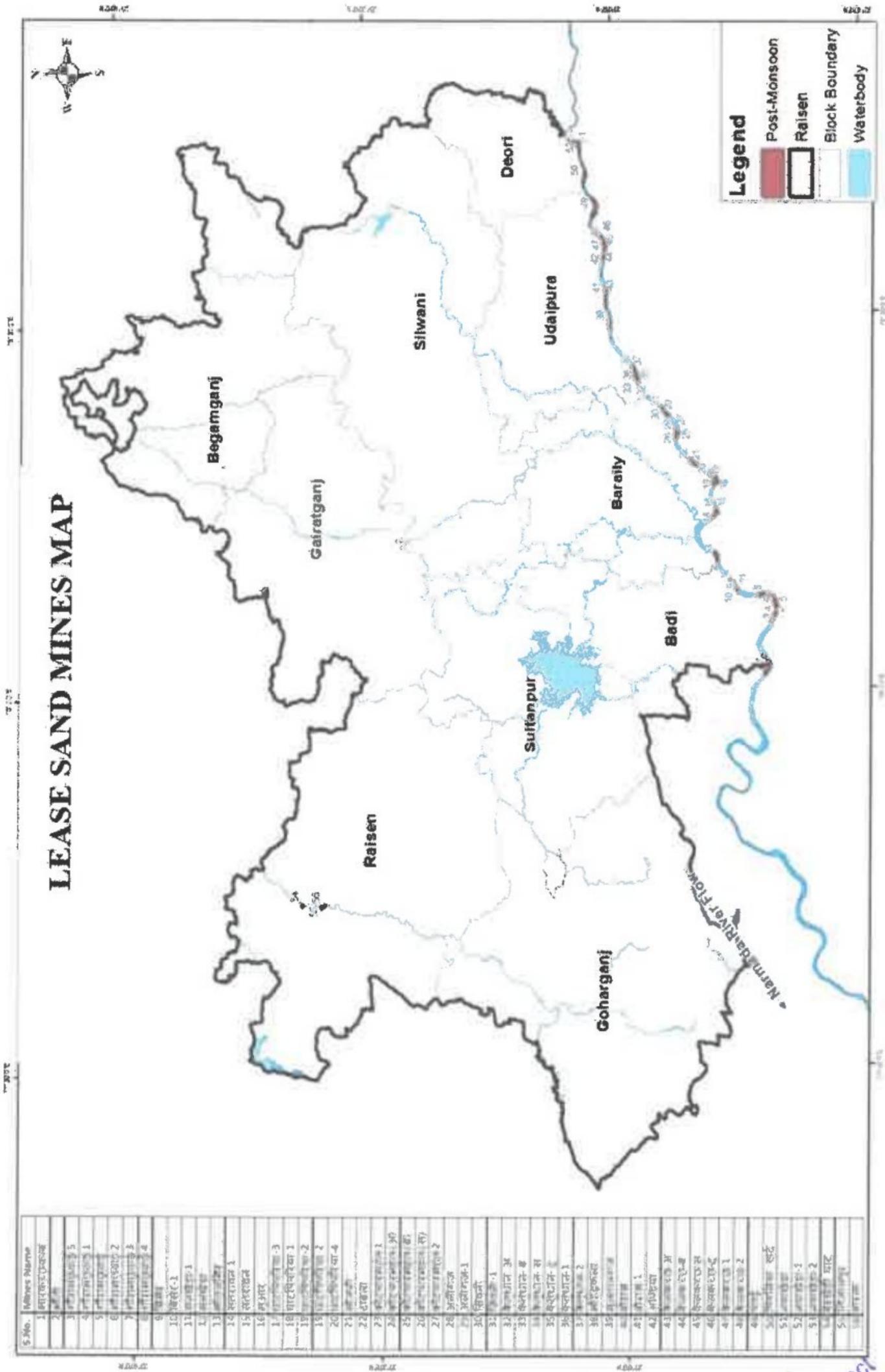


Figure 13 Mining Lease Marked on the District Map

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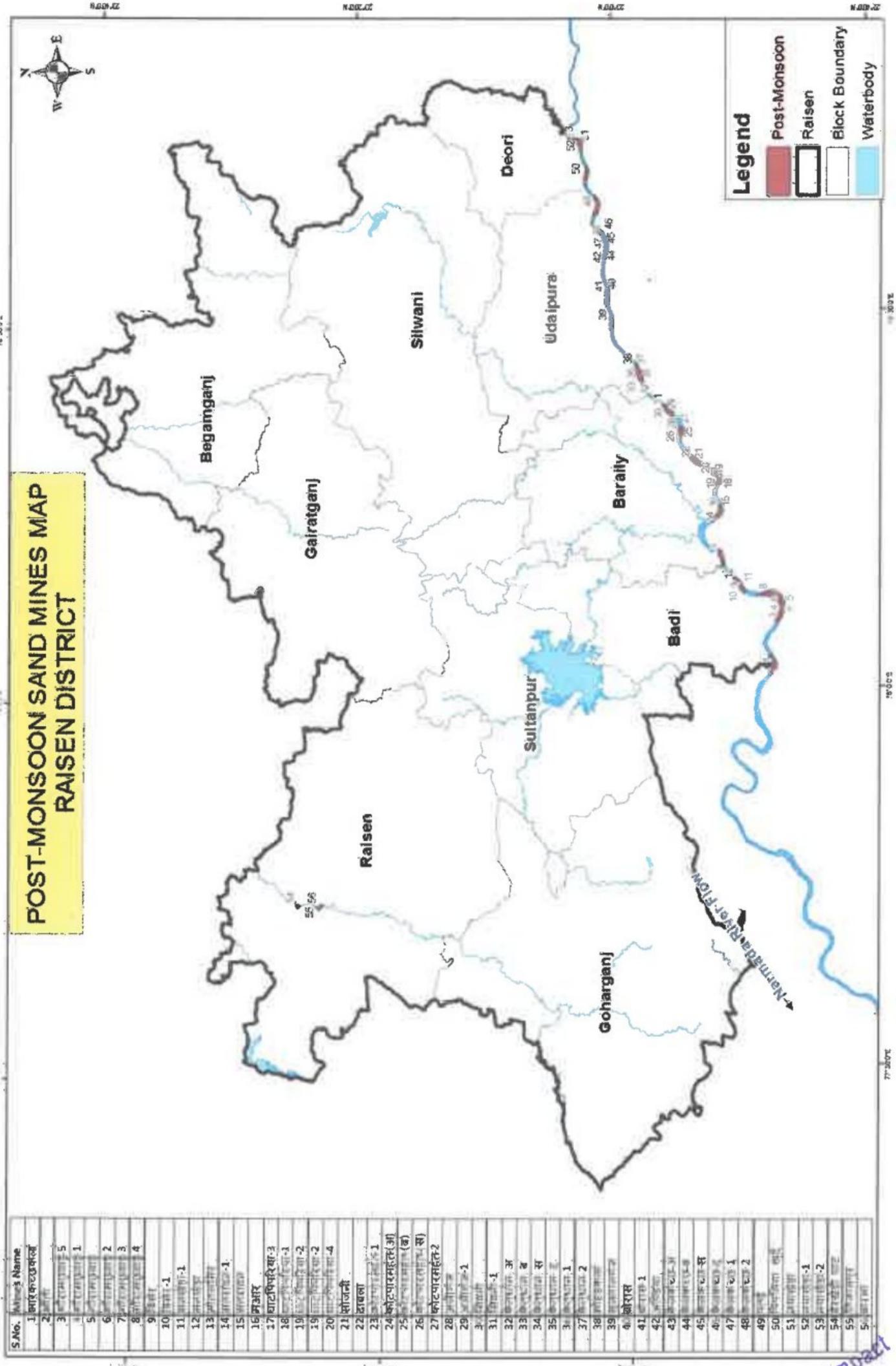


Figure 14 Sand Mining Map of the District -- Post Monsoon



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Table 19 Sand Mining Area based on Post Monsoon Map

List of Sand Mines, District- Raisen							
				Mines Status	Post-Monsoon Area Based on Satellite Data		
Sl. No.	District	Tehsil	Name of Mines	Status	Total Area in sqm	Standard Depth in meters	Sand Mines Capacity (Cubic meters)
1	Raisen	Badi	Bharkatchkala	New	1,20,000	3	3,60,000.00
2	Raisen	Badi	Bhouti	New	20,000	3	60,000.00
3	Raisen	Badi	Goramachuvai- 5	New	30,000	3	90,000.00
4	Raisen	Badi	Goramachuvai- 1	Operational	10,0000	3	3,00,000.00
5	Raisen	Badi	Goramachuvai	Non-Operational	8,090	3	24,270.00
6	Raisen	Badi	Goramachuvai- 2	Operational	20,0000	3	6,00,000.00
7	Raisen	Badi	Goramachuvai- 3	New	90,000	3	2,70,000.00
8	Raisen	Badi	Goramachuvai- 4	New	54,0000	3	16,20,000.00
9	Raisen	Badi	Biser	Non-Operational	10,000	3	30,000.00
10	Raisen	Badi	Biser- 1	New	56,000	3	1,68,000.00
11	Raisen	Badi	Sankheda- 1	New	30,000	3	90,000.00
12	Raisen	Badi	Sankheda	Non-Operational	1,50,000	3	4,50,000.00
13	Raisen	Bareli	Motalsir	Non-Operational	40,000	3	1,20,000.00
14	Raisen	Bareli	Satravan- 1	New	1,40,000	3	4,20,000.00
15	Raisen	Bareli	Satravan	Non-Operational	26,600	3	79,800.00
16	Raisen	Bareli	Muar	New	50,000	3	1,50,000.00
17	Raisen	Bareli	Ghatpipariya- 3	New	80,000	3	2,40,000.00
18	Raisen	Bareli	Ghatpipariya- 1	Non-Operational	49,500	3	1,48,500.00
19	Raisen	Bareli	Ghatpipariya- 2	Non-Operational	40,000	3	1,20,000.00

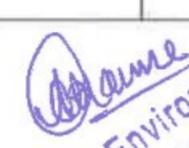
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20	Raisen	Bareilly	Ghatpipariya- 4	New	30,000	3	90,000.00
21	Raisen	Bareilly	Sojani	Non-Operational	2,00,000	3	6,00,000.00
22	Raisen	Bareilly	Dhabla	New	1,30,000	3	3,90,000.00
23	Raisen	Bareilly	Kotparmahant- 1	New	60,000	3	1,80,000.00
24	Raisen	Bareilly	Kotparmahant- A	Non-Operational	1,00,000	3	3,00,000.00
25	Raisen	Bareilly	Kotparmahant- B	Operational	40,000	3	1,20,000.00
26	Raisen	Bareilly	Kotparmahant- C	Operational	12,100	3	36,300.00
27	Raisen	Bareilly	Kotparmahant- 2	New	33,000	3	99,000.00
28	Raisen	Bareilly	Aliganj	Non-Operational	40,460	3	1,21,380.00
29	Raisen	Bareilly	Aliganj- 1	New	75,000	3	2,25,000.00
30	Raisen	Bareilly	Seoni	Non-Operational	4,050	3	12,150.00
31	Raisen	Bareilly	Seoni- 1	New	1,50,000	3	4,50,000.00
32	Raisen	Udaipura	Ketudhan- A	Non-Operational	24,280	3	72,840.00
33	Raisen	Udaipura	Ketudhan- B	Non-Operational	24,280	3	72,840.00
34	Raisen	Udaipura	Ketudhan- C	Non-Operational	24,280	3	72,840.00
35	Raisen	Udaipura	Ketudhan- D	Operational	24,280	3	72,840.00
36	Raisen	Udaipura	Ketudhan- 1	New	51,500	3	1,54,500.00
37	Raisen	Udaipura	Ketudhan- 2	New	30,000	3	90,000.00
38	Raisen	Udaipura	Mohadkala	New	30,500	3	91,500.00
39	Raisen	Udaipura	Sultanganj	New	50,000	3	1,50,000.00
40	Raisen	Udaipura	Boras	Operational	20,230	3	60,690.00
41	Raisen	Udaipura	Boras- 1	New	40,000	3	1,20,000.00
42	Raisen	Udaipura	Andiya	Non-Operational	1,50,000	3	4,50,000.00
43	Raisen	Udaipura	Kelkachh- A	Non-Operational	36,420	3	1,09,260.00


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44	Raisen	Udaipura	Kelkachh- B	Non-Operational	36,420	3	1,09,260.00
45	Raisen	Udaipura	Kelkachh- C	Non-Operational	36,420	3	1,09,260.00
46	Raisen	Udaipura	Kelkachh- D	Non-Operational	24,280	3	72,840.00
47	Raisen	Udaipura	Kelkachh- 1	New	1,60,000	3	4,80,000.00
48	Raisen	Udaipura	Kelkachh- 2	New	84,000	3	2,52,000.00
49	Raisen	Deori	Patai	New	2,40,000	3	7,20,000.00
50	Raisen	Deori	Pipaliya Khurd (Richhawar)	New	50,000	3	1,50,000.00
51	Raisen	Deori	Nayakheda	New	8,090	3	24,270.00
52	Raisen	Deori	Nayakheda- 1	New	62,900	3	1,88,700.00
53	Raisen	Deori	Nayakheda- 2	New	7,100	3	21,300.00
54	Raisen	Raisen	Berkhedi Ghat	New	7,700	3	23,100.00
55	Raisen	Raisen	Tijalpur	New	4,000	3	12,000.00
56	Raisen	Raisen	Barla	New	3,300	3	9,900.00


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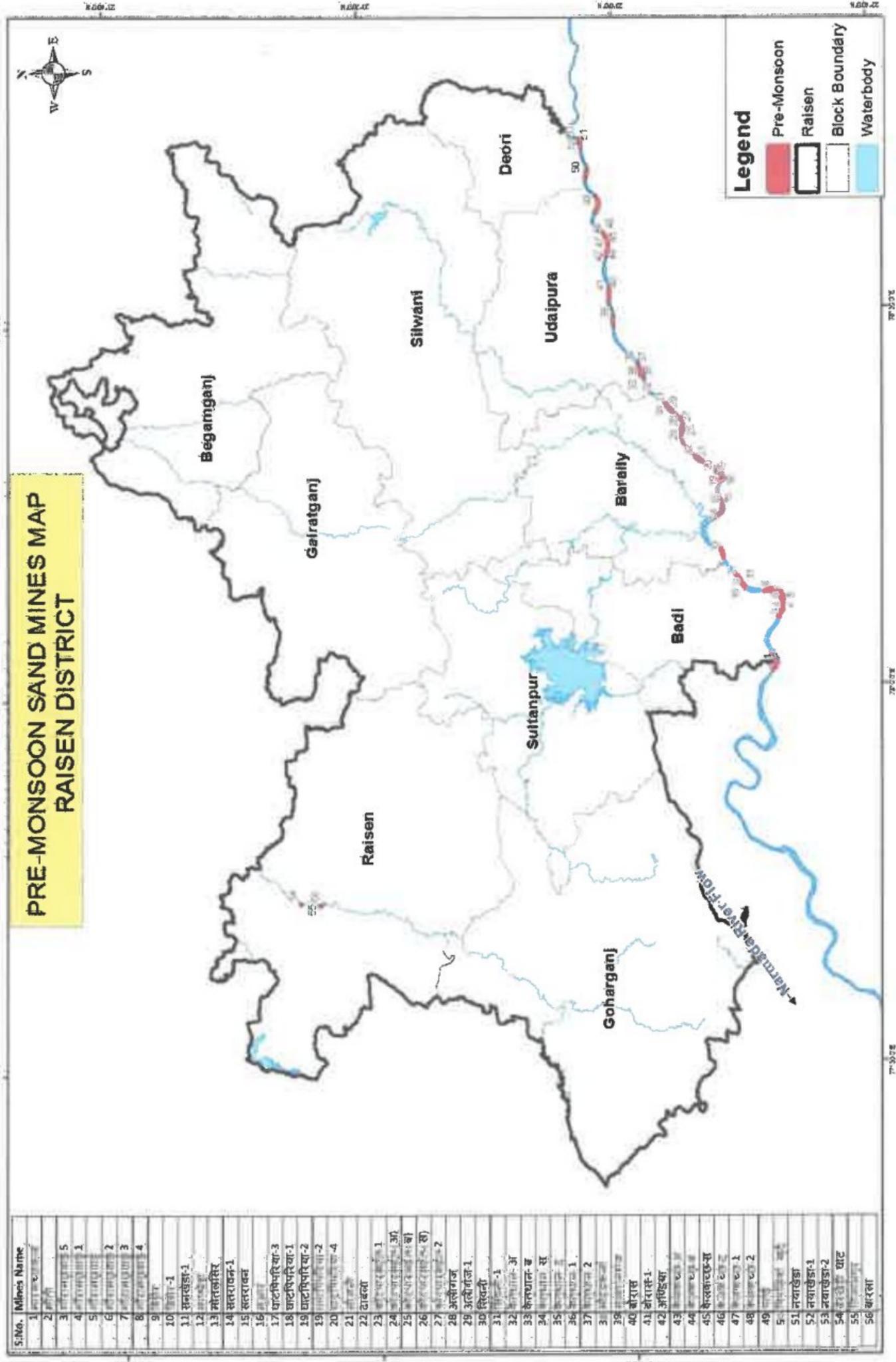


Figure 15 Sand Mining Map of the District – Pre -Monsoon



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Table 20 Sand Mining Area based on Pre-Monsoon Map

List of Sand Mines, Dist.- Raisen							
				Mines Status	Pre-Monsoon Area Based on Satellite Data		
Sr. No.	District	Tehsil	Name of Mines	Status	Total Area in sqm	Standard Depth in meters	Sand Mines Capacity (Cubic meters)
1	Raisen	Badi	Bharkatchkala	New	1,20,000	3 ✓	2,52,000.0 0
2	Raisen	Badi	Bhouti	New	20,000	3	42,000.00
3	Raisen	Badi	Goramachuvai- 5	New	30,000	3	63,000.00
4	Raisen	Badi	Goramachuvai- 1	Operational	10,0000	3	2,10,000.0 0
5	Raisen	Badi	Goramachuvai	Non-Operational	8,090	3	16,989.00
6	Raisen	Badi	Goramachuvai- 2	Operational	20,0000	3	4,20,000.0 0
7	Raisen	Badi	Goramachuvai- 3	New	90,000	3	1,89,000.0 0
8	Raisen	Badi	Goramachuvai- 4	New	54,0000	3	11,34,000. 00
9	Raisen	Badi	Biser	Non-Operational	10,000	3	21,000.00
10	Raisen	Badi	Biser- 1	New	56,000	3	1,17,600.0 0
11	Raisen	Badi	Sankheda- 1	New	30,000	3	63,000.00
12	Raisen	Badi	Sankheda	Non-Operational	1,50,000	3	3,15,000.0 0
13	Raisen	Bareli	Motalsir	Non-Operational	40,000	3	84,000.00
14	Raisen	Bareli	Satravan- 1	New	1,40,000	3	2,94,000.0 0
15	Raisen	Bareli	Satravan	Non-Operational	26,600	3	55,860.00
16	Raisen	Bareli	Muar	New	50,000	3	1,05,000.0 0
17	Raisen	Bareli	Ghatpipariya- 3	New	80,000	3	1,68,000.0 0
18	Raisen	Bareli	Ghatpipariya- 1	Non-Operational	49,500	3	1,03,950.0 0
19	Raisen	Bareli	Ghatpipariya- 2	Non-Operational	40,000	3	84,000.00
20	Raisen	Bareli	Ghatpipariya- 4	New	30,000	3	63,000.00



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21	Raisen	Bareli	Sojani	Non-Operational	2,00,000	3	4,20,000.00
22	Raisen	Bareli	Dhabla	New	1,30,000	3	2,73,000.00
23	Raisen	Bareli	Kotparmahant- 1	New	60,000	3	1,26,000.00
24	Raisen	Bareli	Kotparmahant- A	Non-Operational	1,00,000	3	2,10,000.00
25	Raisen	Bareli	Kotparmahant- B	Operational	40,000	3	84,000.00
26	Raisen	Bareli	Kotparmahant- C	Operational	12,100	3	25,410.00
27	Raisen	Bareli	Kotparmahant- 2	New	33,000	3	69,300.00
28	Raisen	Bareli	Aliganj	Non-Operational	40,460	3	84,966.00
29	Raisen	Bareli	Aliganj- 1	New	75,000	3	1,57,500.00
30	Raisen	Bareli	Seoni	Non-Operational	4,050	3	8,505.00
31	Raisen	Bareli	Seoni- 1	New	1,50,000	3	3,15,000.00
32	Raisen	Udaipura	Ketudhan- A	Non-Operational	24,280	3	50,988.00
33	Raisen	Udaipura	Ketudhan- B	Non-Operational	24,280	3	50,988.00
34	Raisen	Udaipura	Ketudhan- C	Non-Operational	24,280	3	50,988.00
35	Raisen	Udaipura	Ketudhan- D	Operational	24,280	3	50,988.00
36	Raisen	Udaipura	Ketudhan- 1	New	51,500	3	1,08,150.00
37	Raisen	Udaipura	Ketudhan- 2	New	30,000	3	63,000.00
38	Raisen	Udaipura	Mohadkala	New	30,500	3	64,050.00
39	Raisen	Udaipura	Sultanganj	New	50,000	3	1,05,000.00
40	Raisen	Udaipura	Boras	Operational	20,230	3	42,483.00
41	Raisen	Udaipura	Boras- 1	New	40,000	3	84,000.00




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42	Raisen	Udaipura	Andiya	Non-Operational	1,50,000	3	3,15,000.00
43	Raisen	Udaipura	Kelkachh- A	Non-Operational	36,420	3	76,482.00
44	Raisen	Udaipura	Kelkachh- B	Non-Operational	36,420	3	76,482.00
45	Raisen	Udaipura	Kelkachh- C	Non-Operational	36,420	3	76,482.00
46	Raisen	Udaipura	Kelkachh- D	Non-Operational	24,280	3	50,988.00
47	Raisen	Udaipura	Kelkachh- 1	New	1,60,000	3	3,36,000.00
48	Raisen	Udaipura	Kelkachh- 2	New	84,000	3	1,76,400.00
49	Raisen	Deori	Patai	New	2,40,000	3	5,04,000.00
50	Raisen	Deori	Pipaliya Khurd (Richhawar)	New	50,000	3	1,05,000.00
51	Raisen	Deori	Nayakheda	New	8,090	3	16,989.00
52	Raisen	Deori	Nayakheda- 1	New	62,900	3	1,32,090.00
53	Raisen	Deori	Nayakheda- 2	New	7,100	3	14,910.00
54	Raisen	Raisen	Berkhedi Ghat	New	7,700	3	16,170.00
55	Raisen	Raisen	Tijalpur	New	4,000	3	8,400.00
56	Raisen	Raisen	Barla	New	3,300	3	9,900.00

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Table 21 Comparative Study: Pre and Post Monsoon Scenarios

Sl. No.	Name of Mines	Mines Status	Post-Monsoon Area Based on Satellite Data		Pre-Monsoon Area Based on Satellite Data		Comparative Study		
			Total Area in sq.m.	Sand Mines Capacity (Cubic meters)	Total Area in sq.m.	Sand Mines Capacity (Cubic meters)	Difference in Total Area in sq.m	Difference in Sand Mines Capacity (Cubic meters)	% Difference
1	Bharkatchkala	New	1,41,525	3,60,000.00	1,38,150	2,52,000.00	3,375	10,125	2.44%
2	Bhouti	New	59,625	60,000.00	57,600	42,000.00	2,025	6,075	3.52%
3	Goramachuvai - 5	New	61,200	90,000.00	57,600	63,000.00	3,600	10,800	6.25%
4	Goramachuvai - 1	Operational	1,23,300	3,00,000.00	1,24,875	2,10,000.00	-1,575	-4,725	-1.26%
5	Goramachuvai	Non-Operational	9,000	24,270.00	8,550	16,989.00	450	1,350	5.26%
6	Goramachuvai - 2	Operational	2,62,575	6,00,000.00	2,46,150	4,20,000.00	16,425	49,275	6.67%
7	Goramachuvai - 3	New	1,26,000	2,70,000.00	1,21,950	1,89,000.00	4,050	12,150	3.32%
8	Goramachuvai - 4	New	7,85,925	16,20,000.00	7,64,775	11,34,000.00	21,150	63,450	2.77%
9	Biser	Non-Operational	19,575	30,000.00	18,900	21,000.00	675	2,025	3.57%
10	Biser- 1	New	76,725	1,68,000.00	72,675	1,17,600.00	4050	12150	5.57%
11	Sankheda- 1	New	36,675	90,000.00	36,450	63,000.00	225	675	0.62%

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12	Sankheda	Non-Operational	1,59,975	4,50,000.00	1,81,350	3,15,000.00	-21,375	-64,125	-11.79%
13	Motalsir	Non-Operational	1,32,300	1,20,000.00	1,27,800	84,000.00	4,500	13,500	3.52%
14	Satravan-1	New	1,79,100	4,20,000.00	1,76,850	2,94,000.00	2,250	6,750	1.27%
15	Satravan	Non-Operational	58,500	79,800.00	56,700	55,860.00	1,800	5,400	3.17%
16	Muar	New	23558	1,50,000.00	26,593	1,05,000.00	3,035	3,035	11.41%
17	Ghatpipariya-3	New	79,650	2,40,000.00	84,150	1,68,000.00	-4,500	-13,500	-5.35%
18	Ghatpipariya-1	Non-Operational	45,675	1,48,500.00	48,600	1,03,950.00	-2,925	-8,775	-6.02%
19	Ghatpipariya-2	Non-Operational	31,275	1,20,000.00	38,025	84,000.00	-6,750	-20,250	-17.75%
20	Ghatpipariya-4	New	19,350	90,000.00	22,275	63,000.00	-2,925	-8,775	-13.13%
21	Sojani	Non-Operational	1,25,100	6,00,000.00	1,88,325	4,20,000.00	-63,225	-1,89,675	-33.57%
22	Dhabla	New	93,375	3,90,000.00	91,350	2,73,000.00	2,025	6,075	2.22%
23	Kotparmahant-1	New	63,450	1,80,000.00	81,000	1,26,000.00	-17,550	-52,650	-21.67%
24	Kotparmahant-A	Non-Operational	57,375	3,00,000.00	76,050	2,10,000.00	-18,675	-56,025	-24.56%

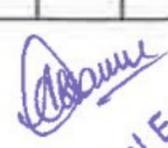
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25	Kotparmahant-B	Operational	9,675	1,20,000.00	9,000	84,000.00	675	2,025	7.50%
26	Kotparmahant-C	Operational	52633	36,300.00	58,926	25,410.00	6,293	18,879	10.68%
27	Kotparmahant-2	New	11672	99,000.00	12,248	69,300.00	576	1,728	4.70%
28	Aliganj	Non-Operational	32,625	1,21,380.00	1,65,600	84,966.00	-1,32,975	-3,98,925	-80.30%
29	Aliganj-1	New	77,625	2,25,000.00	73,800	1,57,500.00	3,825	11,475	5.18%
30	Seoni	Non-Operational	3,825	12,150.00	4,050	8,505.00	-225	-675	-5.56%
31	Seoni-1	New	1,39,275	4,50,000.00	1,43,100	3,15,000.00	-3,825	-11,475	-2.67%
32	Ketudhan-A	Non-Operational	13,950	72,840.00	20,475	50,988.00	-6,525	-19,575	-31.87%
33	Ketudhan-B	Non-Operational	19,800	72,840.00	33,075	50,988.00	-13,275	-39,825	-40.14%
34	Ketudhan-C	Non-Operational	23,175	72,840.00	21,375	50,988.00	1,800	5,400	8.42%
35	Ketudhan-D	Operational	34,425	72,840.00	33,075	50,988.00	1,350	4,050	4.08%
36	Ketudhan-1	New	58,050	1,54,500.00	68,175	1,08,150.00	-10,125	-30,375	-14.85%
37	Ketudhan-2	New	31,275	90,000.00	27,000	63,000.00	4,275	12,825	15.83%
38	Mohadkala	New	30,375	91,500.00	23,400	64,050.00	6,975	20,925	29.81%

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39	Sultanganj	New	53,325	1,50,000.00	56,025	1,05,000.00	-2,700	-8,100	-4.82%
40	Boras	Operational	25,650	60,690.00	24,975	42,483.00	675	2025	2.70%
41	Boras- 1	New	67,050	1,20,000.00	68,400	84,000.00	-1,350	-4,050	-1.97%
42	Andiya	Non-Operational	1,12,950	4,50,000.00	1,07,325	3,15,000.00	5,625	16,875	5.24%
43	Kelkachh- A	Non-Operational	35,100	1,09,260.00	34,200	76,482.00	900	2,700	2.63%
44	Kelkachh- B	Non-Operational	36,675	1,09,260.00	35,100	76,482.00	1,575	4,725	4.49%
45	Kelkachh- C	Non-Operational	32,400	1,09,260.00	34,200	76,482.00	-1,800	-5,400	-5.26%
46	Kelkachh- D	Non-Operational	13,950	72,840.00	13,275	50,988.00	675	2,025	5.08%
47	Kelkachh- 1	New	1,61,100	4,80,000.00	1,60,425	3,36,000.00	675	2,025	0.42%
48	Kelkachh- 2	New	82,350	2,52,000.00	79,200	1,76,400.00	3,150	9,450	3.98%
49	Patai		2,46,600	7,20,000.00	2,55,600	5,04,000.00	-9,000	-27,000	-3.52%
50	Pipaliya Khurd (Richhwar)	New	67,050	1,50,000.00	60,075	1,05,000.00	6,975	20,925	11.61%
51	Nayakheda	New	19,350	24,270.00	17,550	16,989.00	1,800	5,400	10.26%
52	Nayakheda- 1	New	63,450	1,88,700.00	59,850	1,32,090.00	3,600	10,800	6.02%




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53	Nayakheda- 2	New	10,575	21,300.00	10,125	14,910.00	450	1,350	4.44%
54	Berkhedi Ghat	New	5,400	23,100.00	5,400	16,170.00	0	0	0.00%
55	Tijalpur	New	3,375	12,000.00	3,375	8,400.00	0	0	0.00%
56	Barla	New	2,475	9,900.00	2,475	9,900.00	0	0	0.00%

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23.1 Aggradations and Degradation Study

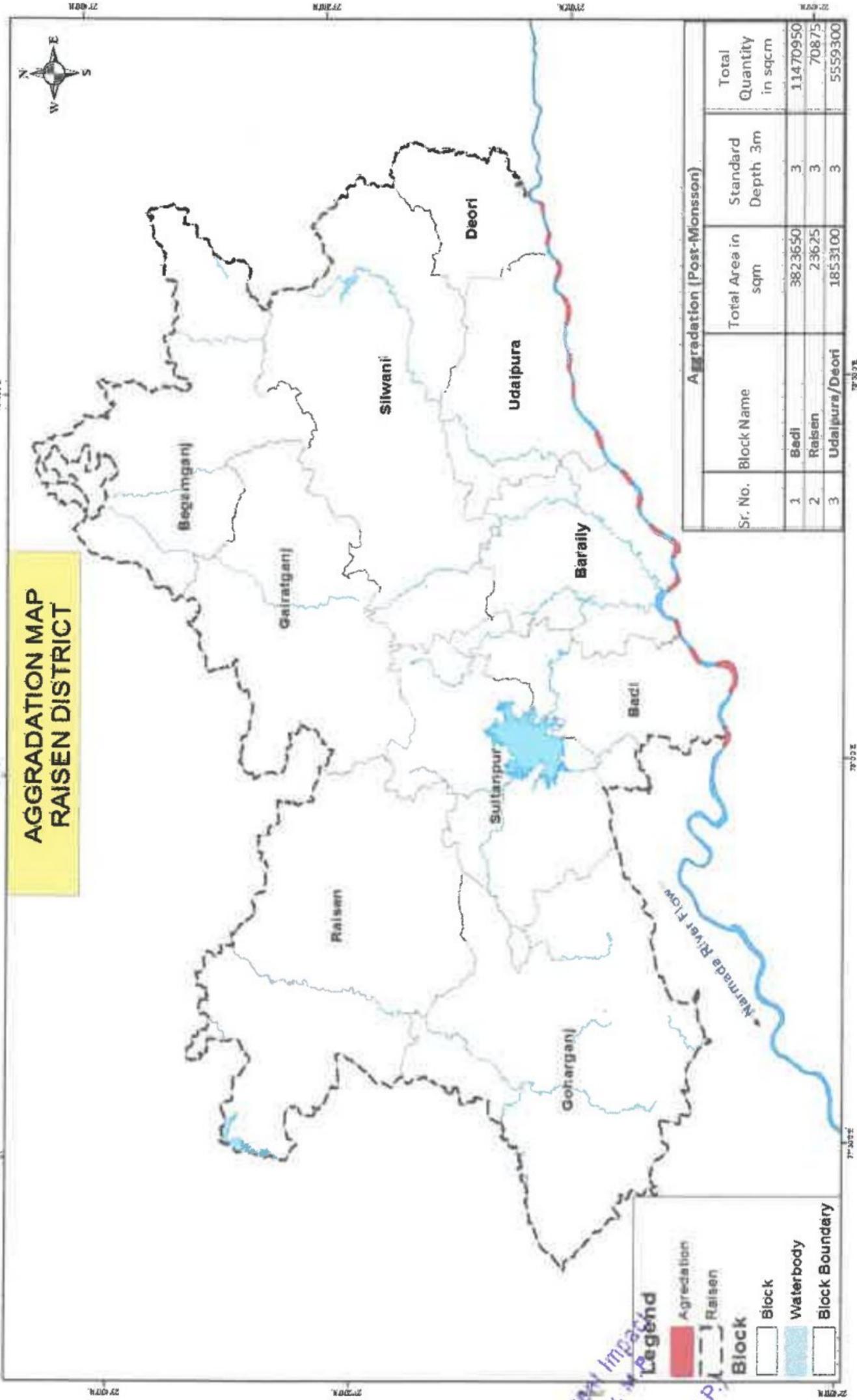


Figure 16 Aggradations Map of the District

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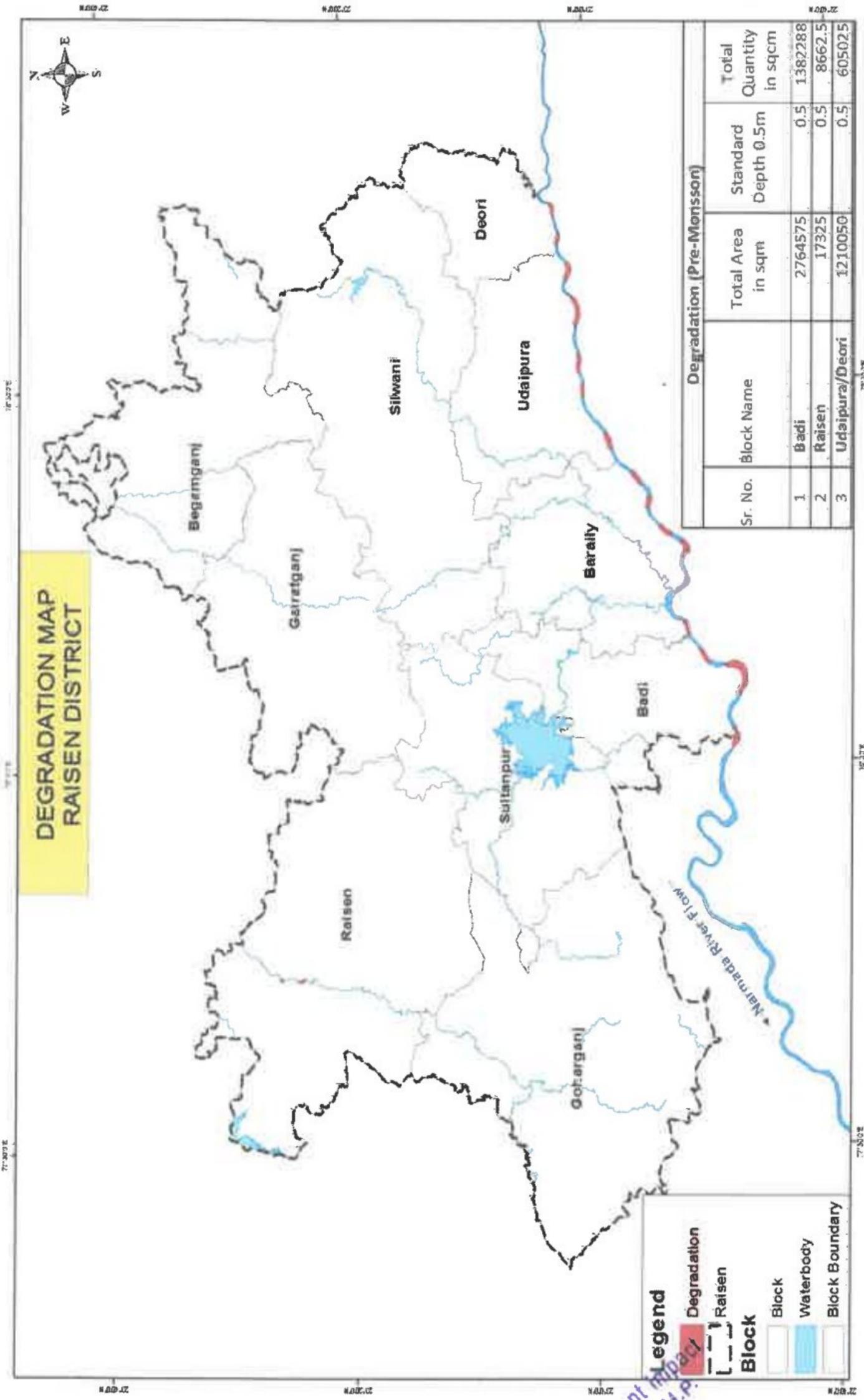


Figure 17 Degradation Map of the District

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Table 22 Block Wise Details of Aggradations and Degradations

Sr. No.	Block Name	Aggradations (Post-Monsoon)			Degradation (Pre-Monsoon)		
		Total Area in sqm	Standard Depth After Degradation 0.5m	Total Quantity in sqm	Total Quantity in sqm	Standard Depth After Degradation 0.5m	Total Quantity in sqm
1	Badi	13,54,090.00	3	40,62,270.00	13,54,090.00	0.5	28,43,589.00
2	Bareli	13,00,710.00	3	39,02,130.00	13,00,710.00	0.5	27,31,491.00
3	Udaipura	8,46,890.00	3	25,40,670.00	8,46,890.00	0.5	17,78,469.00
4	Deori	3,68,090.00	3	11,04,270.00	3,68,090.00	0.5	7,72,989.00
5	Raisen	15,000.00	3	45,000.00	15,000.00	0.5	34,470.00

Based on the study presented above about aggregation & degradation and the specific studies for each mine during the preparation of mining plan, the areas of prohibition for mining can be found out. The areas facing aggregation are possible and promising areas for mining of sand whereas the areas facing severe degradation are to be left out and should be left undisturbed. Mining should not be allowed at such location.

The findings have been tabulated as below:


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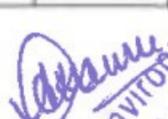
Table 23 Drainage System with description of main Rivers

S. No.	Name of the River	Area Drained	Area Drained in the District
1	Narmada River	37,774 sqkm	4,600 sq. km
2	Betwa River	4,253 sqkm	2,414 sq. km

Table 24 Salient Features of Important Rivers and Streams

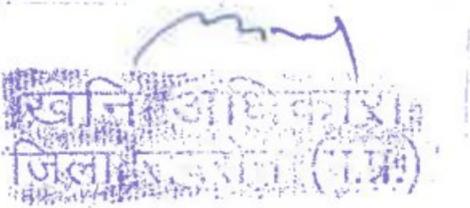
S. No.	Name of the River or Stream	Total length in the District (in km)	Place of Origin	Altitude at origin
1	Narmada River	85.51 km	Amarkantak	1,064 m
2	Betwa River	56.24 km	Barkheda Village (Vindhyan Range)	514 m

Table 25 Details of the Concession area in the District


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Name of River or Stream recommended the for mineral concession	Portion of the River or Stream Recommended for Mineral Concession	Length of area recommended for mineral concession (in kilometres)	Average width of area recommended for mineral concession (in meters)	Area recommended for mineral concession (in m ²)	Mineable mineral potential (in M3 (60 % of total mineral potential))
Narmada River	Badi:- Bharkachhkan, Bhonti, Gonramchhuwai, Gonramchhuwai-1, Gonramchhuwai-2, Gonramchhuwai-3, Gonramchhuwai-4, Gonramchhuwai-5, Biser, Biser-1, Sankheda, Sankheda-1.	25.51	206	38,69,780.00	69,65,604.00
	Bareli:-Motalsir, Satrawan, Satrawan-1, Muar, Ghatpipaliya-1, Ghatpipaliya-2, Ghatpipaliya-3, Ghatpipaliya-4, Sojni, Dhabla, Kotparmahant-1, Kotparmahant-2, Kotparmahant-A, Kotparmahant-B, Kotparmahant-C, Aliganj, Aliganj-1, Seoni, Seoni-1				
	Udaipura:- Ketudhan-A, Ketudhan-B, Ketudhan-C, Ketudhan-D, Kelkachh-1, Kelkachh-2, Kelkachh-A, Kelkachh-B, Kelkachh-C, Kelkachh-D, Patai, Pipaliya				



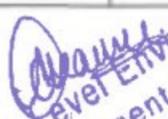

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	Khurd, Nayakhrda, Nayakhrda-1, Nayakhrda-2, Boras, Boras-1, Andiya, Sultanganj, Barkhedi Ghat				
Betwa River	Raisen:- Barkhedi Ghat , Tijapur, Barla	0.75	26	15,000.00	27,000.00

Table 26 Details of Annual Deposition

Name of River or Stream	Portion of the River or Stream Recommended for Mineral Concession	Length of area recommended for mineral concession (in kilometers)	Average width of area recommended for mineral concession (in meters)	Area recommended for mineral concession (in M ²)	Mineable mineral potential (in M3 (60 % of total mineral potential))
Narmada River	Along the river bank of the Narmada in South part of the district	25.51	206	38,69,780.00	69,65,604.00
Betwa River	Along the river bank of the Betwa River in Western Part of district	0.75	26	15,000.00	27,000.00


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24. Risk Assessment & Disaster Management Plan:

The Disaster Management Plan (DMP) is supposed to be a dynamic, changing, document focusing on continual improvement of emergency response planning and arrangements.

The disaster management plan is aimed to ensure safety of life, protection of environment, protection of installation, restoration of production and salvage operations in this same order of priorities. For effective implementation of the disaster management plan, it should be widely circulated and personnel training through rehearsals/induction conducted by the respective department from time to time.

24.1 General Responsibilities during an Emergency

During an emergency, it becomes more enhanced and pronounced when an emergency warning is raised, the workers in-charge, should adopt safe and emergency shut down and attend any prescribed duty as essential employee. If no such responsibility is assigned, he should adopt a safe course to assembly point and await instructions. He should not resort to spread panic. On the other hand, he must assist emergency personnel towards objectives of DMP.

24.2 Co-ordination with Local Authorities

The mine manager who is responsible for emergency will always keep a jeep ready at site. In case any eventualities the victim will be taken to the nearby hospitals after carrying out the first aid at site. A certified first aid certificate holder will be responsible to carry out the first aid at site. The mine manager should collect and have adequate information of the nearby hospitals, fire station, police station, Village Panchayat heads, taxi stands, medical shop, district revenue authorities etc., and use them efficiently during the case of emergency.

24.3 Disaster Management Plan

The objectives of DMP are to describe the company's emergency preparedness, organization, the resource availability and response actions applicable to deal with various types of situations that can occur at mines in shortest possible time.

Thus, the overall objectives of the emergency plan are summarized as: -

- Rapid control and containment of Hazardous situation

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- Minimum the risk and impact of event/ accident
- Effective prevention of damage to property.
- In order to achieve effectively the objectives of emergency planning, the critical elements that form the backbone of Disaster Management Plan (DMP) are: -
- Reliable and early detection of an emergency and immediate careful planning.
- The command, co-ordination and response organization structure along with availability of efficient trained personnel.
- The availability of resources for handling emergencies.
- Appropriate emergency response action.
- Effective notification and communication facilities.
- Regular review and updating DMP.
- Training of the concerned personnel.
- Steps taken for minimizing the effects may include rescue operations, first aid, evacuation, rehabilitation and communicating promptly to people living nearby.

Mining and allied activities are associated with several potential hazards to both the employees and the public at large. A worker in a mine will be able to work under conditions, which are adequately safe and healthy. At the same time the environmental conditions also will not impair his working efficiency. This is possible only when there is adequate safety in mines. Hence mine safety is one of the most essential aspects of any working mine. The safety of the mine and the employees is taken care of by the Mines Act 1952, which is well defined with laid down procedure to ensure safety and constantly monitored and supervised by Directorate General of Mines Safety and Department of Mines, State Government.

25. Details of the Occupational Health issues in the

District :-

Open cast method involves dust generation by excavation, loading and transportation of mineral. At site, during excavation and loading activity, dust is main pollutant which affects the health of workers whereas environmental and climatic conditions also generate the health problems. Addressing the occupational health hazard means gaining an understanding of the source (its location and magnitude or concentration), identifying an exposure pathway (e.g., a means to get it in contact with someone), and determination of likely a receptor (someone receiving the stuff that is migrating).

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Occupational hazard due to open cast mining mainly comes under the physical hazards. Possible physical hazards are as below: -

Physical Hazards due to Mining Operations:

Following health related hazards were identified in open cast mining operations to the workers:

Light:- The workers may be exposed to the risk of poor illumination or excessive brightness. The effects are eye strain, headache, eye pain and lachrymation, congestion around the cornea and eye fatigue. In present case, the mining activity is done during day time only.

Heat and Humidity:- The most common physical hazard is heat. The direct effects of heat exposure are burns, heat exhaustion, heat stroke and heat cramps; the indirect effects are decreased efficiency, increased fatigue and enhanced accident rates. Heat and humidity are encountered in hot and humid condition when temperatures and air temperatures increase in summer time up to 46.10C or above in the river bed mining area.

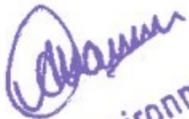
Eye Irritation:- During the high windy days in summer the dust could be the problems for eyes like itching and watering of eyes.

Respiratory Problems:- Large amounts of dust in air can be a health hazard, exacerbating respiratory disorders such as asthma and irritating the lungs and bronchial passages.

Noise Induced Hearing Loss:- Machinery is the main source of noise pollution at the mine site.

Risk Level using Risk Matrix: Risk Matrix is used to identify the level of risk involved in various hazards identified.

In Raisen there is one district hospital with 175 sub health centre, 18 primary health Centre, 202 government hospital and 85 primary hospital. About number of various health centres in district are given below:


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Table 27 Number of Health Centres in Raisen District

S.No	Health Centre/Hospital	Number	Description
1.	District Hospital	1	Raisen
2.	Trauma Centre	1	Raisen
3.	Sub Health Centre	175	Present In Each Block
	Primary Health Centre 3 In Sanchi, 1 In Dehgaon, 2 In Silwani, 1 In Beganganj, 4 In Udaipura, 4 In Bareli And 4 In Obedullaganj	18	Sanchi (Salamatpur, Dewanganj, Mudiakheda), Gairatganj (Dehgaon), Silwani (Jaithari And Bamhori) Beganganj (Sultanganj), Udaipura (Dewri, Chater, Kuchwara, Ketodhan), Bareli (Utiakala, Gugalwada Dumar, Khargoan), Obedullaganj (Sultanpur, Goharganj, Chikload, Badkheda)
4.	Community Health Centre	8	Beganganj, Bareli, Sanchi, Gairatganj, Silwani, Udaipura, Badi, Mandideep
5.	Government Hospital	202	Includes All The Health Centres In District
6.	Private Hospital	85	Includes All Private Health Centres In District

Malaria control in Madhya Pradesh is complex because of vast tracts of forest with tribal settlement. Fifty four million individuals of various ethnic origins, accounting for 8% of the total population of India, contributed 30% of total malaria cases, 60% of total falciparum cases and 50% of malaria deaths in the country. Ambitious goals to control tribal malaria by launching "Enhanced Malaria Control Project" (EMCP) by the National Vector Borne Disease Control Program (NVBDCP), with the World Bank assistance, became effective in September 1997 in eight north Indian states. Under EMCP, the program used a broader mix of new interventions, i.e. insecticide-treated bed nets, spraying houses with effective residual insecticides, use of larvivorous fishes, rapid diagnostic tests for prompt diagnosis, treatment of the sick with effective radical treatment and increased public awareness and IEC.



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The strategic plan will serve as the guide to all the districts and the state of Madhya Pradesh to achieve the TB elimination goals. Success of this endeavor will be an important chapter in the history of control of infectious diseases.

Tuberculosis is a disease dreaded due to its social consequences and age old myths and misconceptions regarding its transmission and treatment. It is more often mistreated by the unqualified and untrained thus leading to patients suffering physically and monetarily. Elimination of Tuberculosis will entail mammoth efforts by each and every stakeholder involved. The launch of this document provides with the necessary roadmap and momentum, in direction of meeting the goals specified.

26. Plantation and Green Belt Development in respect of lease granted in the District :-

Mining activities result in pollution of the environment. This requires protection of our environment. Plantation is the oldest technology for the restoration of the land damaged by the human activities as well as air pollution.

Trees are highly suitable for the detection and monitoring of the air pollutants and have been effectively used at various places

By planting trees we can achieve the dual purpose of bioaesthetics as well as mitigation of pollution. Proper planning and plantation scheme depends upon the magnitude and type of pollution, selection of pollution tolerant and dust capturing plants

The plants should be ever green, large leaved, with rough bark, ecologically compatible, with low water requirement, requiring minimum care, capable to absorb pollutants, pollutant resistant, agro climatically suitable, fast growing, free from wind throw and breakage and with high pollution tolerance index. The species should be suitable to the climate, topography and soil. A minimum two rows of plantation will be carried out to minimize the effect of pollution. This would attenuate the pollutants level.


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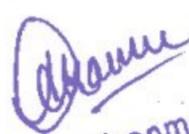

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Table 28 Recommended Plant species for green belt development/plantation.

S.No.	Botanical Name	Family	Common Name
1.	Bougainvillea glabra choisy	Nyctagianaceae	Boogenbel
2.	Hibiscus rosa-sinensis L	Malvaceae	Gurhal
3.	Nerium indicum Mill.	Apocynaceae	Kaner
4.	Plumeria rubra L	Apocynaceae	Champa
5.	Tabernaemontana divaricata (L) R. Br. Ex Roem. & Schult	Apocynaceae	Chandni
6.	Ailanthus excels Roxb.	Simaroubaceae	Maha nimbi
7.	Alastonia scholaris (L.) R.Br	Apocynaceae	Chitvan
8.	Cassia Fistula L	Caesalpiaceae	Amaltas
9.	Butea monosperma (Lamk) taub	Fabaceae	Khakra/ Palash
10.	Nyctanthes arbour-tristis L.	Oleaceae	Harsingar
11.	Azadirachta indica A. Juss	Meliaceae	Neem
12.	Ficus religiosa L	Moraceae	Pipal
13.	Pterospermum acerifolium willd	Sterculiaceae	Kanak Champa
14.	Tectona grandis L	Verbenaceae	Teak/ Sagun
15.	Terminalia cattapa L	Combretaceae	Jangli badam
16.	Ziziphus mauritiana Lamk.	Rhamnaceae	Bada ber

Plantation has been done by project proponent on Barrier Zone, Non Mining Area, Approach road, nearby river bank and ravines etc. as per the suggestions of the authority.


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


 जिला न्यायालय (रैसन)

District Survey Report: Raisen

Figure 18 - Plantation Photographs of some Mines of District are shown below:



Figure No. 18.1

(Signature)

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

अभि. अधिकारी
जिला रायसना (म.प्र.)

District Survey Report: Raisen



Figure No. 18.2

खनि अधिकारी
जिला नदरान (म.प्र.)

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

District Survey Report: Raisen



Figure 18.3

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

खनि अविश्वर
जिला रायसोन (म.प्र.)

District Survey Report: Raisen



Figure 18.4

खनि अधिकार
जिला रायसेन (म.प्र.)

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

District Survey Report: Raisen



Figure 18.5

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

(Signature)
खनि अधिकार
जिला प्रारण (म.प्र.)

District Survey Report: Raisen



Figure 18.6

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

खनि अधिकारी
जिला रायसेन (म.प्र.)

District Survey Report: Raisen



Figure 18.7



खनि अधिकार
जिला रायसेन (म.प्र.)

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

खनि अधिकारी
जिला रायसेन (म.प्र.)

Annexures to District Survey Report District - Raisen


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

Annexure-I

Annexure-I

Details of Sand/M-Sand Sources :-

a) Rivers:

Name of River	Total Stretch of Rivers in District(In Kms)	Type of River (Perennial or Non- Perennial)
Narmada River	85.51 kms	Perennial
Betwa River	56.24 kms	Perennial
Bina River	54.20 kms	Perennial
Kolar River	11.75 kms	Perennial
Dhasan River	19.38 kms	Perennial
Sonar River	20.57 kms	Perennial

b) De-Siltation Location (Lakes/Ponds/Dams etc.) :

Name of Reservoir/Dams	Maintain/Controlled by Govt./PSU etc.	State	Location	District	Tehsil	Village	Area(Ha)
NIL	NIL		NIL	NIL	NIL	NIL	NIL

c) Patta Lands/Khatedari Land:

Owner	Sl. No.	Area (ha)	District	Tehsil	Village	Agricultural Land (Yes/No)
NIL	NIL	NIL	NIL	NIL	NIL	NIL

d) M-Sand Plants:

Sl.No.	Plant Name	Owner	District	Tehsil	Village	Geo-Location	Quantity Tonnes/Annum
NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL



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

Annexure-II

Annexure-II

Cluster & Contiguous Clusters Details:-

Sl. No.	River	Lease Details				Area (In Ha)	Distance (In Kms) from PA/BR/WC/	Distance from Forest Area (In Meters)	Mining leases within 500 meters (if yes cluster area)	Cluster No.	Number of Mines in Cluster	Contiguous Clusters Details {CC No. - (Cluster Numbers)}	Mineral Quantity for Excavation in (cu.m/yr.)	Name of Mineral (Sand/Bajri/RBM etc.)	Existing/Proposed
		जिला	तहसील का नाम	खदान	खसरा नं०										
1	नर्मदा	रायसेन	बरेली	मोतलसिर	551	> 10 kms	> 250 m	No Cluster Mine	Nil	Nil		120000	Sand	Proposed	
2	नर्मदा	रायसेन	बरेली	सतराखन-1	225/1	> 10 kms	> 250 m	(Sl. No. 2+3+4) Cluster Area = 21.660 Ha	1	3		420000	Sand	Proposed	
3	नर्मदा	रायसेन	बरेली	सतराखन	305	> 10 kms	> 250 m	(Sl. No. 2+3+4) Cluster Area = 21.660 Ha	1	3		79800	Sand	Proposed	
4	नर्मदा	रायसेन	बरेली	मुआर	73	> 10 kms	> 250 m	(Sl. No. 2+3+4) Cluster Area = 21.660 Ha	1	3		150000	Sand	Proposed	
5	नर्मदा	रायसेन	बरेली	घाटपिपरिया-3	306	> 10 kms	> 250 m	(Sl. No. 5+6+7) Cluster Area = 16.950 Ha	2	3		240000	Sand	Proposed	
6	नर्मदा	रायसेन	बरेली	घाटपिपरिया-1	306	> 10 kms	> 250 m	(Sl. No. 5+6+7) Cluster Area = 16.950 Ha	2	3		148500	Sand	Proposed	
7	नर्मदा	रायसेन	बरेली	घाटपिपरिया-2	299	> 10 kms	> 250 m	(Sl. No. 5+6+7) Cluster Area = 16.950 Ha	2	3		120000	Sand	Proposed	
8	नर्मदा	रायसेन	बरेली	घाटपिपरिया-4	299	> 10 kms	> 250 m	No Cluster Mine	Nil	Nil		90000	Sand	Proposed	
9	नर्मदा	रायसेन	बरेली	सोजनी	235	> 10 kms	> 250 m	(Sl. No. 9+10) Cluster Area = 33.00 Ha	3	2		600000	Sand	Proposed	
10	नर्मदा	रायसेन	बरेली	ढाबला	259	> 10 kms	> 250 m	(Sl. No. 9+10) Cluster Area = 33.00 Ha	3	2		390000	Sand	Proposed	
11	नर्मदा	रायसेन	बरेली	कोटपारमहंत-1	51	> 10 kms	> 250 m	(Sl. No. 11+12+13+14) Cluster Area = 21.210 Ha	4	4		180000	Sand	Proposed	
12	नर्मदा	रायसेन	बरेली	कोटपारमहंत-(अ)	51	> 10 kms	> 250 m	(Sl. No. 11+12+13+14+15) Cluster Area = 24.510 Ha	5	5		300000	Sand	Proposed	
13	नर्मदा	रायसेन	बरेली	कोटपारमहंत-(ब)	187	> 10 kms	> 250 m	(Sl. No. 11+12+13+14+15) Cluster Area = 24.510 Ha	5	5	I - (4-5-6)	120000	Sand	Proposed	
14	नर्मदा	रायसेन	बरेली	कोटपारमहंत-(स)	187	> 10 kms	> 250 m	(Sl. No. 11+12+13+14+15) Cluster Area = 24.510 Ha	5	5		36300	Sand	Proposed	



15	नर्मदा	रायसेन	बरेली	कोटापरमहंत-2	187	3.300	> 10 kms	> 250 m	(Sl. No. 12+13+14+15) Cluster Area = 18.510 Ha	6	4	99000	Sand	Proposed
16	नर्मदा	रायसेन	बरेली	अलीगंज	422, 423	4.046	> 10 kms	> 250 m	(Sl. No. 16+17) Cluster Area = 11.546 Ha	7	2	121380	Sand	Proposed
17	नर्मदा	रायसेन	बरेली	अलीगंज-1	423	7.500	> 10 kms	> 250 m	(Sl. No. 16+17+18+19) Cluster Area = 26.951 Ha	8	4	225000	Sand	Proposed
18	नर्मदा	रायसेन	बरेली	सिवनी	317	0.405	> 10 kms	> 250 m	(Sl. No. 17+18+19) Cluster Area = 22.905 Ha	9	3	12150	Sand	Proposed
19	नर्मदा	रायसेन	बरेली	सिवनी-1	317	15.000	> 10 kms	> 250 m	(Sl. No. 17+18+19) Cluster Area = 22.905 Ha	9	3	450000	Sand	Proposed
20	नर्मदा	रायसेन	उदयपुरा	केतूधान-अ	510	2.428	> 10 kms	> 250 m	(Sl. No. 20+21+24) Cluster Area = 10.006 Ha	10	3	72840	Sand	Proposed
21	नर्मदा	रायसेन	उदयपुरा	केतूधान-ब	510	2.428	> 10 kms	> 250 m	(Sl. No. 20+21+24) Cluster Area = 10.006 Ha	10	3	72840	Sand	Proposed
22	नर्मदा	रायसेन	उदयपुरा	केतूधान-स	510	2.428	> 10 kms	> 250 m	(Sl. No. 22+23+25+26) Cluster Area = 11.356 Ha	11	4	72840	Sand	Proposed
23	नर्मदा	रायसेन	उदयपुरा	केतूधान-द	510	2.428	> 10 kms	> 250 m	(Sl. No. 22+23+25+26) Cluster Area = 11.356 Ha	11	4	72840	Sand	Proposed
24	नर्मदा	रायसेन	उदयपुरा	केतूधान-1	510	5.150	> 10 kms	> 250 m	(Sl. No. 20+21+24) Cluster Area = 10.006 Ha	10	3	154500	Sand	Proposed
25	नर्मदा	रायसेन	उदयपुरा	केतूधान-2	510	3.000	> 10 kms	> 250 m	(Sl. No. 22+23+25+26) Cluster Area = 11.356 Ha	11	4	90000	Sand	Proposed
26	नर्मदा	रायसेन	उदयपुरा	मोहड़कला	229	3.500	> 10 kms	> 250 m	(Sl. No. 22+23+25+26) Cluster Area = 11.356 Ha	11	4	91500	Sand	Proposed
27	नर्मदा	रायसेन	उदयपुरा	सुलतानगंज	385	5.000	> 10 kms	> 250 m	No Cluster Mine	Nil	Nil	150000	Sand	Proposed
28	नर्मदा	रायसेन	उदयपुरा	बोरस	735	2.023	> 10 kms	> 250 m	(Sl. No. 28+29) Cluster Area = 6.023 Ha	12	2	60690	Sand	Proposed
29	नर्मदा	रायसेन	उदयपुरा	बोरस-1	735	4.000	> 10 kms	> 250 m	(Sl. No. 28+29) Cluster Area = 6.023 Ha	12	2	120000	Sand	Proposed
30	नर्मदा	रायसेन	उदयपुरा	अण्डिया	398	15.000	> 10 kms	> 250 m	(Sl. No. 30+31+32) Cluster Area = 22.284 Ha	13	3	450000	Sand	Proposed
31	नर्मदा	रायसेन	उदयपुरा	केलकच्छ-अ	299	3.642	> 10 kms	> 250 m	(Sl. No. 30+31+32+35) Cluster Area = 38.284 Ha	14	4	109260	Sand	Proposed
32	नर्मदा	रायसेन	उदयपुरा	केलकच्छ-ब	299	3.642	> 10 kms	> 250 m	(Sl. No. 30+31+32+35) Cluster Area = 38.284 Ha	14	4	109260	Sand	Proposed
33	नर्मदा	रायसेन	उदयपुरा	केलकच्छ-स	385	3.642	> 10 kms	> 250 m	(Sl. No. 33+34+35+36) Cluster Area = 30.470 Ha	15	4	109260	Sand	Proposed
34	नर्मदा	रायसेन	उदयपुरा	केलकच्छ-द	385	2.428	> 10 kms	> 250 m	(Sl. No. 33+34+36) Cluster Area = 10.470 Ha	16	3	72840	Sand	Proposed
35	नर्मदा	रायसेन	उदयपुरा	केलकच्छ-1	299	16.000	> 10 kms	> 250 m	(Sl. No. 31+32+33+35+36) Cluster Area = 35.326 Ha	17	5	480000	Sand	Proposed
36	नर्मदा	रायसेन	उदयपुरा	केलकच्छ-2	385	8.400	> 10 kms	> 250 m	(Sl. No. 33+34+35+36) Cluster Area = 30.470 Ha	15	4	252000	Sand	Proposed
37	नर्मदा	रायसेन	बाड़ी	भारकच्छकला	614	12.000	> 10 kms	> 250 m	No Cluster Mine	Nil	Nil	360000	Sand	Proposed
38	नर्मदा	रायसेन	बाड़ी	भौंती	104	2.000	> 10 kms	> 250 m	(Sl. No. 38+39+40) Cluster Area = 15.00 Ha	18	3	60000	Sand	Proposed

State Level Environmental Impact Assessment Authority, Madhya Pradesh, Bhopal (M.P.)



39	नर्मदा	रायसेन	बाड़ी	गौरामछुवाई-5	392	3,000	> 10 kms	> 250 m	(Sl. No. 38+39+40) Cluster Area = 15.00 Ha	18	3	90000	Sand	Proposed
40	नर्मदा	रायसेन	बाड़ी	गौरामछुवाई-1	404	10,000	> 10 kms	> 250 m	(Sl. No. 38+39+40+41+42) Cluster Area = 35.809 Ha	19	5	300000	Sand	Proposed
41	नर्मदा	रायसेन	बाड़ी	गौरामछुवाई	475	0.809	> 10 kms	> 250 m	(Sl. No. 40+41+42) Cluster Area = 30.809 Ha	20	3	24270	Sand	Proposed
42	नर्मदा	रायसेन	बाड़ी	गौरामछुवाई-2	475	20,000	> 10 kms	> 250 m	(Sl. No. 40+41+42+43+44) Cluster Area = 93.809 Ha	21	5	600000	Sand	Proposed
43	नर्मदा	रायसेन	बाड़ी	गौरामछुवाई-3	475	9,000	> 10 kms	> 250 m	(Sl. No. 42+43+44) Cluster Area = 83.00 Ha	22	3	270000	Sand	Proposed
44	नर्मदा	रायसेन	बाड़ी	गौरामछुवाई-4	468	54,000	> 10 kms	> 250 m	(Sl. No. 42+43+44) Cluster Area = 83.00 Ha	22	3	1620000	Sand	Proposed
45	नर्मदा	रायसेन	बाड़ी	बिस्तेर	242	1,000	> 10 kms	> 250 m	(Sl. No. 45+46+47+48) Cluster Area = 24.600 Ha	23	4	30000	Sand	Proposed
46	नर्मदा	रायसेन	बाड़ी	बिस्तेर-1	194	5,600	> 10 kms	> 250 m	(Sl. No. 45+46+47+48) Cluster Area = 24.600 Ha	23	4	168000	Sand	Proposed
47	नर्मदा	रायसेन	बाड़ी	सनखेड़ा-1	405	3,000	> 10 kms	> 250 m	(Sl. No. 45+46+47+48) Cluster Area = 24.600 Ha	23	4	90000	Sand	Proposed
48	नर्मदा	रायसेन	बाड़ी	सनखेड़ा	405	15,000	> 10 kms	> 250 m	(Sl. No. 45+46+47+48) Cluster Area = 24.600 Ha	23	4	450000	Sand	Proposed
49	बेतवा	रायसेन	रायसेन	बेरखेड़ीधाट	72	0.770	> 10 kms	> 250 m	No Cluster Mine	Nil	Nil	23100	Sand	Proposed
50	बेतवा	रायसेन	रायसेन	तिजालपुर	123	0.400	> 10 kms	> 250 m	No Cluster Mine	Nil	Nil	12000	Sand	Proposed
51	बेतवा	रायसेन	रायसेन	बारला	30	0.330	> 10 kms	> 250 m	No Cluster Mine	Nil	Nil	9900	Sand	Proposed
52	नर्मदा	रायसेन	देवरी	पराई	337, 284	24,000	> 10 kms	> 250 m	No Cluster Mine	Nil	Nil	720000	Sand	Proposed
53	नर्मदा	रायसेन	देवरी	पिपलिया खुर्द (सिफावर)	256	5,000	> 10 kms	> 250 m	No Cluster Mine	Nil	Nil	150000	Sand	Proposed
54	नर्मदा	रायसेन	देवरी	नयाखेड़ा	246	0.809	> 10 kms	> 250 m	(Sl. No. 54+55+56) Cluster Area = 7.809 Ha	24	3	24270	Sand	Proposed
55	नर्मदा	रायसेन	देवरी	नयाखेड़ा-1	246	6.290	> 10 kms	> 250 m	(Sl. No. 54+55+56) Cluster Area = 7.809 Ha	24	3	188700	Sand	Proposed
56	नर्मदा	रायसेन	देवरी	नयाखेड़ा-2	245	0.710	> 10 kms	> 250 m	(Sl. No. 54+55+56) Cluster Area = 7.809 Ha	24	3	21300	Sand	Proposed
योग					388,928					24	47	5	11654340	

State Level Environment Impact Assessment Authority (EPCO) Patta Land Heldari
5, A. S. Colony, B. P. S. Nagar, Jhansi, M.P.

Owner	Khasra No.	Area	District	Tehsil	Village	Total Reserve (MT) *	Total Mineral to be mined (MT)	Exiting/Proposed
NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL

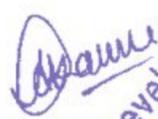
Annexure-III

Annexure-III

List of Potential Sand Mines (Existing & Proposed) :-

Sl. No.	River	Lease Details				Area (In Ha)	Mineral Quantity for Excavation (In cu.m)	Total Mineral Excavation (In Ton) (Qty x Bulk Density Factor 1.8)
		खसरा नं०	खदान का नाम	ग्राम का नाम	तहसील का नाम			
1	नर्मदा	रायसेन	बरेली	मोतलसिर	मोतलसिर	4.000	120000	216000
2	नर्मदा	रायसेन	बरेली	सतरावन-1	सतरावन	14.000	420000	756000
3	नर्मदा	रायसेन	बरेली	सतरावन	सतरावन	2.660	79800	143640
4	नर्मदा	रायसेन	बरेली	मुआर	मुआर	5.000	150000	270000
5	नर्मदा	रायसेन	बरेली	घाटपिपरिया-3	घाटपिपरिया	8.000	240000	432000
6	नर्मदा	रायसेन	बरेली	घाटपिपरिया-1	घाटपिपरिया	4.950	148500	267300
7	नर्मदा	रायसेन	बरेली	घाटपिपरिया-2	घाटपिपरिया	4.000	120000	216000
8	नर्मदा	रायसेन	बरेली	घाटपिपरिया-4	घाटपिपरिया	3.000	90000	162000
9	नर्मदा	रायसेन	बरेली	सोजनी	सोजनी	20.000	600000	1080000
10	नर्मदा	रायसेन	बरेली	ढाबला	ढाबला	13.000	390000	702000
11	नर्मदा	रायसेन	बरेली	कोटपारमहंत-1	कोटपारमहंत	6.000	180000	324000
12	नर्मदा	रायसेन	बरेली	कोटपारमहंत-(अ)	कोटपारमहंत	10.000	300000	540000
13	नर्मदा	रायसेन	बरेली	कोटपारमहंत-(ब)	कोटपारमहंत	4.000	120000	216000
14	नर्मदा	रायसेन	बरेली	कोटपारमहंत-(स)	कोटपारमहंत	1.210	36300	65340
15	नर्मदा	रायसेन	बरेली	कोटपारमहंत-2	कोटपारमहंत	3.300	99000	178200
16	नर्मदा	रायसेन	बरेली	अलीगंज	अलीगंज	4.046	121380	218484
17	नर्मदा	रायसेन	बरेली	अलीगंज-1	अलीगंज	7.500	225000	405000
18	नर्मदा	रायसेन	बरेली	सिवनी	सिवनी	0.405	12150	21870

19	नर्मदा	रायसेन	बरेली		सिवनी-1	317	15.000	450000	810000
20	नर्मदा	रायसेन	उदयपुरा	केतूधान	केतूधान-अ	510	2.428	72840	131112
21	नर्मदा	रायसेन	उदयपुरा		केतूधान-ब	510	2.428	72840	131112
22	नर्मदा	रायसेन	उदयपुरा		केतूधान-स	510	2.428	72840	131112
23	नर्मदा	रायसेन	उदयपुरा		केतूधान-द	510	2.428	72840	131112
24	नर्मदा	रायसेन	उदयपुरा		केतूधान-1	510	5.150	154500	278100
25	नर्मदा	रायसेन	उदयपुरा	मोहड़कलां	केतूधान-2	510	3.000	90000	162000
26	नर्मदा	रायसेन	उदयपुरा		मोहड़कलां	229	3.500	91500	164700
27	नर्मदा	रायसेन	उदयपुरा	सुलतानगंज	सुलतानगंज	385	5.000	150000	270000
28	नर्मदा	रायसेन	उदयपुरा	बोरस	बोरस	735	2.023	60690	109242
29	नर्मदा	रायसेन	उदयपुरा		बोरस-1	735	4.000	120000	216000
30	नर्मदा	रायसेन	उदयपुरा	अण्डिया	अण्डिया	398	15.000	450000	810000
31	नर्मदा	रायसेन	उदयपुरा	केलकच्छ	केलकच्छ-अ	299	3.642	109260	196668
32	नर्मदा	रायसेन	उदयपुरा		केलकच्छ-ब	299	3.642	109260	196668
33	नर्मदा	रायसेन	उदयपुरा		केलकच्छ-स	385	3.642	109260	196668
34	नर्मदा	रायसेन	उदयपुरा		केलकच्छ-द	385	2.428	72840	131112
35	नर्मदा	रायसेन	उदयपुरा		केलकच्छ-1	299	16.000	480000	864000
36	नर्मदा	रायसेन	उदयपुरा	भारकच्छकलां	केलकच्छ-2	385	8.400	252000	453600
37	नर्मदा	रायसेन	बाड़ी		भारकच्छकलां	614	12.000	360000	648000
38	नर्मदा	रायसेन	बाड़ी	गौरामछुवाई	भौती	104	2.000	60000	108000
39	नर्मदा	रायसेन	बाड़ी		गौरामछुवाई-5	392	3.000	90000	162000
40	नर्मदा	रायसेन	बाड़ी		गौरामछुवाई-1	404	10.000	300000	540000
41	नर्मदा	रायसेन	बाड़ी		गौरामछुवाई	475	0.809	24270	43686
42	नर्मदा	रायसेन	बाड़ी		गौरामछुवाई-2	475	20.000	600000	1080000
43	नर्मदा	रायसेन	बाड़ी	गौरामछुवाई-3	475	9.000	270000	486000	


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44	नर्मदा	रायसेन	बाड़ी	गौरामछुवाई-4	468	54.000	1620000	2916000
45	नर्मदा	रायसेन	बाड़ी	बिसेर	242	1.000	30000	54000
46	नर्मदा	रायसेन	बाड़ी	बिसेर-1	194	5.600	168000	302400
47	नर्मदा	रायसेन	बाड़ी	सनखेड़ा-1	405	3.000	90000	162000
48	नर्मदा	रायसेन	बाड़ी	सनखेड़ा	405	15.000	450000	810000
49	बेतवा	रायसेन	रायसेन	बेरखेड़ी घाट	72	0.770	23100	41580
50	बेतवा	रायसेन	रायसेन	तिजालपुर	123	0.400	12000	21600
51	बेतवा	रायसेन	रायसेन	बारला	30	0.330	9900	17820
52	नर्मदा	रायसेन	देवरी	पतई	337, 284	24.000	720000	1296000
53	नर्मदा	रायसेन	देवरी	पिपलिया खुर्द (रिछावर)	256	5.000	150000	270000
54	नर्मदा	रायसेन	देवरी	नयाखेड़ा	246	0.809	24270	43686
55	नर्मदा	रायसेन	देवरी	नयाखेड़ा-1	246	6.290	188700	339660
56	नर्मदा	रायसेन	देवरी	नयाखेड़ा-2	245	0.710	21300	38340
योग						388.928	11654340	20977812

Cluster and Contiguous Clusters:

River Name	Clusters Nos.	Contiguous Clusters Nos.	No. of Mines in the Cluster	Location (Riverbed/Patta Land)	Distance between clusters	Villages	Area of Cluster (Ha.)	Total Mineral Excavation (ton)
Narmada	24	5	47	Narmada river area lies in Raisen district	Adjacent	48	334.428	18034812

* Total Excavation (Ton)

Annexure-IV

Annexure-IV

Transportation Routes for Sand Transportation (Mines not in Clusters) :-

Sl. No.	River	Lease No. and Details				Transportation Route No.	Number of Trippers / day from Mine	Number of Trippers / day of all the Mines on route	Length of Route on KM	Type of Road (Black Topped / unpaved)	Recommendation for road (Black Topped / unpaved)	The Road will be Constructed by Govt. / Lease Owner	Route Map & Location
		जिला	तहसील का नाम	ग्राम	खसरा नं०								
1	नर्मदा	रायसेन	बरेली	मोतलसिर	551	4.000	1	12	17.75	unpaved	lease owner	1. Motalsir- Palkashri- Amrawad- Bakhtara- Baadi- NH 45 (Bhopal Jabalpur Road) 2. Motalsir- Dimada-Akola- Samnapur- NH 45 (Bhopal Jabalpur Road)	
		रायसेन	बरेली	घाटपिपरिया- 4	299	3.000	2	9	6.58	unpaved	lease owner	1. Ghatpiparia -- Satrawan- Dhokheda- NH 45 (Bhopal Jabalpur Road) 2. Ghatpiparia- Dhabla- Magardha- Guradiya- Dhokheda- NH 45 (Bhopal Jabalpur Road)	


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27	नर्मदा	रायसेन	उदयपुरा	सुलतानगंज	385	5.000	3	15	15	1.96	unpaved	unpaved	unpaved	lease owner	1. Sultanganj-Udiya-Gaikhuri-Udaipura- NH 45 (Bhopal Jabalpur Road) 2. Sultanganj-Boras-Udaipura- NH 45 (Bhopal Jabalpur Road)
37	नर्मदा	रायसेन	बाड़ी	भारकच्छकलां	614	12.00	4	36	36	8.56	unpaved	unpaved	unpaved	lease owner	1. Bharkatchkala - Somalwada-Badodiyakala-Khandawar-Baktara-Badi-NH 45 (Bhopal Jabalpur Road)
49	बेतवा	रायसेन	रायसेन	बेरखेड़ी घाट	72	0.770	5	2	2	0.48	unpaved	unpaved	unpaved	lease owner	1. Berkhedhi-SH-19 - (Raisen-Vidisha Road)
50	बेतवा	रायसेन	रायसेन	तिजालपुर	123	0.400	6	1	1	3.82	unpaved	unpaved	unpaved	lease owner	1. Tijalpur-SH-19 - (Raisen-Vidisha Road)
	बेतवा	रायसेन	रायसेन	बारला	30	0.330	7	1	1	2.88	unpaved	unpaved	unpaved	lease owner	1. Barla-SH-19 - (Raisen-Vidisha Road)

(Signature)

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52	नर्मदा	रायसेन	देवरी	पतई	337, 284	24.00	8	72	72	12.73	unpaved	unpaved	unpaved	lease owner	1.Patai-Dighawan-Bamhori- NH 45 (Bhopal Jabalpur Road)-Deori-Pratapgarh-Udaipur
53	नर्मदा	रायसेन	देवरी	पिपलिया खुर्द (सिखार)	256	5.000	9	15	15	9.18	unpaved	unpaved	unpaved	lease owner	1.Pipaliyakhurd-NH 45 (Bhopal Jabalpur Road)-Deori-Pratapgarh-Udaipur

* assuming 12 tyre truck with carrying capacity of 16 cubic meter ; and 250 working days.

Transportation Routes for Mines in Clusters :-

Cluster No.	Transportation Route No.	Number of tippers /day of cluster	Number of tippers /day of all the clusters on route	Length of route in Kms	Type of road (Black Topped/unpaved)	Recommendation for road (Black Topped/unpaved)	The road will be constructed by Govt/Lease Owner	Route Map & Location
1	10	77	77	12.18	unpaved	unpaved	lease owner	1.Satrawan/Muar-Bagalwada- Kotparganesh - NH 45 (Bhopal-Jabalpur Road)- Raisen, Vidisha, Rajgarh, Sagar 2.Satrawan/Muar-Mangrol- SH -19 (Bareli-Pipariya Road)- NH 45 (Bhopal-Jabalpur Road)- Raisen, Vidisha, Rajgarh, Sagar
	11	81	81	8.56	unpaved	unpaved	lease owner	1.Ghatpiparia-Satrawan-Bagalwada- Kotparganesh NH- 45 (Bhopal-Jabalpur Road) - Raisen, Vidisha, Rajgarh, Sagar 2. Ghatpipariya-Mangrol- SH -19 (Bareli-Pipariya Road) - NH 45 (Bhopal-Jabalpur Road) - Raisen, Vidisha, Rajgarh, Sagar
	12	90	90	8.24	unpaved	unpaved	lease owner	1.Sojhani/Dhabla-Mangrol- SH -19 (Bareli-Pipariya Road)- NH 45 (Bhopal-Jabalpur Road)- Raisen, Vidisha, Rajgarh, Sagar

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4	13	74		0.45	unpaved	unpaved	unpaved	lease owner	1.Kotparmahant- SH -19 (Bareli-Pipariya Road) - NH 45 (Bhopal-Jabalpur Road)- Raisen, Vidisha, Rajgarh, Sagar
5	14	51	143	0.71	unpaved	unpaved	unpaved	lease owner	1.Kotparmahant- SH -19 (Bareli-Pipariya Road) - NH 45 (Bhopal-Jabalpur Road)- Raisen, Vidisha, Rajgarh, Sagar
6	15	18		0.87	unpaved	unpaved	unpaved	lease owner	1.Kotparmahant- SH -19 (Bareli-Pipariya Road) - NH 45 (Bhopal-Jabalpur Road)- Raisen, Vidisha, Rajgarh, Sagar
7	16	68		1.62	unpaved	unpaved	unpaved	lease owner	1.Aliganj- SH -19 (Bareli-Pipariya Road) - NH 45 (Bhopal-Jabalpur Road)- Raisen, Vidisha, Rajgarh, Sagar
8	17	47	163	1.06	unpaved	unpaved	unpaved	lease owner	1.Aliganj/Seoni- SH -19 (Bareli-Pipariya Road) - NH 45 (Bhopal-Jabalpur Road)- Raisen, Vidisha, Rajgarh, Sagar
9	17	48		2.27	unpaved	unpaved	unpaved	lease owner	1.Aliganj/Seoni- SH -19 (Bareli-Pipariya Road) - NH 45 (Bhopal-Jabalpur Road)- Raisen, Vidisha, Rajgarh, Sagar
10	18	45		11.31	unpaved	unpaved	unpaved	lease owner	1.Ketudhan-Chabara-Untiyakalan-Bagpipariya-SH -19 (Bareli-Pipariya Road) - NH 45 (Bhopal-Jabalpur Road) -Raisen, Vidisha, Rajgarh, Sagar 2.Ketudhan-Chater- NH 45 (Bhopal-Jabalpur Road) - Raisen, Vidisha, Rajgarh, Sagar
11	19	47	92	11.50	unpaved	unpaved	unpaved	lease owner	1.Ketudhan/Mohadkalan-Chabara-Untiyakalan-Bagpipariya- SH -19 (Bareli-Pipariya Road) - NH 45 (Bhopal-Jabalpur Road)- Raisen, Vidisha, Rajgarh, Sagar 2.Ketudhan/Mohadkalan-Chater- NH 45 (Bhopal-Jabalpur Road) -Raisen, Vidisha, Rajgarh, Sagar
12	20	18	18	0.79	unpaved	unpaved	unpaved	lease owner	1.Boras- SH -44 (Udaipura-Saikheda Road) - NH 45 (Bhopal-Jabalpur Road)- Raisen, Vidisha, Rajgarh, Sagar
13	21	67	67	15.45	unpaved	unpaved	unpaved	lease owner	1.Andiya- Kakarua - NH 45 (Bhopal-Jabalpur Road)- Raisen, Vidisha, Rajgarh, Sagar
14	22	91	372	15.88	unpaved	unpaved	unpaved	lease owner	1.Kelkatch- Kakarua - NH 45 (Bhopal-Jabalpur Road)- Raisen, Vidisha, Rajgarh, Sagar



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20	28	8			unpaved	unpaved	19.80		lease owner	Badi Road)- NH 45 (Bhopal Jabalpur Road)- Raisen, Vidisha, Rajgarh, 1. Goramachuwai- Gadarwas- Bharkatchkala- Badodiyakala-Khandawar- SH-15 (Baktara- Badi Road)- NH 45 (Bhopal Jabalpur Road)- Raisen, Vidisha, Rajgarh, 2. Goramachuwai-Gadarwas- Bharkatchkala- Googlewada- Amrawadkalan- SH-15 (Baktara- Badi Road)- NH 45 (Bhopal Jabalpur Road)- Raisen, Vidisha, Rajgarh,
21	29	42			unpaved	unpaved	20.68		lease owner	1. Goramachuwai- Gadarwas- Bharkatchkala- Badodiyakala-Khandawar- SH-15 (Baktara- Badi Road)- NH 45 (Bhopal Jabalpur Road)- Raisen, Vidisha, Rajgarh, 2. Goramachuwai-Gadarwas- Bharkatchkala- Googlewada- Amrawadkalan- SH-15 (Baktara- Badi Road)- NH 45 (Bhopal Jabalpur Road)- Raisen, Vidisha, Rajgarh,
22	30	55			unpaved	unpaved	21.20		lease owner	1. Goramachuwai- Gadarwas- Bharkatchkala- Badodiyakala-Khandawar- SH-15 (Baktara- Badi Road)- NH 45 (Bhopal Jabalpur Road)- Raisen, Vidisha, Rajgarh, 2. Goramachuwai-Gadarwas- Bharkatchkala- Googlewada- Amrawadkalan- SH-15 (Baktara- Badi Road)- NH 45 (Bhopal Jabalpur Road)- Raisen, Vidisha, Rajgarh,
23	31	20			unpaved	unpaved	15.82		lease owner	1. Biser/Sankheda- Dehrikalan- Googlewada- SH-15 (Baktara- Badi Road)- NH 45 (Bhopal Jabalpur Road)- Badi 2. Biser/Sankheda - Dhandla- Palkashri- Amrawadkalan- SH-15 (Baktara- Badi Road)- NH 45 (Bhopal Jabalpur Road)- Badi
24	32	42			unpaved	unpaved	12.31		lease owner	1. Nayakheda- Deori - NH 45 (Bhopal-Jabalpur Road)- Raisen, Vidisha, Rajgarh, Sagar



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Annexure - V

Annexure - V

Details of Geo-Coordinates of Mines in Raisen District :

Sl. No.	River Details	Lease Details				Area (In Ha)	Geo-Coordinates of the Lease Area
		जिला	तहसील का नाम	ग्राम	खसरा नं०		
1	नर्मदा	रायसेन	बरेली	मोतलसिर	551	A	22°52'03.04"N 78°10'21.18"E
						B	22°52'06.91"N 78°10'20.47"E
						C	22°52'07.94"N 78°10'23.63"E
						D	22°52'11.97"N 77°10'29.98"E
						E	22°52'08.61"N 77°10'32.79"E
2	नर्मदा	रायसेन	बरेली	सतरावन-1	225/1	A	22°52'21.43"N 78°13'53.97"E
						B	22°52'13.42"N 78°14'03.43"E
						C	22°52'10.16"N 78°14'15.77"E
						D	22°52'03.84"N 78°14'10.79"E
						E	22°52'11.53"N 78°13'55.01"E
						F	22°52'18.65"N 78°13'49.67"E
3	नर्मदा	रायसेन	बरेली	सतरावन	305	A	22°52'03.76"N 78°14'10.88"E
						B	22°52'10.23"N 78°14'15.79"E
						C	22°52'10.33"N 78°14'17.95"E
						D	22°52'03.36"N 78°14'16.96"E
						E	22°52'02.98"N 78°14'12.33"E
4	नर्मदा	रायसेन	बरेली	मुआर	73	A	22°52'03.62"N 78°14'17.23"E
						B	22°52'10.25"N 78°14'18.34"E
						C	22°52'10.47"N 78°14'23.41"E
						D	22°52'12.01"N 78°14'28.72"E
						E	22°52'09.06"N 78°14'29.77"E
						F	22°52'05.37"N 78°14'23.76"E
5	नर्मदा	रायसेन	बरेली	घाटपिपरिया-3	306	A	22°52'19.84"N 78°16'22.74"E
						B	22°52'16.64"N 78°16'27.66"E
						C	22°52'15.17"N 78°16'32.05"E
						D	22°52'14.24"N 78°16'36.71"E

खनि अधिकार
जिला रायसेन (म.प्र.)

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6	नर्मदा	रायसेन	बरेली	घाटपिपरिया-1	306	4.950	E	22°52'07.69"N	78°16'35.67"E
							F	22°52'08.96"N	78°16'31.45"E
							G	22°52'12.27"N	78°16'24.51"E
							H	22°52'13.39"N	78°16'24.13"E
							I	22°52'17.55"N	78°16'20.30"E
7	नर्मदा	रायसेन	बरेली	घाटपिपरिया-2	299	4.000	A	22°52'07.69"N	78°16'35.67"E
							B	22°52'14.19"N	78°16'36.75"E
							C	22°52'13.85"N	78°16'39.63"E
							D	22°52'13.43"N	78°16'45.17"E
							E	22°52'07.75"N	78°16'45.26"E
							F	22°52'07.30"N	78°16'39.01"E
8	नर्मदा	रायसेन	बरेली	घाटपिपरिया-4	299	3.000	A	22°52'12.72"N	78°16'55.71"E
							B	22°52'14.81"N	78°16'54.98"E
							C	22°52'15.90"N	78°16'54.42"E
							D	22°52'21.46"N	78°17'00.89"E
							E	22°52'17.07"N	78°17'02.98"E
							F	22°52'13.50"N	78°16'57.68"E
9	नर्मदा	रायसेन	बरेली	सोजनी	235	20.000	A	22°53'32.37"N	78°17'49.82"E
							B	22°53'54.17"N	78°18'05.14"E
							C	22°53'58.40"N	78°18'10.88"E
							D	22°53'55.57"N	78°18'15.85"E
							E	22°53'29.53"N	78°17'56.21"E
10	नर्मदा	रायसेन	बरेली	ढाबला	259	13.000	A	22°53'56.93"N	78°18'16.45"E
							B	22°54'01.26"N	78°18'11.53"E
							C	22°54'07.30"N	78°18'16.58"E
							D	22°54'19.82"N	78°18'27.20"E
							E	22°54'16.11"N	78°18'31.90"E
							F	22°54'10.94"N	78°18'27.49"E
							G	22°54'02.03"N	78°18'20.51"E
11	नर्मदा	रायसेन	बरेली	कोटपारमहंत-1	51	6.000	A	22°55'08.68"N	78°20'19.70"E
							B	22°55'15.02"N	78°20'19.73"E
							C	22°55'12.86"N	78°20'30.32"E
							D	22°55'05.24"N	78°20'27.48"E
13	नर्मदा	रायसेन	बरेली	कोटपारमहंत-(अ)	51	10.000	A	22°55'05.22"N	78°20'27.49"E
							B	22°55'12.86"N	78°20'30.35"E
							C	22°55'12.70"N	78°20'42.04"E
							D	22°55'04.97"N	78°20'45.41"E
13	नर्मदा	रायसेन	बरेली	कोटपारमहंत-(ब)	187	4.000	A	22°55'06.87"N	78°20'49.58"E
							B	22°55'13.69"N	78°20'47.74"E

(Signature)

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14	नर्मदा	रायसेन	बरेली	कोटपारमहंत--(स)	187	1.210	C D	22°55'15.60"N 78°20'54.84"E 22°55'10.12"N 78°20'56.01"E
15	नर्मदा	रायसेन	बरेली	कोटपारमहंत--2	187	3.300	A B C D	22°55'10.06"N 78°20'56.08"E 22°55'15.62"N 78°20'54.80"E 22°55'16.23"N 78°20'57.46"E 22°55'12.36"N 78°20'58.48"E
16	नर्मदा	रायसेन	बरेली	अलीगंज	422, 423	4.046	A B C D	22°55'05.03"N 78°20'45.46"E 22°55'12.77"N 78°20'42.17"E 22°55'13.62"N 78°20'47.70"E 22°55'06.83"N 78°20'49.55"E
17	नर्मदा	रायसेन	बरेली	अलीगंज--1	423	7.500	A B C D	22°55'48.55"N 78°21'53.05"E 22°56'51.14"N 78°21'50.60"E 22°56'59.86"N 78°22'02.91"E 22°55'57.40"N 78°22'04.62"E
18	नर्मदा	रायसेन	बरेली	सिवनी	317	0.405	A B C D	22°55'59.89"N 78°22'02.97"E 22°56'11.45"N 78°22'18.40"E 22°56'07.01"N 78°22'22.16"E 22°55'57.46"N 78°22'04.72"E
19	नर्मदा	रायसेन	बरेली	सिवनी--1	317	15.000	A B C D	22°56'10.54"N 78°22'19.96"E 22°56'11.52"N 78°22'19.06"E 22°56'13.92"N 78°22'22.04"E 22°56'12.80"N 78°22'22.89"E 22°56'06.14"N 78°22'23.66"E
20	नर्मदा	रायसेन	उदयपुरा	केतूधान--अ	510	2.428	A B C D	22°56'10.55"N 78°22'19.97"E 22°56'30.38"N 78°22'45.68"E 22°56'25.93"N 78°22'46.44"E 22°58'15.10"N 78°24'53.45"E 22°58'20.20"N 78°24'52.00"E 22°58'21.68"N 78°24'57.01"E 22°58'16.39"N 78°24'58.10"E
21	नर्मदा	रायसेन	उदयपुरा	केतूधान--ब	510	2.428	A B C D	22°58'16.22"N 78°25'03.60"E 22°58'22.71"N 78°25'01.80"E 22°58'24.04"N 78°25'05.70"E 22°58'17.08"N 78°25'07.78"E
22	नर्मदा	रायसेन	उदयपुरा	केतूधान--स	510	2.428	A B C D	22°58'24.62"N 78°24'25.93"E 22°58'30.10"N 78°24'22.83"E 22°58'31.70"N 78°24'27.16"E 22°58'26.30"N 78°24'30.07"E
23	नर्मदा	रायसेन	उदयपुरा	केतूधान--द	510	2.428	A B C D	22°58'26.32"N 78°25'30.37"E 22°58'31.78"N 78°25'27.34"E 22°58'33.72"N 78°25'31.58"E 22°58'27.49"N 78°25'34.23"E

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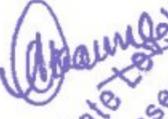
खनि अधिकारी
जिला रायसेन (म.प्र.)

24	नर्मदा	रायसेन	उदयपुरा	केतूधान-1	510	5.150	A B C D E	22°58'18.55N 22°58'26.19N 22°58'27.72N 22°58'29.10N 22°58'19.95N	78°25'12.02"E 78°25'09.91"E 78°25'14.59"E 78°25'17.26"E 78°25'17.97"E
25	नर्मदा	रायसेन	उदयपुरा	केतूधान-2	510	3.000	A B C D	22°58'17.04"N 22°58'24.04"N 22°58'26.05"N 22°58'18.51"N	78°25'07.84"E 78°25'05.70"E 78°25'09.71"E 78°25'12.05"E
26	नर्मदा	रायसेन	उदयपुरा	मोहड़कलां	229	3.500	A B C D	22°58'31.29N 22°58'36.50N 22°58'39.37N 22°58'35.67N	78°25'45.64"E 78°25'41.40"E 78°25'48.58"E 78°25'51.16"E
27	नर्मदा	रायसेन	उदयपुरा	सुलतानगंज	385	5.000	A B C D	23°0'23.53"N 23°0'27.87"N 23°0'27.48"N 23°0'24.56"N	78°29'23.46"E 78°29'23.70"E 78°29'39.46"E 78°29'39.36"E
28	नर्मदा	रायसेन	उदयपुरा	बोरस	735	2.023	A B C D	23°0'40.82"N 23°0'44.26"N 23°0'44.02"N 23°0'40.51"N	78°31'41.11"E 78°31'41.16"E 78°31'48.73"E 78°31'48.12"E
29	नर्मदा	रायसेन	उदयपुरा	बोरस-1	735	4.000	A B C D	23°0'40.63"N 23°0'44.65"N 23°0'44.26"N 23°0'40.91"N	78°31'29.28"E 78°31'28.88"E 78°31'41.11"E 78°31'40.55"E
30	नर्मदा	रायसेन	उदयपुरा	अण्डिया	398	15.000	A B C D	23°0'53.97"N 23°0'57.35"N 23°0'45.98"N 23°0'41.57"N	78°34'31.44"E 78°34'32.98"E 78°35'10.60"E 78°35'08.10"E
31	नर्मदा	रायसेन	उदयपुरा	केलकच्छ-अ	299	3.642	A B C D	23°0'38.69"N 23°0'43.59"N 23°0'43.69"N 23°0'38.70"N	78°35'18.84"E 78°35'18.24"E 78°35'26.70"E 78°35'27.15"E
32	नर्मदा	रायसेन	उदयपुरा	केलकच्छ-ब	299	3.642	A B C D	23°0'46.01"N 23°0'51.06"N 23°0'54.00"N 23°0'48.59"N	78°36'00.27"E 78°35'58.14"E 78°36'04.91"E 78°36'07.08"E
		रायसेन	उदयपुरा	केलकच्छ-स	385	3.642	A B C D	23°0'57.26"N 23°1'01.55"N 23°1'06.49"N 23°1'02.39"N	78°36'23.25"E 78°36'20.70"E 78°36'28.56"E 78°36'30.37"E

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34	नर्मदा	रायसेन	उदयपुरा	केलकच्छ-द	385	2.428	A B C D	23°01'02.40"N 23°01'06.49"N 23°01'09.52"N 23°01'06.25"N	78°36'30.39"E 78°36'28.56"E 78°36'33.83"E 78°36'36.32"E
35	नर्मदा	रायसेन	उदयपुरा	केलकच्छ-1	299	16.000	A B C D	23°0'38.67"N 23°0'43.71"N 23°0'51.09"N 23°0'46.00"N	78°35'27.15"E 78°35'26.75"E 78°35'58.19"E 78°36'00.26"E
36	नर्मदा	रायसेन	उदयपुरा	केलकच्छ-2	385	8.400	A B C D	23°00'48.56"N 23°00'53.99"N 23°01'01.56"N 23°00'57.26"N	78°36'07.08"E 78°36'04.96"E 78°36'20.68"E 78°36'23.25"E
37	नर्मदा	रायसेन	बाड़ी	भारकच्छकलां	614	12.000	A B C D E F G	22°48'09.93"N 22°48'15.88"N 22°48'13.01"N 22°48'14.42"N 22°48'14.51"N 22°48'08.00"N 22°48'07.20"N	78°1'38.59"E 78°1'41.27"E 78°1'46.74"E 78°1'54.91"E 78°2'02.96"E 78°2'00.33"E 78°1'49.22"E
38	नर्मदा	रायसेन	बाड़ी	भौंती	104	2.000	A B C D	22°47'32.01"N 22°47'35.31"N 22°47'37.72"N 22°47'34.33"N	78°5'53.74"E 78°5'47.12"E 78°5'48.85"E 78°5'55.91"E
39	नर्मदा	रायसेन	बाड़ी	गौरामछुवाई-5	392	3.000	A B C D E	22°47'28.89"N 22°47'28.90"N 22°47'29.73"N 22°47'33.75"N 22°47'32.22"N	78°6'06.37"E 78°6'02.95"E 78°5'57.53"E 78°6'00.18"E 78°6'07.92"E
40	नर्मदा	रायसेन	बाड़ी	गौरामछुवाई-1	404	10.000	A B C D E F G	22°47'28.55"N 22°47'32.37"N 22°47'30.93"N 22°47'30.33"N 22°47'32.51"N 22°47'25.68"N 22°47'27.33"N	78°6'06.57"E 78°6'08.07"E 78°6'17.10"E 78°6'28.22"E 78°6'36.41"E 78°6'36.80"E 78°6'22.22"E
	नर्मदा	रायसेन	बाड़ी	गौरामछुवाई	475	0.809	A B C D	22°47'25.10"N 22°47'25.47"N 22°47'30.57"N 22°47'30.18"N	78°6'38.77"E 78°6'40.86"E 78°6'38.89"E 78°6'37.18"E
	नर्मदा	रायसेन	बाड़ी	गौरामछुवाई-2	475	20.000	A B C D	22°47'25.32"N 22°47'33.05"N 23°07'42.51"N 23°07'34.84"N	78°06'42.55"E 78°06'38.19"E 78°07'01.24"E 78°07'06.17"E

43	नर्मदा	रायसेन	बाड़ी	गौरामछुवाई-3	475	9.000	A 22°47'35.80"N 78° 7'08.16"E B 22°47'42.66"N 78° 7'01.51"E C 22°47'49.55"N 78° 7'09.98"E D 22°47'43.12"N 78° 7'16.54"E A 22°47'43.33"N 78° 7'16.61"E B 22°47'49.59"N 78° 7'10.03"E C 22°48'06.48"N 78° 7'18.68"E D 22°48'18.83"N 78° 7'22.60"E E 22°48'35.30"N 78° 7'24.88"E F 22°48'51.68"N 78° 7'25.08"E G 22°48'52.63"N 78° 7'27.92"E H 22°48'30.66"N 78° 7'32.59"E I 22°48'20.25"N 78° 7'31.37"E J 22°48'09.18"N 78° 7'32.84"E A 22°50'22.22"N 78° 7'43.31"E B 22°50'23.78"N 78° 7'41.06"E C 22°50'26.77"N 78° 7'44.39"E D 22°50'24.95"N 78° 7'46.39"E A 22°50'32.75"N 78° 7'59.45"E B 22°50'36.18"N 78° 7'55.54"E C 22°50'38.78"N 78° 7'59.28"E D 22°50'43.07"N 78° 8'05.64"E E 22°50'38.85"N 78° 8'09.51"E F 22°50'36.92"N 78° 8'06.31"E G 22°50'34.44"N 78° 8'02.32"E A 22°50'39.08"N 78° 8'09.82"E B 22°50'43.27"N 78° 8'05.68"E C 22°50'46.91"N 78° 8'11.59"E D 22°50'42.25"N 78° 8'15.03"E A 22°50'46.92"N 78° 8'11.61"E B 22°50'54.00"N 78° 8'24.87"E C 22°50'59.60"N 78° 8'33.60"E D 22°51'7.89"N 78° 8'44.27"E E 22°51'5.26"N 78° 8'46.68"E F 22°50'58.80"N 78° 8'39.16"E G 22°50'55.98"N 78° 8'35.51"E H 22°50'49.91"N 78° 8'26.90"E I 22°50'42.32"N 78° 8'15.01"E A 23°25'52.90"N 77°43'20.55"E B 23°25'56.31"N 77°43'22.72"E C 23°26'00.56"N 77°43'26.31"E D 23°26'00.29"N 77°43'26.53"E E 23°25'59.72"N 77°43'26.13"E F 23°25'59.49"N 77°43'26.36"E
44	नर्मदा	रायसेन	बाड़ी	गौरामछुवाई-4	468	54.000	
45	नर्मदा	रायसेन	बाड़ी	बिसेर	242	1.000	
46	नर्मदा	रायसेन	बाड़ी	बिसेर-1	194	5.600	
47	नर्मदा	रायसेन	बाड़ी	सनखेड़ा-1	405	3.000	
48	नर्मदा	रायसेन	बाड़ी	सनखेड़ा	405	15.000	
49	बेतवा	रायसेन	रायसेन	बेरखेड़ीघाट	72	0.770	


 State Level Environmental Impact
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 (EPCO)
 Paryatan P. Nizar
 Arera Colony, Bhopal (M.P.)

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50	बेतवा	रायसेन	रायसेन	तिजालपुर	123	0.400	G	23°25'58.29"N	77°43'25.55"E
							H	23°25'57.63"N	77°43'25.27"E
							I	23°25'55.07"N	77°43'22.83"E
							J	23°25'54.33"N	77°43'21.98"E
							K	23°25'53.33"N	77°43'22.14"E
							L	23°25'52.85"N	77°43'21.69"E
							A	23°24'19.75"N	77°43'12.78"E
							B	23°24'20.66"N	77°43'12.82"E
							C	23°24'22.56"N	77°43'13.09"E
							D	23°24'25.21"N	77°43'13.58"E
							E	23°24'27.35"N	77°43'13.98"E
							F	23°24'29.70"N	77°43'14.70"E
							G	23°24'29.66"N	77°43'14.84"E
H	23°24'28.30"N	77°43'14.71"E							
I	23°24'23.68"N	77°43'13.95"E							
J	23°24'21.45"N	77°43'13.75"E							
K	23°24'19.68"N	77°43'13.15"E							
51	बेतवा	रायसेन	रायसेन	बारला	30	0.330	A	23°24'07.85"N	77°43'19.98"E
							B	23°24'08.56"N	77°43'19.61"E
							C	23°24'10.74"N	77°43'17.85"E
							D	23°24'11.35"N	77°43'18.02"E
							E	23°24'11.83"N	77°43'18.12"E
							F	23°24'12.77"N	77°43'17.38"E
							G	23°24'13.22"N	77°43'17.49"E
							H	23°24'11.40"N	77°43'19.10"E
							I	23°24'09.72"N	77°43'20.38"E
							J	23°24'09.56"N	77°43'20.16"E
							K	23°24'10.30"N	77°43'19.31"E
							L	23°24'10.26"N	77°43'18.99"E
							M	23°24'10.03"N	77°43'18.95"E
N	23°24'08.14"N	77°43'20.31"E							
52	नर्मदा	रायसेन	देवरी	पतई	337, 284	24.000	A	23° 1'27.95"N	78°38'23.49"E
							B	23° 1'30.89"N	78°38'25.07"E
							C	23° 1'24.53"N	78°38'47.46"E
							D	23° 1'26.48"N	78°39'03.78"E
							E	23° 1'35.05"N	78°39'18.25"E
							F	23° 1'30.69"N	78°39'19.12"E
							G	23° 1'21.60"N	78°39'04.25"E
							H	23° 1'18.99"N	78°38'53.66"E

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(EPCO)
Parikarvan Parisar
5, Alisha Colony, Bhopal (M.P.)



53	नर्मदा	रायसेन	देवरी	पिपलिया खुर्द (रिछावर)	256	5.000	A B C D E F G H	23° 2'16.75"N 23° 2'19.12"N 23° 2'14.87"N 23° 2'12.56"N 23° 2'11.25"N 23° 2'09.00"N 23° 2'10.68"N 23° 2'13.25"N	78° 40'59.10"E 78° 40'59.71"E 78° 41'10.51"E 78° 41'18.58"E 78° 41'26.35"E 78° 41'26.30"E 78° 41'18.22"E 78° 41'09.47"E
54	नर्मदा	रायसेन	देवरी	नयाखेड़ा	246	0.809	A B C D	23° 2'34.76"N 23° 2'37.26"N 23° 2'37.97"N 23° 2'35.46"N	78° 43'38.69"E 78° 43'37.09"E 78° 43'39.84"E 78° 43'42.54"E
55	नर्मदा	रायसेन	देवरी	नयाखेड़ा-1	246	6.290	A B C D	23° 2'38.05"N 23° 2'45.90"N 23° 2'43.68"N 23° 2'35.39"N	78° 43'39.88"E 78° 43'55.03"E 78° 43'57.71"E 78° 43'42.60"E
56	नर्मदा	रायसेन	देवरी	नयाखेड़ा-2	245	0.710	A B C D	23° 2'44.20"N 23° 2'45.94"N 23° 2'48.35"N 23° 2'47.20"N	78° 43'59.12"E 78° 43'56.17"E 78° 43'57.79"E 78° 44' 0.12"E

(Signature)

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(EPCO)
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5, A-era C...y, Bhopal (M.P.)

Annexure - VI

Annexure - VI

Results of Replenishment Study of Mines Existing in Raisen District :

Sl. No.	River Details	Lease Detail			Area (in ha)	Area in sq.m	New Sustainable depth observed in post monsoon scenario (Meter)	Quantity in cu.m
		जिला	तहसील का नाम	ग्राम				
1	नर्मदा	रायसेन	बरेली	मोतलसिर	551	40000	1.2	48000
2	नर्मदा	रायसेन	बरेली	सतरावन-1	225/1	140000	1.6	218400
3	नर्मदा	रायसेन	बरेली	सतरावन	305	26600	0.9	23940
4	नर्मदा	रायसेन	बरेली	मुआर	73	50000	1.5	75000
5	नर्मदा	रायसेन	बरेली	घाटपिपरिया-3	306	80000	1.2	96000
6	नर्मदा	रायसेन	बरेली	घाटपिपरिया-1	306	49500	3.6	178200
7	नर्मदा	रायसेन	बरेली	घाटपिपरिया-2	299	40000	1.2	48000
8	नर्मदा	रायसेन	बरेली	घाटपिपरिया-4	299	30000	1.2	36000
9	नर्मदा	रायसेन	बरेली	सोजनी	235	200000	1.8	360000
10	नर्मदा	रायसेन	बरेली	ढाबला	259	130000	1.2	156000
11	नर्मदा	रायसेन	बरेली	कोटपारमहंत-1	51	60000	1.2	72000
12	नर्मदा	रायसेन	बरेली	कोटपारमहंत-(अ)	51	100000	1.5	150000
13	नर्मदा	रायसेन	बरेली	कोटपारमहंत-(ब)	187	40000	1.2	48000
14	नर्मदा	रायसेन	बरेली	कोटपारमहंत-(स)	187	12100	3.0	36300
15	नर्मदा	रायसेन	बरेली	कोटपारमहंत-2	187	33000	1.2	39600

16	नर्मदा	रायसेन	बरेली	अलीगंज	422, 423	4.046	40460	2.4	97104
17	नर्मदा	रायसेन	बरेली	अलीगंज-1	423	7.500	75000	1.2	90000
18	नर्मदा	रायसेन	बरेली	सिवनी	317	0.405	4050	3.0	12150
19	नर्मदा	रायसेन	बरेली	सिवनी-1	317	15.000	150000	1.2	180000
20	नर्मदा	रायसेन	उदयपुरा	केतूधान-अ	510	2.428	24280	2.4	58272
21	नर्मदा	रायसेन	उदयपुरा	केतूधान-ब	510	2.428	24280	2.4	58272
22	नर्मदा	रायसेन	उदयपुरा	केतूधान-स	510	2.428	24280	2.3	54630
23	नर्मदा	रायसेन	उदयपुरा	केतूधान-द	510	2.428	24280	2.3	54630
24	नर्मदा	रायसेन	उदयपुरा	केतूधान-1	510	5.150	51500	1.2	61800
25	नर्मदा	रायसेन	उदयपुरा	केतूधान-2	510	3.000	30000	1.2	36000
26	नर्मदा	रायसेन	उदयपुरा	मोहड़कला	229	3.500	35000	1.2	42000
27	नर्मदा	रायसेन	उदयपुरा	सुलतानगंज	385	5.000	50000	1.2	60000
28	नर्मदा	रायसेन	उदयपुरा	बोरस	735	2.023	20230	1.2	24276
29	नर्मदा	रायसेन	उदयपुरा	बोरस-1	735	4.000	40000	1.2	48000
30	नर्मदा	रायसेन	उदयपुरा	अण्डिया	398	15.000	150000	1.2	180000
31	नर्मदा	रायसेन	उदयपुरा	केलकच्छ-अ	299	3.642	36420	1.2	43704
32	नर्मदा	रायसेन	उदयपुरा	केलकच्छ-ब	299	3.642	36420	1.2	43704
33	नर्मदा	रायसेन	उदयपुरा	केलकच्छ-स	385	3.642	36420	1.2	43704
34	नर्मदा	रायसेन	उदयपुरा	केलकच्छ-द	385	2.428	24280	1.2	29136
35	नर्मदा	रायसेन	उदयपुरा	केलकच्छ-1	299	16.000	160000	1.2	192000
36	नर्मदा	रायसेन	उदयपुरा	केलकच्छ-2	385	8.400	84000	1.2	100800
37	नर्मदा	रायसेन	बाड़ी	भारकच्छकला	614	12.000	120000	1.2	144000
38	नर्मदा	रायसेन	बाड़ी	भौती	104	2.000	20000	1.2	24000
39	नर्मदा	रायसेन	बाड़ी	गौरामछुवाई-5	392	3.000	30000	1.2	36000
40	नर्मदा	रायसेन	बाड़ी	गौरामछुवाई-1	404	10.000	100000	1.4	135000

खनि अधिकारी
जिला रायसेन (नर्मदा)

State Level Environment
Assessment Authority
(EPCO)
Paryavaran Parishad
Pera Colony, Bhopal

खनि अधिकार
जिला समिति (म.प्र.)

41	नर्मदा	रायसेन	बाड़ी	गौरामछुवाई	475	0.809	8090	1.2	9708
42	नर्मदा	रायसेन	बाड़ी	गौरामछुवाई-2	475	20.000	200000	1.4	270000
43	नर्मदा	रायसेन	बाड़ी	गौरामछुवाई-3	475	9.000	90000	1.2	108000
44	नर्मदा	रायसेन	बाड़ी	गौरामछुवाई-4	468	54.000	540000	1.2	648000
45	नर्मदा	रायसेन	बाड़ी	बिसेर	242	1.000	10000	2.4	24000
46	नर्मदा	रायसेन	बाड़ी	बिसेर-1	194	5.600	56000	1.2	67200
47	नर्मदा	रायसेन	बाड़ी	सनखेड़ा-1	405	3.000	30000	1.2	36000
48	नर्मदा	रायसेन	बाड़ी	सनखेड़ा	405	15.000	150000	1.2	180000
49	बेतवा	रायसेन	रायसेन	बेरखेड़ी घाट	72	0.770	7700	1.2	9240
50	बेतवा	रायसेन	रायसेन	तिजालपुर	123	0.400	4000	1.2	4800
51	बेतवा	रायसेन	रायसेन	बारला	30	0.330	3300	1.2	3960
52	नर्मदा	रायसेन	देवरी	पतई	337,284	24.000	240000	1.2	288000
53	नर्मदा	रायसेन	देवरी	पिपलिया खुर्द (रिछावर)	256	5.000	50000	1.2	60000
54	नर्मदा	रायसेन	देवरी	नयाखेड़ा	246	0.809	8090	1.2	9708
55	नर्मदा	रायसेन	देवरी	नयाखेड़ा-1	246	6.290	62900	1.2	75480
56	नर्मदा	रायसेन	देवरी	नयाखेड़ा-2	245	0.710	7100	1.2	8520

State Level Environment Impact
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Paryavaran Parisar
Arera Colony, Bhopal (M.P.)