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.)
बेवसाईट– http://www.mpseiaa.nic.in
दूरभाष नं. – 0755–2466970, 2466859
फैक्स नं. – 0755–2462136

No: 527/ SEIAA/2022
Date: 23/5/22

प्रति,

कलेक्टर,
जिला डिण्डौरी (म.प्र.)

विषय :– नवीन जिला सर्वेक्षण रिपोर्ट – जिला डिण्डौरी के अनुमोदन बावत्।

संदर्भ :– आपका पत्र क्र. 70 दिनांक 12.05.2022।

उपरोक्त विषयान्तर्गत संदर्भित पत्र के संबंध में लेख है कि SEIAA द्वारा 725वी बैठक दिनांक 23.05.2022 में जिला डिण्डौरी 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 बैंच) नई दिल्ली के आदेश दिनांक 22.02.2022 एवं तदोउपरांत 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 डिण्डौरी 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 572वी बैठक दिनांक 19.05.2022 की अनुशंसा को मान्य करते हुए सर्व सम्मति से नवीन जिला सर्वेक्षण रिपोर्ट डिण्डौरी का अनुमोदन किया जाता है। तदानुसार जिला कलेक्टर, डिण्डौरी एवं संचालक भौमिकी तथा खनिकर्म को सूचित किया जाये।"

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

Final

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.)
बेवसाईट– http://www.mpseiaa.nic.in
दूरभाष नं. – 0755–2466970, 2466859
फैक्स नं. – 0755–2462136

No: 398 / SEIAA/2022
Date: 13-5-22

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

विषयः **जिला डिण्डौरी की नवीन जिला सर्वेक्षण रिपोर्ट के परीक्षण बावत्।**

संदर्भः **कलेक्टर, डिण्डौरी के पत्र क्र. 70/खनिज/2022 दिनांक 12.05.2022।**

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 Sustanable Sand Mining Guidelines 2016 तथा Enforecemnt 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 – डिण्डौरी 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 मापदंड़ों के परिपालन में उपरोक्त जिलें 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 डिण्डौरी की सूचनार्थ।

सदस्य सचिव

Gmail

Seiaa mp <mpseiaa@gmail.com>

DSR जिला डिंडोरी (प्रारूप)

1 message

District Mining Office Dindori <modgmdin@mp.gov.in>
To: mpseiaa <mpseiaa@gmail.com>, edepco <edepco@epco.in>

Fri, May 13, 2022 at 5:21 PM

Sir,

PFA

2 attachments

DSR DISTRICT DINDORI (DRAFT).pdf
16285K

District Dindori DSR Letter SEAC.pdf
1183K

PFC(4S)
OA(5)

13/5

कार्यालय कलेक्टर (खनिज शाखा) जिला डिण्डौरी (म0प्र0)

E-mail :- modgmdin@mp.gov.in

क्र./ 70 /खनि/2022 डिण्डौरी, दिनांक 12 /05/2022

प्रति,

सदस्य सचिव,
राज्य स्तरीय विशेषज्ञ मूल्यांकन समिति (SEAC)
पर्यावरण परिसर, ई–5 अरेरा कालोनी,
भोपाल (म.प्र.)

विषयः– जिला सर्वेक्षण रिपोर्ट (DSR) प्रस्तुत करने के संबंध में।

संदर्भः– संचालक, प्रशासन एवं खनिकर्म, भोपाल का पत्र कमांक 2981/खनिज/विविध /न.क. /2022 भोपाल, दिनांक 03.03.2022

—00—

उपरोक्त विषयांतर्गत माननीय सर्वोच्च न्यायालय द्वारा सिविल अपील कमांक 3661–3662/2020 (बिहार राज्य एवं अन्य विरूद्ध पवन कुमार एवं अन्य) में पारित आदेश दिनांक 10.11.2021, भारत सरकार पर्यावरण, वन एवं जलवायु मंत्रालय द्वारा जारी अधिसूचना दिनांक 15.01.2016 तथा अधिसूचना दिनांक 25.07.2018 सस्टेनेबल सेण्ड माइनिंग मैनेजमेंट गाईडलाईन 2016 एवं इनफोर्समेंट मानिटरिंग फॉर सैण्ड माईनिंग 2020 गाईडलाईन के पालन में संचालक, प्रशासन एवं खनिकर्म, भोपाल में प्रदत्त निर्देशों के अनुक्रम मे जिला सर्वेक्षण रिपोर्ट (DSR) प्रारूप तैयार किये जाने निम्नानुसार कार्यवाही की गईः–

1. उक्त निर्देशों के पालन में कार्यालयीन आदेश कमांक/786/खनि/2022 दिनांक 28.03.2022 से जिला सर्वेक्षण रिपोर्ट (DSR) (प्रारूप) तैयार किये जाने उप संभाग स्तरीय समिति का गठन किया गया तथा गठित समिति द्वारा जिला सर्वेक्षण रिपोर्ट दो भागों में क्रमशः Part - A में खनिज रेत एवं Part - B में खनिज रेत से भिन्न अन्य गौण खनिजों हेतु तैयार की जाकर अग्रिम कार्यवाही हेतु जिला सर्वेक्षण रिपोर्ट (प्रारूप) को अनुशंसित किया गया है। (कार्यवाही विवरण की प्रति संलग्न)।
2. रेत खनिज एवं रेत खनिज से भिन्न अन्य गौण खनिजों हेतु तैयार की गई जिला सर्वेक्षण रिपोर्ट (DSR) प्रारूप को आम लोगों के सुझाव/अभिमत/टिप्पणी प्राप्त करने हेतु जिले के वेबसाइट https://dindori.nic.in/en/notice/district-survey-report-draft-mining-department-dindori/ पर दिनांक 20.04.2022 को 21 दिवसों हेतु अर्थात दिनांक 10.05.2022 तक अपलोड कराया गया था (पोर्टल की प्रति संलग्न) तथा जिला सर्वेक्षण रिपोर्ट (DSR) प्रारूप की एक प्रति कलेक्टर कार्यालय के अधीक्षक कक्ष में रखी गई थी तथा जिला सर्वेक्षण रिपोर्ट (DSR) प्रारूप को आम लोगों के सुझाव/अभिमत/टिप्पणी प्राप्त करने हेतु उक्त बाबत की आम सूचना दैनिक समाचार पत्र नई दुनिया एवं पत्रिका जबलपुर में प्रकाशित की गई थी (समाचार पत्रों की कतरन संलग्न)। उक्त 21 दिवसों की अवधि अर्थात 10.05.2022 तक उक्त अपलोड जिला सर्वेक्षण रिपोर्ट (DSR) प्रारूप के संबंध में किसी भी व्यक्ति द्वारा सुझाव/अभिमत/टिप्पणी प्राप्त नहीं हुआ है।

अतः उपरोक्तानुसार रेत खनिज एवं रेत खनिज से भिन्न अन्य गौण खनिजों हेतु तैयार की गई जिला सर्वेक्षण रिपोर्ट (DSR) प्रारूप अग्रिम कार्यवाही हेतु संलग्न प्रेषित है।

संलग्नः– जिला सर्वेक्षण रिपोर्ट पृ.क. 01 से 166 मूलतः।

कलेक्टर
डिण्डौरी (म.प्र.)

पृष्ठा क्र./70A /खनिज/2022 डिण्डौरी, दिनांक 17/05/2022

प्रतिलिपिः–

1. प्रमुख सचिव महोदय, म.प्र. शासन, खनिज साधन विभाग, मंत्रालय भोपाल की ओर सूचनार्थ प्रेषित।
2. संचालक, प्रशासन एवं खनिकर्म, 29 ए अरेरा हिल्स, खनिज भवन भोपाल की ओर सूचनार्थ प्रेषित।
3. सदस्य सचिव, राज्य स्तरीय पर्यावरण समाघात निर्धारण प्राधिकरण (SEIAA) भोपाल की ओर सूचनार्थ प्रेषित।
4. क्षेत्रीय प्रमुख, संचालनालय भौमिकी तथा खनिकर्म, क्षेत्रीय कार्यालय जबलपुर की ओर सूचनार्थ।

कलेक्टर
डिण्डौरी (म.प्र.)

जिला सर्वेक्षण रिपोर्ट (प्रारूप) की अनुशंसा हेतु आयोजित बैठक का कार्यवाही विवरण

माननीय सर्वोच्च न्यायालय द्वारा सिविल अपील कमांक 3661–3662/2020 (बिहार राज्य एवं अन्य विरूद्ध पवन कुमार एवं अन्य) में पारित आदेश दिनांक 10.11.2021 के अनुसार एवं सस्टेनेबल सेण्ड माइनिंग मेनेजमेंट गाईडलाईन 2016 एवं इनफोर्समेंट मानिटरिंग फार सेण्ड माईनिंग 2020 के पालन में संचालक महोदय, प्रशासन एवं खनिकर्म म.प्र. भोपाल के आदेश कमांक/2981/2982–86 भोपाल दिनांक 03.03.2022 तथा कलेक्टर महोदय जिला डिण्डौरी के आदेश कमांक/786/खनि/2022 दिनांक 28.03.2022 के पालन में तैयार की गई जिला सर्वेक्षण रिपोर्ट (District Survey Report) (प्रारूप) की अनुशंसा हेतु आयोजित बैठक दिनांक 07.04.2022 में निम्नानुसार सदस्य उपस्थित हुये:–

1. श्री बलवीर रमन, अनुविभागीय अधिकारी (राजस्व) डिण्डौरी मोबा.नं. 9425192835
2. श्री व्ही. जी. एस. साण्डया, कार्यपालन यंत्री, जल संसाधन विभाग डिण्डौरी मोबा.नं. 9424713427
3. श्री ए.के. शर्मा, उपवनमण्डलाधिकारी सामान्य वनमण्डल डिण्डौरी मोबा.नं. 9424792802
4. श्री गणेश कुमार बैगा, कनिष्ठ वैज्ञानिक, म.प्र. प्रदूषण नियंत्रण बोर्ड, शहडोल मोबा.नं. 8319469377
5. श्री हितेश कुमार बिसेन, खनि अधिकारी, जिला डिण्डौरी मोबा.नं. 9630575454

उपरोक्तानुसार आयोजित बैठक में रेत खनिज एवं रेत खनिज से भिन्न अन्य गौण खनिजों हेतु तैयार की गई जिला सर्वेक्षण रिपोर्ट के संबंध में चर्चा की गई। जिला सर्वेक्षण रिपोर्ट (प्रारूप) दो भागों में Part - A में खनिज रेत एवं Part - B खनिज रेत से भिन्न अन्य गौण खनिजों हेतु तैयार की गई है। तैयार की गई जिला सर्वेक्षण रिपोर्ट (प्रारूप) के Part - A में 13 Chapter तथा Part - B में 27 Chapter हैं। उक्त जिला सर्वेक्षण रिपोर्ट (प्रारूप) पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय की अधिसूचना दिनांक 25.07.2018 में विहित प्रावधानों के अनुरूप है। उक्त जिला सर्वेक्षण रिपोर्ट (प्रारूप) को अग्रिम कार्यवाही हेतु सर्वसम्मति से अनुशंसा की जाती है।

अनुविभागीय अधिकारी (रा.)
डिण्डौरी

कार्यपालन यंत्री
जल संसाधन विभाग डिण्डौरी

उप वनमण्डलाधिकारी
(सामान्य वनण्डल) डिण्डौरी

कनिष्ठ वैज्ञानिक
म.प्र. प्रदूषण नियंत्रण बोर्ड शहडोल

प्र. खनि अधिकारी
जिला डिण्डौरी (म.प्र.)

समाचार पत्रों में प्रकाशित सूचना के कतरन

नईदुनिया दिनांक 03.05.2022

कार्यालय कलेक्टर (खनिज शाखा) जिला डिण्डौरी (म.प्र.)

E-mail :- modgmdin@mp.gov.in

क्र./30/खनि/2022 डिण्डौरी, दिनांक 20/04/2022

आम सूचना

माननीय सर्वोच्च न्यायालय द्वारा सिविल अपील कमांक 3661–3662/2020 (बिहार राज्य एवं अन्य विरुद्ध पवन कुमार एवं अन्य) में पारित आदेश दिनांक 10.11.2021 के पालन में एवं संचालक, प्रशासन एवं खनिकर्म भोपाल का पत्र क.क./2981/खनिज/विविध/न.क./2022 भोपाल दिनांक 03.03.2022 में प्रदत्त निर्देशों के आलोक में कलेक्टर महोदय के आदेश क्रमांक 736 दिनांक 28.03.2022 से जिला सर्वेक्षण रिपोर्ट तैयार करने हेतु गठित उप संभाग स्तरीय समिति द्वारा रेत खनिज एवं रेत खनिज से भिन्न अन्य गौण खनिजों हेतु तैयार की गई जिला सर्वेक्षण रिपोर्ट (DSR) प्रारूप को आम लोगों के सुझाव/ अभिमत/टिप्पणी प्राप्त करने हेतु जिला के वेबसाइट https://dindori.nic.in/en/notice/district-survey-report-draft-mining-department-dindori/ पर अपलोड कराया गया है तथा जिला सर्वेक्षण रिपोर्ट (DSR) प्रारूप की एक प्रति कलेक्टर कार्यालय के अधीक्षक कक्ष में रखी गई है। जिस किसी व्यक्तिको जिला सर्वेक्षण रिपोर्ट (DSR) प्रारूप के संबंध में सुझाव/ अभिमत/टिप्पणी देनी है, इस संबंध में कार्यालय कलेक्टर (खनिज शाखा) जिला डिण्डौरी के ई–मेल आई.डी. modgmdin@mp.gov.in पर अपना सुझाव/ अभिमत/टिप्पणी देना सुनिश्चित करें।

प्रभारी खनि अधिकारी
डिण्डौरी (म.प्र.)

जी–12160/22

पत्रिका दिनांक 03.05.2022

कार्यालय कलेक्टर (खनिज शाखा) जिला डिण्डौरी (म.प्र.)

E-mail:-modgmdin@mp.gov.in

क्र./30/खनि/2022 डिण्डौरी, दिनांक 20.04.2022

आम सूचना

माननीय सर्वोच्च न्यायालय द्वारा सिविल अपील क्रमांक 3661-3662/2020 (बिहार राज्य एवं अन्य विरुद्ध पवन कुमार एवं अन्य) में पारित आदेश दिनांक 10.11.2021 के पालन में एवं संचालक, प्रशासन एवं खनिकर्म भोपाल का पत्र क्र./2981/खनिज/विविध/न.क./2022 भोपाल दिनांक 03.03.2022 में प्रदत्त निर्देशों के आलोक में कलेक्टर महोदय के आदेश क्रमांक 786 दिनांक 28.03.2022 से जिला सर्वेक्षण रिपोर्ट तैयार करने हेतु गठित उप संभाग स्तरीय समिति द्वारा रेत खनिज एवं रेत खनिज से भिन्न अन्य गौण खनिजों हेतु तैयार की गई जिला सर्वेक्षण रिपोर्ट (DSR) प्रारूप को आम लोगों के सुझाव/अभिमत/टिप्पणी प्राप्त करने हेतु जिला के वेबसाइट https://dindori.nic.in/en/notice/district-survey-report-draft-mining-department-dindori/ पर अपलोड कराया गया है तथा जिला सर्वेक्षण रिपोर्ट (DSR) प्रारूप की एक प्रति कलेक्टर कार्यालय के अधीक्षक कक्ष में रखी गई है। जिस किसी व्यक्ति को जिला सर्वेक्षण रिपोर्ट (DSR) प्रारूप के संबंध में सुझाव/अभिमत/टिप्पणी देनी है, इस संबंध में कार्यालय कलेक्टर (खनिज शाखा) जिला डिण्डौरी के ई-मेल आई.डी. modgmdin@mp.gov.in पर अपना सुझाव/अभिमत/टिप्पणी देना सुनिश्चित करें।

प्रभारी खनि अधिकारी
डिण्डौरी (म.प्र.)

जी-12160/22

जिले की वेबसाइट में अपलोड किये जाने की प्रति

मध्य प्रदेश शासन | Government of Madhya Pradesh

SKIP TO MAIN CONTENT | ENGLISH

ज़िला डिंडौरी
DISTRICT DINDORI

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District Survey Report (Draft) Mining Department Dindori

District Survey Report (Draft) Mining Department Dindori				
Title	Description	Start Date	End Date	File
District Survey Report (Draft) Mining Department Dindori		20/04/2022	10/05/2022	View (4 MB)

Government of
Madhya Pradesh

DISTRICT SURVEY REPORT

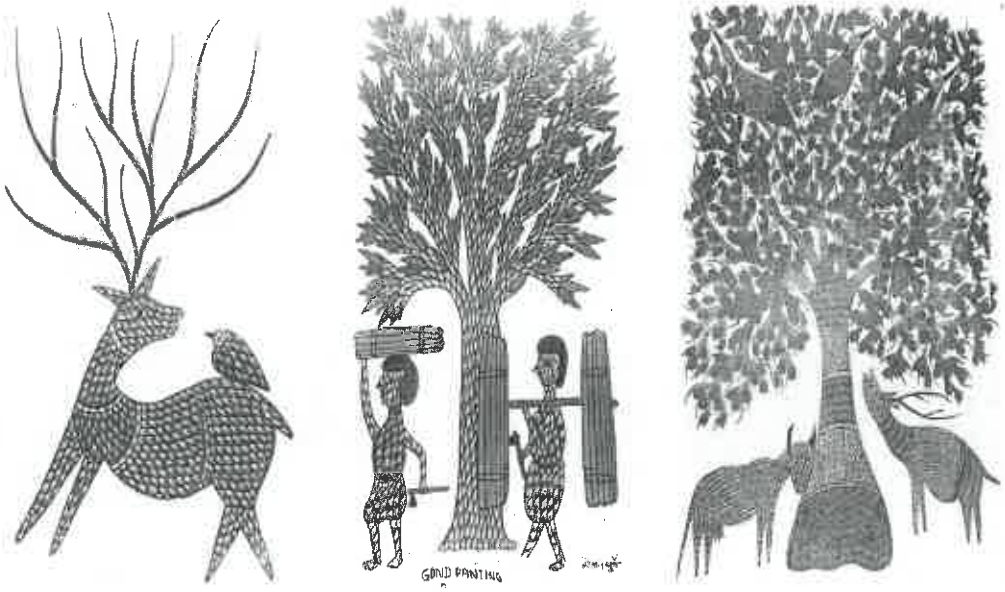
of

(RIVER BED SAND MINING & OTHER MINOR MINERAL)

for

DINDORI DISTRICT, MADHYA PRADESH

As per gazette Notification No. S.O. 3611 (E) New Delhi dated 25th July 2018 of Ministry of Environment , Forest and Climate Change,Government of India, "Sustainable Sand Mining guidelines 2016" And EMGSM 2020



Prepared by

SUB DIVISIONAL COMMITTEES
DINDORI (M.P.)

APRIL 2022

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

जिला सर्वेक्षण रिपोर्ट (प्रारूप) की अनुशंसा हेतु आयोजित बैठक का कार्यवाही विवरण

माननीय सर्वोच्च न्यायालय द्वारा सिविल अपील कमांक 3661–3662/2020 (बिहार राज्य एवं अन्य विरूद्ध पवन कुमार एवं अन्य) में पारित आदेश दिनांक 10.11.2021 के अनुसार एवं सस्टेनेबल सेण्ड माइनिंग मेनेजमेंट गाईडलाईन 2018 एवं इनफोर्समेंट मानिटरिंग फार सेण्ड माईनिंग 2020 के पालन में संचालक महोदय, प्रशासन एवं खनिकर्म म.प्र. भोपाल के आदेश कमांक/2981/2982–86 भोपाल दिनांक 03.03.2022 तथा कलेक्टर महोदय जिला डिण्डौरी के आदेश कमांक/786/खनि/2022 दिनांक 28.03.2022 के पालन में तैयार की गई जिला सर्वेक्षण रिपोर्ट (District Survey Report) (प्रारूप) की अनुशंसा हेतु आयोजित बैठक दिनांक 07.04.2022 में निम्नानुसार सदस्य उपस्थित हुये:–

1. श्री बलवीर रमन, अनुविभागीय अधिकारी (राजस्व) डिण्डौरी मोबा.नं. 9425192835
2. श्री व्ही. जी. एस. साण्डया, कार्यपालन यंत्री, जल संसाधन विभाग डिण्डौरी मोबा.नं. 9424713427
3. श्री ए.के. शर्मा, उपवनमण्डलाधिकारी सामान्य वनमण्डल डिण्डौरी मोबा.नं. 9424792602
4. श्री गणेश कुमार बैगा, कनिष्ठ वैज्ञानिक, म.प्र. प्रदूषण नियंत्रण बोर्ड, शहडोल मोबा.नं. 8319469377
5. श्री हितेश कुमार बिसेन, खनि अधिकारी, जिला डिण्डौरी मोबा.नं. 9630575454

उपरोक्तानुसार आयोजित बैठक में रेत खनिज एवं रेत खनिज से भिन्न अन्य गौण खनिजों हेतु तैयार की गई जिला सर्वेक्षण रिपोर्ट के संबंध में चर्चा की गई। जिला सर्वेक्षण रिपोर्ट (प्रारूप) दो भागों में Part - A में खनिज रेत एवं Part - B खनिज रेत से भिन्न अन्य गौण खनिजों हेतु तैयार की गई है। तैयार की गई जिला सर्वेक्षण रिपोर्ट (प्रारूप) के Part - A में 13 Chapter तथा Part - B में 27 Chapter हैं। उक्त जिला सर्वेक्षण रिपोर्ट (प्रारूप) पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय की अधिसूचना दिनांक 25.07.2018 में विहित प्रावधानों के अनुरूप है। उक्त जिला सर्वेक्षण रिपोर्ट (प्रारूप) को अग्रिम कार्यवाही हेतु सर्वसम्मति से अनुशंसा की जाती है।

अनुविभागीय अधिकारी (रा.) डिण्डौरी	कार्यपालन यंत्री जल संसाधन विभाग डिण्डौरी	उप वनमण्डलाधिकारी (सामान्य वनमण्डल) डिण्डौरी
कनिष्ठ वैज्ञानिक म.प्र. प्रदूषण नियंत्रण बोर्ड शहडोल	प्र. खनि अधिकारी जिला डिण्डौरी (म.प्र.)	

PREFACE

The present District Survey Report is prepared in compliance of interim order passed by the Hon'ble Supreme Court on 10-11-21 in the case of Civil Appeal No. 3661-3662/2020, State of Bihar & Others vs. Pawan Kumar & Others. The District Collector through its letter no.748/Khani, Dindori, dated 25-03-2021 had constituted the sub-divisional committee to prepare the District Survey Report.

The need for District Survey Report (DSR) have been necessitated by Ministry of Environment, Forest and Climate Change (MoEF & CC) vide their Notification No. 125 (Extraordinary, Part II Section 3, Sub-section ii), S.O. 141 (E), dated 15th January 2016. The notification was addressed to bring certain amendments with respect to the EIA notification 2006 and in order to have a better control over the legislation. District level committees have been introduced in the system. As a part of this notification, preparation of District Survey Reports has been introduced. Subsequently, Ministry of Environment, Forest and Climate Change has published Notification No. 3611 (E), dt. 25th July, 2018 regarding inclusion of the —Minerals Other than Sand and format for preparation of the DSR has been specified. Enforcement & Monitoring Guidelines for Sand Mining (EMGSM) January 2020, Issued by Ministry of Environment, Forest and Climate Change is prepared in consideration of various orders/directions issued by Hon'ble NGT in matters pertaining to illegal sand mining and also based on the reports submitted by expert committees and investigation teams. This DSR has been prepared in conformity with the S O 141 (E), S O 3611 (E) and other sand mining guidelines published by MOEF & CC time to time as well as the requirement specified in Madhya pradesh Sand (Mining, Transportation,Storage and trading) Rules, 2019.

The purpose of DSR is to identify the mineral potential areas where mining can be allowed; and also, to distinguish areas where mining will not be allowed due to proximity to infrastructural structures and installations, areas of erosion, areas of environmental sensitivities etc. The DSR would also help to estimate the annual rate of replenishment wherever applicable and allow time for replenishment.

The DSR of Dindori District also describes the general geographical profile of the district, distribution of natural resources, livelihood, climatic condition and sources of revenue generation.

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

DISCLAIMER

Not in existance.

The data may vary due to flood, heavy rains and other natural calamities. Therefore it is recommended that DEIAA/SEIAA may take into consideration all its relevant aspects / data while scrutinizing and recommending the application for EC to the concerned authority.

State Level Environment Impact
Assessment Authority, M.P.
Parv[illegible]arisar
E-5, Arera Colony, Bhopal (M.P.)

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

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OBJECTIVES

The main objective of the preparation of District Survey Report (as per the Sustainable Sand Mining Guideline) is to ensure the following –

- Identification of areas of aggradations or deposition where mining can be allowed; and
- Identification of areas of erosion and proximity to infrastructural structures and installations where mining should be prohibited and calculation of annual rate of replenishment and allowing time for replenishment after mining in that area.
- Identification of mineral wealth in the district.

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

DISTRICT SURVEY REPORT FOR DINDORI DISTRICT

PART –A

FOR

SAND MINING OR RIVER BED MINING

Prepared under:

a) Appendix –X of MoEF&CC, GoI Notification S.O. 141(E) dated 15.1.2016
b) Sustainable Sand Mining GuidelineS
c) MoEFCC, GoI Notification S.O. 3611(E) dated 25.07.2018
d) Sand Mining Framework -2018
e) Enforcement & Monitoring Guidelines for Sand Mining by MoEF&CC-2020

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

PART -A

DISTRICT SURVEY REPORT FOR RIVER BED SAND MINING

As per the Gazette Notification dated 15th January, 2016 of Ministry of Environment, Forest and Climate Change a joint survey has been carried out by the District Environment Impact Assessment Authority (DEIAA) with the assistance of Irrigation Department, Drainage Department, Forest Department, Mining Department and Revenue Department in the district for preparation of the District Survey Report.

The Ministry of Environment, Forest & Climate Change formulated the Sustainable Sand Management Guidelines 2016 which focuses on the Management of Sand Mining in the Country. But in the recent past, it has been observed that apart from management and systematic mining practices there is an urgent need to have a guideline for effective enforcement of regulatory provision and their monitoring.

Section 23 C of MMDR, Act 1957 empowered the State Government to make rules for preventing 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.

India is developing at a faster pace and much technological advancement has already been taken place in the surveillance and remote monitoring in the field of mining. Thus, it is prudent to utilize the technological advancement for the effective monitoring of the mining activity es particularly sand mining in the country.

Use of latest remote surveillance and IT services helps in effective monitoring of the sand mining activity in-country and also assist the government in controlling the illegal mining activity in the country. Thus, there is a need for an effective policy for monitoring of sand mining in the Country which can be enforced on the ground. These guidelines focus 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. Further, the effective monitoring and enforcement require efforts from not only Government agencies but also by consumers and the general public.

It is the responsibility of every citizen of India to protect the environment and effective monitoring can only be possible when all the stakeholders' viz. Central Government, State Government, Leaseholders/Mine Owners, Distributors, Dealers, Transporters and Consumers (bulk & retail) will contribute towards sustainable mining, and comply with all the statutory provisions. It is felt necessary to identify the minimum requirements across all geographical regions to have a uniform protocol for monitoring and enforcement of regulatory provision prescribed for sustainable sand and gravel mining.

This document will serve as a guideline for collection of critical information for enforcement of the regulatory provision(s) and also highlights the essential infrastructural requirements necessary for effective monitoring for Sustainable Sand Mining.

The document is prepared in consideration of various orders/directions issued by Hon'ble NGT in matters pertaining to illegal sand mining and also based on the reports submitted by expert committees and investigation teams.

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

Further, this document is supplemental to the existing "Sustainable Sand Mining Management Guideline-2016" (SSMG-2016), and these two guidelines viz. "Enforcement & Monitoring Guidelines for Sand Mining" (EMGSM-2020) and SSMG-2016 shall be read and implemented in sync with each other. In case, any ambiguity or variation between the provisions of both these document arises, the provision made in "Enforcement & Monitoring Guidelines for Sand Mining-2020 "shall prevail.

State Level Environment Impact
Assessment Authority, M.P.

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

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CHAPTER-I

INTRODUCTION

The District Survey Report of Dindori District has been prepared in compliance of interim order passed by the Hon'ble Supreme Court on 10-11-21 in the case of Civil Appeal No. 3661-3662/2020, State of Bihar & Others vs. Pawan Kumar & Others and as per the guide line of Ministry of Environment, Forests & Climate Change (MoEF & CC), Government of India vide Notification S.O.-1533(E) dated 14th Sept, 2006 and subsequent MoEF & CC Notification S.O. 141(E) dated 15th Jan, 2016. This report shall guide systematic and scientific utilization of natural resources, so that present and future generation may be benefitted at large. Further, MoEF & CC published a notification S.O. 3611(E) Dated 25th July, 2018 and recommended the format for District Survey Report.

The main objective of DSR is to identify the areas of aggradations or deposition where mining can be allowed; and identification of areas of erosion and proximity to infrastructural structures and installations where mining should be prohibited and estimation of annual rate of replenishment and allowing time for replenishment after mining in that area. The DSR would also help to calculate the annual rate of replenishment wherever applicable and allow time for replenishment. Besides the sand mining, the DSR also include the potential development scope of insitu minor minerals.

The objectives of the District Survey Report are as following:

1. Identification and Quantification of Mineral Resource and its optimal utilization.
2. To regulate the Sand & Gravel Mining in the Country, identification of site-specific end-use consumers and reduction in demand & supply gaps.
3. Use of information technology (IT) & latest scientific method of mining for surveillance of the sand mining at each step.
4. District Survey report shall enable Environmental Clearance for cluster of Sand & Gravel Mines. It shall assist concern Department during post Environmental Clearance Monitoring.
5. To control the instance of illegal mining.
6. To control the flood in the area.
7. To maintain the livelihood of aquatic habitat.
8. To protect the incursion of ground water in the area. Limiting extraction of material in floodplains to an elevation above the water table generally disturbs more surface area than allowing extraction of material below the water table.
9. To keep accumulated data records viz. details of Mineral Resource, potential area, lease, approved mining plan, co-ordinates of a district at one place.
10. To maintain the records of revenue generation.
11. In-stream extraction of gravel from below the water level of a stream generally causes more changes to the natural hydrologic processes than limiting extraction to a reference point above the water level.
12. In-stream extraction of gravel below the deepest part of the channel generally causes more changes to the natural hydrologic processes than limiting extraction to a reference point above the thalweg.
13. Excavating sand and gravel from a small straight channel with a narrow floodplain generally will have a greater impact on the natural hydrologic processes than excavations on a braided channel with a wide floodplain.
14. Extracting sand and gravel from a large river or stream will generally create less impact than extracting the same amount of material from a smaller river or stream.

15. A concise guide line can be framed considering the point discussed in the DSR for sand and or minor mineral mining in the district.

The District Survey report (DSR) is comprised of secondary data published and endorsed by various departments and websites about geology of the area, mineral resources, climate, topography, land form, forest, rivers, soil, agriculture, road, transportation, irrigation etc. Data on lease and mining activities in the district, revenue etc. are collected and collated from concern district Head Quarter.

The District Collector through its vide letter no. 786/Khani/2022, Dindori, dated 28-03-2022 had constituted the sub-divisional committee to prepare the District Survey Report. List of the members of the sub-divisional Committee is shown below:

Structure of the Sub divisional Committee Constituted for preparation of the District Survey Report for Sand minerals of District Dindori.

S.No.	Member of committee
1	Sub Divisional Magistrate, Dindori (M.P.)
2	Executive engineer, WRD, Dindori (M.P.)
3	Sub Divisional Forest Officer (T), Dindori (M.P.)
4	Junior Scientist, MP Pollution Control board, Regional office Shahdol
5	Mining Officer, Dindori (M.P.)

ABOUT DISTRICT

General:

Dindori is a district of Madhya Pradesh state of central India. The town of Dindori is the district headquarters. It was created on 25th May, 1998 with total 927 villages. The district is a part of Jabalpur Division. The district covers an area of 7470 sq.km. and is located on the eastern part of Madhya Pradesh, bordering the state of Chhattisgarh. It is surrounded by Shahdol in the east, Mandla in the west, Umaria in the north, and Bilaspur district of the state of Chhattisgarh in the south. Mathematically, the district is situated between the latitudes 22.17N and 23.22N and longitudes 80.35E and 80.58E It is divided into seven blocks namely Dindori, Shahpura, Mehandwani, Amarpur, Bajag, Karanjiya and Samnapur.

According to the 2011 census Dindori District has a population of 704,218, roughly equal to the nation of Bhutan or the US state of Alaska. This gives it a ranking of 501st in India (out of a total of 640 Districts). The district has a population density of 94 inhabitants per square kilometer (240/sq mi). Its population growth rate over the decade 2001-2011 was 21.26%. Dindori has a sex ratio of 1004 females for every 1000 males, and a literacy rate of 65.47%. Around 64% of the total population belongs to the Scheduled Tribe.

The Baiga tribe is a very pre-dominant tribe in this district. They are very vulnerable tribal groups which can only be found in the district. The Baigas are also known as the "National Human".

Historical Perspective:

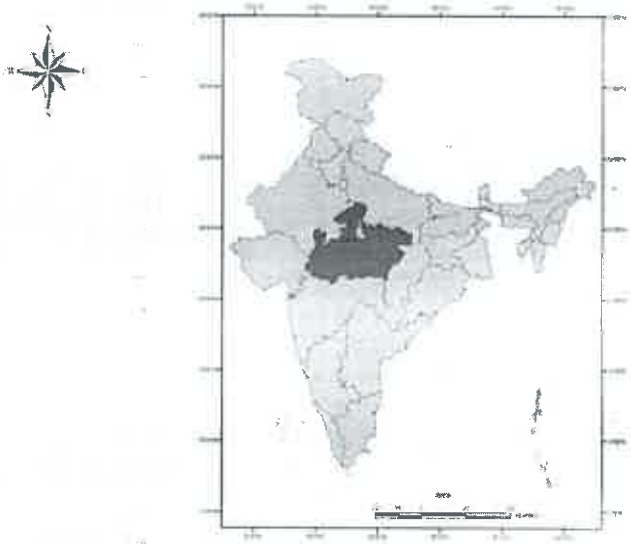
The historiography of the district is similar to Mandla district, because Dindori district was formed in 1998 after the bifurcation from Mandla. The original name of Dindori was known as to be Ramgarh till 1951, which then was a tehsil of Mandla. Later on, the name of Ramgarh was renamed as Dindori.

Maurya, Sunga and Kanva followed by the Chalukya and Chedis dynasties ruled over the central India. Later, the Haihayabansi's kingdom also reigned Garha-Mandla from 875 A.D. to 1042 A.D. After Baghel Raja of Rewa, Jadhe Rao Gond, a servant of king assumed the dignity of royalty. The Gond Jadurai became the first King of Garha-Mandla. There aren't much details available about Raja Hirde Shah, the first Gond king.

Till 1835, Mandla was a tehsil of Seoni. In 1851, it was promoted to the status of district. There were 18 talukas when Britishers got the land of Ramgarh. Out of 2089 villages, 1039 villages had become part of the Sohagpur and 1050 villages remained in Ramgarh. With the help of Rewa king, Britishers got killed the brave queen of Ramgarh and suppressed the 1857 mutiny in Mandla. The Sohagpur area of Ramgarh was handed over to the king of Rewa. The remaining area annexed to Dindori tehsil which became a new district on 22nd May 1998.

Location and Geographical Data:

The district covers an area of 7470 sq.km. and is located on the eastern part of Madhya Pradesh, bordering the state of Chhattisgarh. It is surrounded by Shahdol in the east, Mandla in the west, Umaria in the north, and Bilaspur district of the state of Chhattisgarh in the south. Mathematically, the district is situated between the latitudes 22.17N and 23.22N and longitudes 80.35E and 80.58E It is divided into seven blocks namely Dindori, Shahpura, Mehandwani, Amarpur, Bajag, Karanjiya and Samnapur.



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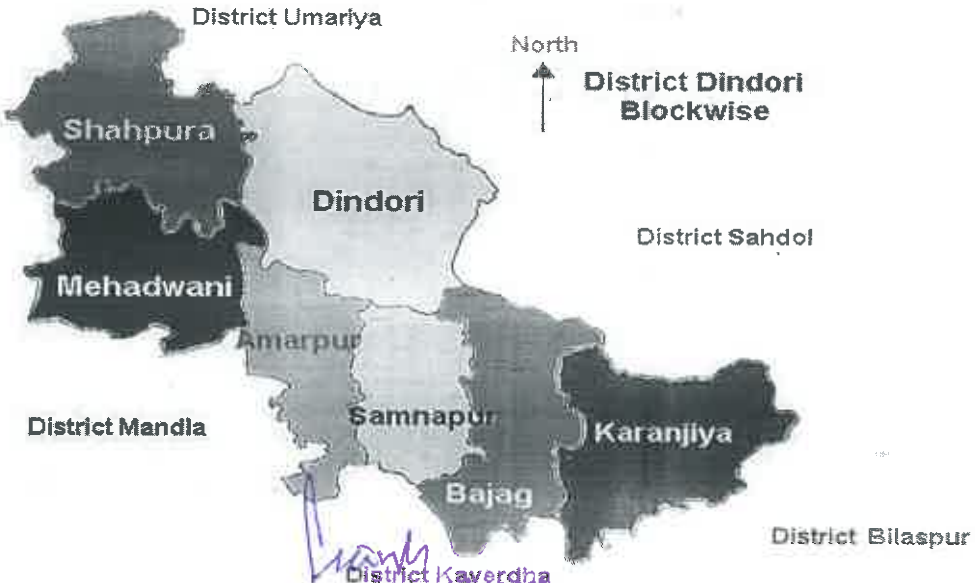

Demography of the Dindori District:

As per the Census 2011, total population of Dindori district is about 704,524 persons with 351,913 Males and 352,611 Females. The sex ratio is 1002 females to every thousand males which is quite impressive as compared to Bhind, Datia and other Northern districts of Madhya Pradesh. The overall population density is 94 persons per square kilometer. There is a small population living in the urban centers as compared to the rural areas with urban population of about 32,318 and that of rural is 672,206.

According to the 2011 census, the scheduled tribe population is 64.69% of the total population. The scheduled caste population in the district is just 5.64% of the total district population.

Dindori district returned a population of 704,524 as per 2011 census, as against a population of 580,730 persons recorded by 2001 Census. District Dindori recorded an overall increase of 21.32 per cent in population during the past one decade. According to census, The no. of APL family in the district is 48681, whereas the no. of BPL families including AAY is 128371.

Drainage System:

Situated on the bank of river Narmada, the district headquarter is 102 kms from Mandla. Gaur, a tributary of the holy river Narmada, rises near Niwas in Dindori district and flows into the Narmada, close to Jabalpur district. Other small tributaries which flow towards south are Seoni, Chakrar, Machhrar, Kutrar, Khadmer and Silgi.

Soil:

Kabar or Kanhar, morand or mund, sahra and barra are four general classes of soils. Kabar soil is bluish black, most fertile, soft and sticky when it is wet and very hard and heavy when it is dry. Kanhar, the second quality soil is little inferior to the preceding, more gritty, lighter in colour, less in depth and contains small black pebbles. Morand or Mund soil is again divided into two sub-types, the former is black and darkish, more gritty and friable than Kabar soil and breaking into small clods with a roughish surface. The second quality of Mund soil is an inferior variety, more sandy mixed with limestone which reduces productivity. The Sahra and Barra soils are pure sand and pale yellow type which are unfit for Rabi or spring Kharif crops like rice may be grown with proper irrigation facilities.

Climate:

The climate of the district is moderate being 430 C to be the maximum temperature and 10.410 C to be the minimum temperature on an average. July and August witness rainy season. However, rain may also occur in the months of June and September. The average rainfall is 704.69 millimeters. Months of May and June could most appropriately be called hot months while December and January are most appropriately the cold months.

Connectivity:

- **By Air**

Nearest Airport is Dumna Airport, situated at Jabalpur, which is 146 km away from Dindori.

- **By Rail**

Nearest Railway Stations are at Jabalpur(144 km away), Pendra road(115 km away) and Umaria(108 km away).

- **By Road**

Good connectivity from the neighbouring districts viz. Jabalpur, Mandla, Bilaspur and Shahdol. NH 45 Ext new connects Dindori with Jabalpur and Kabir Chabutra-Chhattisgarh Border. And NH543 New connects Dindori with Shahdol, Mandla and Balaghat. Buses ply to all the neighboring as well as far-flung places such as Nagpur, Bhopal, Mandla, Shahdol, Umaria, Amarkantak and Jabalpur.

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

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CHPATER -2

OVERVIEW OF MINING ACTIVITY IN THE DISTRICT

Dindori District is hilly and plateau area, Bauxite and laterite are mainly found in major minerals in the district. Among minor minerals sand and stone for ballast are found in the district.

There are no major mineral mines operating in Dindori district. A mine of bauxite mineral from the government level has been allotted to the successful tenderer through auction. Prospecting work for the preparation of another bauxite mineral blocks is being done by the Regional Office, Directorate of Geology and Mining, Jabalpur and Geological Survey of India in the district. At present 07 mines of sand minerals are declared of minor minerals. 51 stone quarries for ballast are present in the district.

In the last year 2020-21, 5.83 Crore Rs. revenue has been received from minor mineral other than sand and 5.73 Crore Rs. revenue has been received from minor mineral sand against the revenue target fixed for the district by MP Govt. Also mineral based industries are likely to come to this district in the near future due to the commencement of mining of major minerals.

Approach to Sand Mining:

River sand mining is a common practice as habitation concentrates along the rivers and the mining locations are preferred near the markets or along the transportation route, for reducing the transportation cost. River sand mining can damage private and public properties as well as aquatic habitats. Excessive removal of sand may significantly distort the natural equilibrium of a stream channel.

Mainly three types of minor minerals constituents such as sand, stone and Bajri are required for any type of construction apart from other material like cement and steel.

In earlier times, the houses/buildings were constructed in form of small dwellings with walls made up of mud plaster, stone and interlocking provided with wooden frames and there were negligible commercial as well as developmental activities resulting in less demand of building material. However with the passage of time, new vistas of developmental activities were started. The quantity of minor minerals consumption in a particular area is a thermometer to assess the development of the area. Thus with the pace of development activities, the consumption of minor minerals also increased. As such the demand of minor minerals in the district has started an increasing trend. In order to meet the requirement of raw material for construction, the extraction of sand is being carried out exclusively from the river beds. In Dindori district, the demand of sand (river borne collection) and of Bajri/Grit (river borne collection or through manufactured grit by stone crushers) is mainly met by the supply from Narmada and Budner river beds.

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CHPATER -3

LIST OF EXISTING AND PROPOSED SAND GHATS WITH LOCATION, AREA AND OTHER DETAILS

S. No.	Tehsil	Name of river Bed	Mine Name	Khasra No.	Rakba (Ha)	Lat-Long Of Boundaries of mine	Date of EC	Existing/ Proposed
1	Bajag	Narmada	Musamundi Ryt.-1	54	7.00	a) N 22° 46' 29.88" E 81° 27' 10.12" b) N 22° 46' 30.05" E 81° 27'09.15" c) N 22° 47' 12.00" E 81° 26' 46.72" d) N 22° 47' 12.27" E 81° 26' 47.59"	13.05.21	EXISTING
2	Dindori	Budner	Diwari Mal-1	151	5.00	a) N 22° 33' 03.46" E 80° 57' 56.52" b) N 22° 33' 03.46" E 80° 57' 55.08" c) N 22° 33' 29.72" E 80° 57' 59.49" d) N 22° 33' 29.43" E 80° 57' 57.30"	23.10.20	EXISTING
3	Dindori	Budner	Diwari Mal-2	439	4.50	a) N 22° 32' 34.09" E 80° 58' 18.70" b) N 22° 32' 32.65" E 80° 58' 18.48" c) N 22° 32' 39.98" E 80° 58' 38.12" d) N 22° 32' 38.25" E 80° 58' 38.92"	19.05.20	EXISTING
4	Dindori	Budner	Kamko Mohaniya	546	6.00	a) N 22° 33' 34.01" E 80° 57' 32.15" b) N 22° 33' 32.57" E 80° 57' 33.28" c) N 22° 33' 20.10" E 80° 57' 04.44" d) N 22° 33' 22.04" E 80° 57' 03.60"	12.05.21	EXISTING
5	Bajag	Narmada	Budhgoan Ryt.	66	0.61	a) N 22° 54' 42.84" E 81° 12' 18.24" b) N 22° 54' 44.01" E 81° 12' 17.50" c) N 22° 54' 46.36" E 81° 12' 22.03" d) N 22° 54' 44.96" E 81° 12' 22.43"	24.03.21	EXISTING
6	Bajag	Narmada	Musamundi Ryt.-2	54	3.00	a) N 22° 47' 44.82" E 81° 26' 41.10" b) N 22° 47' 45.89" E 81° 26' 41.22" c) N 22° 47' 36.59" E 81° 27' 01.44" d) N 22° 47' 37.12" E 81° 27' 00.31"	-	PROPOSED
7	Dindori	Budner	Diwari Mal- 3	439, 493	4.50	a) N 22° 32' 36.21" E 80° 59' 20.02" b) N 22° 32' 35.78" E 80° 59' 20.96" c) N 22° 32' 33.19" E 80° 59' 00.69" d) N 22° 32' 32.51" E 80° 58' 59.08"	-	PROPOSED

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CHPATER -4

RECOMMENDATION OF ENFORCEMENT & MONITORING GUIDELINES FOR SAND MINING BY MOEF&CC- 2020

4.1 Introduction

India is developing at a faster pace and much technological advancement has already been taken place in the surveillance and remote monitoring in the field of mining. Thus, it is prudent to utilize the technological advancement for the effective monitoring of the mining activity particularly sand mining in the country.

Following a series of orders by the National Green Tribunal in 2018, the Ministry of Environment, Forests and Climate Change has for the first time released guidelines to monitor and check illegal sand mining in the country. The Enforcement and Monitoring (EM) Guidelines for Sand Mining 2020 released by the Ministry include directions to states to carry out river audits, put detailed survey reports of all mining areas online and in the public domain, conduct replenishment studies of river beds, constantly monitor mining with drones, aerial surveys, ground surveys and set up dedicated task forces at district levels. The guidelines also push for online sales and purchase of sand and other riverbed materials to make the process transparent. They propose night surveillance of mining activity through night-vision drones.

While the MoEF&CC has already put in place the Sustainable Sand Management Guidelines 2016, which focus on the management of sand mining in India, that there is an urgent need to have guidelines for effective enforcement of regulatory provisions and their monitoring.

4.2 Background

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. "But in the recent past, it has been observed that 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 leads to loss of revenue to the State and degradation of the environment. The enforcement guidelines focus 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 looks at a uniform protocol for the whole country".

The need for replenishment study for river bed sand is also required in order to "nullify the adverse impacts arising due to excessive sand extraction". No riverbed mining will be allowed during the monsoon. 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.

The guidelines say the detailed survey needs to be carried out for quantification of minerals and the demand and supply of the riverbed material through market survey, including the future demand for the next five years.

The guidelines also push for the sale and purchase of sand and river bed material (RBM) online to make the process more transparent. "In order to curb illegal mining, it is very necessary that the general public is aware of the legal source of sand and RBM suppliers. It is

suggested that the state government should develop an online portal for sale and purchase of sand and RBM. The state government will also decide the model of sale and the price of RBM. "It is suggested that the controlled price model is more effective in controlling illegal sand mining," the guidelines state.

This document will serve as a guideline for collection of critical information for enforcement of the regulatory provision(s) and also highlights the essential infrastructural requirements necessary for effective monitoring for Sustainable Sand Mining. The document is prepared in consideration of various orders/directions issued by Hon'ble NGT in matters pertaining to illegal sand mining and also based on the reports submitted by expert committees and investigation teams.

Further, this document is supplemental to the existing "Sustainable Sand Mining Management Guideline-2016" (SSMG-2016), and these two guidelines viz. "Enforcement & Monitoring Guidelines for Sand Mining" (EMGSM-2020) and SSMG-2016 shall be read and implemented in sync with each other. In case, any ambiguity or variation between the provisions of both these document arises, the provision made in "Enforcement & Monitoring Guidelines for Sand Mining-2020 "shall prevail.

4.3 Objective of Guidelines

- Identification and Quantification of Mineral Resource and its optimal utilization.
- To regulate the Sand & Gravel Mining in the Country since its identification to its final enduse by the consumers and the general public.
- Use of IT-enabled services & latest technologies for surveillance of the sand mining at each step.
- Reduction in demand & supply gaps.
- Setting up the procedure for replenishment study of Sand.
- Post Environmental Clearance Monitoring.
- Procedure for Environmental Audit.
- To control the instance of illegal mining.

4.4 Salient Features of the Guidelines

- **District Survey Report:** The guidelines provide the procedure to be followed for identifying areas where mining can be allowed or prohibited. It provides guidelines for preparing a district survey report, which includes: Preparing a report before granting a mining lease, and Defining mining and no mining zones based on certain environmental and social factors.

- **Preventing Illegal Mining:** The guidelines suggest that sites can be monitored remotely by using unmanned artificial vehicles or drones. Drones can also be used for quantity estimation and land use monitoring. Further, the guidelines propose night surveillance of mining activity through night-vision drones. The environmental damages incurred due to illegal mining will be assessed by a committee constituted by the District Administration.

- **Environmental Clearance:** Environmental Clearance for mining is given by regulatory authorities after considering the potential environmental impact. However, it has been observed that often the Letter of Intent (LoI) is granted for a location which is not feasible for environment-friendly mining. The guidelines provide that LoIs should be granted for those locations which have the least possibility of an impact on the environment and nearby habitation.

- The guidelines also push for online sales and purchase of sand and other riverbed materials to make the process transparent.

There are some important key points of EM guildlines for sand mining 2020:

a) 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.

b) Audits:

- States to carry out river audits put detailed survey reports of all mining areas in the public domain.

c) 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.

d) Sustainability:

- Conduct replenishment study for river bed sand in order to nullify the adverse impacts arising due to excessive sand extraction.
- No riverbed mining will be allowed during the monsoon.

4.5 Requirement for Monitoring & Enforcement

Sustainable Sand Mining Management Guidelines (SSMMG) 2016 and past experience suggest that the sources of sand in India are through:

- ✓ River (riverbed and flood plain),
- ✓ Lakes and reservoirs,
- ✓ Agricultural fields,
- ✓ Coastal / marine sand,
- ✓ Palaeo-channels and
- ✓ Manufactured Sand (M-Sand).

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

4.6 Preparation of District Survey Report

"Sustainable Sand Mining Guidelines, 2016" issued by MoEF&CC requires preparation of District Survey Report (DSR), which is an important initial step before grant of mining lease/LoI. The guidelines emphasize detailed procedure to be followed for the purpose of identification of areas of aggradation/ deposition where mining can be allowed and identification of areas of erosion and proximity to infrastructural structures and installation where mining should be prohibited. Calculation of annual rate of replenishment, allowing time for replenishment after mining, identification of ways of scientific and systematic mining; identifying measures for protection of environment and ecology and determining measures for protection of bank erosion, benchmark (BM) with respect to mean Sea Level (MSL) should be made essential in mining channel reaches (MCR) below which no mining shall be allowed.

Therefore, preparation of District Survey Report is a very important step and sustainable sand mining in any part of the country will depends on the quality of District Survey Report.

Considering the importance of district survey report, the Ministry of Environment Forest and climate change, after consultation with experts dealing with mining-related matters, formulated the following guidelines for the preparation of comprehensive District Survey Report for sand mining.

a) District Survey Report for sand mining shall be prepared before the auction/eauction/grant of the mining lease/Letter of Intent (LoI) by Mining department or department dealing the mining activity in respective states.

b) The first step is to develop the inventory of the River Bed Material and Other sand sources in the District. In order to make the inventory of River Bed Material, a detailed survey of the district needs to be carried out, to identify the source of River Bed Material and alternative source of sand (M-Sand). The source will include rivers, de-siltation of reservoir/dams, Patta lands/Khatedari Land, M-sand etc.

c) District Survey Report is to be prepared in such a way that it not only identifies the mineralbearing area but also define the mining and no mining zones considering various environmental and social factors.

d) Identification of the source of Sand & M-Sand. The sources may be from Rivers, Lakes, Ponds, Dams, De-silting locations, Patta land/Khtedari lands. The details in case of Rivers such as [name, length of river, type (Perennial or Non-Perennial), Villages, Tehsil, District], in case of Lakes, Ponds, Dams, De-silting locations [Name, owned/maintained by (State Govt./PSU), area, Villages, Tehsil, District] in case of Patta land/Khtedari lands [Owner Name, Sy No, Area, Agricultural/Non-Agricultural, Villages, Tehsil, District], in case of MSand Plant [Owner Name, Sy No, Area, Quantity/Annum, Villages, Tehsil, District], needs to be recorded as per format given in **Annexure-I**.

e) Defining the sources of Sand/M-Sand in the district is the next step for identification of the potential area of deposition/aggradation wherein mining lease could be granted. Detailed survey needs to be carried out for quantification of minerals. The purpose of mining in the river bed is for channelization of rivers so as to avoid the possibility of flooding and to maintain the flow of the rivers. For this, the entire river stretch needs to be surveyed and original ground level (OGL) to be recorded and area of aggradation/deposition needs to be ascertained by comparing the level difference between the outside riverbed OGL and water level. Once the area of

aggradation/deposition is identified, then the quantity of River Bed Material available needs to be calculated. The next step is channelization of the river bed and for this central ¾th part of the river; width needs to be identified on a map. Out of the ¾th part area, where there is a deposition/aggradation of the material needs to be identified. The remaining ¼th area needs to be kept as no mining zone for the protection of banks. The specific gravity of the material also needs to be ascertained by analyzing the sample from a NABL accredited lab. Thus, the quantity of material available in metric ton needs to be calculated for mining and no mining zone.

f) The permanent boundary pillars need to be erected after identification of an area of aggradation 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.

g) Identifying the mining and no mining zone shall follow with defining the area of sensitivity by ascertaining the distance of the mining area from the protected area, forest, bridges, important structures, habitation etc. and based on the sensitivity the area needs to be defined in sensitive and non-sensitive area.

h) Demand and supply of the Riverbed Material through market survey needs to be carried out. In addition to this future demand for the next 5 years also needs to be considered.

i) It is suggested that as far as possible the sensitive areas should be avoided for mining, unless local safety condition arises. Such deviation shall be temporary & shall not be a permanent feature.

j) The final area selected for the mining should be then divided into mining lease as per the requirement of State Government. It is suggested the mining lease area should be so selected as to cover the entire deposition area. Dividing a large area of deposition/aggradation into smaller mining leases should be avoided as it leads to loss of mineral and indirectly promote illegal mining.

k) Cluster situation shall be examined. A cluster is formed when one mining lease of homogenous mineral is within 500 meters of the other mining lease. In order to reduce the cluster formation mining lease size should be defined in such a way that distance between any two clusters preferably should not be less than 2.5 Km. Mining lease should be defined in such a way that the total area of the mining leases in a cluster should not be more than 10 Ha. l) The number of a contiguous cluster needs to be ascertained. Contiguous cluster is formed when one cluster is at a distance of 2.5 Km from the other cluster. m) The mining outside the riverbed on Patta land/Khatedari land be granted when there is possibility of replenishment of material. In case, there is no replenishment then mining lease shall only be granted when there is no riverbed mining possibility within 5 KM of the Patta land/Khatedari land. For government projects, mining could be allowed on Patta land/Khatedari land but the mining should only be done by the Government agency and material should not be used for sale in the open market. Cluster situation as mentioned in para k above is also applicable for the mining in Patta land/Khatedari land.

n) The State Government should define the transportation route from the mining lease considering the maximum production from the mines as at this stage the size of mining leases, their location, the quantity of mineral that can be mined safely etc. is available with the State Government. It is suggested that the transportation route should be selected in such a way that the movement of trucks/tippers/tractors from the villages having habitation should be avoided. The transportation route so selected should be verified by the State Government for its carrying capacity.

o) Potential site for mining having its impact on the forest, protected area, habitation, bridges etc, shall be avoided. For this, a sub-divisional committee may be formed which after the site visit

shall decide its suitability for mining. The list of mining lease after the recommendation of the Committee needs to be defined in the following format given in as **Annexure-II**. The Sub-Divisional Committee after the site visit shall make a recommendation on the site for its suitability of mining and also records the reason for selecting the mining lease in the Patta land. The details regarding cluster and contiguous cluster needs to be provided as in **Annexure-III**. The details of the transportation need to be provided as in **Annexure IV**.

p) **Public consultation**-The Comments of the various stakeholders may be sought on the list of mining lease to be auctioned. The State Government shall give an advertisement in the local and national newspaper for seeking comments of the general public on the list of mining lease included in the DSR. The DSR should be placed in the public domain for at least one month from the date of publication of the advertisement for obtaining comments of the general public. The comments so received shall be placed before the sub-divisional committee for active consideration. The final list of sand mining areas [leases to be granted on riverbed & Patta land/Khatedari land, de-siltation location (ponds/lakes/dams), M-Sand Plants (alternate source of sand)] after the public hearing needs to be defined in the final DSR in the format as per **Annexure-V**. The details regarding cluster and contiguous cluster needs to be provided in **Annexure-VI**. The details of the transportation need to be provided in **Annexure-VII**.

No. of Annexure	Details
Annexure –I	Details of Sand/ M-Sand Sources
Annexure –II	List of Potential Mining Leases (Existing & Proposed)
Annexure –III	Cluster & Contiguous Cluster details
Annexure –IV	Transportation Routes for individual leases and leases in Cluster
Annexure –V	Final List of Potential Mining Leases (Existing & Proposed)
Annexure –VI	Final List of Cluster & Contiguous Cluster
Annexure –VII	Final Transportation Routes for individual leases and leases in Cluster

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ANNEXURE NO.-I

COMPLIANCE TO ENFORCEMENT AND MONITORING GUIDELINES FOR SAND MINING- 2020

Details of Sand/M-Sand Sources.

a) Rivers.

River Name/M-Sand Plant	Total Stretch of River (in KM)	Type of River (Perennial or Non-Perennial)
Narmada River	2.5	Perennial
Budner River	3.0	Perennial

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

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

c) Patta Lands/Khatedari Land:

Owner	Sy.No.	Area(Ha)	District	Tehsil	Village	Agricultural Land (Yes/No)
NIL						

d) M-Sand Plants:

Plant Name	Owner.	District	Tehsil	Village	Geo- Location	Quantity Tones/Annum
NIL						

Note: For inclusion of M-Sand Plant/Patta Land in DSR the plant/landowners need to submit the request to the Mining Department with complete details. Inclusion in DSR does not give them the right to operate the M-Sand Plant/Sand Mining lease.

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ANNEXURE NO.-II

List of Potential Sand Mining Area (Exisiting & Proposed) Rivers.

River Details	Lease Details	Area (Ha)	Distance (in KM) from PA/BR/WC	Distance from Forest Area (in KM)	Mining leases within 500 meters (if yes cluster area)	Total excavation in Tones/Annum considering digging depth max as 3 meters.	Mineral to be mined (Sand/ Bajri/ RBM etc.)	Existing/ Proposed
Narmada	Musamundi Ryt.-1	7.0	More than 10 KM	More than 0.25 KM	No	40500 Cum.	Sand	Existing
Budner	Diwari Mal-1	5.0	More than 10 KM	More than 0.25 KM	No	55000 Cum.	Sand	Existing
Budner	Diwari Mal-2	4.5	More than 10 KM	More than 0.25 KM	No	117000 Cum.	Sand	Existing
Budner	Kamkomohn iya	6.0	More than 10 KM	More than 0.25 KM	No	120000 Cum.	Sand	Existing
Narmada	Budhgaon Ryt.	0.61	More than 10 KM	More than 0.25 KM	No	2848 Cum.	Sand	Existing
Narmada	Musamundi Ryt.-2	3.0	More than 10 KM	More than 0.25 KM	No	8704 Cum.	Sand	Proposed
Budner	Diwari Mal-3	4.5	More than 10 KM	More than 0.25 KM	No	14400 cum.	Sand	Proposed

Patta Lands/Khatedari Land: (existing & proposed)

Owner	Sy.No.	Area	District	Tehsil	Village	Total Reserve (MT)	Total Mineral to be mined (MT)	Existing/ Proposed
NIL								

De-Siltation Location: (Lakes/Ponds/Dams etc.) (existing & proposed)

Name of reservoir/ Dams	Maintain/ Controlled by State Govt/PSU etc.	Location	District	Tehsil	Village	Size(Ha)	Quantity MT/Year	Existing/ Proposed
NIL								

M-Sand Plants: (existing & proposed)

Plant Name	Owner	Location	District	Tehsil	Village	Geo-Location	Quantity Tones/Annum	Existing/ Proposed
NIL								

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ANNEXURE-III

Cluster & Contiguous Cluster details

1. Clusters:

River Name	Cluster No.	Lease No.	Location (Reverbed/ Patta Land)	Village	Area(Ha)	Total excavation (ton)	Total Mineral excavation (ton)
NIL							

2. Contiguous Cluster:

River Name	Contiguous Cluster No.	Cluster No.	Number of leases in the cluster	Location (Reverbed/ Patta Land)	Distance between clusters	Village	Area of cluster (Ha)	Total Mineral excavation (ton)
NIL								

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ANNEXURE-IV

Transportation Routes for individual Sand Quarry and Sand Quarry in Cluster

1. *Transportation Routes For Individual Sand Quarry*

Lease Name	Transportation Route No.	Number of tippers/ day of lease	Number of tippers/ day of all the lease on route	Length of Route in 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
Musamundi Ryt.-1	1	08	08	0.5	unpaved	unpaved	Lease Owner	Enclosed
Diwari Mal-1	1	20	20	0.9	unpaved	unpaved	Lease Owner	Enclosed
Diwari Mal-2	1	25	25	0.7	unpaved	unpaved	Lease Owner	Enclosed
Kamko Mohniya	1	20	20	3.2	unpaved	unpaved	Lease Owner	Enclosed
Budhgaon Ryt.	1	03	03	1.3	unpaved	unpaved	Lease Owner	Enclosed
Musamundi Ryt.-2	1	05	05	2.1	unpaved	unpaved	Lease Owner	Enclosed
Diwari Mal-3	1	10	10	1.4	unpaved	unpaved	Lease Owner	Enclosed

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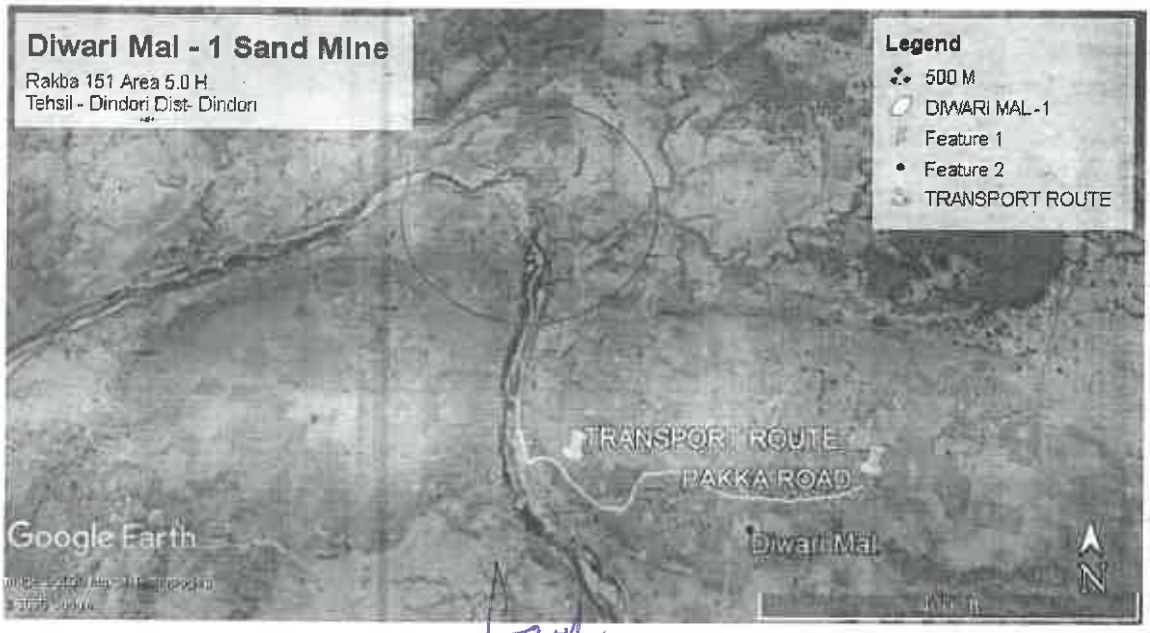
Route & Location Map of Musamundi Ryt-1 Sand Mine

Route & Location Map of Diwari Mal-1 Sand Mine



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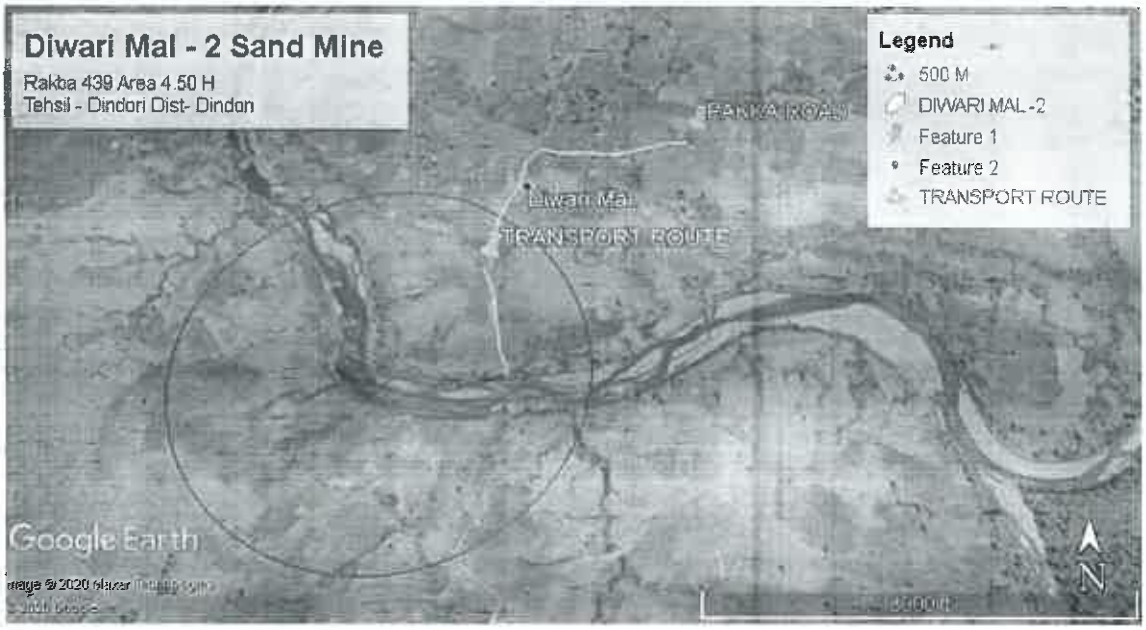
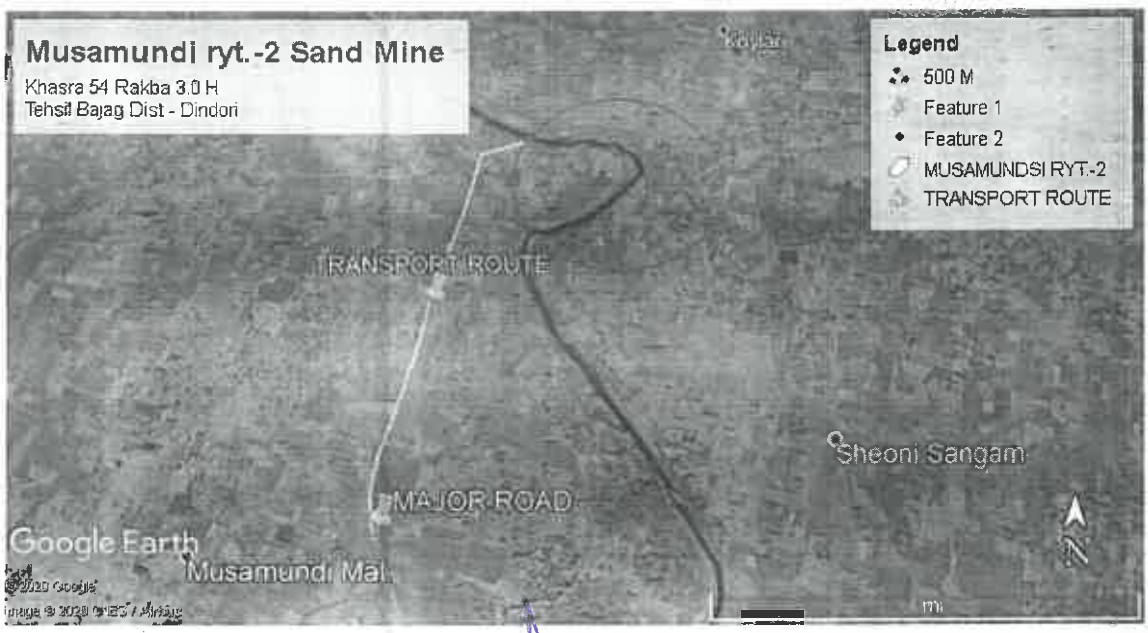
Route & Location Map of Diwari Mal-2 Sand Mine



Route & Location Map of Kamkomohaniya Sand Mine

Route & Location Map of Budhgaon Ryt Sand Mine

Route & Location Map of Musamundi Ryt-2 Sand Mine



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Route & Location Map of Diwari Mal-3 Sand Mine

2. *Transportation Routes For Clusters:*

Cluster No.	Transportation Route No.	Number of tippers/ day of lease	Number of tippers/ day of all the lease on route	Length of Route in KM	Type of road (Black Topped/ unpaved)	Recommendation for road (Black Topped/ unpaved)	The road will be Constructed by Govt/ Lease Owner	Route Map & Locatio n
NIL								

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ANNEXURE-V

Final list of Potential Sand Mining Area (Exisiting & Proposed)

River Details	Lease Details	Area (Ha)	Distance (in KM) from PA/BR/WC	Distance from Forest Area (in KM)	Mining leases within 500 meters (if yes cluster area)	Total excavation in Tones/Annum considering digging depth max as 3 meters.	Mineral to be mined (Sand/ Bajri/ RBM etc.)	Existing/ Proposed
Narmada	Musamundi Ryt.-1	7.0	More than 10 KM	More than 0.25 KM	No	40500 Cum.	Sand	Existing
Budner	Diwari Mal-1	5.0	More than 10 KM	More than 0.25 KM	No	55000 Cum.	Sand	Existing
Budner	Diwari Mal-2	4.5	More than 10 KM	More than 0.25 KM	No	117000 Cum.	Sand	Existing
Budner	Kamkomohn iya	6.0	More than 10 KM	More than 0.25 KM	No	120000 Cum.	Sand	Existing
Narmada	Budhgaon Ryt.	0.61	More than 10 KM	More than 0.25 KM	No	2848 Cum.	Sand	Existing
Narmada	Musamundi Ryt.-2	3.0	More than 10 KM	More than 0.25 KM	No	8704 Cum.	Sand	Proposed
Budner	Diwari Mal-3	4.5	More than 10 KM	More than 0.25 KM	No	14400 cum.	Sand	Proposed

Patta Lands/Khatedari Land: (existing & proposed)

Owner	Sy.No.	Area	District	Tehsil	Village	Total Reserve (MT)	Total Mineral to be mined (MT)	Existing/ Proposed
NIL								

De-Siltation Location: (Lakes/Ponds/Dams etc.) (existing & proposed)

Name of reservoir/ Dams	Maintain/ Controlled by State Govt/PSU etc.	Location	District	Tehsil	Village	Size(Ha)	Quantity MT/Year	Existing/ Proposed
NIL								

M-Sand Plants: (existing & proposed)

Plant Name	Owner	Location	District	Tehsil	Village	Geo-Location	Quantity Tones/Annum	Existing/ Proposed
NIL								

ANNEXURE-VI

Final list of Cluster & Contiguous Cluster

1. Clusters:

River Name	Cluster No.	Lease No.	Location (Reverbed/ Patta Land)	Village	Area(Ha)	Total excavation (ton)	Total Mineral excavation (ton)
NIL							

2. Contiguous Cluster:

River Name	Contiguous Cluster No.	Cluster No.	Number of leases in the cluster	Location (Reverbed/ Patta Land)	Distance between clusters	Village	Area of cluster (Ha)	Total Mineral excavation (ton)
NIL								

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ANNEXURE-VII

Final Transportation Routes for individual Sand Quarry and Sand Quarry in Cluster:

1. *Transportation Routes For Individual Sand Quarry*

Lease Name	Transportation Route No.	Number of tippers/ day of lease	Number of tippers/ day of all the lease on route	Length of Route in 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
Musamundi Ryt.-1	1	08	08	0.5	unpaved	unpaved	Lease Owner	Enclosed
Diwari Mal-1	1	20	20	0.9	unpaved	unpaved	Lease Owner	Enclosed
Diwari Mal-2	1	25	25	0.7	unpaved	unpaved	Lease Owner	Enclosed
Kamko Mohniya	1	20	20	3.2	unpaved	unpaved	Lease Owner	Enclosed
Budhgaon Ryt.	1	03	03	1.3	unpaved	unpaved	Lease Owner	Enclosed
Musamundi Ryt.-2	1	05	05	2.1	unpaved	unpaved	Lease Owner	Enclosed
Diwari Mal-3	1	10	10	1.4	unpaved	unpaved	Lease Owner	Enclosed

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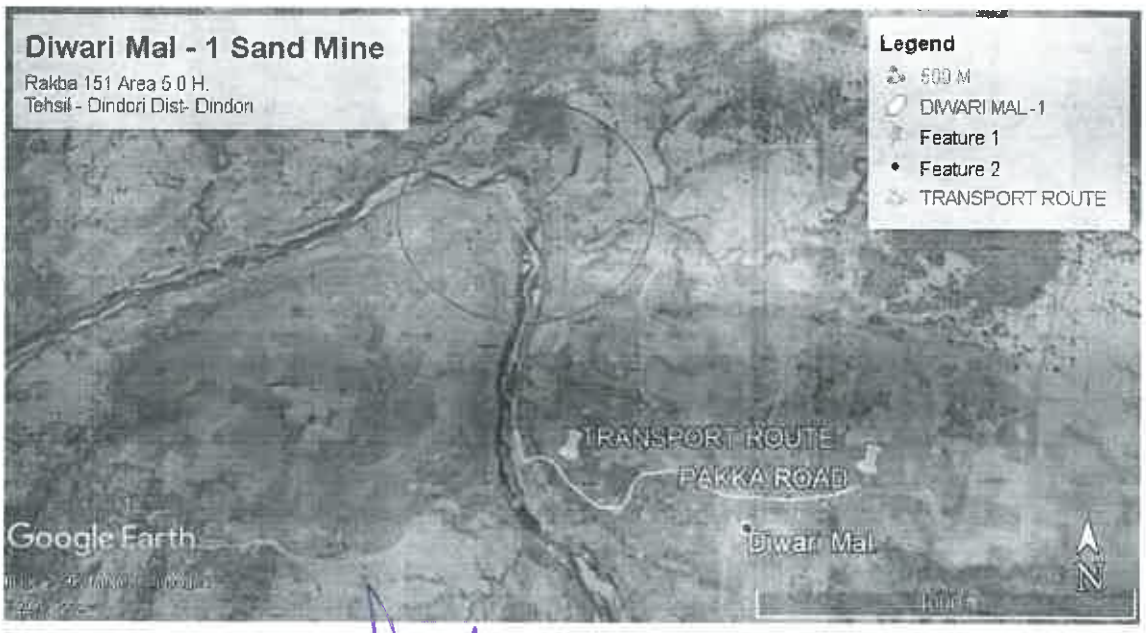
Route & Location Map of Musamundi Ryt-1 Sand Mine

Route & Location Map of Diwari Mal-1 Sand Mine



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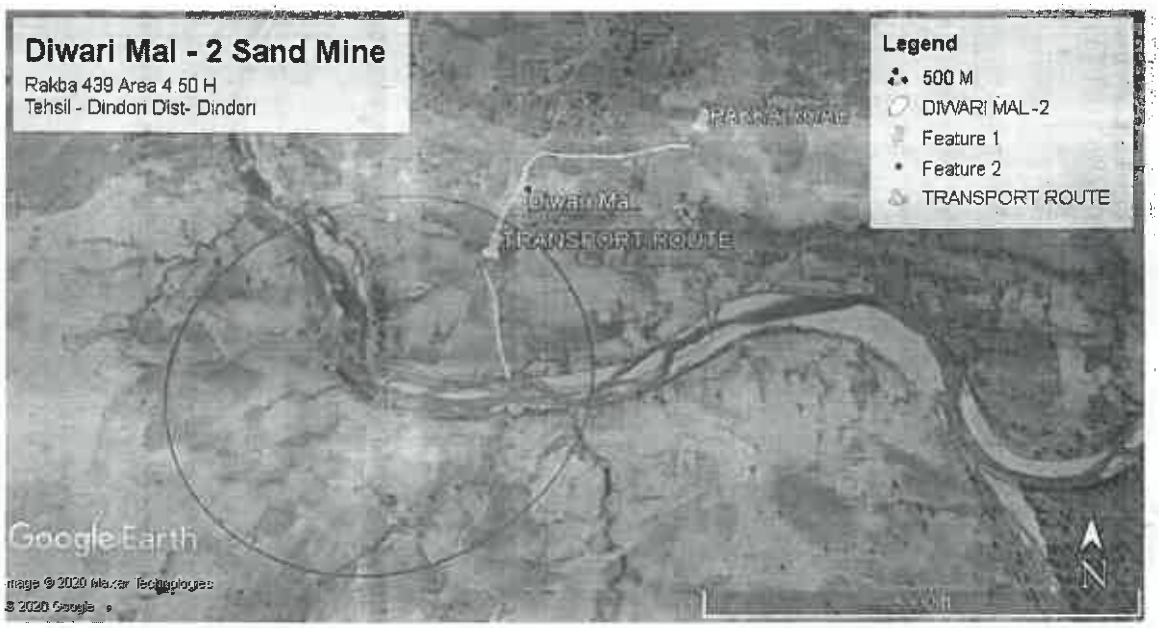
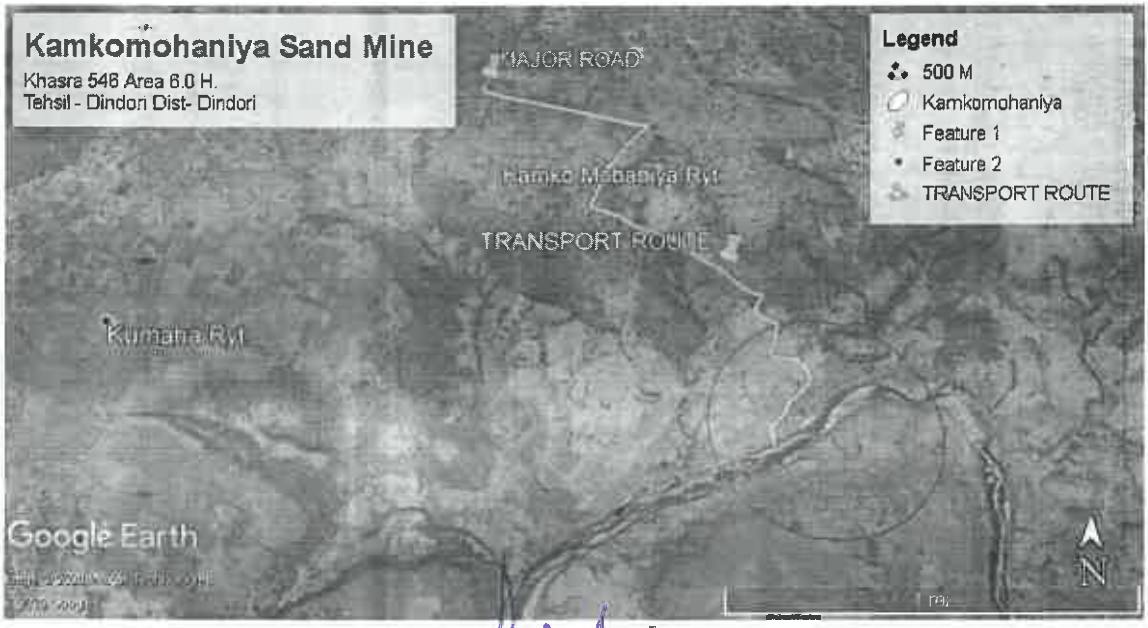
Route & Location Map of Diwari Mal-2 Sand Mine



Route & Location Map of Kamkomohaniya Sand Mine



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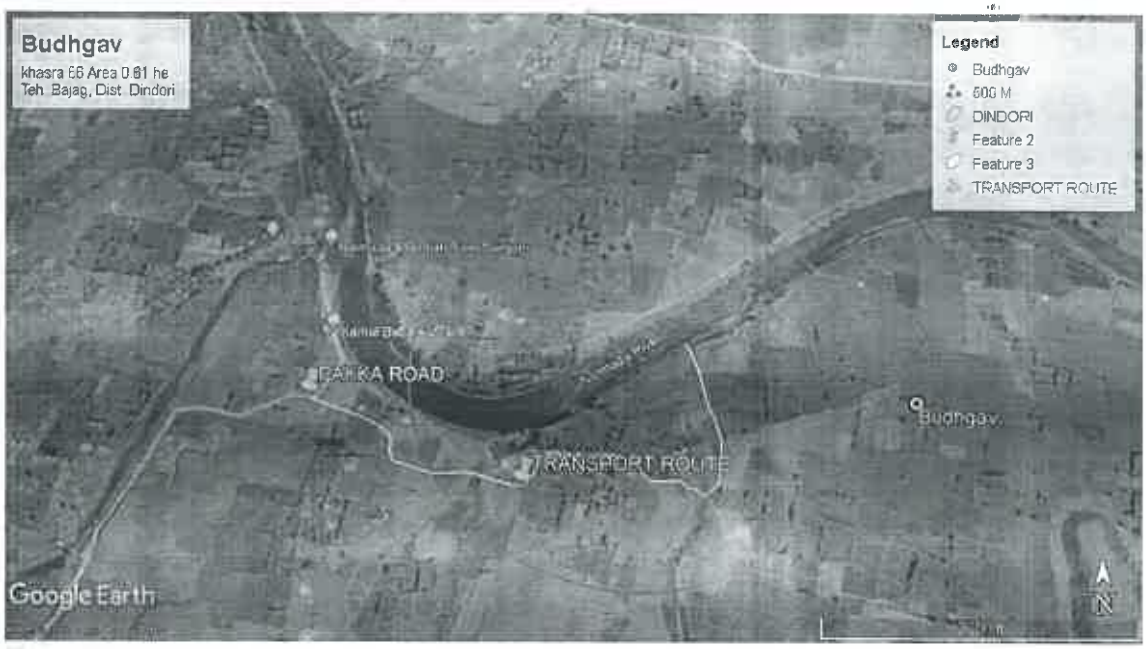
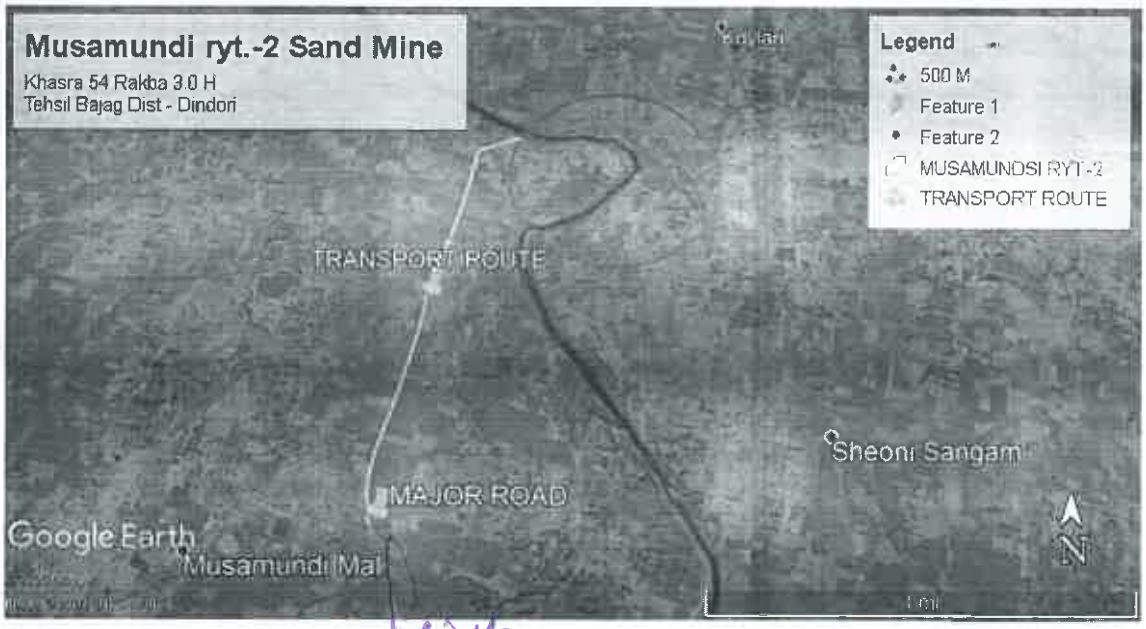
Route & Location Map of Budhgaon Ryt Sand Mine



Route & Location Map of Musamundi Ryt-2 Sand Mine



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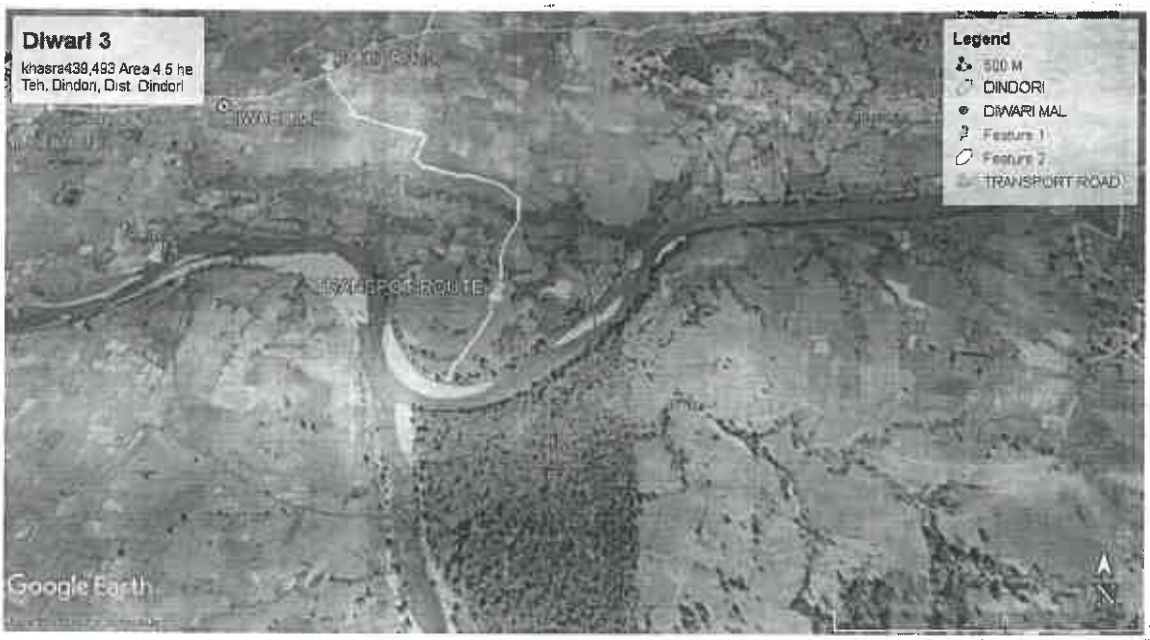
Route & Location Map of Diwari Mal-3 Sand Mine



2. *Transportation Routes For Clusters:*

Cluster No.	Transportation Route No.	Number of tippers/ day of lease	Number of tippers/ day of all the lease on route	Length of Route in 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
NIL								

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CHAPTER-5

DETAILS OF ROYLTY OR REVENUE RECIEVCED IN LAST THREE YEARS

S.No.	Year	Royalty/Revenue (in Lakhs Rs.)
1	2019-20	313.85
2	2020-21	1180.77
3	2021-22	2308.17

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CHAPTER-6

DETAILS OF PRODUCTION OF SAND OR BAJRI OR MINOR MINERAL IN LAST THREE YEARS

S.No.	Year	Name of Mineral	Production (in cum.)
1	2019-20	Sand	46893.42
2		Bajri	-
3		Gitti / Stone	110550
4		Murum	-
5	2020-21	Sand	96353.65
6		Bajri	-
7		Gitti / Stone	216585
8		Murum	-
9	2021-22	Sand	201419.78
10		Bajri	-
11		Gitti / Stone	202163.55
12		Murum.	21230

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CHPATER -7

REPLENISHMENT REPORT/ PROCESS OF DEPOSITION OF SEDIMENTS IN THE RIVERS OF THE DISTRICT

7.1 General

Sediment refers to the conglomerate of materials, organic and inorganic, that can be carried away by water, wind or ice. While the term is often used to indicate soil-based, mineral matter (e.g. clay, silt and sand), decomposing organic substances and inorganic biogenic material are also considered sediment. Most mineral sediment comes from erosion and weathering, while organic sediment is typically detritus and decomposing material such as algae. Sediment particles come in different sizes and can be inorganic or organic in origin. These particulates are typically small, with clay defined as particles less than 0.00195 mm in diameter, and coarse sand reaching up only to 1.5 mm in diameter. However, during a flood or other high flow event, even large rocks can be classified as sediment as they are carried downstream. Sediment is a naturally occurring element in many bodies of water, though it can be influenced by anthropogenic factors.

In an aquatic environment, sediment can either be suspended (floating in the water column) or bedded (settled on the bottom of a body of water). In other words, waterflow tries to scour its surface whenever it flows in the channel. Silt or gravels even larger boulders are detached from its bed or banks. The moving water sweeps these detached particles in downstream along its flow. Silting and scouring is not very uncommon and must be avoided by proper designs. It reduces supply level of water. The channel section gets reduced by silt and reduces discharging capacity. Sediments seriously threaten various projects due to silt carried out by rivers up to point of interceptions. Sediment is also threatening denudation of forests. Sediment is a major obstruction on the flow line. It shortens longevity of channel. It causes soil erosion. Therefore data base must be needed for policy making and planning.

The mineral potential is calculated based on field investigation and geology of the catchment area of the river/ streams. As per the policy of the State and location, depth of minable mineral is defined. The area for removal of mineral in a river or stream can be decided depending on geomorphology and other factors, it can be 50% to 60% of the area of a particular river/stream, e.g. in river mineral constituents like sand up to a depth of three meter are considered as resource mineral. Other constituents like clay and silt are excluded as waste while calculating the mineral potential of particular river/ stream.

The specific gravity of each mineral constituent is different. The percent of mineral constituent like boulder, river Bajri, and sand also varies for different river and streams. While calculating the mineral potential, the percentage of each mineral constituent is taken as 25-30% for sand and 5- 10% for silt and clay.

The quantum of deposition varies from stream to stream depending upon factors like catchment lithology, discharge, river profile and geomorphology of the river course. There are certain geomorphological features developed in the river beds such as channel bar, point bar etc where annual deposition is more even two to three meters.

7.2 Process of Deposition:-

Sediment is a naturally occurring material that is broken down by processes of weathering and erosion, and is subsequently transported by the action of wind, water and/or by the force of gravity acting on the particles. Sediments are most often transported by water. Sediment is transported based on the strength of the flow that carries it and its own size, volume, density, and shape. Stronger flows will increase the lift and drag on the particle, causing it to rise, while larger or denser particles will be more likely to fall through the flow.

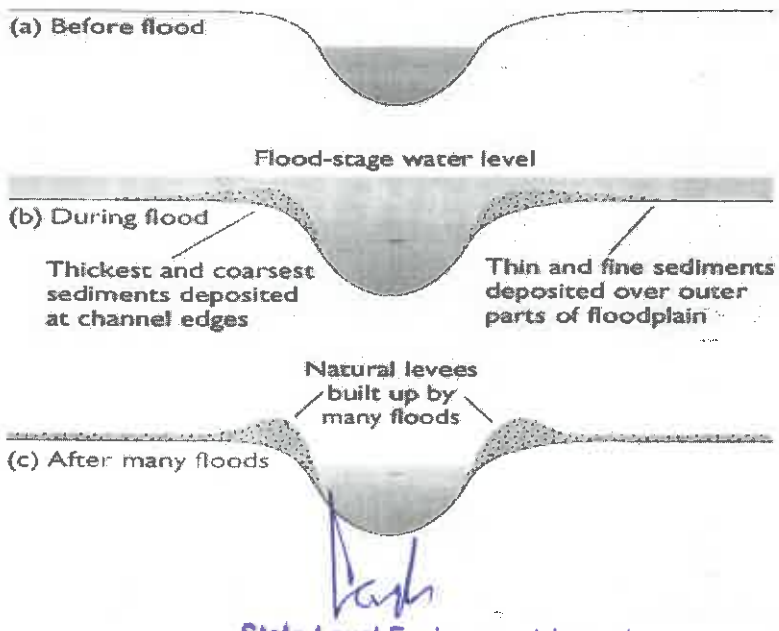
Deposition is the processes where material being transported by a river is deposited. Deposition occurs when a river loses energy. This can be when a river enters a shallow area (this could be when it floods and comes into contact with the flood plain) or towards its mouth where it meets another body of water.

Deposition is the geological process in which sediments, soil and rocks are added to a landform or land mass. Wind, ice, and water, as well as sediment flowing via gravity, transport previously eroded sediment, which, at the loss of enough kinetic energy in the fluid, is deposited, building up layers of sediment.

Rivers flood on a regular basis. The area over which they flood is known as the floodplain and this often coincides with regions where meanders form. Meanders support the formation of flood plains through lateral erosion.

When river floods the velocity of water slows. As the result of this the river's capacity to transport material is reduced and deposition occurs. This deposition leaves a layer of sediment across the whole floodplain. After a series of floods, layers of sediment form along the floodplain.

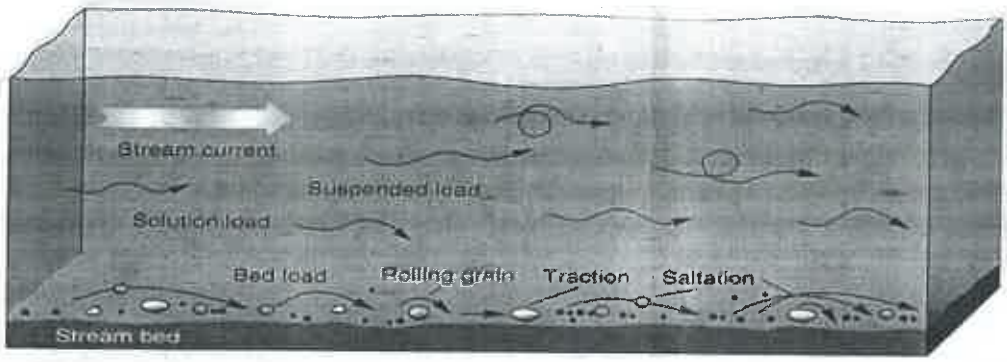
Formation of Natural Levees



7.3 Modes of Sediment Transport

The sediment load of a river is transported in various ways although these distinctions are to some extent arbitrary and not always very practical in the sense that not all of the components can be separated in practice:

- ✓ Dissolved load
- ✓ Suspended load
- ✓ Intermittent suspension (saltation) load
- ✓ Wash load
- ✓ Bed load



The sand deposits being an integral part of the dynamic river system to which it belongs. Therefore, as a part of natural cycle, the monsoon flow of every river carries with it replenishment of silt and washed out soil and clay from upstream areas in the catchment. This silt shall be removed during the sieving of sand before it is loaded into truck/tipper/trailer to carry to the consumers.

Sand mining is critical to infrastructure development around the globe. Sand is an essential minor mineral used extensively across the country as a useful construction constituent and variety of other uses in sports, agriculture, glass making (a form of sand with high silica content) etc. The rivers are the most important source of Sand. It acts as source of transportation and deposition of sand etc.

7.4 Annual Replenishment of Mineral in River Bed Area/ Sedimentation

The deposition in a river bed is more pronounced during rainy season although the quantum of deposition varies from stream to stream depending upon numbers of factors such as catchment, lithology, discharge, river profile and geomorphology of the river course where annual deposition is one meters, but it is noticed that during flood season whole of the pit so excavated is completely filled up and as such the excavated area is replenished with new harvest of minerals.

In order to calculate the mineral deposits in the stream beds, the mineral constituents have been categorized as clay, silt, sand, Bajri and boulder. However, during present calculation, the waste material i.e. silt which varies from 10 to 20% in different streams has also been included in the total production. Further, the Survey of India Topo-Sheets has been used as base map to know the extent of river course. The mineral reserves have been calculated only upto 1.00 meter depth although there are some portions in the river beds such as channel bars, point bars and central islands where the annual deposition is raising the level of river bed thus causing

shifting of the rivers towards banks resulting in to cutting of banks and at such locations, removal of this material upto the bed level is essential to control the river flow in its central part to check the bank cutting. While calculating the mineral potentials, the mineral deposits lying in the sub-tributaries of that particular stream/river has not been taken into consideration. Since these mineral deposits are adding annually.

Sedimentation is generally considered by geologists in terms of the textures, structures, and fossil content of the deposits lay down in different geographic and geomorphic environments. The factors which affects the "Computation of Sediment":

- Geomorphology & Drainage Pattern: The following geomorphic units plays important role:
  - Structural Plain
  - Structural Hill
  - Structural Ridge
  - Denudation Ridge & Valley
  - Plain & Plateau
  - Highly Dissected pediment
  - Undissected pediment
- Distribution of Basin Area River wise
- Drainage System/Pattern of the area, Rainfall & Climate: Year wise Rainfall data

7.5 Replenishment Study (As per EMGSM guidelines, 2020)

Replenishment study for a river solely depends on estimation of sediment load for any river system and the estimation is a time consuming and should be done over a period. The process in general is very slow and hardly measurable on season to season basis except otherwise the effect of flood is induced which is again a cyclic phenomenon. Usually, replenishment or sediment deposition quantities can be estimated in the following ways as given below:

A. Direct measurement of the sand bar upliftment, monitoring of the new sand bars created in the monsoon within the channel, elimination of sand bars during the monsoon etc. With systematic data acquisition, over a period, regression equations can be developed for modeling of the sediment yield and annual replenishment with variable components. In this report, for volume estimation of sand, —Depth x Area has been followed. The sand bars are interpreted with the help of satellite imageries. Ground truthing done for 100% of the total identified sand bars. While ground truthing, width and length of each segment were physically measured. It has also been observed that in few cases, sand bars have attained more than 3 meters height from the average top level of the river beds. Considerations of sand resources have been restricted within 3 meters from the average top surface of the river bed. Thus, in few occasions, heights for sand reserve estimation are found to be more than 3 meters.

B. The replenishment estimation based on a theoretical empirical formula with the estimation of bed-load transport comprising of analytical models to calculate the replenishment estimation.

Replenishment estimation

Sedimentation in any river is dependent on sediment yield and sediment yield depends on soil erosion in river's catchment area. Catchment yield is computed using Strange's Monsoon runoff tables for runoff coefficient against rainfall return period. Peak flood discharge calculated by using Dickens, Jarvis and Rational formula at 25, 50 and 100 years return period. The estimation of bed load transport using Ackers and White Equation.

Methodology Adopted: To delineate replenishment percentage in the river bed of the district, below mentioned steps have been followed.

- **Field data collation:**

Field data collations were done during April-2020, June-2020, November-2020 & March-2021 for starting period, pre monsoon period, post monsoon period & end period for the river ghats on continuous basis. However, the nonoperational areas were covered through traverses. In both the cases, relative elevation levels were captured through DGPS/ Electronic Total Station. Thickness of the sand bars was measured through sectional profiles. In few instances, sieve analysis of the sands was carried out to derive the size frequency analysis.

Physical benchmark also established using Total Station at the river site.

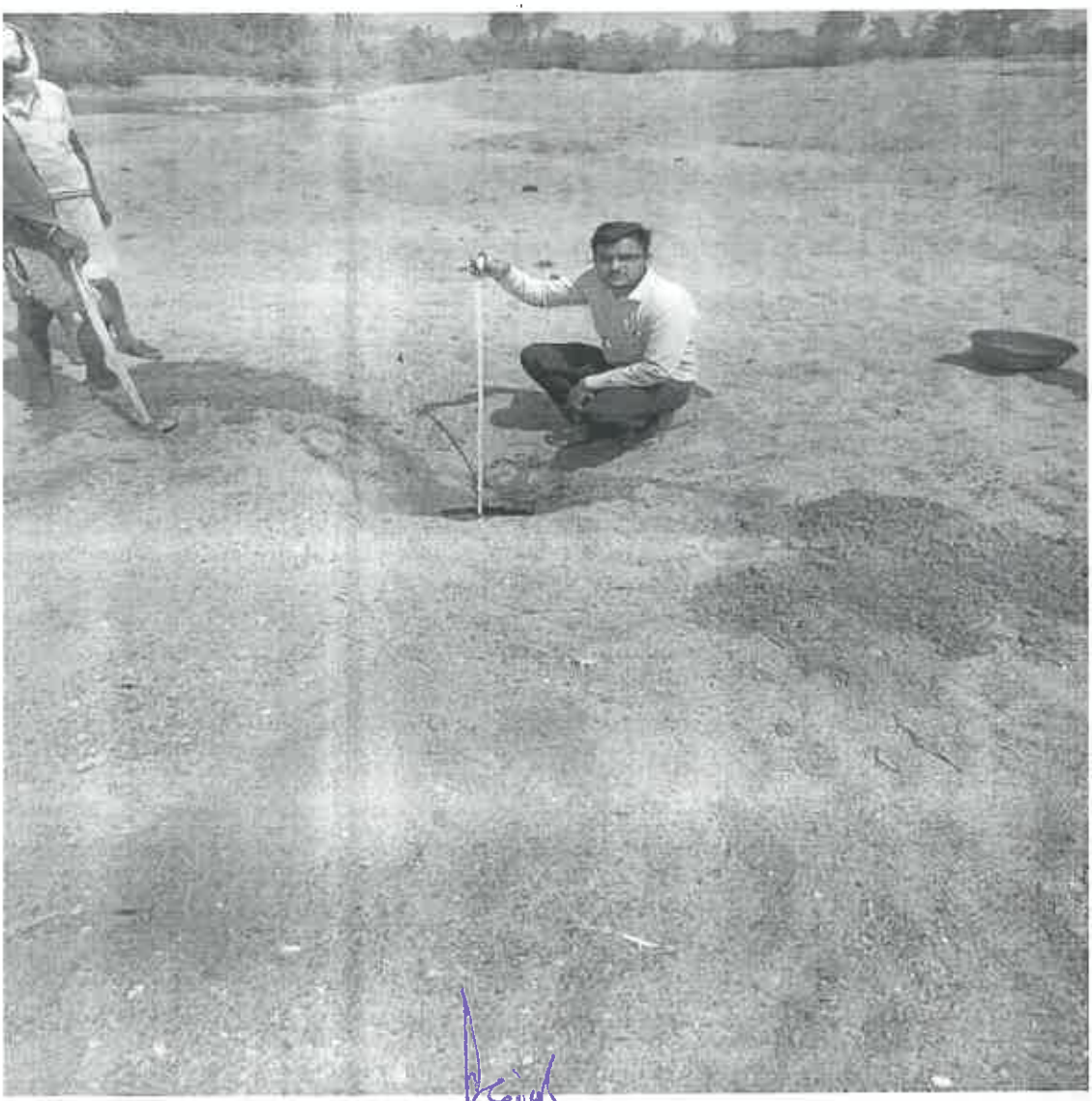
- **Selection of Study profiles:**

  Study profiles are selected based on the occurrence of the sand bars in the channel profiles. Aerial extents of each of the profiles are mapped from satellite imageries. Frequency distribution did while selection of the ground truthing of the blocks.

- **Data Compilation:**

  Following data were compiled for generation of this annual replenishment report:

  - Elevation levels of the different sand Ghats and Sand Bar's as measured at site.
  - Extents of the sand bars are measured from the pre monsoon satellite imageries.
  - Sand production data of the district.



- **Assessment of sediment load in the river:**

Assessment of sediment load in a river is subjective to study of the whole catchment area, weathering index of the various rock types which acts as a source of sediments in the specific river bed, rainfall data over a period not less than 20 years, and finally the detail monitoring of the river bed upliftment with time axis. Again, the sediment load estimation is not a dependent variable of the imaginary district boundary, but it largely depends upon the aerial extents of the catchment areas, which crossed the district and state boundaries.

- **Estimation of annual sand deposition:**

The major sand producing river of the Dindori district is Budner & Narmada. Planning has been done for systematic sand mining in the rivers.

As discussed in the previous sections, sand production in the district has been planned from mostly Budner & Narmada rivers. Altogether 07 ghats has been planned for production and in 05 Ghats environmental clearances obtained accordingly but mining operation strated only in 04 sand Ghats. Cumulative production targets for these 04 mines were 3,32,500 cum. Out of the total 04 ghats, 01 are falling in Narmada river whose production target is 40,500 cum. while remaining 03 ghats in Budner river targeted to produce 2,92,000 cum. on per annum basis.

While calculation of the areas of sand bar, a classification system has been adopted with three categories of land identified within the channel areas. the class which followed for classification are as follows:

a. The untapped Sand Bars.
b. The Sand bars worked in the pre-monsoon period.
c. Main channel course within the channel.

Details of sand replenishment in each sand mine in district with their sand resources in pre monsoon and post monsoon period are provided in below table:

REPLENISHMENT STUDY FOR YEAR 2020

Name of District	Normal date of onset of monsoon	Normal date of offset of monsoon	Name of river	Name of Mine	Length of sand mine (in meter)	Width of sand mine (in meter)	Average depth of sand mine (in meter)	Pre-monsoon quantity of sediment load (in cum.)	Post-monson quantity of sediment load (in cum.)	Approax quantity of production per annum (in cum.)	Quantity of sand mineral produced per annum since last three years (in cum.)
Dindori	20 June	01 october	Narmada	Musamundi Ryt.-1	1450	35	0.80	40600	40600	40500	Nil
			Budner	Diwari Mal-1	860	59	1.1	8106.80	55814	55000	2017-18: 30080 2018-19: 50416 2019-20: 46893
			Budner	Diwari Mal-2	840	54	2.6	49689.74	117936	117000	Nil
			Budner	Kamko Mohniya	1100	55.2	2.0	120000	121440	120000	2017-18: 104754 2018-19: 119282 2019-20: 000000

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REPLENISHMENT STUDY FOR YEAR 2021

Name of District	Normal date of onset of monsoon	Normal date of offset of monsoon	Name of river	Name of Mine	Length of sand mine (in meter)	Width of sand mine (in meter)	Average depth of sand mine (in meter)	Pre-monsoon quantity of sediment load (in cum.)	Post-monson quantity of sediment load (in cum.)	Approax quantity of production per annum (in cum.)	Quantity of sand mineral produced per annum since last three years (in cum.)
Dindori	20 June	01 october	Narmada	Musamundi Ryt.-1	1450	35	0.80	5572.37	40600	40500	Nil
			Budner	Diwari Mal-1	860	59	1.1	29194.56	55814	55000	2018-19: 50416 2019-20: 46893 2020-21: 12880
			Budner	Diwari Mal-2	840	54	2.6	2883.13	117936	117000	2020-21: 83473
			Budner	Kamko Mohniya	1100	55.2	2.0	55333.31	121440	120000	2018-19: 119282 2019-20: 000000 2020-21: 000000

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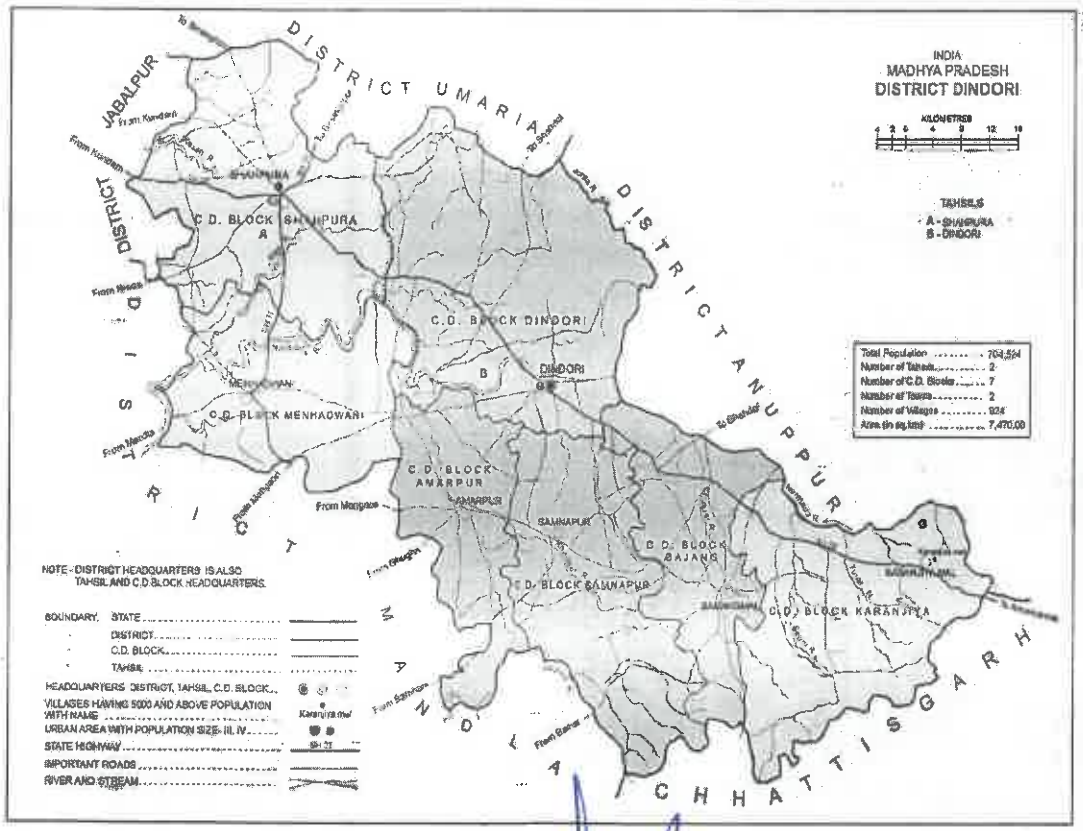
CHPATER -8

GENERAL PROFILE OF THE DISTRICT

District at a Glance:

Situated on the eastern part of Madhya Pradesh, Dindori district borders Chhattisgarh state. It has Shahdol in the East, Mandla in the West, Umaria in the North and Bilaspur and Kawardha districts of Chhattisgarh state in the South. It lies between latitudes 220 27' and 230 23' North, and longitudes 800 30' and 810 44' East. The total area of the district is 7,470 Sq.kms. The holy river Narmada passes through the district and is surrounded by herbal rich Maikal mountain ranges situated at an altitude of 1,100 meters above mean sea level. Maximum length from North to South is about 133 kms. There are some small and scattered patches and tracts of black soil but the greater part of the district is very rugged and mountainous.

The eastern part of the district is plain area having black soil cultivated by Gonds, with a sprinkling of immigrant Muslims and Hindus. From this plain, a few narrow valleys of good black soil from south along tributaries of the Narmada into the deep Sal trees which separates the district from Bilaspur. As the Narmada runs West, the soil changes to undulating Barra or morand with small pocket of black soil. The Kharmer valley is of a similarly rich character but further west every kind of soil may be found, from the high-lying Mahadwani plateau to the embanked black soil fields of the Lodhis Niwas.



Drainage System

Situated on the bank of river Narmada, the district headquarter is 102 kms from Mandla. Gaur, a tributary of the holy river Narmada, rises near Niwas in Dindori district and flows into the Narmada, close to Jabalpur district. Other small tributaries which flow towards south are Seoni, Chakrar, Machhrar, Kutrar, Khadmer and Silgi.

Climate

The climate of the district is moderate being 430 C to be the maximum temperature and 10.410 C to be the minimum temperature on an average. July and August witness rainy season. However, rain may also occur in the months of June and September. The average rainfall is 704.69 millimeters. Months of May and June could most appropriately be called hot months while December and January are most appropriately the cold months.

Economic Resources

Agriculture is the main source of livelihood for the Gond dominated people of Dindori. Rice and wheat are the main crops grown year after year.

Flora And Fauna

Dindori district has dense forest area covering 17,756 hectares which is 23.76% of its total geographical area. The quality of timber trees par excellence are grown in the district. The Sal trees are also grown most luxuriantly in Sandy soil, especially in Dindori tahsil. The Sal grows straight and rises to a height of 90 feet with a girth (belt) of 14 or 15 feet. In the mixed forest there are Saj, amla and other yellow grass which takes place in open areas. The other timber trees are teak, tendu,tinsa etc. grown all over the district. In addition of this, Dhawda, Bija, Lencha, Hardu and Koha are common trees found throughout the district. The most beautiful flowering trees are Kachnar, Amaltas, Choila or Palas commonly spread everywhere on the scene of the district. The main fruit trees of the district included Harra, Bahera, Mahua, Khamar, Jamun, Char or Achar, Fig, Pipar, Nim, Imli, Tendu, Mango, Ber and plum. Bamboo is rarely available in the district.

Dindori district has dense forest and excellent grazing fields where herbivorous species are available in plenty and consequently carnivorous species are also available and that's why the district is known as one of the best shooting regions in India. Tiger, panther species (chita, chitwa, tendua or gulbag), wild dogs (bankutta) and bear are common and spread all over the district. Peacocks, partridge quail and squirrels are mostly killed by animals like, wolf, jackal, fox, hyena, jungle-cat etc.

The bison (banboda, banbhaisa or pagari), deer and antelope (Barasingha, Lal Sambhar, Sambhar), Chittal (sprotted deer), Sambhar, barking deer (gutri, Kotri) the nilgai (blue-bull), Langoors, red mouth monkey etc. are herbivore's species found in plenty in the district forest.

Agriculture

45.77 % of the population of the district depends on agriculture. Wheat, paddy, maize, kodo-kutki, ramtil, mustard, masoor, matar, gram, alsi, soyabean, etc; are the main crops in which wheat sown in 31,749 hectares, rice 69,269 hectares, maize 18,142 hectares, til in 197 hectares, soyabean in 5,798 hectares were sown in the district. During the year 2009, the total crop sown area was 1,924 hectares.

Among the crops rice was sown in 69,269 hectares, wheat in 31,749 hectares, jowar in 120 hectares, maize in 18,142 hectares were sown. In addition to pulses, gram in 7,550 hectares, tuar in 3,742 hectares, urad 3,277 hectares and other pulses in 41,550 hectares. Total oil seeds of all types sown in 53,543 hectares.

Irrigation

Wells, tanks and embankments made by the cultivators are the other sources. Sandy rice lands and the black soil of the district are suitable for wheat. Cultivation of the district fully depends upon the rain. As per village papers only 1,572 hectares of land was irrigated which was 0.75 % of the total lands of the district. More area will be irrigated after work in ten tanks i.e. Gwara, Bargi, Ramnagar, Kachhari, Pakhatola, Gorakhpur, Rachchō Shurra Kalinger and Chatuaare completed.

Animal Husbandary

A cattle rearing plays an important role in the source of livelihood. It is the back bone of the cultivators. The bullocks are bred and sold by the Gonds due to ampleness of unlimited grazing available in a large part of the district. As per figures of year 2009, 47,969 cows, 180 sheep's, 58,631 goats, 3,140 horses and ponies and 7,942 pigs. Milk, Curd, butter, and ghee are prepared and sold from cattle.

Land Use

Out of total land of 747,000 hectares, 12,224 hectares were agriculture land where paddy, wheat, maize, Kodo-Kutki, Ramtil, mustard masoormater, gram, alsi and soyabean are cultivated. Total irrigated land was only 1,572 hectares which was 0.75% and un-irrigated land is 273,082 hectares which was 73.53% of total land of the district. The forest land is 17,756 hectares and non-agricultural land was 38,646 hectares.

Mines

Dindori District is hilly and plateau area, Bauxite and laterite are mainly found in major minerals in the district. Among minor minerals sand and stone for ballast are found in the district.There are no major mineral mines operating in Dindori district. A mine of bauxite mineral from the government level has been allotted to the successful tenderer through auction. Prospecting work for the preparation of another bauxite mineral blocks is being done by the Regional Office, Directorate of Geology and Mining, Jabalpur and GSI in the district.

Fishery

Dindori district is not rich in water resources, rivers are also not perennial. The Khusha, saur, rohu, nain, karot, bam, gegra and kalia fishes are fairly common and available in good quantity especially in the month of June-July and OctoberNovember during the beginning of rain and during month of cold when Narmada floods and comes down in spate. Innumerable fish of all sizes and types comes through water current and as soon as the flood begins to sub side the fishes are obtained by local Baigas and Dhimers communities of the district.

Industry and Trade

Dindori district is back-ward from the point of view of industry. There is a neither major nor medium industry in the district. Registered Small scale industries were 254. The main exported items from district are wheat, rice, gram, ramtil, soyabean and fire wood, while main products are iron-works bell, metal, ghee and fire-wood. Common importing items are kerosene oil, turmeric, cloth, salt, sugar, spices, coconuts and iron.

Transport And Communication

No part of the district is connected with rail line. To reach-state capital, it is necessary to reach divisional headquarter Jabalpur by covering 144 kms on National highway. The tehsil headquarters of the district are connected by pucca road. Pucca roads are 2,299.09 kms and kachha roads 1,433.87 kms. Some parts are still having herds of pack-bullocks used by Banjaras. Dindori is 104 kms from Mandla, the old district headquarters and 88 kms.from holy place Amarkantak.

Electricity And Power

There is no production of electricity in the district. The consumption of industrial units was 3.49 thousand kwh. The domestic consumption was 200.69 thousand kwh. Out of 924 villages, 860 villages are electrified, which forms 93.07% as pre year 2009-2010 in the district. During the year 2009-10, the consumption for industrial units was 30,300 KW., domestic consumption was 176,530 K.W., trade 2,458 K.W., water supply 20,100 K.W., irrigation 19,000 K.W. and street light was 17,800 K.W. Altogether total consumption of electricity was 266,188 K.W. and number of consumers were 45,390 as such per head consumption was 45,894 K.W. 845, out of 895 villages were electrified which was 94.41 % of total villages.

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CHPATER -9

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

District Dindori is a rural and tribal dominant district. Out of the total population 95% lives in rural area and 65.33% area tribal i.e. *Baiga, Koal, Pardhan, Dhula, Bhoomia* and *Agaria* tribes. *Bahu Lamsena, Jadoo-Tona, Jhada-Phooki* and Alcoholism are co tradition of their life. Badadev is the main god of tribes. The economy of the district depends on forest produce and agriculture. The 37.32% area of the district is covered by Sal forest. Minor forest produce like Patt, mahuline patta, harra-bahera-aonla & char is collected every year. Irrigation facilities are not adequate. Only 1569 Hectare land is under irrigation. Dhan, Makka, Kodo, Kutki & Oil seed Ramtilla (Jagni) are main crops. Due to primitive agricultural practices production rate is very low. There is no industrial area in the district and not even a single industry exists. Overall, the economy of the district is very poor and per capita income is very low.

Table 9.1: Land use Pattern in Dindori District

Type of Area / Land	Area (in Hectare)
Geographical Area	747000
Net Sown Area	240000
Area Under Forest	240112
Fallow Land	30000
Waste Land	15000

9.1 Agricultre

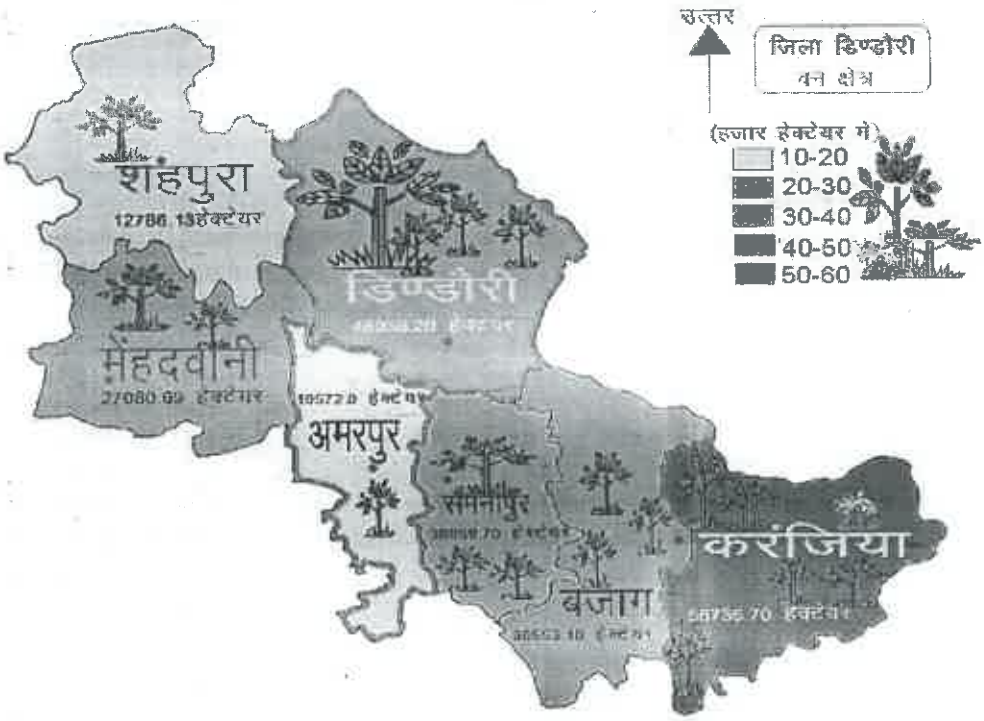
In Dindori district, the total geographical area is 7470 square kilometer, the net agricultural area is 240000 ha. It includes both Rabi and Kharif crops. 137500 ha Rabi and 220500 ha. Kharif crop is sown in the area. About 15 percent of the total agricultural area comes under irrigated area. The number of marginal farmers in the district is 68458, the number of small farmers is 32186, the number of medium farmers is 24148, and the number of large farmers is 16896. The main sources of irrigation are canals and ponds. The major crops are Kodo, Kutki, Sama, Paddy, Wheat, Gram etc.

9.2 Horticultre

From the point of view of horticulture in Dindori district, the total area is about 4187 ha. In which variety of products like fruit area is 446.00 hectare, greens/vegetables 3161 hectare, spices 499.00 hectare. and medicine 9.00 ha. are produced in the area.

9.3 Forest

Dindori district is divided into two forest divisions, production and general forest division areas. The total forest area in the district is 240112.85 ha. Under the total forest area, the reserved forest area is 228373.940 ha, the protected forest area is 2256.080, and the unclassified forest (orange forest) area is 9482.830 ha. There are 9 forest ranges in the district - Dindori, Shahpur, Amarpur, Samnapur, Bajag, Karanjia, Gadasarai, Shahpura, Mehdwani. Sal tree is abundant in good quality timber trees in the district.



9.4 Mining

Dindori District is hilly and plateau area, Bauxite and laterite are mainly found in major minerals in the district. Among minor minerals sand and stone for ballast are found in the district.There are no major mineral mines operating in Dindori district. A mine of bauxite mineral from the government level has been allotted to the successful tenderer through auction. Prospecting work for the preparation of another bauxite mineral blocks is being done by the Regional Office, Directorate of Geology and Mining, Jabalpur and Geological Survey of India in the district. At present 07 mines of sand minerals are declared of minor minerals. 51 stone quarries for ballast are present in the district. In minor minerals sand, and stone for ballast are found in abundance in the district.Total mineral holding area of minor mineral is 73.81 ha. approximately in district.

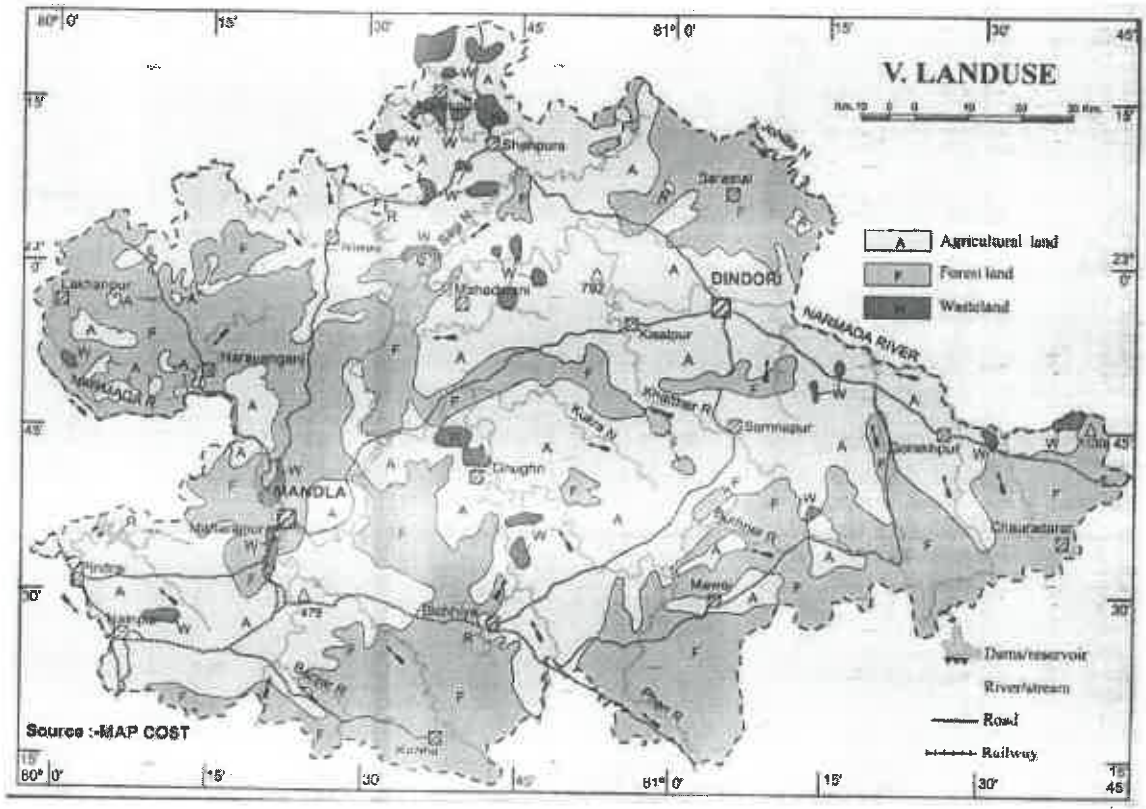


Fig : Land Use/ Land Cover Map of Dindori District

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(EPCO)
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CHPATER -10

PHYSIOGRAPHY OF THE DISTRICT

Situated on the eastern part of Madhya Pradesh, Dindori district borders Chhattisgarh state. It has Shahdol in the East, Mandla in the West, Umaria in the North and Bilaspur and Kawardha districts of Chhattisgarh state in the South. It lies between latitudes 22° 27' and 23° 23' North, and longitudes 80° 30' and 81° 44' East. The total area of the district is 7,470 Sq.kms. The holy river Narmada passes through the district and is surrounded by herbal rich Maikal mountain ranges situated at an altitude of 1,100 meters above mean sea level. Maximum length from North to South is about 133 kms. There are some small and scattered patches and tracts of black soil but the greater part of the district is very rugged and mountainous.

10.1 Geomorphology & Soil types

Physiographically, a major part of the districts exhibit region of middle level plateau of extrusive origin with few high level plateau in the middle northern, western and eastern parts. The other landforms are structural plains, structural hills and valleys, denudationalpateauxdenudationalslpes, pediment/pediplain in the southern part and flood plain (including in-filled riverbeds)along the course of Narmada River in the western part. A major part of the districts is occupied by the Narmada basin consisting the north eastern part of Son sub-basin and south western (Wainganga sub-basin) & south eatern extent (Seonath sub-basin) of Godavari basin Narmada River originating from Amarkantak in Shahdol District forms the north eastern boundary of the Dindori District. It takes a U-turn and also forms boundary in the western part of the Mandla district. Narmada and its tributaries Banjar, Burhner, Seoni, Silgi etc. drain most of the area. Mahanadi River seems to have originated from the northern part Mandla District at Ghughuwa village. The maximum elevation in the area is 1100m above mean sea level as recorded in the eatern most part of Dindori District while the minimum elevation of 445m above mean sea level is noted near Nainpur in the south western part of Mandla district. The general gradient of the area is towards east.

Kabar or Kanhar, morand or mund, sahra and barra are four general classes of soils. Kabar soil is bluish black, most fertile, soft and sticky when it is wet and very hard and heavy when it is dry. Kanhar, the second quality soil is little inferior to the preceding, more gritty, lighter in colour, less in depth and contains small black pebbles. Morand or Mund soil is again divided into two sub-types, the former is black and darkish, more gritty and friable than Kabar soil and breaking into small clods with a roughish surface. The second quality of Mund soil is an inferior variety, more sandy mixed with limestone which reduces productivity. The Sahra and Barra soils are pure sand and pale yellow type which are unfit for Rabi or spring Kharif crops like rice may be grown with proper irrigation facilities.

The eastern part of the district is plain area having black soil cultivated by Gonds, with a sprinkling of immigrant Muslims and Hindus. From this plain, a few narrow valleys of good black soil from south along tributaries of the Narmada into the deep Sal trees which separates the district from Bilaspur. As the Narmada runs West, the soil changes to undulating Barra or morand with small pocket of black soil. The Kharmer valley is of a similarly rich

character but further west every kind of soil may be found, from the high-lying Mahadwani plateau to the embanked black soil fields of the Lodhis Niwas.

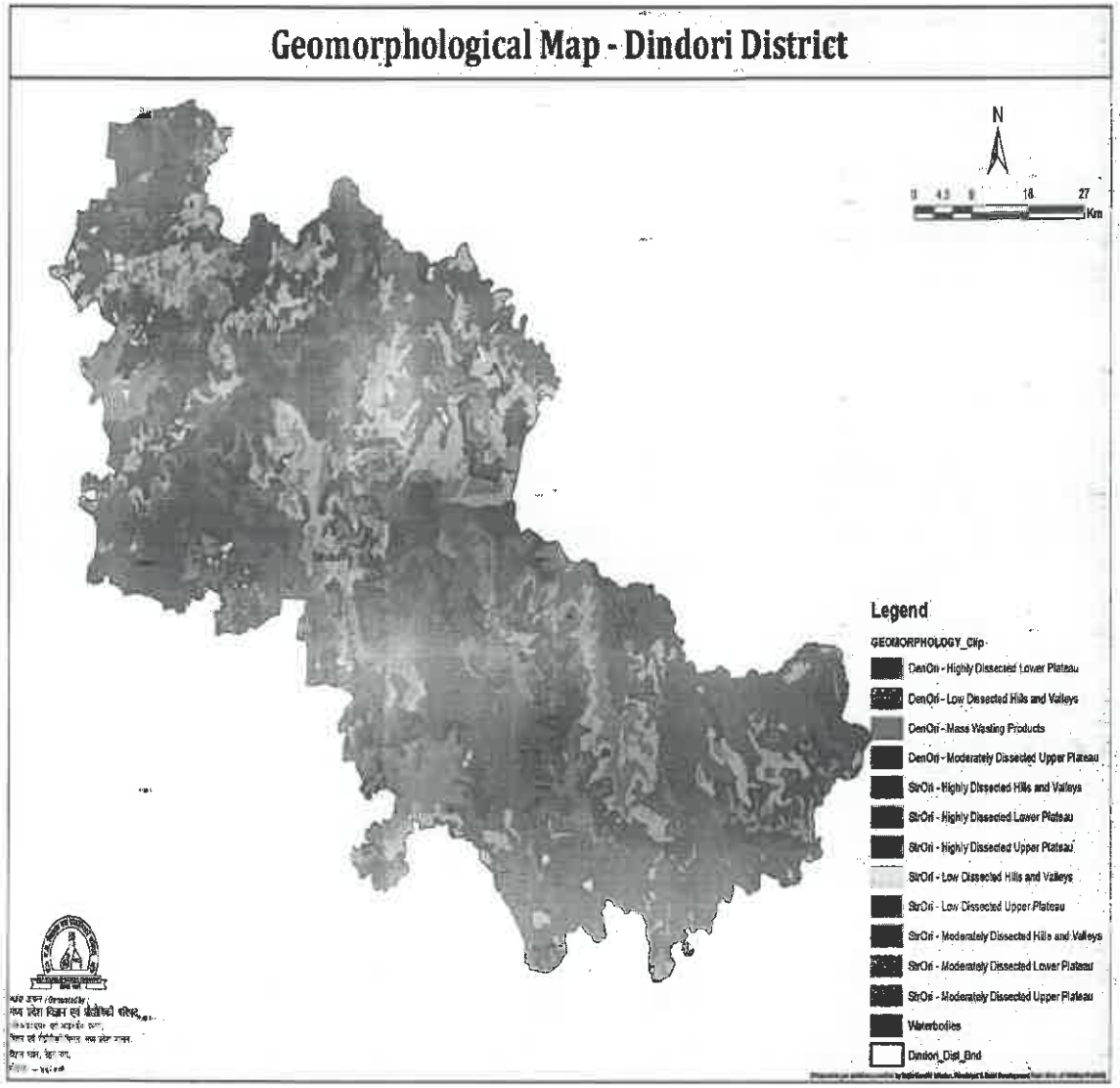

Fig : Map Showing Geomorphological Setup of Dindori District

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CHPATER -II

RAINFALL: MONTH-WISE

In Dindori district summer normally starts from April and continues till end of June. April and May are severe hot months, when the summer season is at its peak. Winter normally starts from mid November and continues till end of February. December, January and February are cold months, when the winter season is at its peak. In March climate in most parts of the district are on its bloom because of the spring. The nights are colder. Rainy season generally starts from beginning of July and extends up to the mid September. Autumn season is generally very small from mid September to mid November. The extended rainy season is the reason for its short duration. Minimum temperature in the higher reaches goes down to 2°C-3°C during the winter months. The maximum temperature in the lower areas exceeds even 45° C during the peak summer month. The average rainfall in the district is nearly 1450.00 mm. Generally Block Shahpura receives highest rainfall of average of 1320.00 mm, whereas block Bajag receives least rainfall in the district of average 990.00 mm.

Average Rainfall : 1450mm

Average Maximum Temperature: 43.6°C

Average Minimum Temperature: 3.1°C

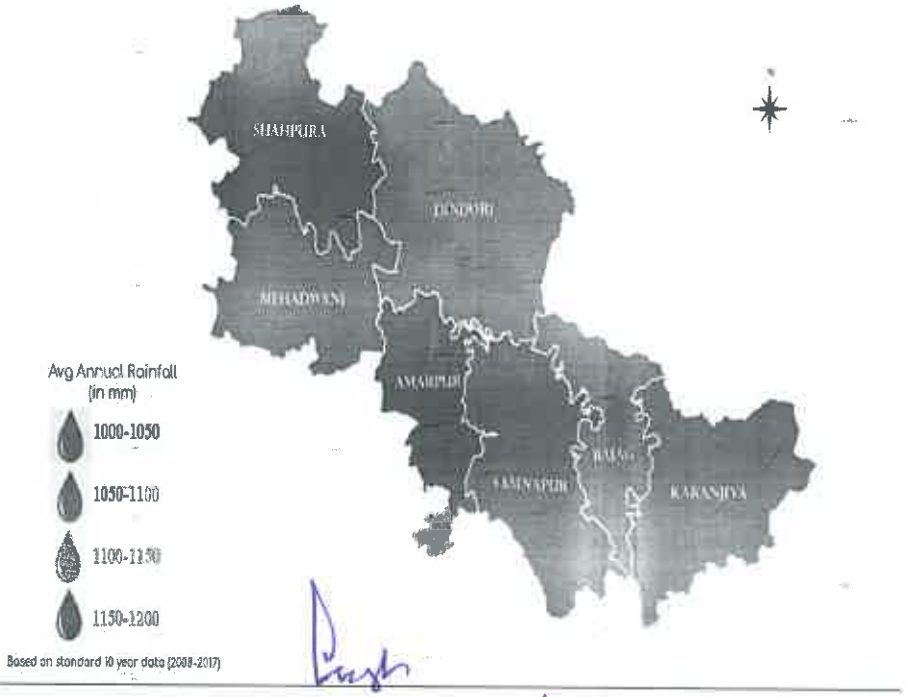

Table : Monthwise Rainfall of Dindori District for the Year 2018-19 & 2019-20

(From 1st June to 31st May)

S. No.	Month	Rainfall (in mm.)	
		Year 2018-2019	Year 2019-2020
1	June	142.7	90.0
2	July	452.6	371.6
3	August	332.3	435.3
4	September	142.2	431.7
5	October	0.03	30.6
6	November	0.4	0.0
7	December	0	13.3
8	January	11.3	31.7
9	February	0.3	21.0
10	March	19.0	79.3
11	April	2.5	14.4
12	May	6.0	19.0
Total	**Total Rainfall**	**1109.6**	**1537.9**

➢ **Source: Land Record Office Dindori**

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CHPATER -12

GEOLOGY AND MINERAL WEALTH

12.1 Geology

Mandla and Dindori, the two districts which were bifurcated from the original Mandla district, are situated in the south eastern part of Madhya Pradesh and cover an area of 13269 sq. km. they fall in Survey of India's degree sheet Nos. 64A, B, E, F, 55M and N between latitudes $22^0$12':$23^0$22'20"N and longitudes $79^0$57'23":$81^0$44'21"E. they are bounded by Jabalpur District on the north west, Shahdol District on the north east, Seoni District on the south west, Balaghat District on the south and Kawardha and BilaspurDisricts of Chhattisgarh State on the south east. Mandla and Dindori, the two district headquarters are situated in the south western part and the north eastern part of area respectively, Shahpura, NiwasMahadwani, Narayanganj, Kisalpur, Chabi, Ghughri, Pindrai, NainpurBichhiya, Samnapur, Sarastal and Gorakhpur are some of the maj0or towns in the districts. Jabalpur-Gondia Extension (0.76m gauge) of South Eastern Railway passes through the south western extent of the Mandla district and Mandla Branch (0.76m gauge) of South Eastern Railway connects to the Mandla city. All important places within the districts are well connected by a network of state highways and all weather roads.

Physiographically, a major part of the districts exhibit region of middle level plateau of extrusive origin with few high level plateau in the middle northern, western and eastern parts. The other landforms are structural plains, structural hills and valleys, denudationalpateauxdenudationalslpes, pediment/pediplain in the southern part and flood plain (including in-filled riverbeds)along the course of Narmada River in the western part. A major part of the districts is occupied by the Narmada basin consisting the north eastern part of Son sub-basin and south western (Wainganga sub-basin) & south eatern extent (Seonath sub-basin) of Godavari basin Narmada River originating from Amarkantak in Shahdol District forms the north eastern boundary of the Dindori District. It takes a U-turn and also forms boundary in the western part of the Mandla district. Narmada and its tributaries Banjar, Burhner, Seoni, Silgi etc. drain most of the area. Mahanadi River seems to have originated from the northern part Mandla District at Ghughuwa village. The maximum elevation in the area is 1100m above mean sea level as recorded in the eatern most part of Dindori District while the minimum elevation of 445m above mean sea level is noted near Nainpur in the south western part of Mandla district. The general gradient of the area is towards east.

Rock formations ranging in age from Archaean to Quaternary are exposed in these districts. The oldest rocks in the area are represented by Tirodi gneissic Complex of Archaean to Palaeo Proterozoic age (<2500-2200 m.y.) which are exposed in the southern part of Mandladistrict. The Tirodi Gneissic complex comprises grey and pink granitic gneiss migmatite, biotite gneiss, biotite schist and para-amphibolite.

Sausar Group represented by Bichua, Junewani, Chorbaoli and Mansar formations of Meso Proterozoic age (2000-1600 m.y.) is exposed in the southern part of districts. Mansar

Formation comprises biotite schist, gametiferous quartz-biotite schist, muscovite-biotite schist and phyllonite. Chorbaoli Formation comprises quartz-mica schist, hornblende schist, mica-schist, quartzite and phyllite. Junewani Formation comprises various types of schists, feldspathised acid granulite, gneisses and amphibolites. Bichua formation comprises marble and tremolitic dolomite with intercalations of phgyllite and slate. The Sausarmetasediments have been subjected to extensive granitisation and migmatisation. Remnants of metasediments in various stages of assimilation have been recorded. The Granitic gneiss exposed 8 km south east of Bichhiya exhibits gneissic trend which conforms with the trend of lith unit No. 7 of Junewani formation and appears to be the product of granitisation of Sausar meta-sediments.

Three types of intrusive granites of Meso Proterozoic age are delineated within Tirodi gneissic complex terrain. They are grey granite, pink granite and leucocratic tourmaline granite. Pink granite is considered younger than grey granite in the statigraphic position because of coarser grain size and potash enrichment than grey granite. Leucocratic tourmaline granite contains appreciable amount of tourmaline and shows golden yellow colouredmica(Zinnwaldite, a variety of Lepidolite Mica). The quartz veins/reefs and pegmatite veins are restricted to archaean – Proterozoic terrain and basic dykes of doleritic composition are seen in all formations.

Lameta group of Cretaceous age (136-65 m.y.) is exposed in the southern part and lies unconformably over the Archaean-Proterozoic rocks. Its thickness varies from 1m to 6m. it comprises sandy limestone, arkosic sandstone, calcareous and conglomeratic sandstone and clay at places.

The northern and central part of the area is occupied by Deccan trap basalts of Amarkantak Group of Cretaceous to Palaeogene age (65-60m.y.). It consists of a sequence of 22 basaltic lava flows of "Aa", simple and compound "Pahoehoe" type with a cumulative thickness of 400m. the flows represent a sequence of cyclic eruptions, Amarkantak Group is classified into four formations-Mandla, Dhuma, Pipardehi and Linga on the basis of porphyritic nature of individual flows and presence of intertrapppean beds. Mandla- the Oldest Formation comprises seven simple to compound"Pahoehoe" basaltic lava flows. Dhuma formation comprises eight "Aa" to Pahoehoe" basaltic lava flows. Dhuma Formation comprises eight "Aa" to Pahoehoe" flows.Pipardehi formation comprises three highly porphyritic flows. Linga Formation comprises four non-porphyritic flows.

The high level plateaux of Deccan traps in the eastern part is often capped by laterite of Cainozoic age (70-<1m.y.). Laterite is also seen at few places in the south eastern, middle and northern parts of area. The laterite shows variation in colour from cherry red to whitish brown. It also exhibits pisolitic, botryoidaal and tube structures. The laterites occurring in the eastern part of the area contain small pocket bauxite deposits which are being mined by various agencies.

Alluvial deposits of Quaternary age (<1m.y.) occur along the course of Narmada River in the north western part and comprise fine to coarse sand, silt and clay with gravel beds.

As Deccan trap occupies a major part of the districts, there are no significant economic mineral deposts except bauxite. Bauxite occurrences as small pockets within the

laterite are reported at HazariDadar, BangiaDadar, DaikribandaPahar, ChikmiDadarPondibahraPaharKhamera and Khapripani area. mineralization of copper in quartz-biotite schist is reported at Attarchua, Imaliatola and south of Lalpura in the southern part of districts. Limited occurrences of dolomite are reported from BhanwartalKakaiya, south of Dhamangaon and north east of Samya in the south western part of Mandla district. Thermal spring of feeble discharge with temperature around 38 degree C is reported near Chiraidongri which is 15 km NNE of Mandla city. Pink granite, hard migmatites and granitic gneiss exposed in the southern part of districts can be used as dimension stones. Biotite schist can be used for roofing and flooring. Deccan trap can be used as construction material for building and roads.

LITHOLOGY	***STRATIGRAPHIC STATUS***				***AGE***
Alluvium					*Quaternary*
Laterite					*Cainozoic*
Basic dyke					
Non-porphyritic basaltic	*Linga*	*A*		*D*	
Lava flow (4flows)	*formation*	*M*	*G*	*E*	
Highly porphyritic basaltic	*Piparadehi*	*A*	*R*	*C*	*Cretaceous*
Lava flow (3flows)	*formation*	*R*	*O*	*C*	*to*
Aa and compound Pahoehoe	*Dhuma*	*K*	*U*	*A*	*Paleogene*
Basaltic lava flow (8flow)	*formation*	*A*	*P*	*N*	
Simple to compound 'Pahoehoe'	***Mandla***	*N*		*T*	
Basaltic lava flows (7flows)	*formation*	*T*		*R*	
Basaltic lava flows with	*Unclassified*	*A*		*A*	
Intertrappeans		*K*		*P*	

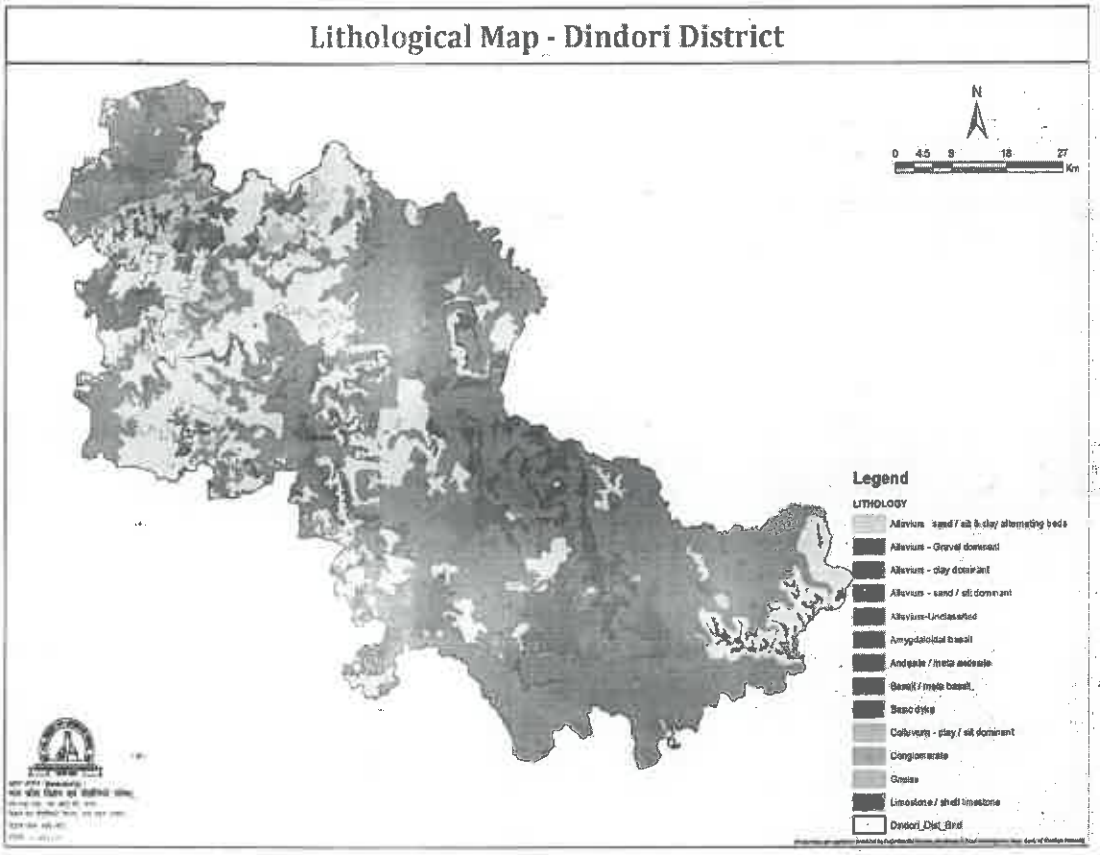

Fig : Map Showing Lithology of Dindori District

12.2 Mineral Resources

Dindori District is hilly and plateau area, Bauxite and laterite are mainly found in major minerals in the district. Among minor minerals sand and stone for ballast are found in the district.There are no major mineral mines operating in Dindori district. A mine of bauxite mineral from the government level has been allotted to the successful tenderer through auction. Prospecting work for the preparation of another bauxite mineral blocks is being done by the Regional Office, Directorate of Geology and Mining, Jabalpur and Geological Survey of India in the district. At present 07 mines of sand minerals are declared of minor minerals. 51 stone quarries for ballast are present in the district. In minor minerals sand, and stone for ballast are found in abundance in the district.Total mineral holding area of minor mineral is 73.81 ha. approximately in district.

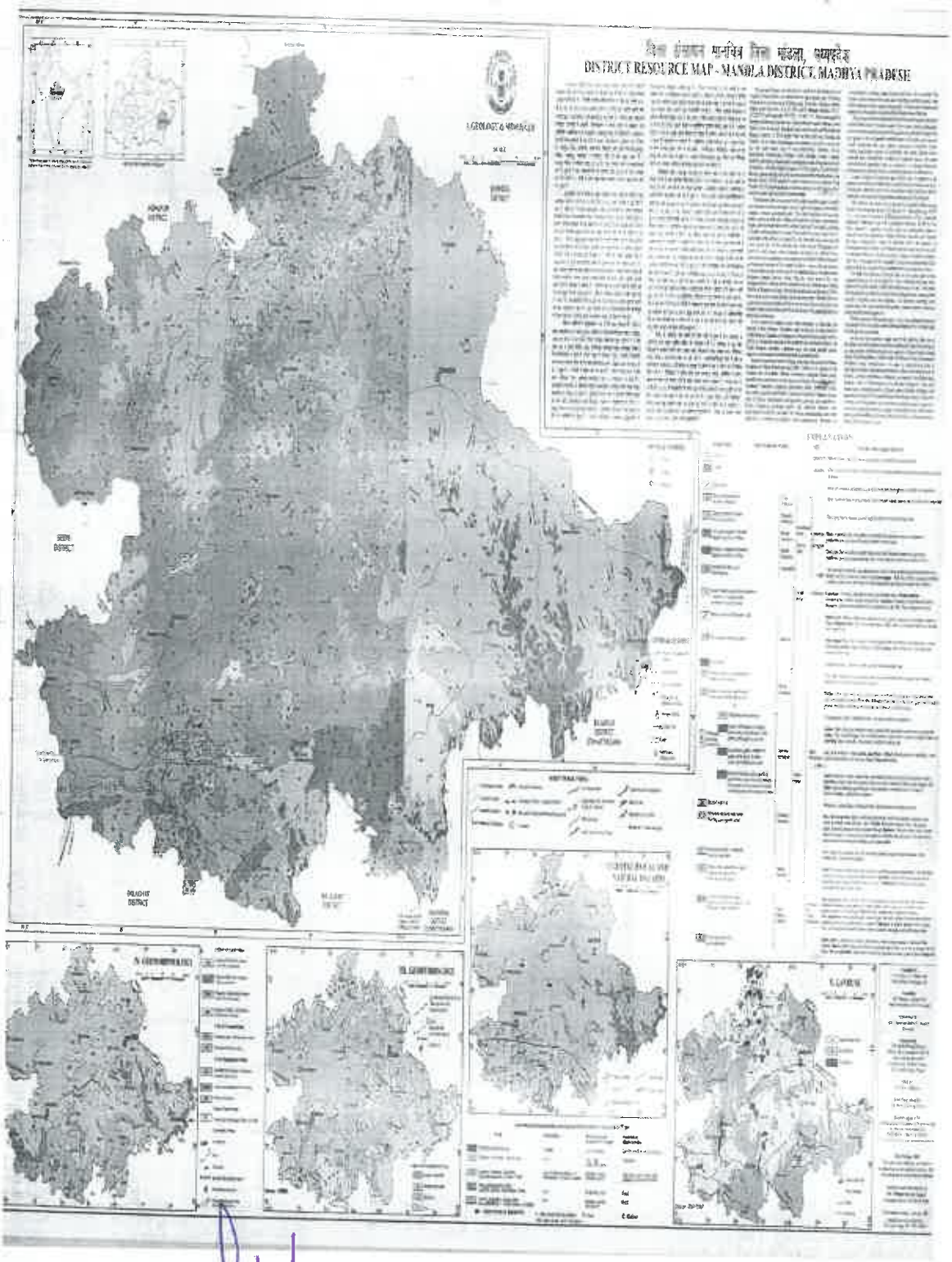

Fig: Map Showing District Resource map of Dindori

CHPATER -13

ADDITIONAL IMPORTANT PROSPECT OF THE SAND MINING

- **Tehsil wise detail of river or stream and other sand source**

S.No.	Tehsil	River or River stream for Sand Source
1	Dindori	Budner River
2	Bajag	Narmada River

- **Tehsil wise Availability of sand or gravel or aggregate resources**

S.No.	Tehsil	River Name	Name of Sand Ghat
1	Dindori	Budner River	Diwari Mal-1, Diwari Mal-2, Diwari Mal-3, KamkoMohaniya
2	Bajag	Narmada River	Musamundi Ryt-1, Musamundi Ryt-2, Budhgaon Ryt

- **River wise Recommended Sand Ghats for availability of sand**

S.No.	Resource of Sand	No. of Sand Ghats
1	Budner River	04
2	Narmada River	03
	Total	07

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o Tehsil wise detail of existing mining leases of sand and aggregates

S. No	Tehsil	Name of river Bed	Mine Name	Khasra No.	Rakba (Ha)	Lat-Long Of Boundaries of mine	Date of EC	Existing/ Proposed
1	Bajag	Narmada	Musamundi Ryt.-1	54	7.00	a) N 22° 46' 29.88" E 81° 27' 10.12" b) N 22° 46' 30.05" E 81° 27'09.15" c) N 22° 47' 12.00" E 81° 26' 46.72" d) N 22° 47' 12.27" E 81° 26' 47.59"	13.05.21	EXISTING
2	Dindori	Budner	Diwari Mal-1	151	5.00	a) N 22° 33' 03.46" E 80° 57' 56.52" b) N 22° 33' 03.46" E 80° 57' 55.08" c) N 22° 33' 29.72" E 80° 57' 59.49" d) N 22° 33' 29.43" E 80° 57' 57.30"	23.10.20	EXISTING
3	Dindori	Budner	Diwari Mal-2	439	4.50	a) N 22° 32' 34.09" E 80° 58' 18.70" b) N 22° 32' 32.65" E 80° 58' 18.48" c) N 22° 32' 39.98" E 80° 58' 38.12" d) N 22° 32' 38.25" E 80° 58' 38.92"	19.05.20	EXISTING
4	Dindori	Budner	Kamke Mohaniya	546	6.00	a) N 22° 33' 34.01" E 80° 57' 32.15" b) N 22° 33' 32.57" E 80° 57' 33.28" c) N 22° 33' 20.10" E 80° 57' 04.44" d) N 22° 33' 22.04" E 80° 57' 03.60"	12.05.21	EXISTING
5	Bajag	Narmada	Budhgoan Ryt.	66	0.61	a) N 22° 54' 42.84" E 81° 12' 18.24" b) N 22° 54' 44.01" E 81° 12' 17.50" c) N 22° 54' 46.36" E 81° 12' 22.03" d) N 22° 54' 44.96" E 81° 12' 22.43"	24.03.21	EXISTING
6	Bajag	Narmada	Musamundi Ryt.-2	54	3.00	a) N 22° 47' 44.82" E 81° 26' 41.10" b) N 22° 47' 45.89" E 81° 26' 41.22" c) N 22° 47' 36.59" E 81° 27' 01.44" d) N 22° 47' 37.12" E 81° 27' 00.31"	-	PROPOSED
7	Dindori	Budner	Diwari Mal- 3	439, 493	4.50	a) N 22° 32' 36.21" E 80° 59' 20.02" b) N 22° 32' 35.78" E 80° 59' 20.96" c) N 22° 32' 33.19" E 80° 59' 00.69" d) N 22° 32' 32.51" E 80° 58' 59.08"	-	PROPOSED

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Table : List of Rivers and Drained flowing in Dindori District

S.No.	Name of River	Length in the District (km.)	Brief information of the River
1	Narmada River	211	This river originates from Amarkantak in Anuppur district and covers a distance of 154 km in Dindori district. Flows on the area as well as the Chakrar, Macharar, Silgi, Kutrail, Seoni rivers meet from the south direction, whose length is not much.
2	Budner River	50	This river originates from Mekal mountain (Chada) and covers 50 km in the district. flows over the area.

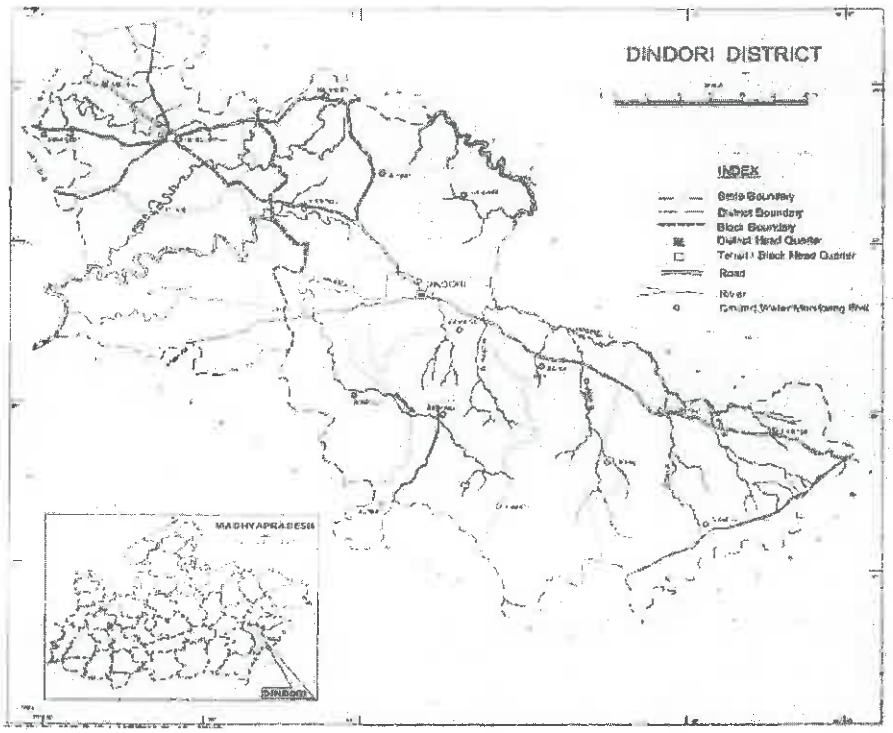

Figure : River Map of Dindori District

o Drainage system with description of main rivers

S. No.	Name of River	Area Drained (Sq. km.)	% Area Drained
1	Narmada	7.385	16 %
2	Budner	0.52	50%

➢ **Source: WRD Dindori**

o Salient Features of Important Rivers and Streams

S. No.	Name of River	Total Length in the district (in Km)	Place of Origin	Altitude at Origin
1	Narmada	211	Amarkantak (Anuppur District)	1057 meter
2	Budner	50	Mekal Mountain (Chada)	1142 meter

➢ **Source: WRD Dindori**

Methodology Adopted for Calculating of Mineral Potential

The mineral potential is calculated based on field investigation and geology of the catchment area of the river/ streams. As per the policy of the State and location, depth of minable mineral is defined. The area for removal of mineral in a river or stream can be decided depending on geomorphology and other factors, it can be 50% to 60% of the area of a particular river/stream. Other constituents like clay and silt are excluded as waste while calculating the mineral potential of particular river/ stream.

The specific gravity of each mineral constituent is different. While calculating the mineral potential, the average specific gravity is taken as 2.25. The percent of mineral constituent like boulder, river Bajri, and sand also varies for different river and streams. While calculating mineral potential, the percentage for each mineral constituent is 25-30% for sand and 5-10% for silt and clay.

The quantum of deposition varies from stream to stream depending upon factors like catchment lithology, discharge, river profile and geomorphology of the river course. There are certain geomorphological features developed in the river beds such as channel bar, point bar etc. where annual deposition is more even two to three meters.

Portion of the River or Stream Recommended for Minral Concession

Portion of the River or Stream Recommended for Mineral Concession	Length of area recommended for mineral concession (in kilometer)	Average width of area recommended for mineral concession (in meters)	Area recommended for mineral concession (in square meter)	Mineable mineral potential (in metric tonne) (60% of total mineral potential)
NIL				

- ## Minral Potential

Boulder (MT)	Bajari (MT)	Sand (MT)	Total Mineable Mineral Potential (MT)
NIL	NIL	8,50,000	5,10,000

- ## Annual Deposition

Boulder (MT)	Bajari (MT)	Sand (MT)	Total Mineable Mineral Potential (MT)
NIL	NIL	8,50,000	5,10,000

Portion of the River or Stream Recommended for Minral Concession

S. No	River or Stream	Portion of the River or Stream Recommended for Mineral Concession	Length of area recommended for mineral concession (in kilometer)	Average width of area recommended for mineral concession (in meters)	Area recommended for mineral concession (in square meter)	Mineable mineral potential (in metric tonne) (60% of total mineral potential)	Lat-Long of recommended area with height from MSL
NIL							

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○ Other Information

➢ *Environmentally Prohibited Areas for Mining:-*

In addition to the identified areas declared suitable for sand mining following areas have been identified as no sand mining area because of falling under 10 km. distance from the Biosphere Reserve area:-

S. No	Village Name	Kh. No.	Name of River	GPS Reading
1	Roosa	01	Narmada	N 22 44'59.3" E 81 31'33.7"
2	Roosa-Rahangi	01	Narmada	N 22 45'45.5" E 81 30'47.2"
3	Gorakhpur Mal	157	Narmada	N 22 46'07.7" E 81 27'20.4"
4	Gorakhpur Mal	631	Narmada	N 22 46'34.1" E 81 27'02.6"
5	Gorakhpur Mal	19	Seoni river	N 22 45'01.0" E 81 27'31.6"
6	Patan Raiyat	55	Narmada	N 22 45'40.0" E 81 28'08.2"

➢ **Source: Forest Dept.**

➢ *Prohibited Areas for Mining:-*

As per rule 3(5) of Madhya pradesh sand (Mining, Transportation, Storage and Trading) Rule, 2019 Extraction and removal of sand from the following area shall be prohibited as provided in sustainable sand mining guidelines, 2016 issued by Government of India-

(a) within 200 meters from any bridge;

(b) within 200 meter upstream and downstreamareas of any water supply scheme or water resources scheme;

(c) within 100 meter from edge of national highway and Railway line;

(d) within 50 meter from any canal, reservoir or building;

(e) within 50 meter from edge of state highway and 10 meters from edge of other village road;

(f) within fixed distance from any areas which has been built to control the flood;

(g) within 200 meter distance from the place of cultural, religious, historical, and archaeological importance or within the distance as provided in the Act/Rule;

(h) such areas which have been declared prohibited by Collector due to environmental or other reasons:

Provided that, on receipt of representation, permission to grant for mining within the limit of prohibited area may be considered, after getting NOC/Consent from the concerned administrative department.

▪ *Potential areas of need and supply of sand mineral:-*

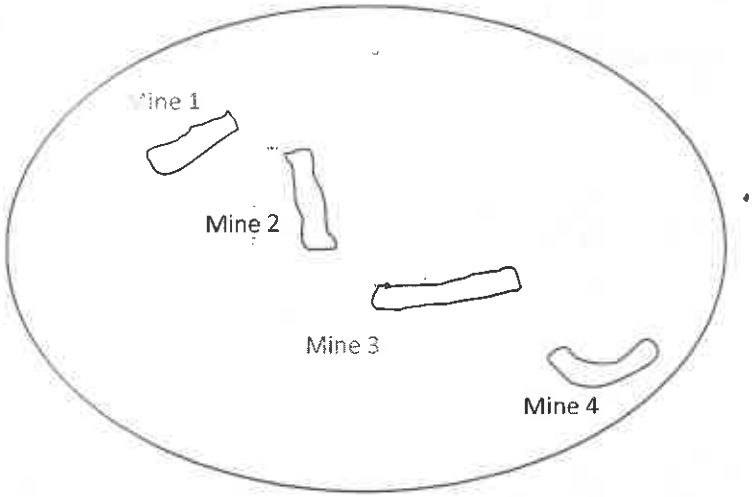
The need of sand mineral in Dindori district is mainly for private construction works (such as residential houses/buildings, housing of Pradhan Mantri Awas Yojana) and government construction works (eg- Pradhan Mantri Rural Roads, Public Works Department roads, Water Resources Department dams). are in The sand mineral required in all these areas can be supplied from the areas identified for sand mining in the district.

▪ *Marking of the Identified sand mineral area in the group:-*

The areas identified for sand mining in Dindori district can be mainly divided into two groups, both the groups are located in different tehsil areas and rivers, which are as follows:-

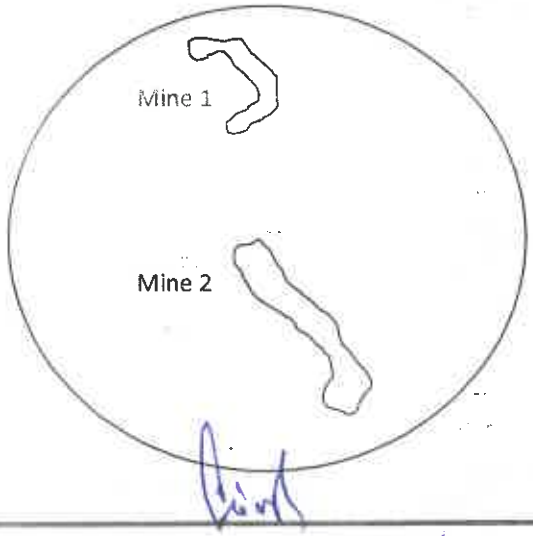
1. **Areas identified in Budner River:-** The area identified for sand mining on Budner river is as follows-
    1. kamkomohaniya
    2. Diwari Mal -1
    3. Diwari Mal -2
    4. Diwari Mal -3

The group marking of the areas marked for sand mining as above is displayed by the diagram below-



2. **Areas identified in Narmada River:-** The area identified for sand mining on Budner river is as follows-
    1. Musamundi Ryt -1
    2. Musamundi Ryt -2

The group marking of the areas marked for sand mining as above is displayed by the diagram below-



- ***Identification of possible route for sand transportation:-***

The map of identification of possible routes for sand transport is attached-

- ***Lat-Long of Boundaries and approaximate Height from MSL of Identified sand mining area:***

Mine Name	Khasra No.	Rakba (Ha)	Lat-Long Of Boundaries of mine	Height of Mine from MSL (approax) (In Meters)
Musamundi Ryt.-1	54	7.00	a) N 22° 46' 29.88" E 81° 27' 10.12" b) N 22° 46' 30.05" E 81° 27' 09.15" c) N 22° 47' 12.00" E 81° 26' 46.72" d) N 22° 47' 12.27" E 81° 26' 47.59"	737
Diwari Mal-1	151	5.00	a) N 22° 33' 03.46" E 80° 57' 56.52" b) N 22° 33' 03.46" E 80° 57' 55.08" c) N 22° 33' 29.72" E 80° 57' 59.49" d) N 22° 33' 29.43" E 80° 57' 57.30"	582
Diwari Mal-2	439	4.50	a) N 22° 32' 34.09" E 80° 58' 18.70" b) N 22° 32' 32.65" E 80° 58' 18.48" c) N 22° 32' 39.98" E 80° 58' 38.12" d) N 22° 32' 38.25" E 80° 58' 38.92"	583
Kamko Mohniya	546	6.00	a) N 22° 33' 34.01" E 80° 57' 32.15" b) N 22° 33' 32.57" E 80° 57' 33.28" c) N 22° 33' 20.10" E 80° 57' 04.44" d) N 22° 33' 22.04" E 80° 57' 03.60"	580
Musamundi Ryt.-2	54	3.00	a) N 22° 47' 44.82" E 81° 26' 41.10" b) N 22° 47' 45.89" E 81° 26' 41.22" c) N 22° 47' 36.59" E 81° 27' 01.44" d) N 22° 47' 37.12" E 81° 27' 00.31"	735
Budhgao Ryt.	66	0.61	a) N 22° 54' 42.84" E 81° 12' 18.24" b) N 22° 54' 44.01" E 81° 12' 17.50" c) N 22° 54' 46.36" E 81° 12' 22.03" d) N 22° 54' 44.96" E 81° 12' 22.43"	683
Diwari Mal-3	439,493	4.50	a) N 22° 32' 36.21" E 80° 59' 20.02" b) N 22° 32' 35.78" E 80° 59' 20.96" c) N 22° 32' 33.19" E 80° 59' 00.69" d) N 22° 32' 33.51" E 80° 58' 59.08"	578

DISTRICT SURVEY REPORT FOR DINDORI DISTRICT

PART –B

FOR

MINOR MINERALS OTHER THAN SAND MINING OR RIVER BED MINING

Prepared under:

a) Appendix –X of MoEF&CC, GoI Notification S.O. 141(E) dated 15.1.2016
b) Sustainable Sand Mining GuidelineS
c) MoEFCC, GoI Notification S.O. 3611(E) dated 25.07.2018

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

CHAPTER-1

INTRODUCTION

General:

Dindori is a district of Madhya Pradesh state of central India. The town of Dindori is the district headquarters. It was created on 25th May, 1998 with total 927 villages. The district is a part of Jabalpur Division. The district covers an area of 7470 sq.km. and is located on the eastern part of Madhya Pradesh, bordering the state of Chhattisgarh. It is surrounded by Shahdol in the east, Mandla in the west, Umaria in the north, and Bilaspur district of the state of Chhattisgarh in the south. Mathematically, the district is situated between the latitudes 22.17N and 23.22N and longitudes 80.35E and 80.58E It is divided into seven blocks namely Dindori, Shahpura, Mehandwani, Amarpur, Bajag, Karanjiya and Samnapur.

According to the 2011 census Dindori District has a population of 704,218, roughly equal to the nation of Bhutan or the US state of Alaska. This gives it a ranking of 501st in India (out of a total of 640 Districts). The district has a population density of 94 inhabitants per square kilometer (240/sq mi). Its population growth rate over the decade 2001-2011 was 21.26%. Dindori has a sex ratio of 1004 females for every 1000 males, and a literacy rate of 65.47%. Around 64% of the total population belongs to the Scheduled Tribe.

The Baiga tribe is a very pre-dominant tribe in this district. They are very vulnerable tribal groups which can only be found in the district. The Baigas are also known as the "National Human".

Historical Perspective:

The historiography of the district is similar to Mandla district, because Dindori district was formed in 1998 after the bifurcation from Mandla. The original name of Dindori was known as to be Ramgarh till 1951, which then was a tehsil of Mandla. Later on, the name of Ramgarh was renamed as Dindori.

Maurya, Sunga and Kanva followed by the Chalukya and Chedis dynasties ruled over the central India. Later, the Haihayabansi's kingdom also reigned Garha-Mandla from 875 A.D. to 1042 A.D. After Baghel Raja of Rewa, Jadhe Rao Gond, a servant of king assumed the dignity of royalty. The Gond Jadurai became the first King of Garha-Mandla. There aren't much details available about Raja Hirde Shah, the first Gond king.

Till 1835, Mandla was a tehsil of Seoni. In 1851, it was promoted to the status of district. There were 18 talukas when Britishers got the land of Ramgarh. Out of 2089 villages, 1039 villages had become part of the Sohagpur and 1050 villages remained in Ramgarh. With the help of Rewa king, Britishers got killed the brave queen of Ramgarh and suppressed the 1857 mutiny in Mandla. The Sohagpur area of Ramgarh was handed over to the king of Rewa. The remaining area annexed to Dindori tehsil which became a new district on 22nd May 1998.

Location and Geographical Data:

The district covers an area of 7470 sq.km. and is located on the eastern part of Madhya Pradesh, bordering the state of Chhattisgarh. It is surrounded by Shahdol in the east, Mandla in the west, Umaria in the north, and Bilaspur district of the state of Chhattisgarh in the south. Mathematically, the district is situated between the latitudes 22.17N and 23.22N and longitudes 80.35E and 80.58E It is divided into seven blocks namely Dindori, Shahpura, Mehandwani, Amarpur, Bajag, Karanjiya and Samnapur.

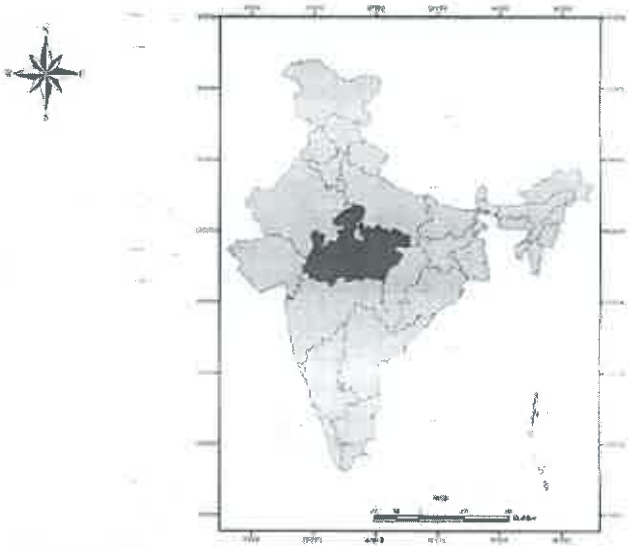
Demography of the Dindori District:

As per the Census 2011, total population of Dindori district is about 704,524 persons with 351,913 Males and 352,611 Females. The sex ratio is 1002 females to every thousand males which is quite impressive as compared to Bhind, Datia and other Northern districts of Madhya Pradesh. The overall population density is 94 persons per square kilometer. There is a small population living in the urban centers as compared to the rural areas with urban population of about 32,318 and that of rural is 672,206.

According to the 2011 census, the scheduled tribe population is 64.69% of the total population. The scheduled caste population in the district is just 5.64% of the total district population.

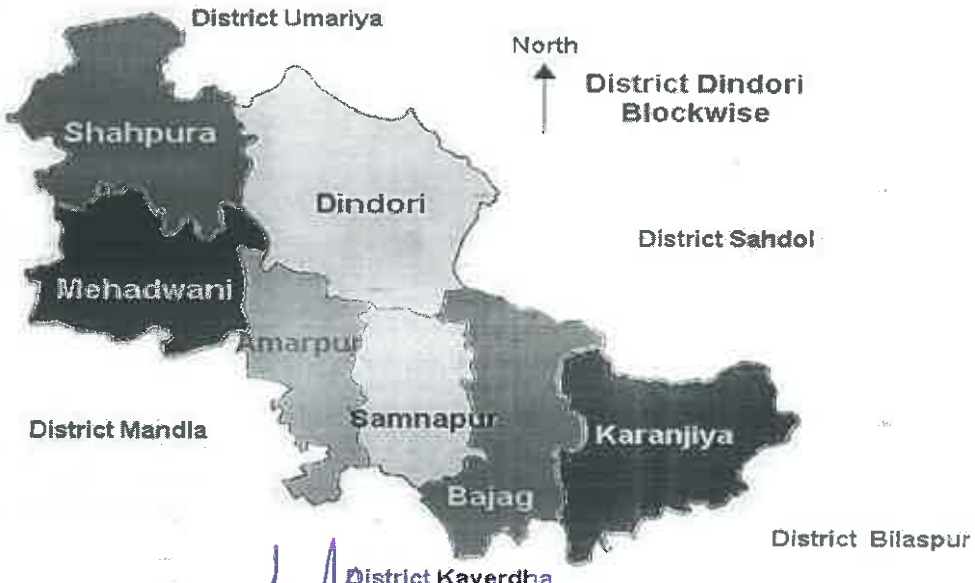
Dindori district returned a population of 704,524 as per 2011 census, as against a population of 580,730 persons recorded by 2001 Census. District Dindori recorded an overall increase of 21.32 per cent in population during the past one decade. According to census, The no. of APL family in the district is 48681, whereas the no. of BPL families including AAY is 128371.

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



भारत
में
मध्यप्रदेश की स्थिति

मध्यप्रदेश में
जिला डिण्डौरी



Drainage System:

Situated on the bank of river Narmada, the district headquarter is 102 kms from Mandla. Gaur, a tributary of the holy river Narmada, rises near Niwas in Dindori district and flows into the Narmada, close to Jabalpur district. Other small tributaries which flow towards south are Seoni, Chakrar, Machhrar, Kutrar, Khadmer and Silgi.

Soil:

Kabar or Kanhar, morand or mund, sahra and barra are four general classes of soils. Kabar soil is bluish black, most fertile, soft and sticky when it is wet and very hard and heavy when it is dry. Kanhar, the second quality soil is little inferior to the preceding, more gritty, lighter in colour, less in depth and contains small black pebbles. Morand or Mund soil is again divided into two sub-types, the former is black and darkish, more gritty and friable than Kabar soil and breaking into small clods with a roughish surface. The second quality of Mund soil is an inferior variety, more sandy mixed with limestone which reduces productivity. The Sahra and Barra soils are pure sand and pale yellow type which are unfit for Rabi or spring Kharif crops like rice may be grown with proper irrigation facilities.

Climate:

The climate of the district is moderate being 430 C to be the maximum temperature and 10.410 C to be the minimum temperature on an average. July and August witness rainy season. However, rain may also occur in the months of June and September. The average rainfall is 704.69 millimeters. Months of May and June could most appropriately be called hot months while December and January are most appropriately the cold months.

Connectivity:

- **By Air**

Nearest Airport is Dumna Airport, situated at Jabalpur, which is 146 km away from Dindori.

- **By Rail**

Nearest Railway Stations are at Jabalpur(144 km away), Pendra road(115 km away) and Umaria(108 km away).

- **By Road**

Good connectivity from the neighbouring districts viz. Jabalpur, Mandla, Bilaspur and Shahdol. NH 45 Ext new connects Dindori with Jabalpur and Kabir Chabutra-Chhattisgarh Border. And NH543 New connects Dindori with Shahdol, Mandla and Balaghat. Buses ply to all the neighboring as well as far-flung places such as Nagpur, Bhopal, Mandla, Shahdol, Umaria, Amarkantak and Jabalpur.

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CHPATER -2

OVERVIEW OF MINING ACTIVITY IN THE DISTRICT

Dindori District is hilly and plateau area, Bauxite and laterite are mainly found in major minerals in the district. Among minor minerals sand and stone for ballast are found in the district.

There are no major mineral mines operating in Dindori district. A mine of bauxite mineral from the government level has been allotted to the successful tenderer through auction. Prospecting work for the preparation of another bauxite mineral blocks is being done by the Regional Office, Directorate of Geology and Mining, Jabalpur and Geological Survey of India in the district. At present 07 mines of sand minerals are declared of minor minerals. 51 stone quarries for ballast are present in the district.

In the last year 2020-21, 5.83 Crore Rs. revenue has been received from minor mineral other than sand and 5.73 Crore Rs. revenue has been received from minor mineral sand against the revenue target fixed for the district by MP Govt. Also mineral based industries are likely to come to this district in the near future due to the commencement of mining of major minerals.

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

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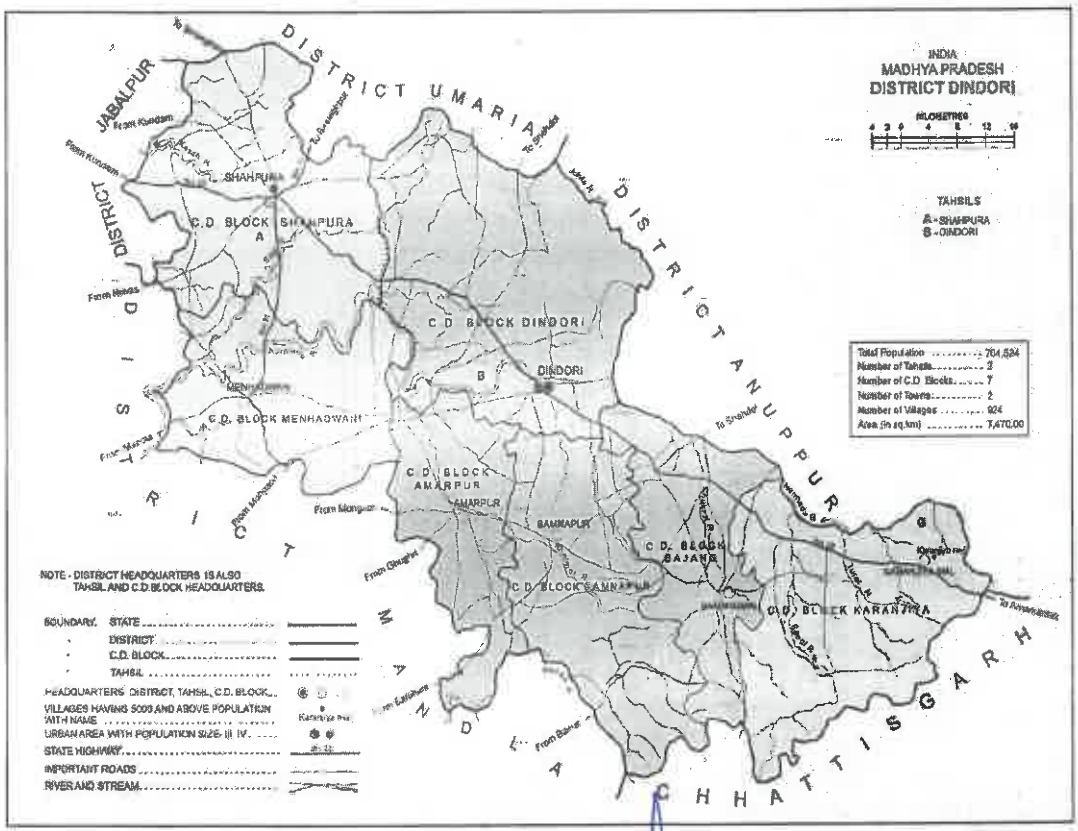
CHPATER -3

GENERAL PROFILE OF THE DISTRICT

District at a Glance:

Situated on the eastern part of Madhya Pradesh, Dindori district borders Chhattisgarh state. It has Shahdol in the East, Mandla in the West, Umaria in the North and Bilaspur and Kawardha districts of Chhattisgarh state in the South. It lies between latitudes 220 27' and 230 23' North, and longitudes 800 30' and 810 44' East. The total area of the district is 7,470 Sq.kms. The holy river Narmada passes through the district and is surrounded by herbal rich Maikal mountain ranges situated at an altitude of 1,100 meters above mean sea level. Maximum length from North to South is about 133 kms. There are some small and scattered patches and tracts of black soil but the greater part of the district is very rugged and mountainous.

The eastern part of the district is plain area having black soil cultivated by Gonds, with a sprinkling of immigrant Muslims and Hindus. From this plain, a few narrow valleys of good black soil from south along tributaries of the Narmada into the deep Sal trees which separates the district from Bilaspur. As the Narmada runs West, the soil changes to undulating Barra or morand with small pocket of black soil. The Kharmer valley is of a similarly rich character but further west every kind of soil may be found, from the high-lying Mahadwani plateau to the embanked black soil fields of the Lodhis Niwas.



Drainage System

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Climate

The climate of the district is moderate being 430 C to be the maximum temperature and 10.410 C to be the minimum temperature on an average. July and August witness rainy season. However, rain may also occur in the months of June and September. The average rainfall is 704.69 millimeters. Months of May and June could most appropriately be called hot months while December and January are most appropriately the cold months.

Economic Resources

Agriculture is the main source of livelihood for the Gond dominated people of Dindori. Rice and wheat are the main crops grown year after year.

Flora And Fauna

Dindori district has dense forest area covering 17,756 hectares which is 23.76% of its total geographical area. The quality of timber trees par excellence are grown in the district. The Sal trees are also grown most luxuriantly in Sandy soil, especially in Dindori tahsil. The Sal grows straight and rises to a height of 90 feet with a girth (belt) of 14 or 15 feet. In the mixed forest there are Saj, amla and other yellow grass which takes place in open areas. The other timber trees are teak, tendu,tinsa etc. grown all over the district. In addition of this, Dhawda, Bija, Lencha, Hardu and Koha are common trees found throughout the district. The most beautiful flowering trees are Kachnar, Amaltas, Choila or Palas commonly spread everywhere on the scene of the district. The main fruit trees of the district included Harra, Bahera, Mahua, Khamar, Jamun, Char or Achar, Fig, Pipar, Nim, Imli, Tendu, Mango, Ber and plum. Bamboo is rarely available in the district.

Dindori district has dense forest and excellent grazing fields where herbivorous species are available in plenty and consequently carnivorous species are also available and that's why the district is known as one of the best shooting regions in India. Tiger, panther species (chita, chitwa, tendua or gulbag), wild dogs (bankutta) and bear are common and spread all over the district. Peacocks, partridge quail and squirrels are mostly killed by animals like, wolf, jackal, fox, hyena, jungle-cat etc.

The bison (banboda, banbhaisa or pagari), deer and antelope (Barasingha, Lal Sambhar, Sambhar), Chittal (sprotted deer), Sambhar, barking deer (gutri, Kotri) the nilgai (blue-bull), Langoors, red mouth monkey etc. are herbivore's species found in plenty in the district forest.

Agriculture

45.77 % of the population of the district depends on agriculture. Wheat, paddy, maize, kodo-kutki, ramtil, mustard, masoor, matar, gram, alsi, soyabean, etc; are the main crops in which wheat sown in 31,749 hectares, rice 69,269 hectares, maize 18,142 hectares, til in 197 hectares, soyabean in 5,798 hectares were sown in the district. During the year 2009, the total crop sown area was 1,924 hectares.

Among the crops rice was sown in 69,269 hectares, wheat in 31,749 hectares, jowar in 120 hectares, maize in 18,142 hectares were sown. In addition to pulses, gram in 7,550 hectares, tuar in 3,742 hectares, urad 3,277 hectares and other pulses in 41,550 hectares. Total oil seeds of all types sown in 53,543 hectares.

Irrigation

Wells, tanks and embankments made by the cultivators are the other sources. Sandy rice lands and the black soil of the district are suitable for wheat. Cultivation of the district fully depends upon the rain. As per village papers only 1,572 hectares of land was irrigated which was 0.75 % of the total lands of the district. More area will be irrigated after work in ten tanks i.e. Gwara, Bargi, Ramnagar, Kachhari, Pakhatola, Gorakhpur, Rachcho Shurra Kalinger and Chatuaare completed.

Animal Husbandary

A cattle rearing plays an important role in the source of livelihood. It is the back bone of the cultivators. The bullocks are bred and sold by the Gonds due to ampleness of unlimited grazing available in a large part of the district. As per figures of year 2009, 47,969 cows, 180 sheep's, 58,631 goats, 3,140 horses and ponies and 7,942 pigs. Milk, Curd, butter, and ghee are prepared and sold from cattle.

Land Use

Out of total land of 747,000 hectares, 12,224 hectares were agriculture land where paddy, wheat, maize, Kodo-Kutki, Ramtil, mustard masoormater, gram, alsi and soyabean are cultivated. Total irrigated land was only 1,572 hectares which was 0.75% and un-irrigated land is 273,082 hectares which was 73.53% of total land of the district. The forest land is 17,756 hectares and non-agricultural land was 38,646 hectares.

Mines

Dindori District is hilly and plateau area, Bauxite and laterite are mainly found in major minerals in the district. Among minor minerals sand and stone for ballast are found in the district.There are no major mineral mines operating in Dindori district. A mine of bauxite mineral from the government level has been allotted to the successful tenderer through auction. Prospecting work for the preparation of another bauxite mineral blocks is being done by the Regional Office, Directorate of Geology and Mining, Jabalpur and GSI in the district.

Fishery

Dindori district is not rich in water resources, rivers are also not perennial. The Khusha, saur, rohu, nain, karot, bam, gegra and kalia fishes are fairly common and available in good quantity especially in the month of June-July and OctoberNovember during the beginning of rain and during month of cold when Narmada floods and comes down in spate. Innumerable fish of all sizes and types comes through water current and as soon as the flood begins to sub side the fishes are obtained by local Baigas and Dhimers communities of the district.

Industry and Trade

Dindori district is back-ward from the point of view of industry. There is a neither major nor medium industry in the district. Registered Small scale industries were 254. The main exported items from district are wheat, rice, gram, ramtil, soyabean and fire wood, while main products are iron-works bell, metal, ghee and fire-wood. Common importing items are kerosene oil, turmeric, cloth, salt, sugar, spices, coconuts and iron.

Transport And Communication

No part of the district is connected with rail line. To reach-state capital, it is necessary to reach divisional headquarter Jabalpur by covering 144 kms on National highway. The tehsil headquarters of the district are connected by pucca road. Pucca roads are 2,299.09 kms and kachha roads 1,433.87 kms. Some parts are still having herds of pack-bullocks used by Banjaras. Dindori is 104 kms from Mandla, the old district headquarters and 88 kms.from holy place Amarkantak.

Electricity And Power

There is no production of electricity in the district. The consumption of industrial units was 3.49 thousand kwh. The domestic consumption was 200.69 thousand kwh. Out of 924 villages, 860 villages are electrified, which forms 93.07% as pre year 2009-2010 in the district. During the year 2009-10, the consumption for industrial units was 30,300 KW., domestic consumption was 176,530 K.W., trade 2,458 K.W., water supply 20,100 K.W., irrigation 19,000 K.W. and street light was 17,800 K.W. Altogether total consumption of electricity was 266,188 K.W. and number of consumers were 45,390 as such per head consumption was 45,894 K.W. 845, out of 895 villages were electrified which was 94.41 % of total villages.

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CHPATER -4

GEOLOGY OF THE DISTRICT

4.1 Geology

Mandla and Dindori, the two districts which were bifurcated from the original Mandla district, are situated in the south eastern part of Madhya Pradesh and cover an area of 13269 sq. km. they fall in Survey of India's degree sheet Nos. 64A, B, E, F, 55M and N between latitudes $22^0$12':$23^0$22'20"N and longitudes $79^0$57'23":$81^0$44'21"E. they are bounded by Jabalpur District on the north west, Shahdol District on the north east, Seoni District on the south west, Balaghat District on the south and Kawardha and BilaspurDisricts of Chhattisgarh State on the south east. Mandla and Dindori, the two district headquarters are situated in the south western part and the north eastern part of area respectively, Shahpura, NiwasMahadwani, Narayanganj, Kisalpur, Chabi, Ghughri, Pindrai, NainpurBichhiya, Samnapur, Sarastal and Gorakhpur are some of the maj0or towns in the districts. Jabalpur-Gondia Extension (0.76m gauge) of South Eastern Railway passes through the south western extent of the Mandla district and Mandla Branch (0.76m gauge) of South Eastern Railway connects to the Mandla city. All important places within the districts are well connected by a network of state highways and all weather roads.

Physiographically, a major part of the districts exhibit region of middle level plateau of extrusive origin with few high level plateau in the middle northern, western and eastern parts. The other landforms are structural plains, structural hills and valleys, denudationalpateauxdenudationalslpes, pediment/pediplain in the southern part and flood plain (including in-filled riverbeds)along the course of Narmada River in the western part. A major part of the districts is occupied by the Narmada basin consisting the north eastern part of Son sub-basin and south western (Wainganga sub-basin) & south eatern extent (Seonath sub-basin) of Godavari basin Narmada River originating from Amarkantak in Shahdol District forms the north eastern boundary of the Dindori District. It takes a U-turn and also forms boundary in the western part of the Mandla district. Narmada and its tributaries Banjar, Burhner, Seoni, Silgi etc. drain most of the area. Mahanadi River seems to have originated from the northern part Mandla District at Ghughuwa village. The maximum elevation in the area is 1100m above mean sea level as recorded in the eatern most part of Dindori District while the minimum elevation of 445m above mean sea level is noted near Nainpur in the south western part of Mandla district. The general gradient of the area is towards east.

Rock formations ranging in age from Archaean to Quaternary are exposed in these districts. The oldest rocks in the area are represented by Tirodi gneissic Complex of Archaean to Palaeo Proterozoic age (<2500-2200 m.y.) which are exposed in the southern part of Mandladistrict. The Tirodi Gneissic complex comprises grey and pink granitic gneiss migmatite, biotite gneiss, biotite schist and para-amphibolite.

Sausar Group represented by Bichua, Junewani, Chorbaoli and Mansar formations of Meso Proterozoic age (2000-1600 m.y.) is exposed in the southern part of districts. Mansar Formation comprises biotite schist, gametiferous quartz-biotite schist, muscovite-biotite schist and phyllonite. Chorbaoli Formation comprises quartz-mica schist, hornblende schist, mica-schist,

quartzite and phyllite. Junewani Formation comprises various types of schists, feldspathised acid granulite, gneisses and amphibolites. Bichua formation comprises marble and tremolitic dolomite with intercalations of phgyllite and slate. The Sausarmetasediments have been subjected to extensive granitisation and migmatisation. Remnants of metasediments in various stages of assimilation have been recorded. The Granitic gneiss exposed 8 km south east of Bichhiya exhibits gneissic trend which conforms with the trend of lith unit No. 7 of Junewani formation and appears to be the product of granitisation of Sausar meta-sediments.

Three types of intrusive granites of Meso Proterozoic age are delineated within Tirodi gneissic complex terrain. They are grey granite, pink granite and leucocratic tourmaline granite. Pink granite is considered younger than grey granite in the statigraphic position because of coarser grain size and potash enrichment than grey granite. Leucocratic tourmaline granite contains appreciable amount of tourmaline and shows golden yellow colouredmica(Zinnwaldite, a variety of Lepidolite Mica). The quartz veins/reefs and pegmatite veins are restricted to archaean - Proterozoic terrain and basic dykes of doleritic composition are seen in all formations.

Lameta group of Cretaceous age (136-65 m.y.) is exposed in the southern part and lies unconformably over the Archaean-Proterozoic rocks. Its thickness varies from 1m to 6m. it comprises sandy limestone, arkosic sandstone, calcareous and conglomeratic sandstone and clay at places.

The northern and central part of the area is occupied by Deccan trap basalts of Amarkantak Group of Cretaceous to Palaeogene age (65-60m.y.). It consists of a sequence of 22 basaltic lava flows of "Aa", simple and compound "Pahoehoe" type with a cumulative thickness of 400m. the flows represent a sequence of cyclic eruptions, Amarkantak Group is classified into four formations-Mandla, Dhuma, Pipardehi and Linga on the basis of porphyritic nature of individual flows and presence of intertrapppean beds. Mandla- the Oldest Formation comprises seven simple to compound"Pahoehoe" basaltic lava flows. Dhuma formation comprises eight "Aa" to Pahoehoe" basaltic lava flows. Dhuma Formation comprises eight "Aa" to Pahoehoe" flows.Pipardehi formation comprises three highly porphyritic flows. Linga Formation comprises four non-porphyritic flows.

The high level plateaux of Deccan traps in the eastern part is often capped by laterite of Cainozoic age (70-<1m.y.). Laterite is also seen at few places in the south eastern, middle and northern parts of area. The laterite shows variation in colour from cherry red to whitish brown. It also exhibits pisolitic, botryoidaal and tube structures. The laterites occurring in the eastern part of the area contain small pocket bauxite deposits which are being mined by various agencies.

Alluvial deposits of Quaternary age (<1m.y.) occur along the course of Narmada River in the north western part and comprise fine to coarse sand, silt and clay with gravel beds.

As Deccan trap occupies a major part of the districts, there are no significant economic mineral deposts except bauxite. Bauxite occurrences as small pockets within the laterite are reported at HazariDadar, BangiaDadar, DaikribandaPahar, ChikmiDadarPondibahraPaharKhamera and Khapripani area. mineralization of copper in

quartz-biotite schist is reported at Attarchua, Imaliatola and south of Lalpura in the southern part of districts. Limited occurrences of dolomite are reported from BhanwartalKakaiya, south of Dhamangaon and north east of Samya in the south western part of Mandla district. Thermal spring of feeble discharge with temperature around 38 degree C is reported near Chiraidongri which is 15 km NNE of Mandla city. Pink granite, hard migmatites and granitic gneiss exposed in the southern part of districts can be used as dimension stones. Biotite schist can be used for roofing and flooring. Deccan trap can be used as construction material for building and roads.

LITHOLOGY	***STRATIGRAPHIC STATUS***				***AGE***
Alluvium					*Quaternary*
Laterite					*Cainozoic*
Basic dyke					
Non-porphyritic basaltic	*Linga*	*A*		*D*	
Lava flow (4flows)	*formation*	*M*	*G*	*E*	
Highly porphyritic basaltic	*Piparadehi*	*A*	*R*	*C*	*Cretaceous*
Lava flow (3flows)	*formation*	*R*	*O*	*C*	*to*
Aa and compound Pahoehoe	*Dhuma*	*K*	*U*	*A*	*Paleogene*
Basaltic lava flow (8flow)	*formation*	*A*	*P*	*N*	
Simple to compound 'Pahoehoe'	***Mandla***	*N*		*T*	
Basaltic lava flows (7flows)	*formation*	*T*		*R*	
Basaltic lava flows with	*Unclassified*	*A*		*A*	
Intertrappeans		*K*		*P*	

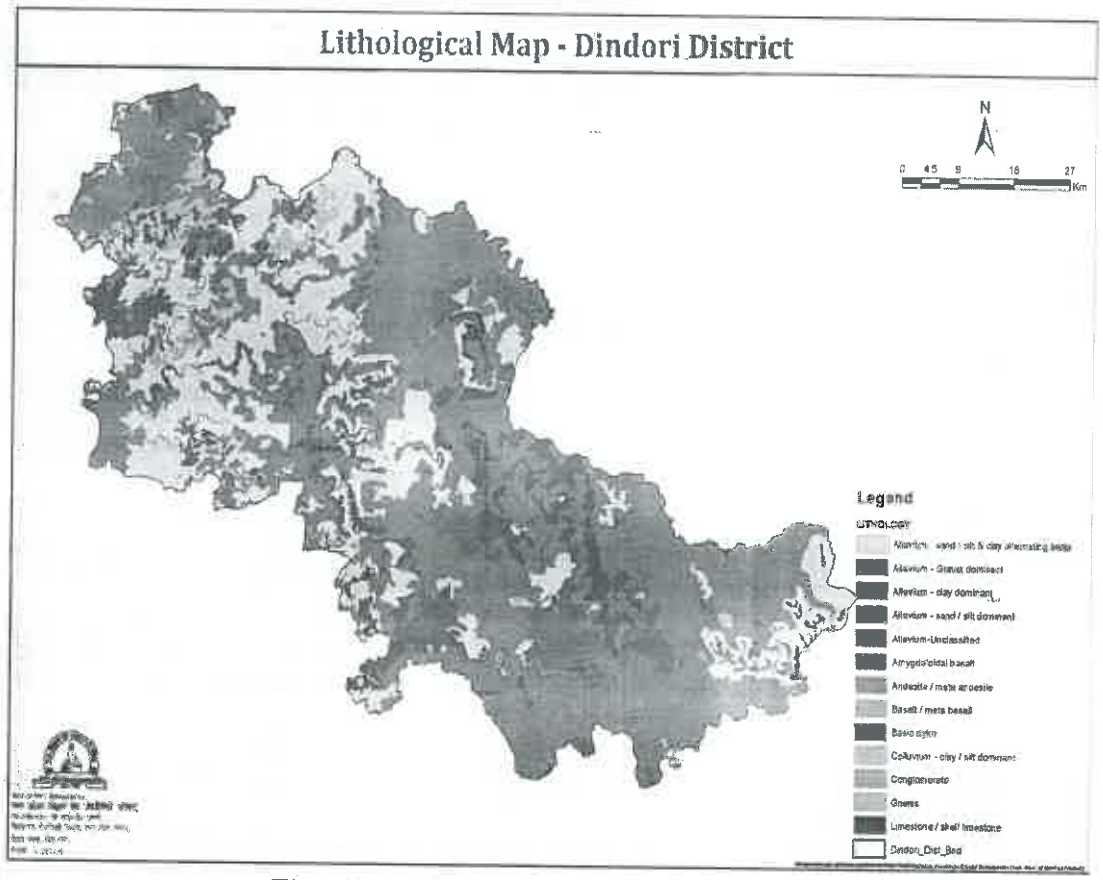

Fig : Map Showing Lithology of Dindori District

4.2 Mineral Resources

Dindori District is hilly and plateau area, Bauxite and laterite are mainly found in major minerals in the district. Among minor minerals sand and stone for ballast are found in the district.There are no major mineral mines operating in Dindori district. A mine of bauxite mineral from the government level has been allotted to the successful tenderer through auction. Prospecting work for the preparation of another bauxite mineral blocks is being done by the Regional Office, Directorate of Geology and Mining, Jabalpur and Geological Survey of India in the district. At present 07 mines of sand minerals are declared of minor minerals. 51 stone quarries for ballast are present in the district. In minor minerals sand, and stone for ballast are found in abundance in the district.Total mineral holding area of minor mineral is 73.81 ha. approximately in district.

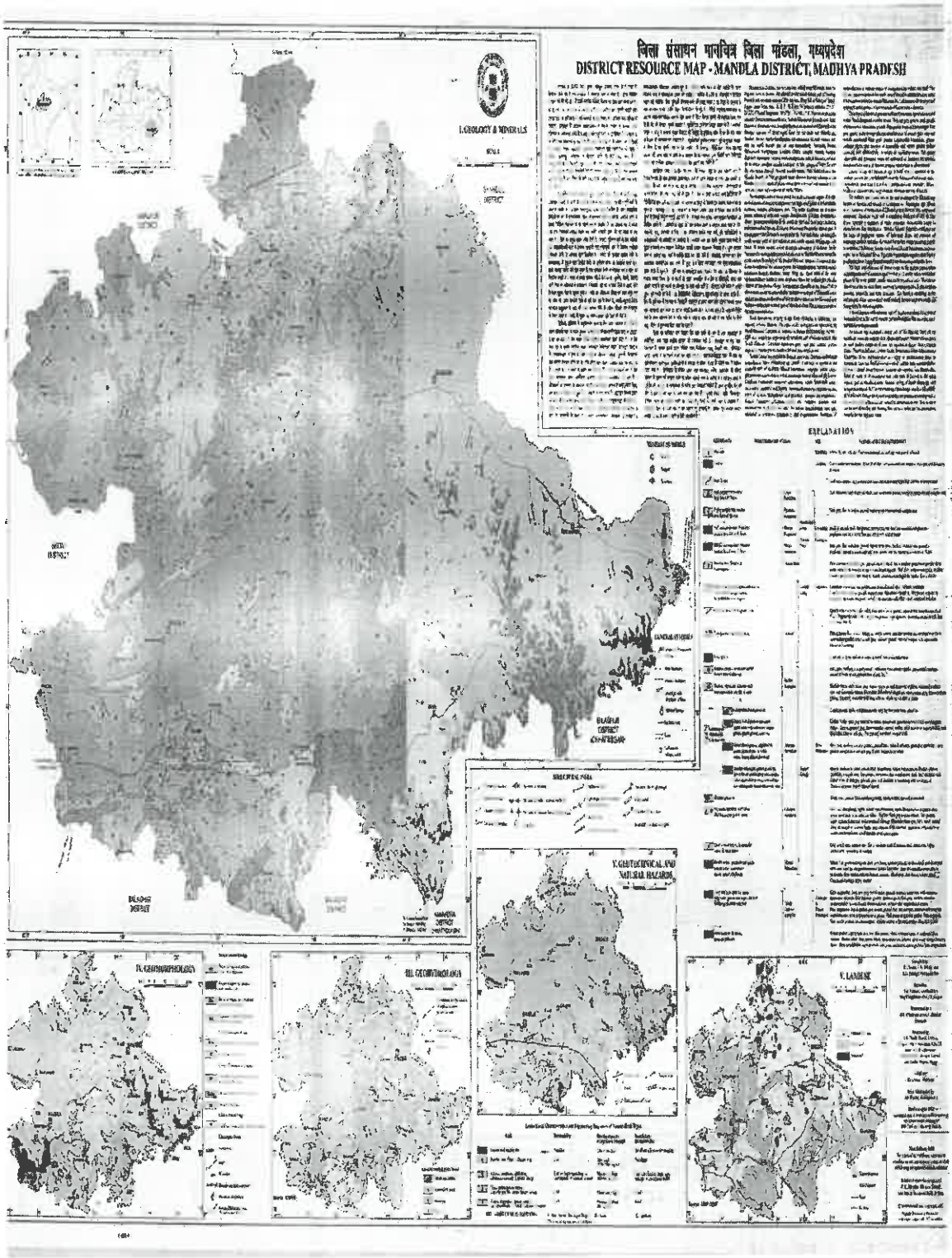

Fig : Map Showing District Resource map of Dindori

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CHPATER -5

DRAINAGE OF IRRIGATION PATTERN

Dindori district comes under Narmada basin. Narmada is an important river of the country, which flows from east to west and joins the Arabian Sea. Apart from the Narmada river, the rivers flowing in the district are Tulad, Seoni, Macharar, Kutrel, Kharmer, Kanhai, Silgi, Chakrar, Dandana and Budner. The drainage area of the rivers flowing in the district including Narmada river is as follows:-

S. No.	Name of River	Area Drained (Sq. km.)	% Area Drained
1	Narmada	7.385	16 %
2	Tulad	0.108	100%
3	Seoni	0.572	100%
4	Gomati / Machrar	0.276	100%
5	Kutrel	0.162	100%
6	Kharmer	1.587	100%
7	Kanhai	0.722	100%
8	Silgi	1.44	100%
9	Chakrar	0.756	100%
10	Dandana	0.728	100%
11	Budner	0.52	50%

➢ **Source: WRD Dindori**

There is no major irrigation project in Dindori district. There is some medium irrigation projects like Bilgaon Dam and small projects like Dindori, Rahangi, Raipura, Lakho, Jamuniya, Sarastal, Tikra Reservoir, Ghanaghat Reservoir, Dhurra Reservoir, Lamantola Reservoir, Nagdaman Reservoir etc. are located in the district. Irrigation in Dindori district is mainly done through canals. There are two types of canals in the district, main and tributary canals, whose total length is 512.54 km. In which the length of pucca canals is 259.82 and the length of raw canals is 252.72 km.

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CHPATER -6

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

District Dindori is a rural and tribal dominant district. Out of the total population 95% lives in rural area and 65.33% area tribal i.e. *Baiga, Koal, Pardhan, Dhula, Bhoomia* and *Agaria* tribes. *Bahu Lamsena, Jadoo-Tona, Jhada-Phooki* and Alcoholism are co tradition of their life. Badadev is the main god of tribes. The economy of the district depends on forest produce and agriculture. The 37.32% area of the district is covered by Sal forest. Minor forest produce like Patt, mahuline patta, harra-bahera-aonla & char is collected every year. Irrigation facilities are not adequate. Only 1569 Hectare land is under irrigation. Dhan, Makka, Kodo, Kutki & Oil seed Ramtilla (Jagni) are main crops. Due to primitive agricultural practices production rate is very low. There is no industrial area in the district and not even a single industry exists. Overall, the economy of the district is very poor and per capita income is very low.

Table : Land use Pattern in Dindori District

Type of Area / Land	Area (in Hectare)
Geographical Area	747000
Net Sown Area	240000
Area Under Forest	240112
Fallow Land	30000
Waste Land	15000

6.1 Agricultre

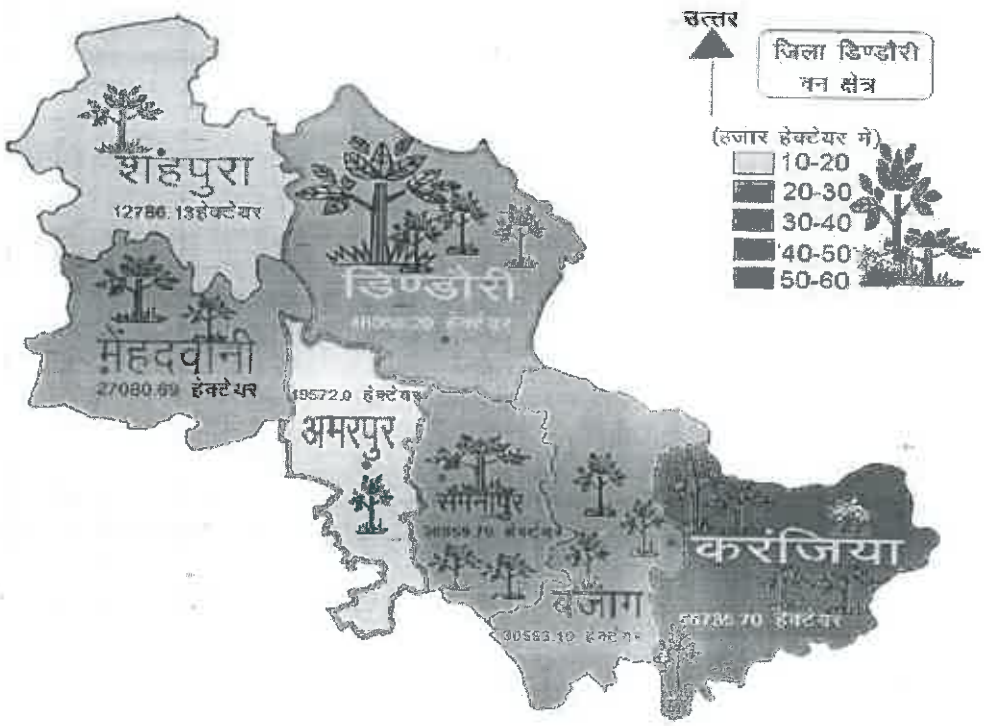
In Dindori district, the total geographical area is 7470 square kilometer, the net agricultural area is 240000 ha. It includes both Rabi and Kharif crops. 137500 ha Rabi and 220500 ha. Kharif crop is sown in the area. About 15 percent of the total agricultural area comes under irrigated area. The number of marginal farmers in the district is 68458, the number of small-farmers is 32186, the number of medium farmers is 24148, and the number of large farmers is 16896. The main sources of irrigation are canals and ponds. The major crops are Kodo, Kutki, Sama, Paddy, Wheat, Gram etc.

6.2 Horticultre

From the point of view of horticulture in Dindori district, the total area is about 4187 ha. In which variety of products like fruit area is 446.00 hectare, greens/vegetables 3161 hectare, spices 499.00 hectare. and medicine 9.00 ha. are produced in the area.

6.3 Forest

Dindori district is divided into two forest divisions, production and general forest division areas. The total forest area in the district is 240112.85 ha. Under the total forest area, the reserved forest area is 228373.940 ha, the protected forest area is 2256.080, and the unclassified forest (orange forest) area is 9482.830 ha. There are 9 forest ranges in the district - Dindori, Shahpur, Amarpur, Samnapur, Bajag, Karanjia, Gadasarai, Shahpura, Mehdwani. Sal tree is abundant in good quality timber trees in the district.



6.4 Mining

Dindori District is hilly and plateau area, Bauxite and laterite are mainly found in major minerals in the district. Among minor minerals sand and stone for ballast are found in the district.There are no major mineral mines operating in Dindori district. A mine of bauxite mineral from the government level has been allotted to the successful tenderer through auction. Prospecting work for the preparation of another bauxite mineral blocks is being done by the Regional Office, Directorate of Geology and Mining, Jabalpur and Geological Survey of India in the district. At present 07 mines of sand minerals are declared of minor minerals. 51 stone quarries for ballast are present in the district. In minor minerals sand, and stone for ballast are found in abundance in the district.Total mineral holding area of minor mineral is 73.81 ha. approximately in district.

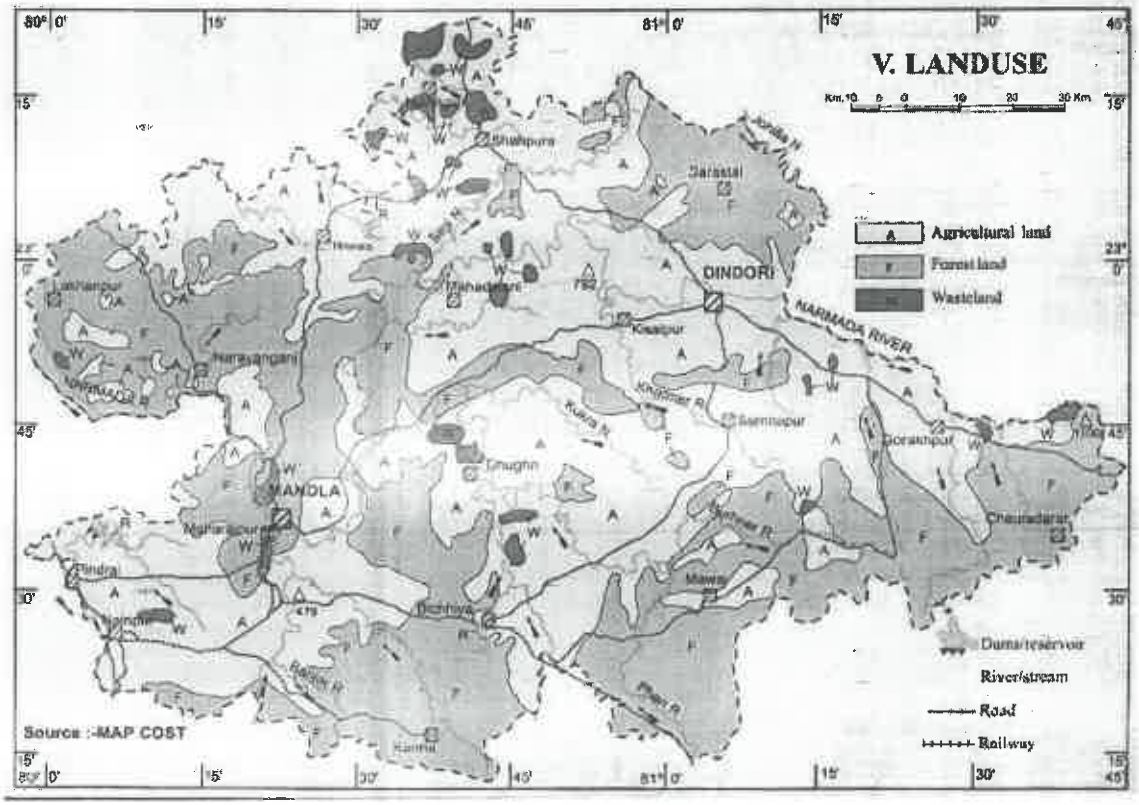


Fig : Land Use/ Land Cover Map of Dindori District

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CHPATER -7

SURFACE WATER AND GROPUND WATER SCENARIO OF THE DISTRICT

7.1 Surface water

Rivers are an important source of surface water, but their water becomes impure due to industrial and domestic waste water, agricultural water flow. An important source of surface water in Dindori district is the Narmada river, which originates from Amarkantak. In Dindori district total population is 4.6% of urban population and 95.4% of rural population and population density is 94 per sq.km. Like other rivers, Narmada river also has to face the sources of pollution in Dindori district.The absence of a sewage treatment plant in the district makes the river vulnerable to sewage pollution. According to the data, the water quality index of pre-monsoon and post-monsoon surface water is as follows:-

District	Pre-monsoon		Post-monsoon	
	Calculated WQI	Water Quality	Calculated WQI	Water Quality
Dindori	74.9	Good	73.2	Good

7.1 Surface water

There are 4 distinct water bearing formation in the area which are as follows :

(i) Alluvium
(ii) Basaltic lava flows (Deccan trap)
(iii) Inter trappean/infra trappean bed
(iv) Granite

The nature and extent of aquifer and its continuity shows wide variation as the formation exhibits four separate episode of tectonic activity with development of fairly persistent intertrapean bed.

Alluvium : Alluvium covers area along Narmada river. The ground water is alluvium generally occurs under unconfined condition at shallow depth (upto 22 mbgl). Alluvium comprises clay, silt and gravel/pebbles and fine to medium grain. Granular zone occurs at 16.0 to 18.0 m bmgl. The nature of gravel and fine sand exhibits its origin from grainitic terrain.

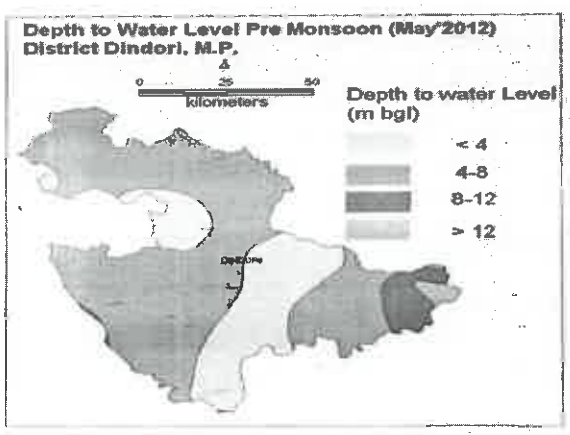
Deccan traps: Basaltic lava flows is the main water bearing formation of the area. Each individual basaltic flows shows lot of variation in lithological and structure features, which influence occurrence, movement and recharge of ground water in the area. These laterally and vertically variation in characteristic in basaltic flow give rise to varying degree of ground water productivity. Degree of weathering and topographic setting plays major role in respect of productivity of wells. In basaltic formation ground water occurs in weathered mantle, joints, fractured and other similar zone of weakness. The basaltic flow unit shows vertical variability in permeability. The inter flow zone between two basaltic flows at depth act as conduits for ground water flows. Ground water is basalt occurs under confined to semi confined and unconfined conditions.

Water Levels

Ground water levels form a very important parameter of the ground water system. The groundwater balance expresses itself in the change in water levels; hence a continuous record is important and useful. CGWB has 18 National Hydrograph Monitoring wells and 3 Peizometers in Dindori district.

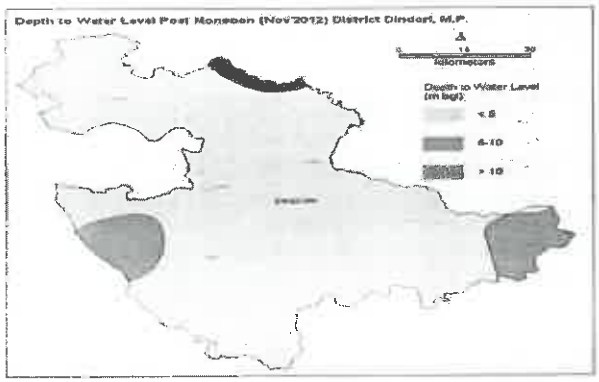
Pre Monsoon Depth to Water Level (May-2012)

In general depth to water level in the area ranges from 3.15 to 12.35 m below ground level. However, in major part the depth to water level is less than 8 mbgl. Shallow DTW of less than 4 mbgl are observed in considerable area in central part. Deeper DTW of more than 12 mbgl are observed in small area in north eastern part.



Post Monsoon Depth to water level (November-2012)

In general, during post-monsoon period, depth of water levels in the district ranges between 0.52 and 7.50 m below ground level. However, in major part the depth to water level is less than 5 mbgl.



➤ **Source:** http://cgwb.gov.in/District_Profile/MP/Dindori.pdf

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CHPATER -8

RAINFALL OF THE DISTRICT AND CLIMATIC CONDITIONS

In Dindori district summer normally starts from April and continues till end of June. April and May are severe hot months, when the summer season is at its peak. Winter normally starts from mid November and continues till end of February. December, January and February are cold months, when the winter season is at its peak. In March climate in most parts of the district are on its bloom because of the spring. The nights are colder. Rainy season generally starts from beginning of July and extends up to the mid September. Autumn season is generally very small from mid September to mid November. The extended rainy season is the reason for its short duration. Minimum temperature in the higher reaches goes down to 2°C-3°C during the winter months. The maximum temperature in the lower areas exceeds even 45° C during the peak summer month. The average rainfall in the district is nearly 1450.00 mm. Generally Block Shahpura receives highest rainfall of average of 1320.00 mm, whereas block Bajag receives least rainfall in the district of average 990.00 mm.

Average Rainfall : 1450mm

Average Maximum Temperature: 43.6°C

Average Minimum Temperature: 3.1°C

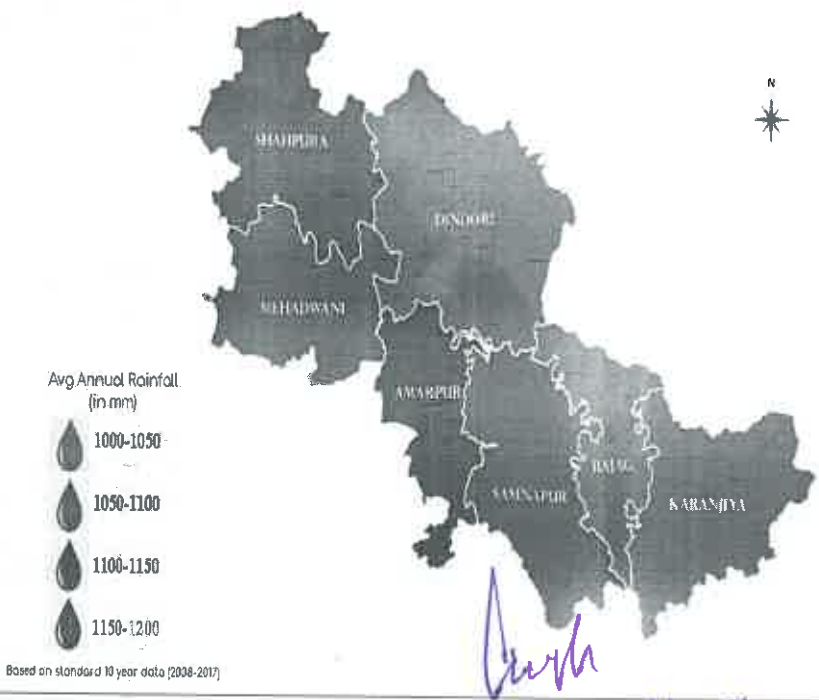

Table : Monthwise Rainfall of Dindori District for the Year 2018-19 & 2019-20

(From 1st June to 31st May)

S. No.	Month	Rainfall (in mm.)	
		Year 2018-2019	Year 2019-2020
1	June	142.7	90.0
2	July	452.6	371.6
3	August	332.3	435.3
4	September	142.2	431.7
5	October	0.03	30.6
6	November	0.4	0.0
7	December	0	13.3
8	January	11.3	31.7
9	February	0.3	21.0
10	March	19.0	79.3
11	April	2.5	14.4
12	May	6.0	19.0
Total	**Total Rainfall**	**1109.6**	**1537.9**

➢ **Source: Land Record Office Dindori.**

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

S No	Name of mineral	Name of Lessee & Address	Contact No. of Lessee	Mining lease Grant Order No. & Date	Area of Mining Lease	Peroid of Mining Lease (Initial)		Peroid of Mining Lease (!st/2nd renewal)		Date of Commence-ement of mining operation	Status (Working/Non-Working/ Temp. Working)	Captive/ Non-Captive)	Obtained EC(Yes/No), If Yes Letter No with Date of Grant of EC	Location of the Mining Lease	Method of Mining(Opencast/Underground)
						From	To	From	To						
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	Stone	Smt. Kiran Siani w/o Jasvir Saini, Main road Dindori Tah. & Distt Dindori MP	7566434852	290 / 16.05.2018	1.00	02.08.2008	01.08.2018	02.08.2018	01.08.2028	26.10.2010	Working	Non-Captive	2323/SEIAA/16 Dated 02.07.2016	22°58'4.60"N 81°4'23.91"E 22°58'5.83"N 81°4'28.55"E 22°58'3.90"N 81°4'29.59"E 22°58'3.76"N 81°4'28.15"E 22°58'2.48"N 81°4'28.03"E 22°58'2.39"N 81° 4'26.11"E	Opencast
2	Stone	Shri Ramesh Purushwani s/o Kishanchand Ward No. 7 Birsingpur Pali Distt Umaria	8770353116	706 / 11.01.2011	2.00	28.01.2011	27.01.2021	—	—	31.03.2011	Non-Working	Non-Captive	188 / डिया / खनि / 16 18.08.2016	23°14'25.32"N 80°59'5.99"E 23°14'27.79"N 23°14'27.79"E 23°14'21.53"N 80°59'13.57"E 23°14'19.71"N 80°59'11.34"E	Opencast
3	Stone	Smt. Pushpa Thakur w/o Krishnakumar Vill Khirsari Tah. & Distt Dindori MP	9589176944	214 / 31.08.2016	1.00	02.11.2011	01.11.2016	02.11.2016	01.11.2021	05.04.2012	Non-Working (LOI has been issued vide letter dated 28.02.21	Non-Captive	64 / डिया / खनि / 16 26.05.2016	22°55'6.59"N 81° 4'20.69"E 22°55'6.09"N 81° 4'22.50"E 22°55'5.10"N 81° 4'22.29"E 22°55'5.15"N 81° 4'24.87"E 22°55'6.83"N 81° 4'25.03"E 22°55'8.26"N 81° 4'21.00"E	Opencast

4	Stone	Shri. Bharat Singh s/o Sumer Singh Vill. Lukampur Tah. & Distt Dindori MP	9753403951	243 / 19.09.2016	0.91	11.11.2011	10.11.2016	11.11.2016 (1st) 11.11.2021 (2nd)	11.11.2026	26.05.2012	Working	Non-Captive	104 / डिया / खनि / 16 21.06.2016	22°56'50.45"N 81° 5'51.09"E 22°56'48.57"N 81° 5'53.12"E 22°56'50.37"N 81°5'59.26" E 22°56'53.59"N 81° 5'56.88"E 22°56'53.93"N 81° '55.81"E	Opencast
5	Stone	Ma Sharda Stone Crusher Pro. Baburam Chouhan Vill. Sarhari Tah. & Distt Dindori MP	8120858951	424 / 10.01.2017	1.00	13.03.2012	12.03.2017	13.03.2017	12.03.2027	08.08.2012	Working	Non-Captive	829 / डिया / खनि / 17 25.07.2017	22°54'2.72"N 81°10'6.42"E 22°54'1.70"N 81°10'12.93"E 22°54'0.73"N 81°10'13.07"E 22°53'59.03"N 81°10'9.66"E 22°53'59.45"N 81°10'6.59"E	Opencast
6	Stone	Shri. Udaynarayan Sachan s/o Makhanlal Vill. Jhanki Tah. & Distt Dindori MP	9926110760	520 / 03.03.2017	2.00	24.08.2007	23.08.2012	24.08.2012 (1st) 24.08.2017 (2nd)	23.08.2017 23.08.2027	24.08.2007	Working	Non-Captive	667 / डिया / खनि / 13 01.05.2013	22°42'53.55" N 81°6'14.80"E 22°42'52.23" N 81°6'16.35"E 22°42'47.22" N 81°6'13.77"E 22°42'46.29" N 81°6'15.75"E 22°42'45.94" N 81°6'15.93"E 22°42'45.67" N 81°6'16.37"E 22°42'45.43" N 81°6'16.58"E 22°42'43.34" N 81°6'16.00"E 22°42'43.68" N 81°6'14.68"E 22°42'44.75" N 81°6'14.93"E 22°42'45.05" N 81°6'14.72"E 22°42'45.61" N 81°6'14.70"E 22°42'45.78" N 81°6'11.40"E 22°42'47.46" N 81°6'11.54"E 22°42'48.72" N 81°6'12.46"E 22°42'49.69" N 81°6'12.03"E	Opencast

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7	Stone	Shri. Arpit Nayak s/o Manganlal, Dindori Tah. & Distt Dindori MP	8349911777	19427.28 / 15.10.14	1.00	31.10.2014	30.10.2024	--	--	28.05.2017	Working	Non-Captive	201 / डिया / खनि / 16 22.08.2016	2°55'33.34"N 81°1'44.18"E 2°55'33.25" N 81°1'50.15"E 2°55'35.57" N 81°1'49.19"E 2°55'35.32" N 81°1'45.62"E 2°55'36.45" N 81°1'43.72"E	Opencast
	Stone	Ashok Chhabra s/o Trilok Chhabra, Dindori Tah. & Distt Dindori MP	9981357786	703 / 28.11.2015	1.30	08.12.2015	07.01.2025	--	--	20.05.2015	Working	Non-Captive	56 / डिया / खनि / 16 20.05.216	2°56'18.80" N 81°6'38.93"E 2°56'2.18" N 81°6'40.41"E 2°56'23.40" N 81°6'42.92"E 2°56'18.27" N 81°6'41.82"E	Opencast
	Stone	Shri. Rajesh Mardan s/o Chandrabhan Purani Dindori Tah. & Distt Dindori MP	9575435137	10 / 06.01.2016	1.00	19.01.2016	18.01.2026	--	--	01.03.2019	Working	Non-Captive	102 / डिया / खनि / 16 21.06.2016	2°53'11.86" N 80°57'23.55"E 2°53'13.97" N 80°57'18.56"E 2°53'12.05" N 80°57'17.53"E 2°53'10.74" N 80°57'21.90"E 2°53'9.40" N 80°57'21.50"E 2°53'9.04" N 80°57'22.80"E	Opencast
10	Stone	Shri. Prakash Kumar Rai s/o Ajab Singh, Samnapur Tah. & Distt Dindori MP	7772020521	774 / 27.01.2011	1.00	05.02.2011	04.02.2016	05.02.2016	04.02.2021	08.03.2011	Working	Non-Captive	54 / डिया / खनि / 16 20.05.2016	22°42'26.79" N 81°7'7.11"E 22°42'30.50" N 81°7'8.70"E 22°42'31.39" N 81°7'5.07"E 22°42'27.61" N 81°7'4.72"E	Opencast
11	Stone	Shri. Naval Singh s/o Ramesh Singh, Punari Dindori Tah. & Distt Dindori MP	9755898703	70 / 04.02.2016	2.00	11.03.2016	10.03.2026	--	--	19.01.2017	Working	Non-Captive	100 / डिया / खनि / 16 15.06.2016	22°54'17.99" N 81°1.56.17"E 22°54'24.06" N 81°1.58.94"E 22°54'22.10" N 81°2.1.13"E 22°54'15.53" N 81°1.59.49"E	Opencast

12	Stone	Ma Bhawani Stone Crusher Pro. Bharat Singh s/o Sumer Singh Vill. Lukampur Tah. & Distt Dindori MP	9753403951	115 / 24.06.2016	2.25	07.09.2016	06.09.2026	–	–	01.09.2016	Working	Non-Captive	104 / डिया / खनि / 16 21.06.2016	22°57'3.57" N 81°6.22.61"E 22°57'8.30" N 81°6.23.10"E 22°57'11.95" N 81°6.30.15"E 22°57'7.49" N 81°6.30.16"E	Opencast
13	Stone	Smt. Saroj Marawi w/o Rajkaran Marawi Vill. Tikariya Tah. & Distt Dindori MP	7067985073	11190.91 / 04.07.16	2.00	04.10.2016	03.10.2026	–	–	04.10.2016	Non-Working (By Order Dated 25.03.22 Lease has been Cancelled)	Non-Captive	213 / डिया / खनि / 16 30.08.2016	23° 4'22.05"N 80°55'8.61"E 23° 4'21.95"N 80°55'9.36"E 23° 4'19.42"N 80°55'8.98"E 23° 4'18.95"N 80°55'10.32"E 23° 4'12.38"N 80°55'10.91"E 23° 4'12.75"N 80°55'6.99"E	Opencast
14	Stone	Shri. Manoj Barman s/o Hirala Barman, Samnapur Tah. & Distt Dindori MP	9340689160	57 / 20.05.2016	1.00	09.06.2016	08.06.2026	–	–	05.10.2017	Non-Working (By Order Dated 11.01.22 Lease has been Cancelled)	Non-Captive	70 / डिया / खनि / 16 31.05.216	22°44'11.22" N 81°5'21.77"E 22°44'10.39" N 81°5'23.70"E 22°44'5.43" N 81°5'21.58"E 22°44'8.31" N 81°5'20.34"E 22°44'5.79" N 81°5'19.97"E	Opencast
15	Stone	Shri. Mannu Singh s/o Doman Singh Vill. Khirsari Tah. & Distt Dindori MP	9424341126	389 / 30.12.2016	1.00	04.02.2017	03.02.2027	–	–	25.03.2017	Working	Non-Captive	क्यू / डिया / खनि / 17 17.07.2017	22°55'12.45"N 81° 4'16.57"E 81° 4'16.57"E 81° 4'10.30"E 22°55'13.18"N 81° 4'9.92"E 22°55'10.90"N 81° 4'11.92"E 22°55'9.91"N 81° 4'15.87"E	Opencast
15	Stone	Shri. Suraj Prakash Khatri s/o Kishanlal Vill Ranjhi Tah. & Distt Jabalpur	8770768477	415 / 06.01.2017	1.00	17.05.2017	16.05.2027	–	–	20.12.2017	Working	Non-Captive	874 / डिया / खनि / 17 23.08.2017	22°53'16.05"N 80°57'23.20"E 22°53'15.93"N 80°57'22.19"E 22°53'14.26"N 80°57'20.95"E 22°53'15.38"N 80°57'19.33"E 22°53'18.66"N 80°57'20.47"E	Opencast

16	Stone	Shri. Arvind Vishwkarma s/o Shivdayal Vill. Baghraji Tah. Kundam Distt Jabalpur MP	9754812072	594 / 23.03.2017	2.00	30.05.2017	29.05.2027	–	–	09.01.2018	Non-Working (By Order Dated 20.04.21 Lease has been Cancelled)	Non-Captive	868 / डिया / खनि / 17 18.08.2017	23° 3'56.10"N 80°55'35.39"E 23° 3'57.99"N 80°55'27.65"E 23° 3'50.07"N 80°55'30.88"E 23° 3'49.91"N 80°55'32.42"E	Opencast
17	Stone	Shri. Balmukund Thakur s/o Santsingh Vill. Khudiya Tah. & Distt Dindori MP	9977958568	589 / 24.03.2017	1.00	06.06.2017	05.06.2027	–	–	01.04.2018	Working	Non-Captive	878 / डिया / खनि / 17 24.08.2017	22°45'24.26" N 81°1'14.32"E 22°45'21.39" N 81°1'13.39"E 22°45'19.02" N 81°1'11.93"E 22°45'18.93" N 81°1'14.63"E 22°45'21.16" N 81°1'15.33"E 22°45'23.40" N 81°1'16.47"E	Opencast
18	Stone	Shri. Sumit Khanuja s/o Kuldip Khanuja Main road Dindori Tah. & Distt Dindori MP	9425417815	1962 / 09.11.2015	2.00	08.02.2016	07.02.2026	–	–	01.09.2016	Non-Working (By Order Dated 11.03.22 Lease has been Cancelled)	Non-Captive	189 / डिया / खनि / 16 12.08.2016	22°56'2.55"N 81° 3'47.52"E 22°56'2.23"N 81° 3'52.35"E 22°55'59.45"N 81° 3'56.46"E 22°55'57.48"N 81° 3'55.81"E 22°55'58.54"N 81° 3'48.95"E 22°56'1.72"N 81° 3'48.57"E 22°56'1.85"N 81° 3'47.47"E	Opencast
19	Stone	Shri. Bheem Awadhiya s/o Lakhanlal, Narmada ganj Dindori Tah. & Distt Dindori MP	7049065530	667 / 03.05.2017	1.00	03.05.2017	02.05.2027	–	–	30.05.2017	Working	Non-Captive	899 / डिया / खनि / 17 31.08.2017	23°3'6.03" N 80°58'49.07"E 23°3'8.92" N 80°58'50.24"E 23°3'7.62" N 80°58'54.01"E 23°3'4.81" N 80°58'62.87"E	Opencast
20	Stone	Shri. Sushil Khodiyar s/o Leeladhar Vill. JamuniyaTah. & Distt Dindori MP	9669180939	564 / 10.02.20	1.00	31.10.2014	30.10.2019	31.10.2019	30.10.2024	01.11.2017	Working	Non-Captive	900 / डिया / खनि / 17 31.08.2017	22°54'51.55"N 81° 4'7.02"E 22°54'53.21"N 81° 4'7.51"E 22°54'53.87"N 81° 4'1.16"E 22°54'52.04"N 81° 3'59.39"E 22°54'50.78"N 81° 4'1.44"E	Opencast

21	Stone	Shri. Sumit Khanuja s/o Kuldip Khanuja Main road Dindori Tah. & Distt Dindori MP	9425417815	1103 / 19.12.2017	3.07	13.03.2018	12.03.2028	–	–	01.10.2018	Working	Non-Captive	62 / डिया / खनि / 17 03.02.2017	22°54'53.53"N 81° 4'0.77"E 22°54'55.28"N 81° 4'1.36"E 22°54'55.38"N 81° 4'2.73"E 22°54'58.21"N 81° 4'3.47"E 22°54'59.23"N 81° 3'50.94"E 22°54'57.23"N 81° 3'50.44"E 22°54'56.89"N 81° 3'58.00"E 22°54'54.42"N 81° 3'57.27"E	Opencast
22	Stone	Shri. Sanjiv Khanuja s/o Ramchandra Khanuja Main road Dindori Tah. & Distt Dindori MP	9752241948	60 / 03.02.2018	2.00	26.04.2018	25.04.2028	–	–	01.09.2018	Working	Non-Captive	905 / डिया / खनि / 17 05.09.2017	22°55'52.86"N 81° 3'51.79"E 22°55'54.50"N 81° 3'52.04"E 22°55'54.85"N 81° 3'48.04"E 22°55'52.40"N 81° 3'47.33"E	Opencast
23	Stone	M/s Sarsvati Stone Crusher Pro. Rajesh Kumar Jain, Birsingpur Pali Distt Umaria MP	9425838034	144 / 12.03.2018	4.00	13.03.2018	12.03.2028	–	–	16.03.2018	Working	Non-Captive	65 / डिया / खनि / 18 03.02.2018	23°12'48.92" N 80°55'54.40"E 23°12'48.02" N 80°55'57.79"E 23°12'49.19" N 80°55'58.17"E 23°12'47.96" N 80°56'2.73"E 23°12'46.71" N 80°56'2.46"E 23°12'46.89"N 80°56'1.14"E 23°12'45.25" N 80°56'0.14"E 23°12'45.99" N 80°55'58.54"E 23°12'44.77" N 80°55'58.41"E 23°12'40.50" N 80°55'55.56"E 23°12'44.65" N 80°55'51.77"E	Opencast
24	Stone	Shri. Chandra Prakash Sharma s/o Ramavatar Sharma, Saman Bansagar Colony Reewa MP	9752671511	174 / 20.03.2018	2.00	31.03.2018	30.03.2028	–	–	05.04.2018	Working	Non-Captive	64 / डिया / खनि / 18 03.02.2018	23°12'51.31"N 80°55'47.00"E 23°12'46.91"N 80°55'46.67"E 23°12'48.48"N 80°55'41.33"E 23°12'50.56"N 80°55'37.41"E	Opencast

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

25	Stone	Shri. Prabhat Mishra s/o Jagatnarayan Vill. Sidhauli Tah. & Distt Dindori MP	7999078988	168 / 16.03.2018	1.00	04.04.2018	03.14.2028	--	--	01.06.2019	Working	Non-Captive	530 / डिया / खनि / 18 26.09.2018	22°51'6.84"N 81°0'15.43"E 22°51'5.80"N 81°0'19.70"E 22°51'4.33" N81°0'20.33"E 22°51'4.43"N 81°0'19.09"E 22°51'3.55"N 81°0'18.55"E 22°51'4.38" N 81°0'14.66"E	Opencast
26	Stone	Smt. Gangavati w/o Bhopal Singh Vill. Madiyaras Tah. & Distt Dindori MP	9981882631	548 / 05.10.2018	1.00	20.12.2018	19.12.2028	–	–	28.03.2019	Working	Non-Captive	528 / डिया / खनि / 18 26.09.2018	22°56'9.80"N 81°10'12.75"E 22°56'11.38"N 81°10'13.25"E 22°56'13.21"N 81°10'11.26"E 22°56'14.01"N 81°10'9.59"E 22°56'12.78"N 81°10'9.49"E 22°56'11.73"N 81°10'8.50"E 22°56'10.14"N 81°10'10.20"E	Opencast
27	Stone	Shri. Rajesh Kumar Bilagar s/o Uday Singh Vill. Kohka Tah. & Distt Dindori MP	9009622088	541 / 03.10.2018	1.00	20.12.2018	19.12.2028	--	--	01.03.2019	Working	Non-Captive	526 / डिया / खनि / 18 26.09.2019	22°55'29.90" N 81°8'16.05"E 22°55'29.45" N 81°8'19.01"E 22°55'28.00" N 81°8'19.33"E 22°55'25.94" N 81°8'17.69"E 22°55'28.48" N 81°8'14.62"E	Opencast
28	Stone	Shri. Jay singh s/o Mohit Singh Vill. Simariya Tah. & Distt Dindori MP	9407062316	532 / 28.09.2018	1.00	20.12.2018	19.12.2028	–	–	16.04.2019	Working	Non-Captive	244 / डिया / खनि / 18 20.04.2018	22°52'50.66"N 81°7'49.49"E 22°52'49.51"N 81°7'51.99"E 22°52'45.81"N 81°7'51.76"E 22°52'44.75"N 81°7'49.72"E	Opencast

29	Stone	Shri. Jayesh Pathak s/o Dushyant Pathak Dindori,Tah. & Distt Dindori MP	9617524076	545 / 05.10.2018	1.00	21.12.2018	20.12.2028	--	--	11.01.2019	Working	Non-Captive	531 / डिया / खनि / 18 26.09.2018	23° 4'26.40"N 80°55'45.23"E 23° 4'29.05"N 80°55'47.82"E 23° 4'28.57"N 80°55'43.81"E 23° 4'28.98"N 80°55'41.10"E 23° 4'27.98"N 80°55'39.58"E	Opencast
30	Stone	Shri. Surendra Bilagar s/o Madho Singh Vill. Dandbichiya Tah. & Distt Dindori MP	9575225604	547 / 05.10.2018	1.00	20.12.2018	19.12.2028	--	--	28.02.2019	Working	Non-Captive	530 / डिया / खनि / 26 5.09.2018	22°56'22.56"N 81°6'56.47"E 22°56'22.93"N 81°6'59.73"E 22°56'17.00"N 81°6'58.55"E 22°56'17.12"N 81°6'57.22"E 22°56'19.54"N 81°6'57.63"E 22°56'19.83"N 81°6'56.33"E	Opencast
31	Stone	Shri. Shatrughan Parashar s/o Surendra Singh, Ward no. 11 Purani DindoriTah. & Distt Dindori MP	9131852662	557 / 05.02.2020	1.00	12.06.2020	11.06.2030	--	--	02.09.2020	Working	Non-Captive	2982/SEIAA/ 14 Dated 06.11.2019	22°55'15.94"N 81° 5'27.84"E 22°55'14.24"N 81° 5'27.80"E 22°55'13.46"N 81° 5'31.41"E 22°55'16.16"N 81° 5'32.57"E 22°55'16.04"N 81° 5'33.17"E 22°55'16.55"N 81° 5'33.35"E 22°55'15.94"N 81° 5'27.85"E	Opencast
32	Stone	Shri. Sunil Rajput s/o Tejsingh Vill. Bahera mal Tah. & Distt Dindori MP	9399452639	558 / 05.02.2020	1.00	02.07.2020	01.07.2030	--	--	12.10.2021	Working	Non-Captive	1200/SEIAA/ 19 Dated 20.06.2019	22°50'31.3"N 81°07'5.3"E 22°50'31.2"N 81°07'00.8"E 22°50'28.1"N 81°07'01.3"E 22°50'29.2"N 81°07'05.2"E	Opencast
33	Stone	Rajendrapal Kushram s/o Raysingh Ward no. 3 DindoriTah. & Distt Dindori MP	9407811126	570 / 11.02.2020	1.00	11.06.2020	10.06.2030	--	--	--	Non-Working	Non-Captive	2155/SEIAA/ 19 Dated 16.09.2019	22°53'51.97"N 81°0'11.97"E 22°53'50.94"N 81°0'13.51"E 22°53'47.03"N 81°0'09.79"E 22°53'48.20"N 81°0'07.93"E	Opencast

34	Stone	Shri. Santosh Yadav s/o Gulab Singh Vill. Dhanuvasagar Tah. & Distt Dindori MP	8349686239	252 / 30.07.2020	1.00	13.08.2020	12.08.2030	–	–	09.03.2022	Working	Non-Captive	1461/SEIAA/ 20 Dated 30.06.2020	22°53'10.14"N 81°05'16.19"E 22°53'9.77"N 81°05'19.07"E 22°53'10.70"N 81°05'21.18"E 22°53'10.08"N 81°05'24.34"E 22°53'8.70"N 81°05'24.10"E 22°53'09.42"N 81°05'21.82"E 22°53'8.61"N 81°05'19.97"E 22°53'8.40"N 81°05'16.02"E	Opencast
35	Stone	Shri. Ajay Sahu s/o Dwarkaprasad, Gadasari Tah. Bajag Distt Dindori MP	9753232852	671 / 05.05.2017	0.71	11.05.2012	10.05.2017	11.05.2017	10.05.2022	18.09.2013	Working	Non-Captive	2250/SEIAA/ 14 Dated 24.11.2014	22°50'9.04"N 81°18'3.05"E 22°50'8.22"N 81°18'7.34"E 22°50'6.37"N 81°18'6.70"E 22°50'6.91"N 81°18'3.11"E	Opencast
36	Stone	M/s Chacha Bhatija Interprisess Pro. Ramesh Jaiswal Vill. Mohtara Tah. Bajag Distt Dindori MP	9131483749	71 / 04.02.2016	1.00	26.04.2016	25.04.2026	–	–	09.06.2015	Working	Non-Captive	121 / डिया / खनि / 15 20.06.2015	22°47'33.97"N 81°22'56.92"E 22°47'37.22"N 81°22'57.49"E 22°47'36.80"N 81°23'0.77"E 22°47'33.37"N 81°23'0.08"E	Opencast
37	Stone	Shri. Pramod Sahu s/o Nemchand Sahu, GadasaraiTah. Bajag Distt Dindori MP	9424989355	671 / 05.05.2017	2.00	06.04.2017	05.04.2027	–	–	01.12.2017	Working	Non-Captive	737 / डिया / खनि / 17 04.07.2017	22°47'33.97"N 81°22'56.92"E 22°47'37.22"N 81°22'57.49"E 22°47'36.80"N 81°23'0.77"E 22°47'33.37"N 81°23'0.08"E	Opencast
38	Stone	Shri. Pramod Sahu s/o Nemchand Sahu, GadasaraiTah. Bajag Distt Dindori MP	9424989355	707 / 29.05.2017	2.00	13.06.2018	12.06.2028	–	–	01.08.2018	Working	Non-Captive	919 / डिया / खनि / 17 08.09.2017	22°50'2.04"N 81°17'19.69"E 22°50'1.63"N 81°17'15.31"E 22°49'55.03"N 81°17'14.95"E 22°49'55.00"N 81°17'12.09"E	Opencast

39	Stone	Shri. Rajiv Sahu s/o Shambhuprasad Sahu, GadasaraiTah. Bajag Distt Dindori MP	9453232852	195 / 28.03.2018	1.00	31.03.018	30.03.2028	—	—	21.08.2018	Working	Non-Captive	67 / डिया / खनि / 18 21.08.2018	22°47'40.76"N 81°22'42.79"E 22°47'40.04"N 81°22'46.52"E 22°47'37.20"N 81°22'46.12"E 22°47'37.66"N 81°22'43.02"E 22°47'38.30"N 81°22'43.03"E	Opencast
40	Stone	Shri. Aman Sahu s/o Santosh Sahu, GadasaraiTah. Bajag Distt Dindori MP	7879193401	254 / 25.04.2018	1.00	25.04.2018	24.04.2028	—	—	22.11.2018	Working	Non-Captive	233 / डिया / खनि / 18 17.04.2018	22°46'02.63"N 81°21'16.21"E 22°46'02.37"N 81°21'22.28"E 22°46'05.73"N 81°21'22.54"E 22°46'05.42"N 81°21'16.08"E	Opencast
41	Stone	Shri. Arun Gupta s/o Indarchand Gupta, Shahpura Tah. Shahpura Distt Dindori MP	8839476154	436 / 24.01.2017	2.00	09.05.2012	08.05.2017	09.05.2017	08.05.2027	11.05.2012	Working	Non-Captive	576/SEIAA/16 Dated 11.04.2016	23°10'10.47"N 80°40'56.48"E 23°10'15.16"N 80°41'0.82"E 23°10'15.29"N 80°41'0.36"E 23°10'12.19"N 80°40'54.81"E 23°10'12.20"N 80°40'54.14"E 23°10'11.33"N 80°40'53.93"E	Opencast
42	Stone	Shri. Abhishek Stone Crucher Por. Smt. Rekha Goswami, Ward no. 13 Tah. Shahpura Distt Dindori MP	8109060635	144 / 31.05.2012	1.00	01.10.2013	30.09.2023	—	—	20.01.2017	Working	Non-Captive	934/SEIAA/13 Dated 06.06.2013	23°10'17.51" N 80°40'19.80"E 23°10'13.45" N 80°40'19.38"E 23°10'13.46" N 80°40'17.61"E 23°10'17.66" N 80°40'17.72"E	Opencast
43	Stone	Shri. Devi Prasad Saini s/o Jagmohandas Vill. Manikpur Tah. Shahpura Distt Dindori MP	9669919368	583 / 11.09.2015	0.70	10.12.2015	09.12.2025	—	—	12.07.2016	Non-Working (By Order Dated 05.05.21 Lease has been Cancelled)	Non-Captive	6547/SEIAA/15 Dated 20.10.2015	23°17'1.06" N 80°37'9.27"E 23°17'3.13" N 80°37'10.96"E 23°17'3.03" N 80°37'16.43"E 23°16'57.24" N 80°37'14.57"E 23°16'57.71" N 80°37'11.07"E	Opencast

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44	Stone	Shri. Tikaram Sahu s/o Mohanlal Sahu, Vill. Bargaon Tah. Shahpura Distt Dindori MP	7999581160	644 / 26.10.2015	2.00	11.01.2016	10.01.2026	–	–	22.05.2017	Working	Non-Captive	7613/SEIAA/15 Dated 13.11.2015	23°08'44.15" N 80°46'06.66"E 23°08'45.12" N 80°46'18.89"E 23°08'42.15" N 80°46'18.84"E 23°08'42.17" N 80°46'07.03"E	Opencast
45	Stone	Shri. Pratap Singh Dhurwey s/o Kuvar Singh Vill. Dungariya Tah. Shahpura Distt Dindori MP	8120040138	17 / 11.01.2016	2.0	17.03.2016	16.03.2026	–	–	16.02.2017	Working	Non-Captive	11343/SEIAA/15 Dated 18.02.2016	23° 5'11.93"N 80°49'31.39"E 23° 5'12.71"N 80°49'30.07"E 23° 5'9.63"N 80°49'26.86"E 23° 5'5.52"N 80°49'23.59"E 23° 5'4.52"N 80°49'24.63"E 23° 5'6.44"N 80°49'27.33"E	Opencast
46	Stone	Smt. Ashiya Begam w/o Abdul Razzak Khan Vill. Mehadwani Tah. Shahpura Distt Dindori MP	9424359304	107 / 22.06.2016	0.56	29.04.2016	28.04.2021	29.04.2016 (1st) 29.04.2021 (2nd)	28.04.2026	12.08.2016	Working	Non-Captive	203 / डिया / खनि / 16 24.08.2016	22°55'42.40"N 80°39'28.94"E 22°55'43.03"N 80°39'35.84"E 22°55'40.61"N 80°39'35.13"E 22°55'40.22"N 80°39'31.31"E	Opencast
47	Stone	Shri. Sandip Rai s/o Surendra Rai Vill. Bichhiya Tah. Shahpura Distt Dindori MP	8463834325	455 / 08.02.2017	1.00	03.03.2017	02.03.2027	–	–	14.01.2019	Working	Non-Captive	825 / डिया / खनि / 17 24.08.2017	23°10'2.93"N 80°40'14.76"E 23° 9'58.99"N 80°40'15.69"E 23° 9'58.51"N 80°40'16.94"E 23° 9'56.05"N 80°40'17.27"E 23° 9'52.88"N 80°40'15.26"E 23° 9'53.06"N 80°40'13.93"E 23° 9'58.66"N 80°40'15.35"E 23° 9'59.04"N 80°40'15.49"E 23° 9'59.83"N 80°40'14.02"E 23°10'2.78"N 80°40'13.73"E	Opencast

48	Stone	Smt. Nandni Markam w/o Santosh Markam Ward no. 3 Tah. & Distt Dindori MP	9165695527	571 / 11.02.2020	2.00	11.06.2020	10.06.2030	–	–	–	Non-Working	Non-Captive	2151/SEIAA/19 Dated 16.09.2019	22°52'52.41"N 80°40'4.79"E 22°52'53.95"N 80°40'7.98"E 22°52'50.54"N 80°40'9.04"E 22°52'49.78"N 80°40'5.08"E	Opencast
49	Stone	Shri. Navin Gupta s/o Anil Gupta ward no. 3 Shahpura Tah. Shahpura Distt Dindori MP	798703[illegible]4	355 / 25.09.2020	1.00	23.11.2020	22.11.2030	–	–	15.03.2022	Working	Non-Captive	2748/SEIAA/19 Dated 19.03.2019	23°12'44.43"N 80°41'26.09"E 23°12'49.02"N 80°41'26.01"E 23°12'49.02"N 80°41'26.43"E 23°12'51.26"N 80°41'26.60"E 23°12'51.59"N 80°41'29.59"E 23°12'50.06"N 80°41'29.67"E 23°12'49.15"N 80°41'28.54"E 23°12'48.70"N 80°41'27.81"E 23°12'47.52"N 80°41'27.39"E	Opencast
50	Stone	M/s Parmar Construction Pro. Krishna Singh Parmar Vill. Madiyaras Tah. & Distt Dindori MP	9630803120	229 / 29.07.2021	1.72	03.08.2021	02.08.2031	–	–	–	Working	Non-Captive	754/SEIAA/21 Dated 18.05.2021	22°55'2.840"N 81°04'20.323"E 22°55'6.837" N 81°04'20.718"E 22°55'8.207" N 81°04'20.763"E 22°55'8.930"N 81°04'18.240"E 22°55'3.365"N 81°04'15.095"E	Opencast
51	Stone	Shri. Pramod Sonpali s/o Omprakash Sonpali Vill. Samnapur Tah. & Distt Dindori MP	9755457527	18 / 08.04.2021	1.00	24.04.2015	23.04.2020	24.04.2020	23.04.2025	–	No-Working	Non-Captive	118 / डिया / खनि / 16 25.06.2016	22°42'52.45"N 81°06'08.15"E 22°42'55.90"N 81°06'08.55"E 22°42'55.84"N 81°06'10.53"E 22°42'55.03"N 81°06'10.74"E 22°42'54.96"N 81°06'11.56"E 22°42'51.36"N 81°06'10.88"E 22°42'51.48"N 81°06'10.15"E 22°42'52.80"N 81°06'10.54"E 22°42'52.20"N 81°06'09.68"E	Opencast

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52	Stone	Shri. Nandkishor Chandel s/o Rammilan Vill. Sarhari Tah. & Distt Dindori MP	8120835685	7639—40 / 25.06.21	1.48	20.07.2021	19.07.2031	–	–	–	Non-Working	Non-Captive	726/SEIAA/21 Dated 18.05.2021	22°52'53.74"N 80°57'15.18"E 22°52'53.96"N 80°57'18.09"E 22°52'56.99"N 80°57'18.69"E 22°52'59.98"N 80°57'18.79"E 22°52'59.39"N 80°57'16.30"E 22°52'58.09"N 80°57'15.28"E 22°52'55.52"N 80°57'15.71"E	Opencast
53	Stone	M/s R.S. Minerals Part. Nilesh Singh, Narmada pul par Dindori Tah. & Distt Dindori MP	9425851920	477 / 09.11.2021	2.00	12.01.2022	11.01.2032	–	–	–	Non-Working	Non-Captive	SIA/MP/MIN/222663/2021 Dated 08.11.2021	22°50'33.482"N 80°56'43.398"E 22°50'35.46"N 80°55'46.728"E 22°50'39.54"N 80°55'48.384"E 22°50'40.518"N 80°55'43.536"E	Opencast
54	Stone	Shri. Rajiv Sahu s/o Shambhuprasad Sahu, GadasaraiTah. Bajag Distt Dindori MP	9453232852	560 / 12.01.2021	1.32	18.05.2021	17.05.2031	–	–	–	Non-Working	Non-Captive	3450/SEIAA/20 Dated 22.10.2020	22°48'39.96"N 81°22'21.65"E 22°48'38.68"N 81°22'24.49"E 22°48'36.55"N 81°22'24.09"E 22°48'36.18"N 81°22'24.03"E 22°48'36.02"N 81°22'23.01"E 22°48'35.08"N 81°22'22.69"E 22°48'35.08"N 81°22'21.01"E	Opencast
55	Stone	Shri. Sharda Rai s/o Sitacharan Rai, Ward no. 3 Shahpura Tah. Shahpura Distt Dindori MP	9669159747	574 / 21.12.2021	2.84	12.01.2022	11.01.2032	–	–	10.02.2022	Working	Non-Captive	SIA/MP/MIN/217215/2021 Dated 19.12.21	23°11'20.54"N 80°36'37.24"E 23°11'22.78"N 80°36'36.00"E 23°11'26.13"N 80°36'35.99"E 23°11'25.95"N 80°36'42.11"E 23°11'19.64"N 80°36'41.25"E	Opencast
56	Stone	Shri. Uttam Kumar Sahu s/o Mahesh Sahu, Ward no 4 Bajag Tah. Bajag Distt Dindori Mp	9424687641	673 / 07.02.2022	1.00	05.03.2022	04.03.2032	–	–	–	Non-Working	Non-Captive	SIA/MP/MIN/241046/2021 Dated 22.01.22	22°41'16.85"N 81°19'44.03"E 22°41'17.37"N 81°19'41.19"E 22°41'20.62"N 81°19'42.11"E 22°41'20.23"N 81°19'45.62"E	Opencast

57	Stone	Shri. Manish Yadav s/o Bhagchand Yadav Vill. Sundarpur Tah. Panagar Distt Jabalpur MP	8839596450	523 / 01.12.2021	2.00	12.04.2022	11.04.2032	–	–	–	Non-Working	Non-Captive	299/SEIAA/21Dated 06.04.2021	N 23°3'42.776" E 80°40'57.986" N 23°3'49.228" E 80°40'59.231" N 23°3'48.969" E 80°41'2.468" N 23°3'48.542" E 80°41'1.545"	Opencast
58	Murrum	Shri. Kamal Agrawal s/o Mannulal, Ward no 14 Shahpura Tah-Shapura distt Dindori	8120124247	750 / 11.03.2022	1.83	–	–	–	–	–	Non-Working	Non-Captive	SIA/MP/MIN/245510/2021 Dated 07.03.2022	23°9'32.60"N 80°43'9.44"E 23°9'32.40"N 80°43'7.01"E 23°9'33.44"N 80°43'6.27"E 23°9'33.60"N 80°43'7.08"E	Opencast
59	Dimensional Stone (Basalt)	M/s S.B. Stone, S-6 Triveni Complex Madan Mahal Jabalpur MP	9827926047	4294–95 /खनिज /उ.प./ग्रेनाइट न.क. 59 / 2015 31.03.2022	4.40	–	–	–	–	–	Non-Working	Non-Captive	SIA/MP/MIN/221665/20 21 Dated 19.12.2021	23°8'13.24"N 80°39'19.62"E 23°8'13.62"N 80°39'19.31"E 23°8'15.50"N 80°39'18.73"E 23°8'16.26"N 80°39'19.31"E 23°8'16.55"N 80°39'18.80"E 23°8'19.04"N 80°39'20.57"E	Opencast
60	Stone	Ms/ Gour road tarcoat Pvt.Ltd Sharda chowk Nagpur road, Jabalpur	9827926047	647 / 27.01.2022	1.50	21.01.2022	10.02.2023	–	–	–	Working	Non-Captive	SIA/MP/MIN/233304/2021 Dated 12.01.2022	22°43'1.14"N 81°6'5.21"E 22°43'1.04"N 81°6'9.59"E 22°42'56.26"N 81°6'9.73"E 22°42'56.25"N 81°6'7.59"E 22°42'58.08"N 81°6'7.56"E 22°42'58.11"N 81°6'5.35"E	Opencast (Tem. Permit)
61	Stone & Murrum	M/s Shivshakti Construction, Bhaiswar Kothi, Satna	9425810411	663 / 01.02.2022	1.22	01.02.2022	14.02.2023	–	–	–	Working	Non-Captive	SIA/MP/MIN/240683/2021 Dated 22.01.2022	23°5'39.03"N 80°40'43.52"E 23°5'40.48"N 80°40'41.26"E 23°5'40.64"N 80°40'39.89"E 23°5'38.27"N 80°40'38.92"E 23°5'36.35"N 80°40'40.22"E 23°5'36.32"N 80°40'41.31"E 23°5'36.32"N 80°40'41.31"E	Opencast (Tem. Permit)

														23°5'35.83"N 80°40'41.55"E 23°5'35.67"N 80°40'42.61"E 23°5'37.20"N 80°40'42.57"E	
62	Stone & Murrum	M/s Pragati India Construction Compony, Prem Vihar Colony Premnagar Satna	9074752322	635 / 18.01.2022	1.15	18.01.2022	14.02.2023	–	–	–	Working	Non-Captive	SIA/MP/MIN/237275/2021 Dated 16.01.2022	22°39'17.72"N 81°30'0.47"E 22°39'18.99"N 81°30'1.25"E 22°39'18.94"N 81°30'5.00"E 22°39'18.14"N 81°30'7.80"E 22°39'16.33"N 81°30'7.22"E	Opencast (Tem. Permit)
63	Stone & Murrum	M/s Ravi Shankar Jaiswal, Archna 913 sneh nagar, JDA Scheme no 11 Jabalpur	9893303132	636 / 18.01.2022	1.81	18.01.2022	15.02.2023	–	–	–	Non-Working	Non-Captive	SIA/MP/MIN/237329/2021 Dated 16.12.21	22°41'17.62"N 81°19'34.57"E 22°41'19.34"N 81°19'34.96"E 22°41'20.96"N 81°19'35.49"E 22°41'20.96"N 81°19'36.15"E 22°41'19.69"N 81°19'38.43"E 22°41'21.38"N 81°19'38.82"E 22°41'20.98"N 81°19'41.69"E 22°41'20.66"N 81°19'42.04"E 22°41'17.47"N 81°19'41.12"E 22°41'18.26"N 81°19'38.71"E 22°41'17.41"N 81°19'38.46"E	Opencast (Tem. Permit)
64	Stone & Murrum	Ms/ Gour road tarcoat Pvt.Ltd Sharda chowk Nagpur road, Jabalpur	9827926047	19 / 12.04.2022	1.33	12.4.2022	10.02.2023	–	–	–	Working	Non-Captive	SIA/MP/MIN/256849/2022 Dated 09.04.2022	22°51'7.68"N 81°0'19.62"E 22°51'7.46"N 81°0'21.55"E 22°51'10.28"N 81°0'21.41"E 22°51'10.41"N 81°0'25.41"E 22°51'13.27"N 81°0'22.35"E 22°51'11.38"N 81°0'19.37"E	Opencast (Tem. Permit)

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CHPATER -10

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

S.No.	Year	Royalty/Revenue (in Lakhs Rs.)
1	2019-20	313.85
2	2020-21	1180.77
3	2021-22	2308.17

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

CHAPTER-11

DETAILS OF PRODUCTION OF MINOR MINERAL IN LAST THREE YEARS

S.No.	Year	Name of Mineral	Production (in cum.)
1	2019-20	Sand	46893.42
2		Bajri	-
3		Gitti / Stone	110550
4		Murum	-
5	2020-21	Sand	96353.65
6		Bajri	-
7		Gitti / Stone	216585
8		Murum	-
9	2021-22	Sand	201419.78
10		Bajri	-
11		Gitti / Stone	202163.55
12		Murum	21230

State Level Environment Impact Assessment Authority, M.P. (EPCO) Paryavaran Parisar E-6, Arera Colony, Bhopal (M.P.)

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CHAPTER-12

MINERAL MAP OF THE DISTRICT

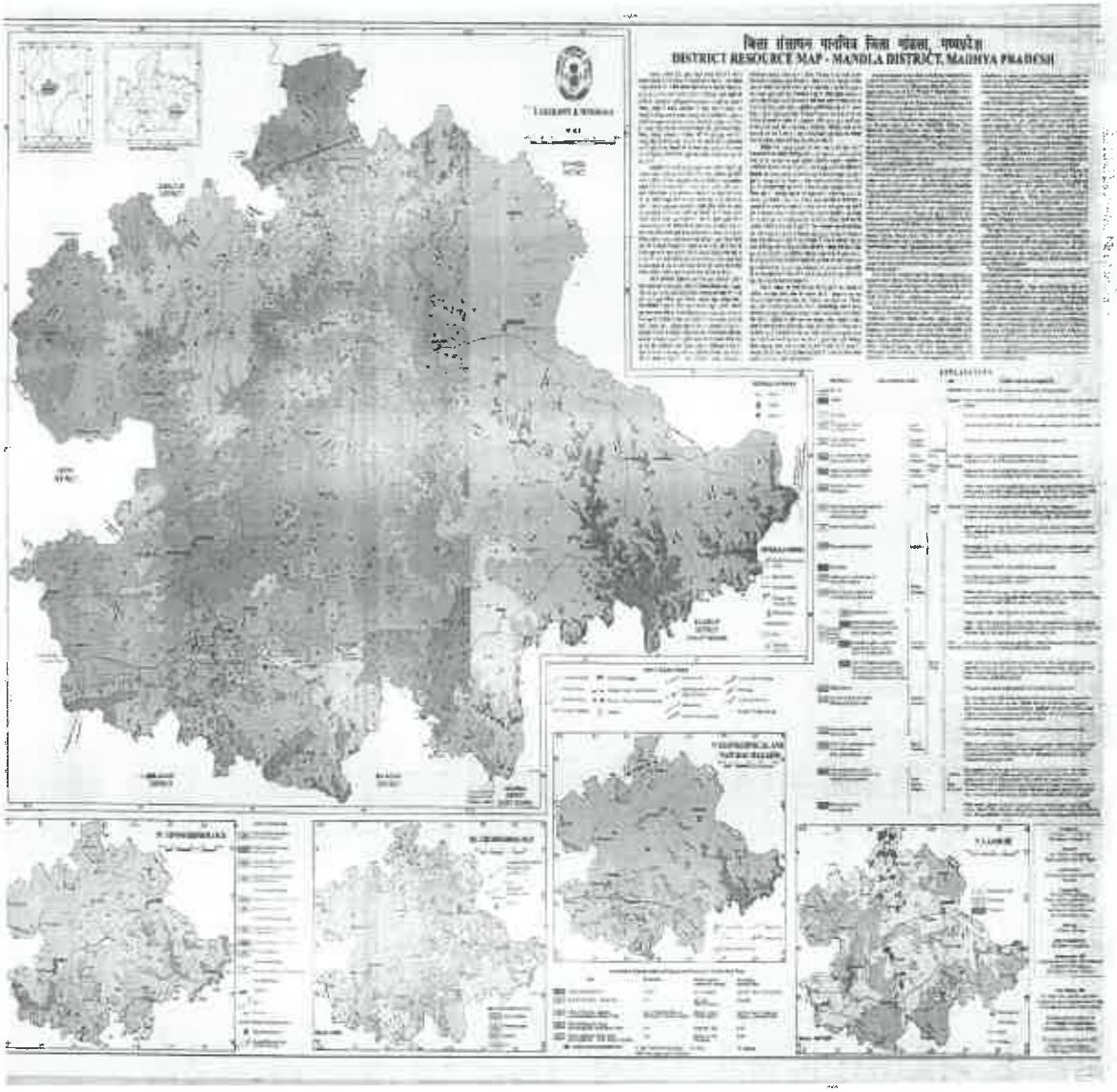

Fig : Map Showing District Resource map of Dindori

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CHAPTER-13

LIST OF LOI HOLDERS IN THE DISTRICTS ALONG WITH ITS VALIDITY AS PER THE FOLLOWING FORMAT

S. No	Name of Minerals	Name of LOI holder	Address and Contact Numer of LOI holder	LOI Grant order No. and Date	Area of Mining Lease	Validity of LOI	Use (Captive/Non-Captive)	Location of Mining Lease (Latitude/Longitude)
1	2	3	4	5	6	7	8	9
1	Gitti/Stone	Shri. Manoj Kumar Mishra s/o Ashok Prasad	Dindori, Tah. & Distt Dindori MP	12 / खनि / 2018 04.01.2018	2.00	6 Month	Non-Captive	N 22°56'50.0" E 81°02'43.0" N 22°57'01.6" E 81°02'38.5" N 22°56'59.1" E 81°02'37.4" N 22°56'57.9" E 81°02'38.3"
2	Gitti/Stone	Shri. Amar Singh Sisodiya s/o B.R. Sisodiya	S. 603 Nehru Nagar Bhopal MP	354 / खनि / 2018 13.06.2018	2.92	6 Month	Non-Captive	N 22°43'03.66" E81°00'56.56" N 22°43'03.05" E81°00'57.80" N 22°43'10.09" E81°01'00.16" N 22°43'10.5" E 81°00'56.57"
3	Gitti/Stone	Shri. Rahul Nayak s/o Kanna Nayak	Vill. Batondha Tah. & Distt Dindori MP	967 / खनि / 2017 25.09.2017	1.00	6 Month	Non-Captive	N 23°12'23.58" E 80°56'43.08" N 23°12'25.74" E 80°56'39.84" N 23°12'23.16" E 80°56'39.12" N 23°12'20.58" E 80°56'42.42"
4	Gitti/Stone	Shri. Heera Singh Nayak s/o Kanna Nayak	Vill. Batondha Tah. & Distt Dindori MP	/ खनि / 2017	1.00	6 Month	Non-Captive	N 23°14'5.82" E 80°58'14.16" N 23°14'7.86" E 80°58'15.12" N 23°14'10.08" E 80°58'13.68" N 23°14'8.64" E 80°58'11.76"
5	Gitti/Stone	Shri. Tulsiram Rajput s/o Teksingh Rajput	Vill. Chhania Tah. & Distt Dindori MP	352ए / खनि / 2018 13.06.2018	2.60	6 Month (Final Sanction order issued vide letter dt. 31.05.21	Non-Captive	N 22°52'31.4" E 81°07'20.4" N 22°52'33.4" E 81°07'13.1" N 22°52'30.7" E 81°07'11.8" N 22°52'29.4" E 81°07'20.0"
6	Gitti/Stone	M/s Sai Stone Crucher Part. Rajkumar Singh, Pulkit Shukla, Dinesh Bando	Vill. Subkhar Dindori Tah. & Distt Dindori MP	290 / खनि / 2018 11.05.2018	1.00	6 Month	Non-Captive	N 22°41'13.0" E 81°19'43.2" N 22°41'13.9" E 81°19'43.4" N 22°41'17" E 81°19'39.6" N 22°41'18.7" E 81°19'36.0" N 22°41'15.2" E 81°19'34.6" N 22°41'13.7" E 81°19'34.5" N 22°41'11.4" E 81°19'36.1" N 22°41'12.1" E 81°19'37.2" N 22°41'15.5" E 81°19'38.2"
7	Gitti/Stone	M/s Rajesh Kumar Jain	Birsingpur Pali Distt Uamarai	510 / खनि / 2018 11.09.2018	2.00	6 Month	Non-Captive	N 23°12'58.9" E 80°56'13" N 23°12'54.5" E 80°56'11.0" N 23°12'52.1" E 80°56'09.4" N 23°12'51.9" E 80°56'08.1"

								N 23°12'54.3" E 80°56'09.8" N 23°12'56.6" E 80°56'07.3" N 23°12'58.8" E 80°56'08.8" N 23°12'59.8" E 80°56'11.9"
8	Gitti/Stone	Shri. Dharamveer Lohan s/o Tekram Lohan	Vill. Sindarpur Tah. & Distt Mandla MP	260 / खनि / 2018 25.05.2019	4.98	6 Month (Final Sanction order issued vide letter dt. 31.05.21	Non-Captive	N 22°54'49.80" E 80°56'32.62" N 22°54'47.80" E 80°56'23.83" N 22°54'49.39" E 80°56'24.35" N 22°54'55.99" E 80°56'26.22" N 22°54'54.85" E 80°56'28.63" N 22°54'53.58" E 80°56'30.19" N 22°54'53.15" E 80°56'34.83" N 22°54'51.61" E 80°56'36.46"
9	Gitti/Stone	Shri. Rishabh Sharma s/o Rajesh Sharma	17 Ieadal Grand Narmada road Jabalpur MP	38 / खनि / 2018 17.01.2019	1.20	6 Month (Final Sanction order issued vide letter dt. 31.05.21	Non-Captive	N 23°05'23.50" E 80°49'30.80" N 23°05'24.30" E 80°49'30.00" N 23°05'20.80" E 80°49'29.30" N 23°05'20.70" E 80°49'27.60" N 23°05'18.40" E 80°49'25.20" N 23°05'15.60" E 80°49'25.20" N 23°05'15.70" E 80°49'26.60" N 23°05'16.50" E 80°49'27.10"
10	Gitti/Stone	Shri. Kamlesh Katare s/o Rameshwar	Vill. Samnapur Tah. & Distt Dindori MP	39 / खनि / 2019 17.01.2019	1.30	6 Month (Final Sanction order issued vide letter dt. 31.05.21	Non-Captive	N 22°42'52.21" E 81°06'10.59" N 22°42'48.01" E 81°06'13.77" N 22°42'45.99" E 81°06'11.87" N 22°42'51.17" E 81°06'08.48"
11	Gitti/Stone	Ku. Durgeshbala Shyam s/o Gyansingh	Vill. Bajag Tah. Bajag Distt Dindori MP	878–80 / खनिज / उ.प. / न.क.01 / 19 15.01.2021	1.00	6 Month	Non-Captive	N 22°42'38.38" E 81°18'32.64" N 22°42'39.39" E 81°18'32.56" N 22°42'40.98" E 81°18'32.58" N 22°42'40.63" E 81°18'34.47" N 22°42'37.80" E 81°18'34.42"
12	Gitti/Stone	Shri. Harsh Mandavi s/o Ramesh Mandavi	Vill. Dhirwankal Tah. Shahpur Distt Dindori MP	461 / खनि / 2020 19.11.2020	1.80	6 Month	Non-Captive	N 23°20'56.538" E 80°40'22.188" N 23°20'55.680" E 80°40'19.786" N 23°20'53.628" E 80°40'19.968" N 23°20'53.112" E 80°40'23.508" N 23°20'54.258" E 80°40'21.63"
13	Gitti/Stone	Shri. Prabhat Agrawal s/o Ramsumrin Agrawal	Dindori Tah. & Distt Dindori MP	1121 / खनि / 2017 29.12.2017	1.74	6 Month (Final Sanction order issued vide letter dt. 11.02.2020	Non-Captive	22°56'38.3"N 81°03'36.7"E 22°56'35.0"N 81°03'35.5"E 22°56'34.48"N 81°03'34.00"E 22°56'35.09"N 81°03'29.39"E 22°56'35.0"N 81°03'29.2"E 22°56'35.55"N 81°03'29.4"E 22°56'35.77"N 81°03'30.54"E 22°56'38.30"N 81°03'32.38"E

								22°56'38.76"N 81°03'36.32"E
14	Gitti/Stone	Smt. Usha Thakur w/o Lakhan Singh	Vill. Kanaisangwa Tah. & Distt Dindori MP	432 / खनि / 2021 21.10.2021	1.00	6 Month	Non-Captive	22°58'0.39"N 81°1'23.41"E 22°57'59.38"N 81°1'21.30"E 22°57'59.58"N 81°1'20.88"E 22°58'4.26"N 81°1'20.67"E 22°58'3.48"N 81°1'23.76"E
15	Gitti/Stone	M/s Anurag Stone Crusher Pro. Sandip Kumar Rajak	Shahpura Tah. Shahpura Distt Dindori MP	559 / खनि / 2021 12.01.2021	2.63	6 Month	Non-Captive	23°3'39.36"N 80°40'49.11"E 23°3'40.75"N 80°40'44.08"E 23°3'37.95"N 80°40'43.56"E 23°3'36.71"N 80°40'39.62"E 23°3'37.98"N 80°40'39.55"E 23°3'41.92"N 80°40'42.42"E 23°3'42.21"N 80°40'41.79"E 23°3'43.25"N 80°40'42.31"E 23°3'42.32"N 80°40'49.70"E
16	Gitti/Stone	Shri. Ranjit Soni s/o Ramakant Soni	Vill. Devra Tah. & Distt Dindori MP	699 / खनि / 2022 23.02.2022	1.00	6 Month	Non-Captive	22°59'27.56" N 81°2'22.59"E 22°59'27.89" N 81°2'23.74"E 22°59'23.16" N 81°2'26.92"E 22°59'23.55" N 81°2'24.31"E
17	Gitti/Stone	Shri. Sunil Narwal s/o Umed Singh	Vill. Barenda Tah. Bajag Distt Dindori MP	446 / खनि / 2021 26.10.2021	1.00	6 Month	Non-Captive	22°39'53.65"N 81°30'33.08"E 22°39'51.36"N 81°30'37.46"E 22°39'49.38"N 81°30'37.06"E 22°39'50.94"N 81°30'35.42"E 22°39'50.43"N 81°30'32.30"E
18	Gitti/Stone	Shri. Amit Rai s/o Sushil Rai	Ward no. 9 Durga mandir, Tah. & Kundam Distt Jabalpur MP	190 / खनि / 2021 13.07.2021	2.40	6 Month	Non-Captive	23°11'30.86"N 80°28'58.91"E 23°11'36.59"N 80°28'58.89"E 23°11'36.64"N 80°28'5.29"E 23°11'32.67"N 80°28'4.32"E 23°11'30.73"N 80°28'59.23"E
19	Bauxite	M/s Yash Logistic Pvt. Ltd.	1st Floor, Block no 3 Nagar sudhar Nyas Building Jabalpur road, Bhargawan Katni MP	F-3-5/2020/12/2 21.09.2020	20.151	3 Years	Non-Captive	22°37'12.70"N 81°20'14.7"E 22°37'12.70"N 81°20'22.6"E 22°37'10.20"N 81°20'27.9"E 22°37'06.30"N 81°20'74.7"E 22°37'0.97"N 81°20'42.0"E 22°36'58.40"N 81°20'49.4"E 22°37'55.00"N 81°20'49.4"E

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CHAPTER-14

TOTAL MINERAL RESERVE AVALABLE IN DISTRICT

S.No.	Tehsil	Name of Mineral	Mineral Reserve in cum.
1	Dindori	Sand	487000
2	Bajag	Sand	120000
3	Shahpura	Gitti / Stone	1000000
4	Dindori	Gitti / Stone	4600000
5	Bajag	Gitti / Stone	850000

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CHAPTER-15
QUALITY /GRADE OF MINERAL AVAILABLE IN THEDISTRICT

The deposit in the area is quite good in respect of quality and quantity. The method of mining should be adopted Opencast Mining Method by OTFM (Other then Fully mechanized method) for digging, excavation and removal of stone in conjunction with deep hole drilling and blasting.

Stone mineral can be used as boulders of diffirent sizes for dam construction, embankment works etc. After crushing into different sizes it can be used in construction and road projects.

Fine grained compact basalt is available in the district so that Quality of stone available in Dindori district is building grade stone confirming standards.

And Mostly Laterite high grade is 80% and rest 20% is low grade mineral and those places can be use in other works and for afforatation purpose.

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CHAPTER- 16

USE OF MINERAL

Gitti/Building Stone :

Aggregates – stone for its strong phycial properties – crushed and sorted into various sizes for use in concerete, coated with bitumen to make asphalt or used 'dry' as bulk fill in construction, Mostly used in roads, concrete and building products.

Murum:

Murum is mostly used for construction purposes. Generally, it is deep brown or red in colour. Muroom is used in plinth filling, road pavements, backfilling in trenches, fotting pits etc. It is a suitable type of soil in the construction field, since it does not contain any organic matters and can be compacted easily forming hard surfaces.

Ordinary Clay:

Clay is used for making pottery, both utilitarian and decorative, and construction products, such as bricks, wall and floor tiles. Different type of **Clay**, when used with different minerals and firing conditions, are used to produce earthenware, stoneware, and porcelain.

Ordinary sand:

Sand is not for manufacturing concrete, but it is the ideal material for asphalt mix. It is commonaly used to fix and level roads, and lay bedding for a variety of uses. This is in contrast with our three other main construction sand products, which are mainly used for building applications.

Laterite:

Major and sub-base marerials for the consrtution of most highways and walls of residential houses in tropical and sub-tropical countries of the world. Laterite is a building material which can be used in construction from flooring to roof cosrtuction. The rising consruction cost and drive towards locally available materials hane fuelled a demand fot thes product in recent year. In laterite areas where a high level of culture once prevailed, ruins often disclose laterite used as a building stone. Open cisterns, hardwalls, culverts, flagstones, quays, ,moles and breakwaters of laterite have functioned successfully for hundreds of year and laterite is also used in ceramic industries.

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CHAPTER-17

DEMAND AND SUPPLY OF THE MINERAL IN THE LAST THEREE YEARS

Table : Detail of Demand and Supply for sand or Bajri or minor minerals in the financial year 2019-20

Details of Production (For Minor Mineral)				
Sr. No.	Year	Name of Mineral	Production (in cum.)	Dispatch (in cum.)
1	2019-20	Sand	46893.42	46893.42
2		Stone / Boulder / Gitti	110550	105854
3		Murrum	-	-

Table : Detail of Demand and Supply for sand or Bajri or minor minerals in the financial year 2020-21

Details of Production (For Minor Mineral)				
Sr. No.	Year	Name of Mineral	Production (in cum.)	Dispatch (in cum.)
1	2020-21	Sand	96353.65	96353.65
2		Stone / Boulder / Gitti	216585	213022
3		Murrum	-	-

Table : Detail of Demand and Supply for sand or Bajri or minor minerals in the financial year 2021-22

Details of Production (For Minor Mineral)				
Sr. No.	Year	Name of Mineral	Production (in cum.)	Dispatch (in cum.)
1	2021-22	Sand	201419.78	201419.78
2		Stone / Boulder / Gitti	202163.55	184250.15
3		Murrum	21230	8000

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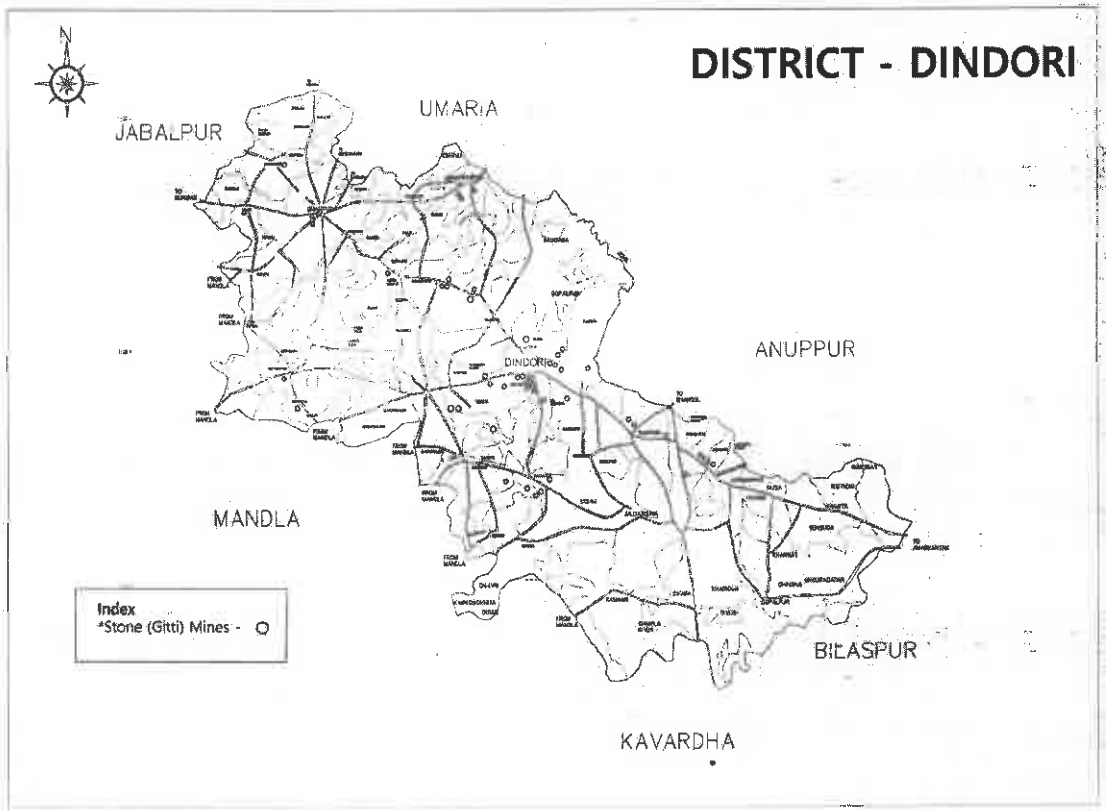
CHAPTER-18

MINING LEASES MARKED ON THE MAP OF THE DISRICT



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

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CHAPTER-19
(DETAIL OF THE AREA WHERE THERE IS A CLUSTER OF MINING LEASES VIZ NUMBER OF MINING LEASES, LOCATION (LATTITUDE AND LONGITUDE)

S.No	Particulars	Cluster Area (Ha.)
Pakarbagharra & Bhardwara cluster		
1	Mr. Chandraprakash Sharma s/o Ramavatar Sharma	
2	M/s Sarswati stone crusher Pro. Rajesh Jain	
	Total Areas	**6.00**
Bahera cluster		
1	Mr. Rajesh Mardan S/o Chandrabhan singh	
2	Mr surajprakash Khatri S/O kishan lal khatri	
3	Mr Nandkishor Chandel S/O Rammilan Singh	
	Total Areas	**3.48**
Ghanaghat cluster		
1	Mr. Ashok Chhabra S/o Trilok Chhabra	
2	Mr. Surendra Bilagar S/o Madho Singh	
	Total Areas	**2.30**
Ratna cluster		
1	Mr. Pramod Sahu S/o Nemchand sahu	
2	Mr. Rajeev Sahu S/o Shambhprasad sahu	
	Total Areas	**3.32**
Jamuniya cluster		
1	Mr. Sumit khanuja S/o Kuldeep Khanuja	
2	Mr. Sushil Khodiyar S/o Liladhar Khodiyar	
	Total Areas	**4.07**
Jamuniya & Khirsari cluster		
1	Mr. Mannu Singh s/o Doman Singh	
2	Mrs. Pushpa Thakur w/o Krishnakumar	
3	M/s Parmar Construction Pro. Krishna Singh	
	Total Areas	**3.72**
Mohtara cluster		
1	Mr. Rajeev Sahu S/o Shambhprasad sahu	
2	M/s Chacha Bhatija Interprijes propriter Ramesh Kumar Jaiswal	
	Total Areas	**2.00**
Jhanki cluster		
1	Mr. Pramod Sonpali s/o Omprakash Sonpali	
2	Mr. Udaynarayan Sachan s/o Makhanlal Sachan	
3	M/s Gour road tarcoat Pvt.Ltd, (Temporary Permit)	
	Total Areas	**4.50**
Shahpura & Bhardwara cluster		
1	Mr. Sandip Rai s/o Surendra Rai	
2	M/s Abhishek Stone crusher Pro. Rekha Goswami	
		2.71

❖ Latitude and longitude of above mines are provided in chapter – 9.

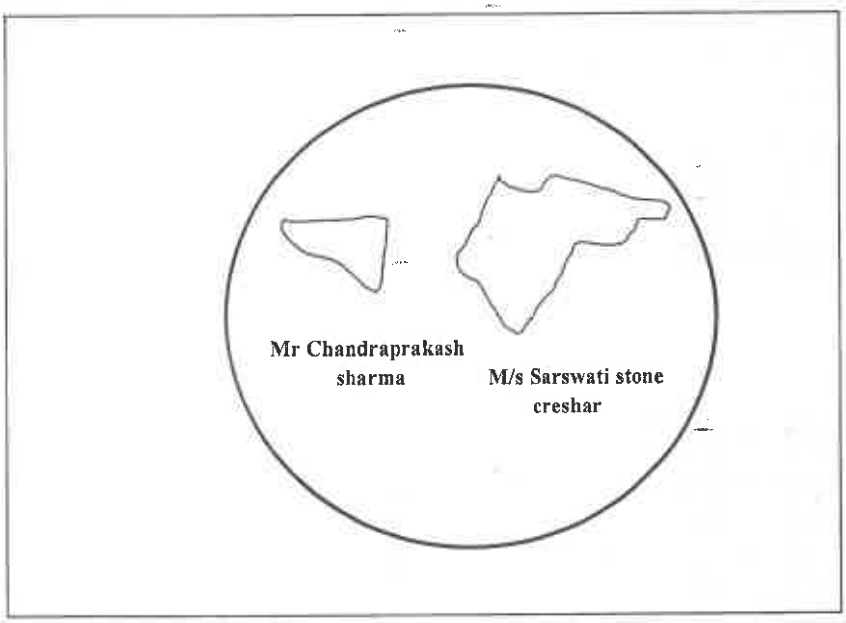

Figure: - Pakarbagharra & Bhardwara cluster

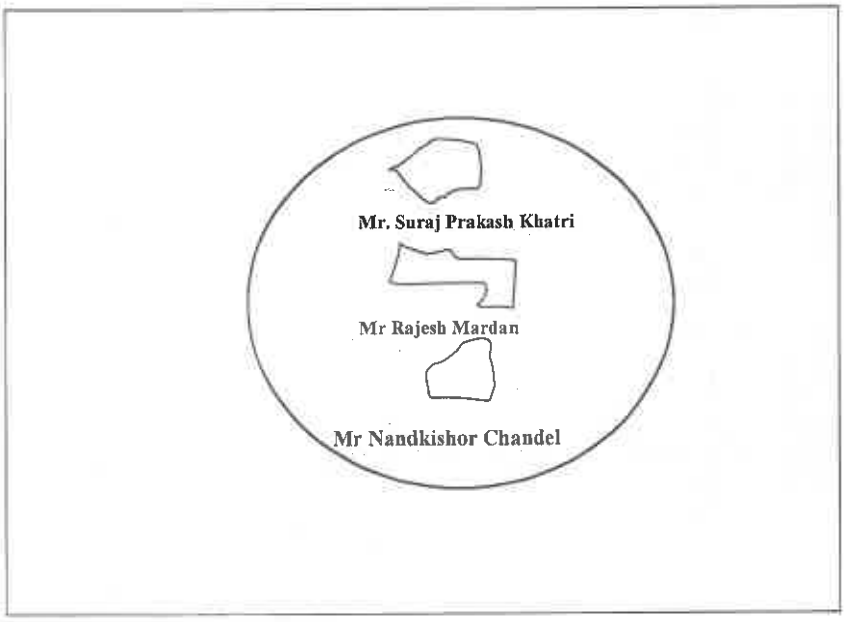

Figure: - Bahera cluster

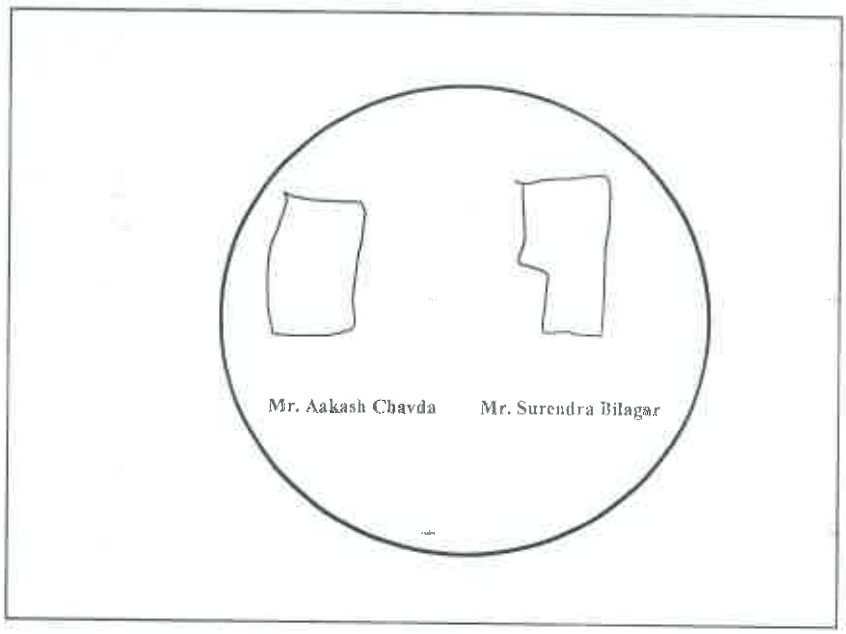

Figure: - Ghanaghat cluster

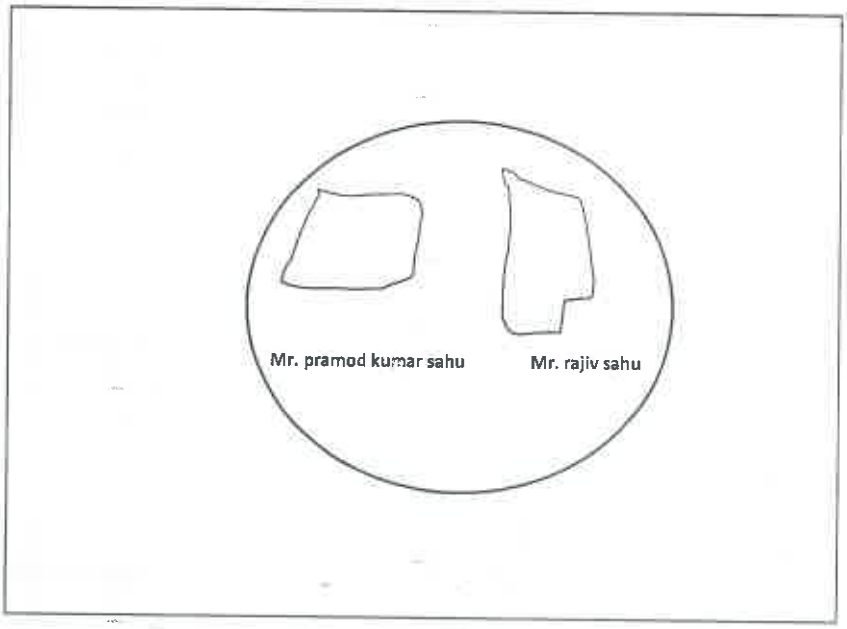

Figure: - Ratna cluster

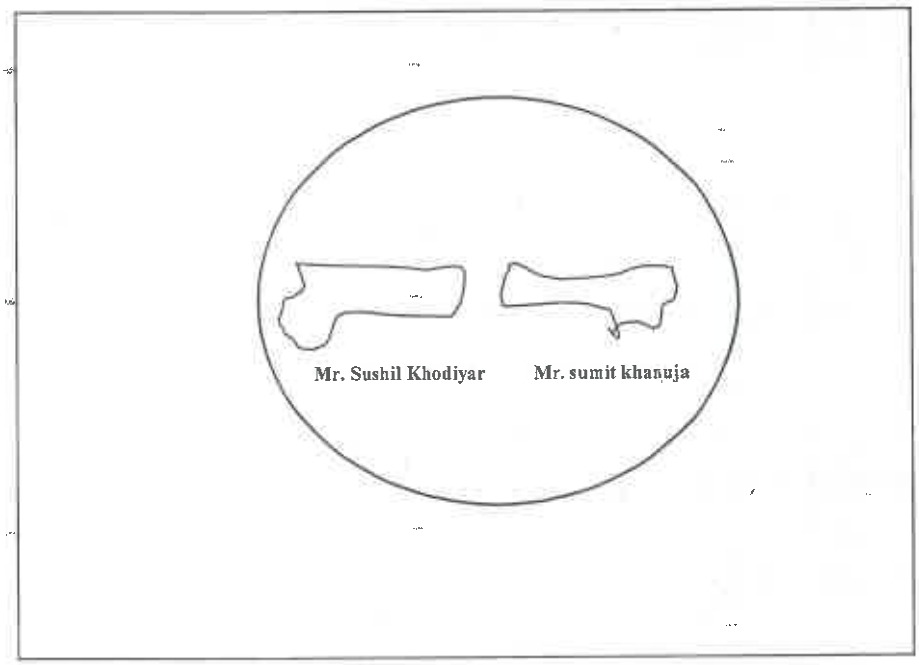

Figure: – Jamuniya cluster

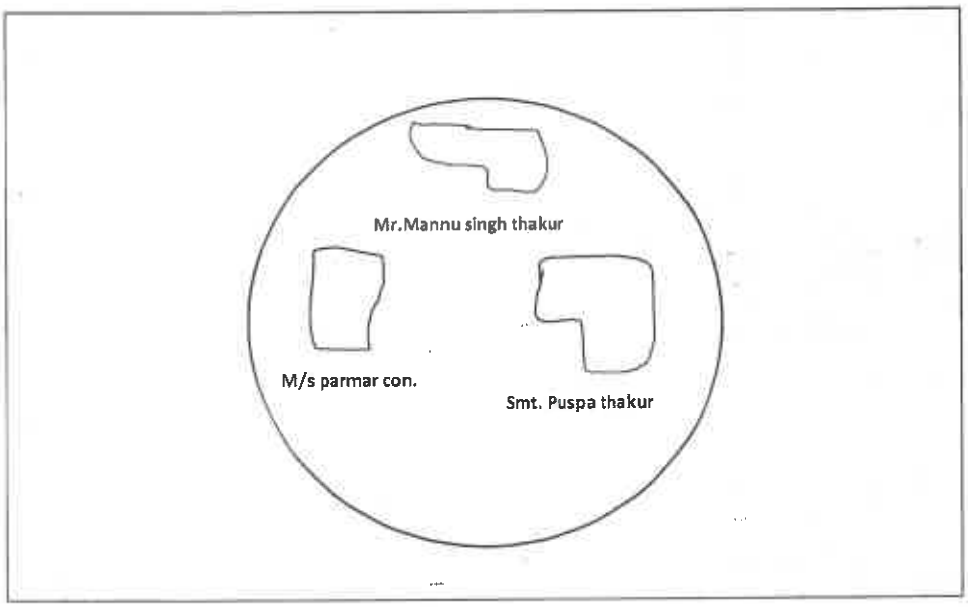

Figure:- Jamuniya & Khirsari cluster

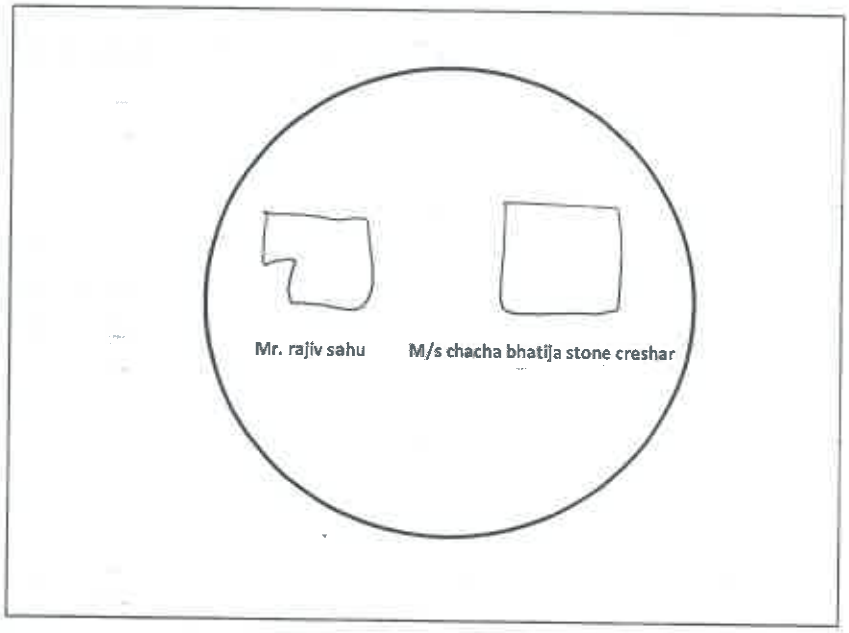

Figure: - Mohtara cluster

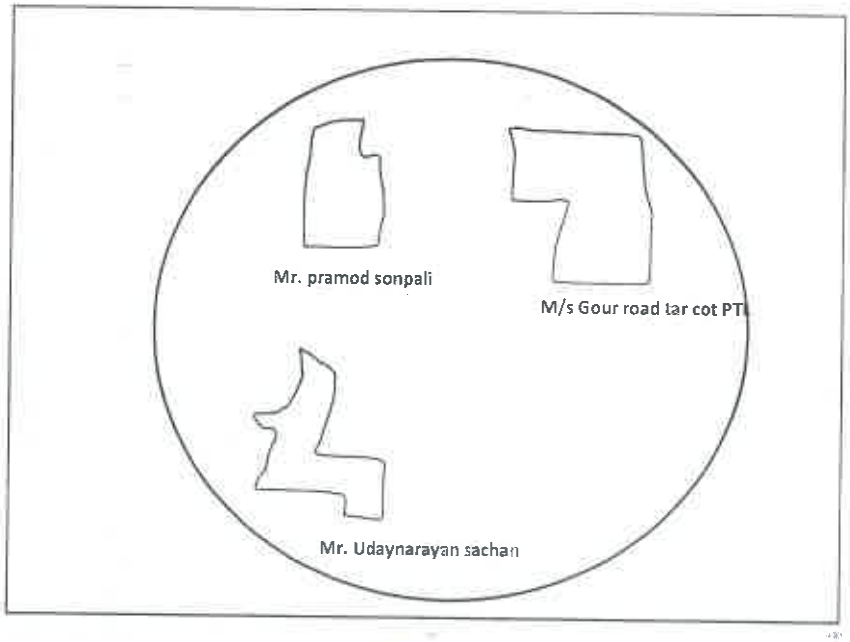

Figure: – Jhanki cluster

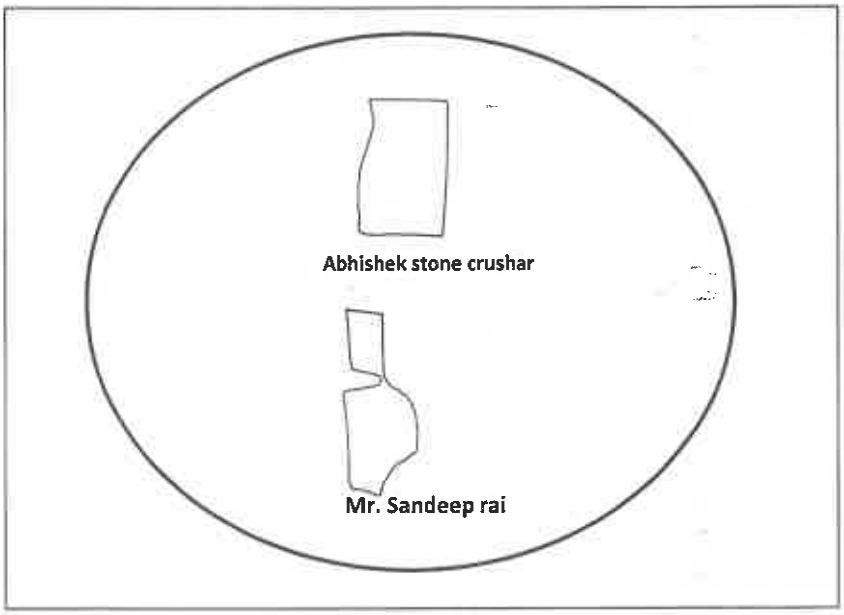

Figure: – Shahpura & Bhardwara cluster

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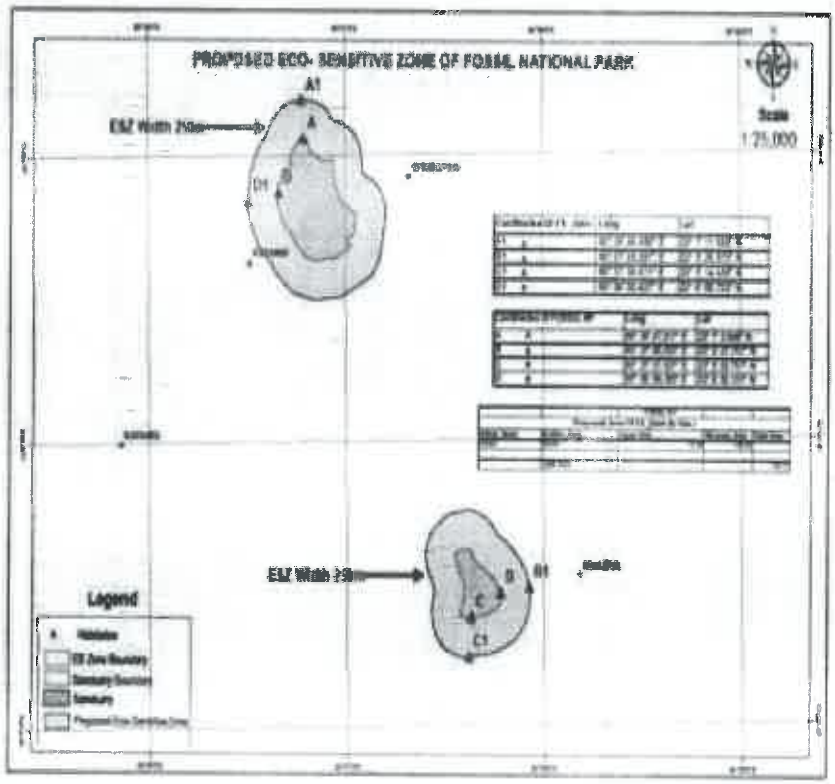
CHAPTER-20

DETAILS OF ECO-SENSITIVE AREA, IF ANY, IN THE DISTRICT

Ghughwa National fossils Park is situated 70km from Dindori in village Ghughwa. It is nestled in an area of 75 acres of land where attractive and rare fossils of leaves and trees are waiting to be explored. This National Park has plants in fossil form that existed in India anywhere between 40 million and 150 million years ago. Petrified trunks of trees have been identified as gymnosperms and Angiosperms Monocotyledons and palms. There are certain Bryophytes also. Depending on the age in which the Pangaea split into Laurasia and Gondwana land occurred, the fossils belong to either Jurassic or Cretaceous Age. Eco-sensitive zone around Ghughwa National park is up to 250 meter from the boundary of National park.



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CHAPTER-21

IMPACT ON THE ENVIRONMENT DUE TO MINING ACTIVITY

Impact on Environment due to mining activites varies based on quantum of production rate proposed. The different activites involved before & during mining are narrated below, which helps to assess the impact on environment.

Population growth, economic development and environmental degradation are interlinked with each-other. The high growth in population speeds-up economic activities. Meanwhile, it also deteriorates environment as for the high level of economic development, plenty of natural resources are exploited. Similarly, mining activities have considerable impacts on environment.

Land degradation is one of the significant impacts arising out of mining and quarrying activity which is mainly in the form of alternation of land structrure due to excavation, stacking of top soil and loss of the land due to dumping of mine waste and overburden soil. Stone and sand dquarrying causes damage to property, deplection of ground water, loss of fertile top soil, degradation of forest land, adverse effect on the biodiversity and public health.

Mining and quarrying, either open cast or underground, destroys landscape and forest ecosystems.

The waste materials that remain after the extraction of usable ores are dumped on the surrounding land, thus causing loss of top soil. Nutrients and supportive micro flora and vegetation.

Air pollution, due to dust from the mines, is a common envirommental problem in mines and quarries especially open cast operations. Stone Mining activities are normally associated with different types of pollution is regarded as the most notable one, where particulate matter (dust) are generated and found in the surrounding areas of such activities. Particles with aerodynamic of less than 50 μm (termed Total Suspended Particulate matter, or TSP) can become suspended in the atmosphere, and those with aerodynamic diameters of less than 10 μm termed PM10 (inhalable particles) can be transported over long distances, and enter the human respiratory system.

Noise pollution is associated with many types of equipment used in mining operations, but blasting is considered the major source. Loud sound disturbed the vegetable nearby the area. It also affects stability of infrastructures, bulding and homes of people living near to these working sites. In this regard, noise pollution may include noise from vehicle engines, loading and unloading of rock into steel dumpers, chutes, power generation, and other sources.

Mining operations impact the environment in several ways, and water pollution is a major concern in such operations. For instance quarry dust can change the chemistry of water resources by dissolving in them, it can also settle in water bodies and cause pollution. Furthermore, these operations disrupt the existing movement of surface water and groundwater; they interrupt natural water recharge and can lead to reduced quantity and quality of drinking water for residents and wildlife near or downstreams from a quarry site.

The pollution potential of the proposed project, it is possible impacts on the surrounding environment during pre-operational and operational phases and the necessary management actions proposed for control and abatement of pollution are furnished here under.

Impact on the some component of the environment is as below;

Air environment:

Althought mining does not cause any direct change in air environment, transportation etc In stone mining operations, the source of air pollution may cause deterioration of quality due to the fugitive dust emission during blasting, scooping, loading-unloading operations and transportation.

Loading and unloading of mineral would be associated with the fugitive emission in the active area whereas fugitive emission during transportation would affect the areas/villages situated adjacent to road side. Another source of air pollution would be emission from the trucks/tractor/other vechicles to be used of transportation of soil.

Water environment:

As far as impact on surface water is concerned, during mining and transportation, there are chances of contamination of surface water resources (pond, well etc.) with dust or by other means.

The labourers working in stone mining come from meighboring districts and colonies in the surrounding areas with inadequate facilities for waste disposal. This, in due course, leads to disposal of various things into surface water bodies which in due course of time results into surface water contamination through misuse/ mismanagement and decomposition of the trash.

Land environment:

There shall be no major impacts of stone mining on land due to rocky terrain having no soil cover generation of top soil shall be nil. Other impacts on land include disposal of packing material, carried by the workers. This packing material would include used sachet/gutka/pan masala pouches. Polythene bags are used by the workers to bring their foods etc.

Noise environment:

As far as noise pollution is concerned, blasting is considered the major source of noise pollution. The machinery used in mining of stone mineral creates sound and vibrates. As well as vechicles used for transport, loading- unloading of mineral etc. put impact on noise environment. Noise level in the working environment should be compared with the standards prescribed by central pollution.

Control Board which has been adopted and enforced by the Govt. of India through The Noise Pollution (Regulation and control) Rules, 2000.

Flora and Faunda:

The mining is a destructive activity generated by human being for providing strength and security to his living standard. The mining in the concerned zones provides raw materials in the form of crusher, gravels and stones, etc.for construction of roads, railway line and other infrastructures.

From the last few years the mining rate has increased several times. It results in the loss of biodiversity of both flora and fauna and physiographic features of the concerned region.

CHAPTER-22

REMEDIAL MEASURES TO MINTIGATE THE IMPACT OF MINING ON THE ENVIRONMENT

1.1 Air Enviornment:

Mitigation Measures

a) For Fugitive Dust Emission:

- All trucks should be covered by tarpaulin sheet to prevent dust emission.
- Water spraying should be there in haul road, crusher and mining area.
- Wet drilling should be preferred
- Sharp drill rods should be used to reduce dust generation
- Dust extractor should be used to reduce dust generation

b) For vehicular Emission:

- Overloading of trucks and trolleys should be prevented.
- Vechicular emission can pose serious health hazard. During the earth mining extraction, tractor/ truck should be used for transportation. Tractor/truck comprises of diesel engine produce particles are dangerously fine of PM10 & PM2.5. It is well known fact that combustion of diesel generates small particulate matter, nitrogen oxides and sulphur dioxide.
- Ultra low sulphur diesel should be used in vechicle. CPCB prescribed emission standards for the vehicle would be followed.
- Monitoring of dust fall at land located nearby the mining area.

1.2 Water Enviornment:

Mitigation measures

- Safeguards will be adopted against health risks on account of breeding of vectors in the water bodies created due to excavation.
- Labourers should not be allowed to through trashes in water bodies.
- Utmost care should be taken to minimize or control oil spills or leakage from vehicles used for soil transportation
- Water Quality Monitoring for the, ground watet should be carried out seasonally to ensure that the water quality is not affected by the project activities.
- The contractor should adhere all guidelines and rules for proper and scientific method of mining during the period of extracting of minerals that the project activities should not have any adverse effect on the physical components of the environment including recharge of ground waters or water quality.

1.3 Land Environment:

Mitigation measures

- Foreign materials like polythene bag, jute bag and useless articles should not be allowed to remain/spill on the land, or no pits/pockets should be allowed to be filled with such material.
- Mining should not exceed beyond the agreed extraction depth.
- Development of thick plants around mining lease areas.

1.4 Noise environment:

Mitigation measures

- Well maintained vehicles should be used in order to reduce the noise during movement of vehicles.
- Regular and proper maintenance of transportation vechiles (trucks, tractor etc.) should be ensured.
- Proper and timely maintenance of machineries
- Major noise generating Equipments like DG set shall be housed.

1.5 Flora and Fauna:

Mitigation measures

- Sediment and erosion control by planting native trees and shrubs to stabilize degraded farming land.
- Regular monitoring of plants and animals on site.
- Establishing and maintaining habitat corridors.
- Controlling access to the site to protect habitats.

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

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CHAPTER-23

RECLAMATION ON MINED OUT AREA IN THE DISTRICT

(Best practice already implemented in the District, Requirement as per Rules and Regulation Proposed Reclamation Plan)

As per Madhya Pradesh Minor Mineral Rules 1996, quarry after exhaustion of mineral and on abandonment, the pit be used as a water tank or be used for fish culture or be used for Municipal solid waste dump yard.

As per requirement of Madhya Pradesh Minor Mineral Rules 1996 every stone quarry after exhaustion of minerals will plan Final Mine Closure Plan with the approval of Directorate of Geology and Mining GoMP and abandon the stone quarry as per method of approval within time frame prescribed and approved by authority.

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CHAPTER-24

RISK ASSESSMENT AND DISASTER MANAGEMENT PLAN

1.1 Risk Assessment:

The proposed project involves stone mining through semi mechanized opencast mining.

The anticipated risks are mentiond below:

Inundation

There is no chance of inundation of mine pits from surface waters such as rivers or nalas as it is situated a long away from river.

The lease hold areas in terms of temporary permits are located in the Dindori district of Madhya pradesh and the area in general receives appreciable amount of rain fall, which is in the range of 1450 mm (annual average).

Pit slope & dump slope failures

Mining is restricted to an average depth of 18 m from surface levels. No permanent dumps are proposed.

Dust from the screening & crushing operations

The hazard is the inhalation of dust which is created during the screening & crushing operations which may result in the various respiratory diseases to the workers. While it is not presently possible to totally remove the hazard, properly applied control measures can substantially reduce the risk. The dust generated during the screening & crushing operations can be controlled by providing proper enclosure to the plant area and by installing rain guns at transfer points inside the plant.

Water sprinkling at the crushing and screening plant units also forms an effective measure of controlling dust generation. Provision of green belt surrounding the plant area will further suppress the spread of airborne dust to the surrounding atmosphere. The workers engaged in these operations will be provided with dusk masks.

Noise

Loading, screening & crushing operations give rise to harmful levels of noise. Noise generated by screening & crushing can be well controlled by providing enclosure and the green belt. The workers engaged will be provided with ear muffs.

Loading

The main hazard associated with loading is the Mineral falling on to the loading labour/tractor, tractor toppling over due to uneven ground, failure of hydraulic systems. Good housekeeping practices, regular cleaning of the haulage roads and regular maintenance of the tractors, loading operations under supervision of competent presons, etc will be done to avoid such accidents.

Explosives

No magazine is within lease hold area. Contractual blasting is proposed. Personal protective Equipment (PPE) The PPE should be of good construction, where ever possible ISI certified, suitable for the hazard e.g. a dust respirator fitted with the correct filter to capture the particular hazardous dust and maintained to recommended standards. As personal protective.

Equipment only affords limited protection it should only be used as a last resort and then as an interim arrangement until other steps are taken to reduce the risk of personal injury to an acceptable level.

1.2 Disaster Management plan:

The following natural/industrial hazards may occur during normal operation:-

- Inundation of mine pit due to flood/excessive rains;
- Slope failure of pits
- Accident due to explosives;
- Accident due to heavy mining equipment

Mine Disaster

Thousands of miners die each year around the globe due to mining accidents, especially from underground coal mining, although hard rock mining is not immune from accidents, Underground mining has considerably less impact than opencast mining on land; it causes enough damage through subsidence. Apart from this, explosive natural gases, especially firedamp, dust explosions, collapsing of mine stones, mining-induced seismicity, flooding, or general mechanical errors from inproperly used or malfunctioning mining equipment and improper explosives underground can also cause to catastrophe.

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CHAPTER-25
DETAILS OF OCCUPATIONAL HEALTH (LAST FIVE YEAR DATA OF NUMBER OF PATIENT OF SILICOSIS & TUBERCULOSIS)

1.1 Health Hazards in Mining:

Some are the major health Hazards in mining as below:

Airborne particulate hazards:

Free crystalline silica is the most abundant material in the crust of the earth and is therefore the most common airborne powder encountered by miners and quarry employees. Althought quartz may also appear as tridimite or christobalite, the most common form of silica. Once silica-bearing rock is drilled, blasted, crushed or otherwise pulverized into fine particles, breathable particles are produced. The quantity of silica in different rock species varies but is not a reliable indicator of how much silica dust in an air sample can be found.

With sufficient exposure, silica can cause silicosis, a typical pneumoconiosis that develops insidiously after years of exposure. Exceptionally high exposure can cause acute or accelerated silicosis within months with significant impairment or death occurring within a few years. Exposure to silica is also associated with an increased risk of tuberculosis, lung cancer and of some autoimmune diseases, including scleroderma, systemic lupus erythematosus and rheumatoid arthritis.

Physical hazards:

Noise in mining is omnipresent. It is created by the ore`s powerful machines, fans, blasting and transport. Typically the underground mine has limited space, producing a reverberant environment. Noise sensitivity is higher than in a more open environment where the same sources are present.

The use of conventional means of noise control on mining machinery will reduce exposure to noise.

Chemical hazards:

Crystalline silica has long been a serious hazard in mining, with the risk of silicosis. Silicosis has been subject to considerable investigation. Axial water-fed rock drills, wet techniques, ventilation, enclosed cabins and respiratory protection facility largely control silicosis.

Due to unavailability of data on the basis of survey by having a discussion with doctors and hospital staff, it has been indentified that there is a very few cases of silicosis & tuberculosis comes through out the year which is very normal and can be found anywhere.

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

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CHAPTER-26
PLANTATION AND GREEN BELT DEVELOPMENT IN RESPECT OF LEASE ALREADY GRANTED

The basic approach to green belt/ plant growth in the lease area is to provide an esthetic look, reduce fugitive pollution, and monitor noise effect, etc.

Green Belt will be developed bases on the following principles:

- Protect natural or semi-natural environments;
- Improve air quality within urban areas;
- Protect the unique character of rural communities that might otherwise be absorbed by expanding suburbs.
- Plants that grow fast should be preferred
- Preference for high canopy covers plants with local varieties
- Perennial and evergreen plants should be preferred
- Plants having a high Air pollution Tolerance Index (APTI) should be preferred.

The green belt has many benefits for people:

- Walking, camping, and biking areas close to the cities and towns.
- Contiguous habitat network for wild plants, animals and wildlife.
- Cleaner air and water.
- Better land use of areas within the bordering cities.

Greenbelt Development & Plantation Programme

Plantation should be developed at 2 M x 2 M spacing, the rate of survival should be aimed at 80% by regular watering & fencing to keep plants safe from animal grazing. Local species will be planted in consultation with local horticulturist. Diseased plants should be replaced by planting new saplings. Some recommended plan species for green belt development are Gurhal, Kaner, Champa, Amaltas, Neem, Peepal, Kathal, Awla, Aam and Teek/Sagun.

Recommendation for green Belt Development

It is strongly recommended to create greenbelt around the project or in case lease failed the authority should take proper action to stop mining operation or revoke mining permission with necessary action. Following Tree species selected for Greebelt as per survival rate of that area:

S.No.	Botanical Name	Common Name
1	*Caesalpinia pulcherrima*	Krushnachuda
2	*Peltophorum ferrugineum*	Radhachuda
3	*Saraca indica*	Ashok
4	*Mimusops elengi*	Bakul
5	*Mangifera indica*	Mango
6	*Phyllanthus embilca*	Amla
7	*Psidium guava*	Guava
8	*Leucaena leucocephala*	Babul
9	*Annona squamosa*	Sitaphala
10	*Azadirachta indica*	Neem
11	*Millingtonia hortensis*	Akash neem

For green belt development the plantation has been done by the existing lessee in their respective Lease. Photographs of Plantation attached belows:

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

LIST OF PLANTATION DONE BY LESSEES

S.	Name of Lessee & Address	Village	Kh.no.	Area	Lease Period	Stutus of Plantation	No. fo Plantation
1	Smt. Kiran Siani w/o Jasvir Saini, Main road Dindori Tah. & Distt Dindori MP	Devra	272, 273	1.00	02.08.2018-01.08.2028	Karanj	70
2	Smt. Pushpa Thakur w/o Krishnakumar Vill Khirsari Tah. & Distt Dindori MP	Khirsari	19/1, 19/2, 19/3	1.00	02.11.2016-01.11.2021	Mango, Neem, Kathal, Kajanj, Gulmohar	100
3	Shri. Bharat Singh s/o Sumer Singh Vill. Lukampur Tah. & Distt Dindori MP	Dandviday pur	594, 596	0.91	11.11.2016-10.11.2021	Ratanjot, Mango, Amla, Guava, Karanj, Kathal	60
4	Ma Sharda Stone Crusher Pro. Baburam Chouhan Vill. Sarhari Tah. & Distt Dindori MP	Kunda	537/2	1.00	13.03.2017-12.03.2027	Ratanjot, Mango, Amla, Guava,	100
5	Shri. Udaynarayan Sachan s/o Makhanlal Vill. Jhanki Tah. & Distt Dindori MP	Jhhanki	322	2.00	24.08.2017-23.08.2028	Mango, Karanj, Guava, Kathal, Jamun	100
6	Ashok Chhabra s/o Trilok Chhabra, Dindori Tah. & Distt Dindori MP	Ghanaghat	355/1, 355/2	1.30	08.12.2015-07.12.2025	Anar, Mango, Gauva, Kathal, Neebu	120
7	Shri. Rajesh Mardan s/o Chandrabhan Purani Dindori Tah. & Distt Dindori MP	Bahera mal	1337/1, 1337/2, 1343, 1339/3	1.00	19.01.2016-18.01.2026	Mango, Amla, Karanj, Kathal, Jamun	60
8	Shri. Prakash Kumar Rai s/o Ajab Singh, Samnapur Tah. & Distt Dindori MP	Andia	37	1.00	05.02.2021-04.02.2026	Mango, Amla, Karanj, Kathal, Jamun	40
9	Shri. Naval Singh s/o Ramesh Singh, Punari Dindori Tah. & Distt Dindori MP	Rahngi mal	308/1, 308/3	2.00	11.03.2016-10.03.2026	Amla, Karanj, Sagun	100
10	Shri. Bharat Singh s/o Sumer Singh Vill. Lukampur Tah. & Distt Dindori MP	Bhaislagan Ryt	25, 36/2	2.25	07.09.2016-06.09.2026	Ratanjot, Mango, Amla, Guava, Karanj, Kathal	00
11	Shri. Mannu Singh s/o Doman Singh Vill. Khirsari Tah. & Distt Dindori MP	Jamuniya mal	915/1	1.00	04.02.2017-03.02.2027	Mango, Kathal, Jamun	60
12	Shri. Suraj Prakash Khatri s/o Kishanlal Vill Ranjhi Tah. & Distt Jabalpur	Bahera mal	1350/1 to 1350/3	1.00	17.05.2017-16.05.2027	Mango, Kathal, Peepal	10
13	Shri. Arpit Nayak s/o Manganlal, Dindori Tah. & Distt Dindori MP	Rahngi Mal	22	1.00	31.10.2014-30.10.2024	Mango, Amla, Guava, Karanj, Kathal	00
14	Shri. Balmukund Thakur s/o Santsingh Vill. Khudiya Tah. & Distt Dindori MP	Khudiya	56	1.00	06.06.2017-05.06.2027	Imli, Mango, Ratanjot	25
15	Shri. Bheem Awadhiya s/o Lakhanlal, Narmada ganj Dindori Tah. & Distt Dindori MP	Ganeshpur	99	1.00	03.05.2017-02.05.2027	Mango, Shitaphala, Karanj, Sagun, Amla	50
16	Shri. Sushil Khodiyar s/o Leeladhar Vill. JamuniyaTah. & Distt Dindori MP	Jamuniya Mal	848	1.00	31.10.2019-30.10.2024	Mango, Guava	100
17	Shri. Sumit Khanuja s/o Kuldip Khanuja Main road Dindori Tah. & Distt Dindori MP	Jamuniya Mal	853, 545	3.07	13.03.2018-12.03.2028	Mango, Amla, Guava, Jamun	40
18	Shri. Sanjiv Khanuja s/o Ramchandra Khanuja Main road Dindori Tah. & Distt Dindori MP	Ganeshpur Dhangaon Ryt	235	2.00	26.04.2018-25.04.2028	Mango, Jamun	100
19	M/s Sarsvati Stone Crusher Pro. Rajesh Kumar Jain, Birsingpur Pali Distt Umaria MP	Pakarbagha rra	55/2	4.00	13.03.2018-12.03.028	Karanj, Jamun, Sagun	100

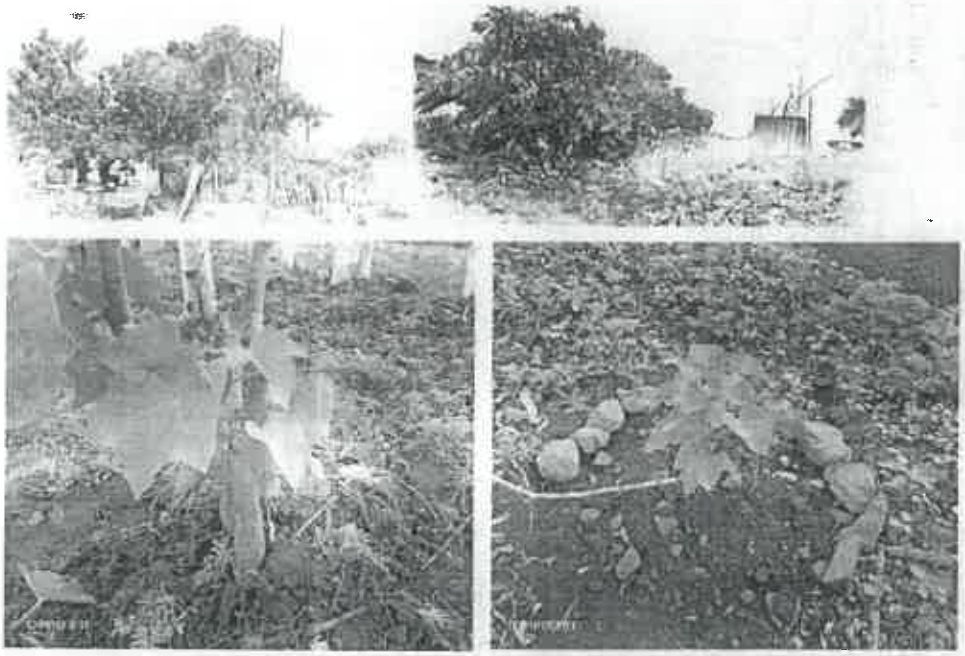
20	Shri. Chandra Prakash Sharma s/o Ramavatar Sharma, Saman Bansagar Colony Reewa MP	Bhardwara Ryt	405/2	2.00	31.03.2018-30.03.2028	Bans, Guava, Amla	70
21	Shri. Prabhat Mishra s/o Jagatnarayan Vill. Sidhauli Tah. & Distt Dindori MP	Padariya mal	94	1.00	04.04.2018-03.04.2028	Mango, Pipal, karanj, Guava,	90
22	Smt. Gangavati w/o Bhopal Singh Vill. Madiyaras Tah. & Distt Dindori MP	Madiyaras	116/2	1.00	20.12.2018-19.12.2028	Mango, Mahua, Neem, Guava	50
23	Shri. Rajesh Kumar Bilagar s/o Uday Singh Vill. Kohka Tah. & Distt Dindori MP	Kohka	826/2, 827/1	1.00	20.12.2018-19.12.2028	Mango, Kathal, Anar, Amla, Guava	60
24	Shri. Jay singh s/o Mohit Singh Vill. Simariya Tah. & Distt Dindori MP	Simariya	217/2-217/5, 217/7	1.00	20.12.2018-19.12.2028	Mango, Kathal, Amla, Guava	100
25	Shri. Jayesh Pathak s/o Dushyant Pathak Dindori,Tah. & Distt Dindori MP	Barkhoh	207	1.00	21.12.2018-20.12.2028	Mango, Kathal, Guava	80
26	Shri. Surendra Bilagar s/o Madho Singh Vill. Dandbichiya Tah. & Distt Dindori MP	Ghanaghat	501/1/2, 502, 503/1, 503/2	1.00	20.12.2018-19.12.2028	Kathal, Karanj, Guava	100
27	Shri. Shatrughan Parashar s/o Surendra Singh, Ward no. 11 Purani DindoriTah. & Distt Dindori MP	Khirsari	823/1, 823/2, 824	1.00	12.06.2020-11.06.2030	Mango, Guava, Shitaphal, Karanj	100
28	Shri. Sunil Rajput s/o Tejsingh Vill. Bahera mal Tah. & Distt Dindori MP	Bahera Ryt	11	1.00	02.07.2020-01.07.2030	Karanj, Mahua	100
29	Rajendrapal Kushram s/o Raysingh Ward no. 3 DindoriTah. & Distt Dindori MP	Karanpura mal	85	1.00	11.06.2020-10.06.2030	Mango, Amla, Guava, Neebu, Karanj, Neem, Jamun	200
30	Shri. Ajay Sahu s/o Dwarkaprasad, Gadasari Tah. Bajag Distt Dindori MP	Bargeon	289	0.71	11.05.2017-10.05.2022	Mango, Guava, Kathal	80
31	M/s Chacha Bhatija Interprisess Pro. Ramesh Jaiswal Vill. Mohtara Tah. Bajag Distt Dindori MP	Mohtara	57	1.00	26.04.2016-25.04.2026	Karanj	20
32	Shri. Pramod Sahu s/o Nemchand Sahu, GadasaraiTah. Bajag Distt Dindori MP	Ratna Mal	1	2.00	06.04.2017-05.04.2027	Mango, Neebu, Kathal, Jamun, Karanj, Khamer	100
33	Shri. Pramod Sahu s/o Nemchand Sahu, GadasaraiTah. Bajag Distt Dindori MP	Karonda Ryt	24	2.00	13.06.2018-12.06.2028	Mango, Neebu, Kathal	10
34	Shri. Rajiv Sahu s/o Shambhuprasad Sahu, GadasaraiTah. Bajag Distt Dindori MP	Mohtara	6/1, 10	1.00	31.03.2018-30.03.2028	Mango, Guava, Kathal	40
35	Shri. Arun Gupta s/o Indarchand Gupta, Shahpura Tah. Shahpura Distt Dindori MP	Shahpura	802/2	1.00	09.05.2017-08.05.2027	Mango, Amla, Neelgiri	50
36	Shri. Abhishek Stone Crucher Por. Smt. Rekha Goswami, Ward no. 13 Tah. Shahpura Distt Dindori MP	Shahpura	790/1	0.70	01.10.2013-30.09.2023	Mango, Neem, Karanj, Guava	100
37	Shri. Tikaram Sahu s/o Mohanlal Sahu, Vill. Bargaon Tah. Shahpura Distt Dindori MP	Bargaon	1683	2.00	11.01.2016-10.01.2026	Neelgiri, Mango, Shitaphal, Guava, Jamun	100
38	Shri. Pratap Singh Dhurwey s/o Kuvar Singh Vill. Dungariya Tah. Shahpura Distt Dindori MP	Dungariya	81, 82	1.00	17.03.2016-16.03.2026	Mango, Karanj, Guava, Sagun	60
39	Smt. Ashiya Begam w/o Abdul Razzak Khan Vill. Mehadwani Tah. Shahpura Distt Dindori MP	Mehandwani	626	1.00	-	Mango, Karanj, Guava, Gulmohar, Jamnu, Neebu,	100
40	Shri. Sandip Rai s/o Surendra Rai Vill. Bichhiya Tah. Shahpura Distt Dindori	Bhardwara	62/5, 62/6, 65	2.00	03.03.2017-02.03.2027	Mango, Guava, Jamun, Kathal Gulmohar	60

41	Smt. Nandni Markam w/o Santosh Markam Ward no. 3 Tah. & Distt Dindori MP	Kathotiya	139	1.00	11.06.2020-10.06.2030	Mango, Karanj, Guava, Neebu, Amla, Jamun, Neem	100
42	M/s Gour Road Tarcoat Pvt.Ltd, Sharda Chowk Nagmur road Jabalapur MP	Jhanki mal	321	1.92	14.05.2019-30.09.2021	Mango, Karanj, Amla, Jamun, Kathal	100
43	M/s Gour Road Tarcoat Pvt.Ltd, Sharda Chowk Nagmur road Jabalapur MP	Kamrasondha	01	2.00	14.02.2020-30.09.2021	Mango, Karanj, Amla, Jamun, Kathal	100
44	Shri. Sharda Rai s/o Shitacharan Rai, Ward no 3 Shahpura Tahsil Shahpura Distt Dindori MP	Tikra khamhariya	13/2	0.69	20.02.2020-19.02.2025	Mango, Guava, Neem, Jamun, Gulmohar	30

श्रीमति किरण सैनी पति श्री जसवीर सैनी, देवरा माल ख.नं. 272, 273 रकवा 1.00हे.

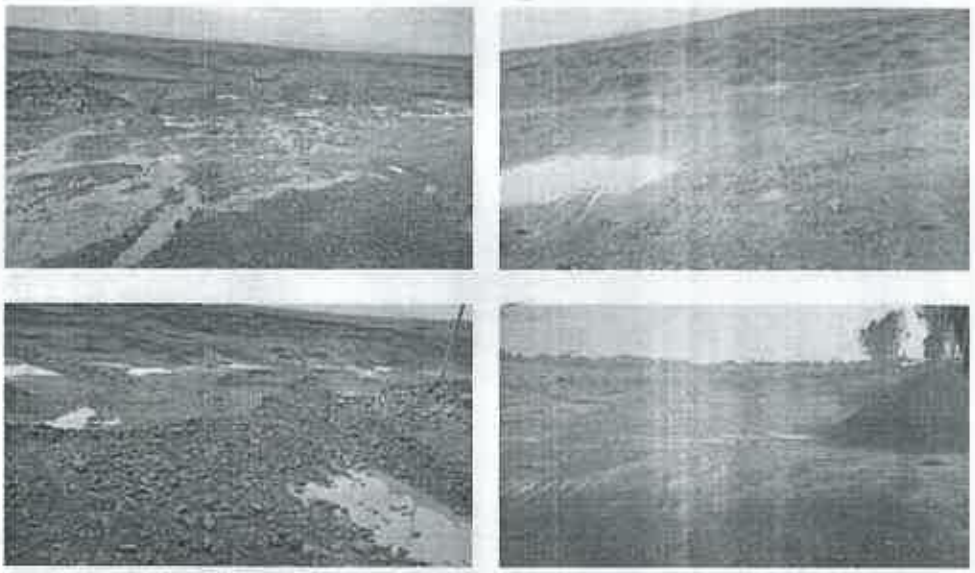
श्रीमति पुष्पा ठाकुर पति स्व.श्री कृष्ण कुमार, खिरसारी ख.नं. 19/1,19/2, 19/3 रकवा 1.00हे.

श्री भरत सिंह आ. श्री सुगेर सिंह, डांडविदयपुर ख.नं. 594,596 रकवा 1.00हे.



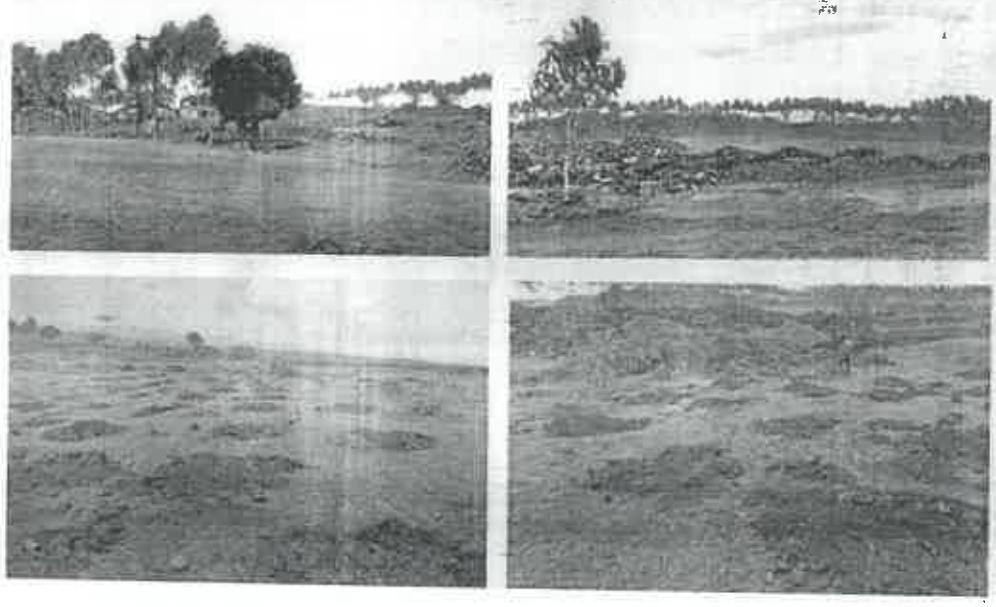
श्री उदयनारायण सचान आ. श्री माखनालाल सचान,
झांकी ख. नं. 322 रकवा 2.00हे.

मॉ शारदा स्टोन क्रेशर प्रो.बाबूराम चौहान, कूंडा, ख.नं. 537/2 रकवा 1.00हे.



राजेश कुमार मर्दन आत्मज श्री चन्द्रभान मर्दन,
बहेरा माल ख. नं. 1337/1,1337/2, 1343,1339/3 रकवा 1.00हे.

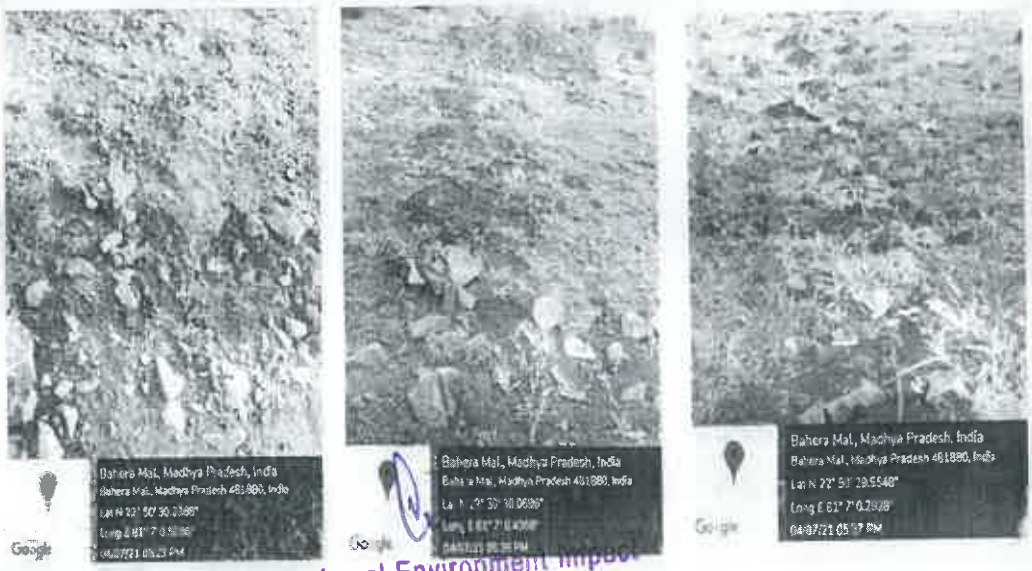
आकाश छावड़ा पिता श्री अशोक छावड़ा, घानाघाट, ख.नं. 355/1,355/2 रकवा 1.30हे.



मॉ भवानी स्टोन क्रेशर प्रो. भारत सिंह
भैंसलगान रैयत ख. नं. 25, 38/2 रकवा 2.25हे.

नवल सिंह आ. श्री रमेश सिंह, रंहगी माल ख.नं. 308/1, 308/3 रकवा 2.00हे.

मन्नू सिंह आ. श्री डोमन सिंह, जमुनिया माल, ख.नं. 915/1 रकवा 1.00हे.



श्री बालमुकुन्द आ.श्री संतसिंह, खुडिया ख.नं. 56 रकवा 1.00हे.

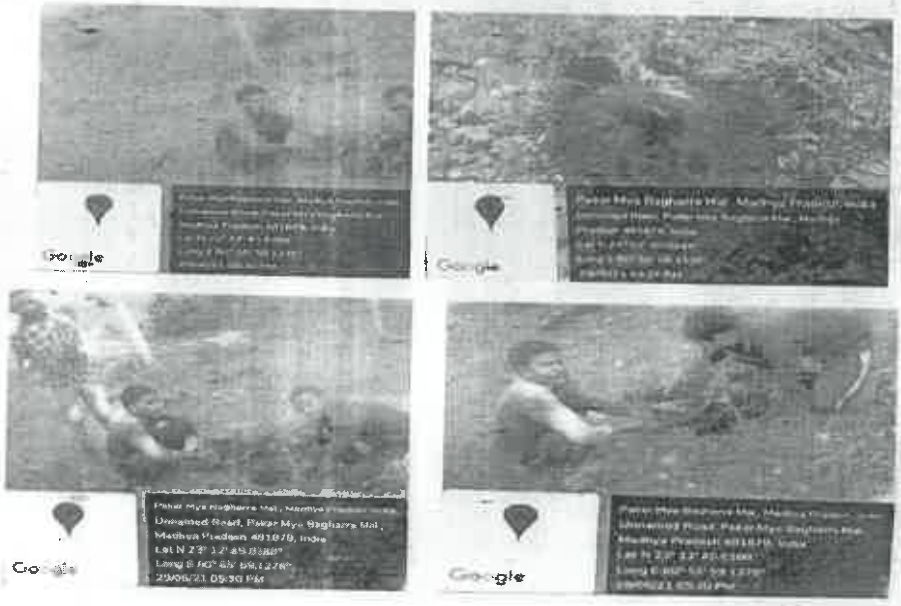
प्रमोद सोनपाली आ.श्री ओमप्रकाश सोनपाली, झांकी, ख.नं. 303 रकवा 1.00हे.

श्री प्रकाश राय आ. श्री अजब सिंह,
अण्डई ख. नं. 37 रकवा 1.00हे.

श्री अर्पित नायक आ.श्री मंगल लाल
रहंगी माल ख. नं. 22 रकवा 1.00हे.

सूरज प्रकाश खत्री आ.श्री किशनलाल खत्री
बहेरा माल ख. नं. 1350/1, 1350/3 रकवा 1.00हे.

मे.सरस्वती स्टोन क्रेशर प्रो.राजेश कुमार जैन
पाकरबघर्रा ख. नं. 55/2 रकवा 4.00हे.



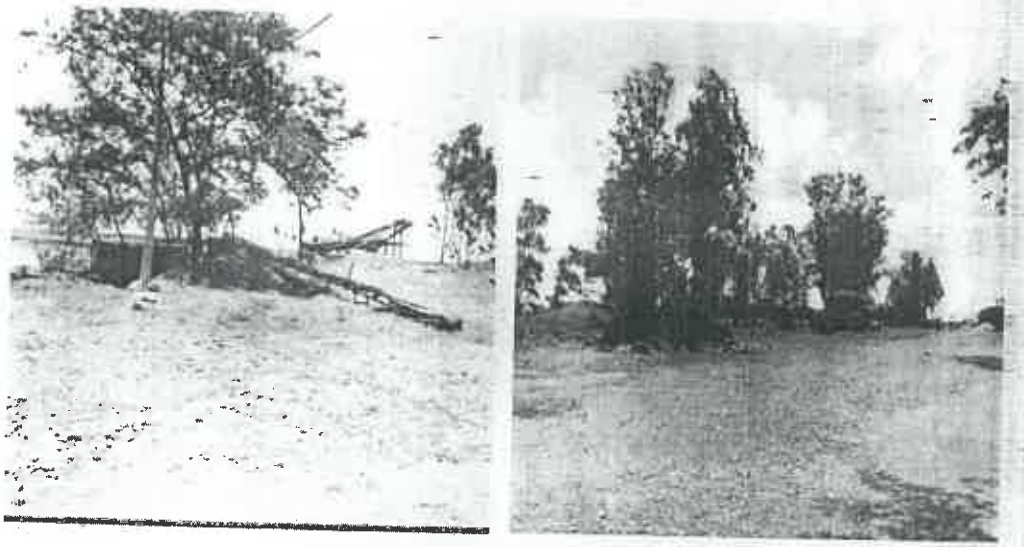
State Level Environment Impact
Assessment Authority, M.P.
(EPCO)
Paryavaran Parisar
E-5, Arera Colony, Bhopal (M.P.)

श्री भीम अवधिया, गणेशपुर खसरा नं. 88 रकवा 1.00हे.

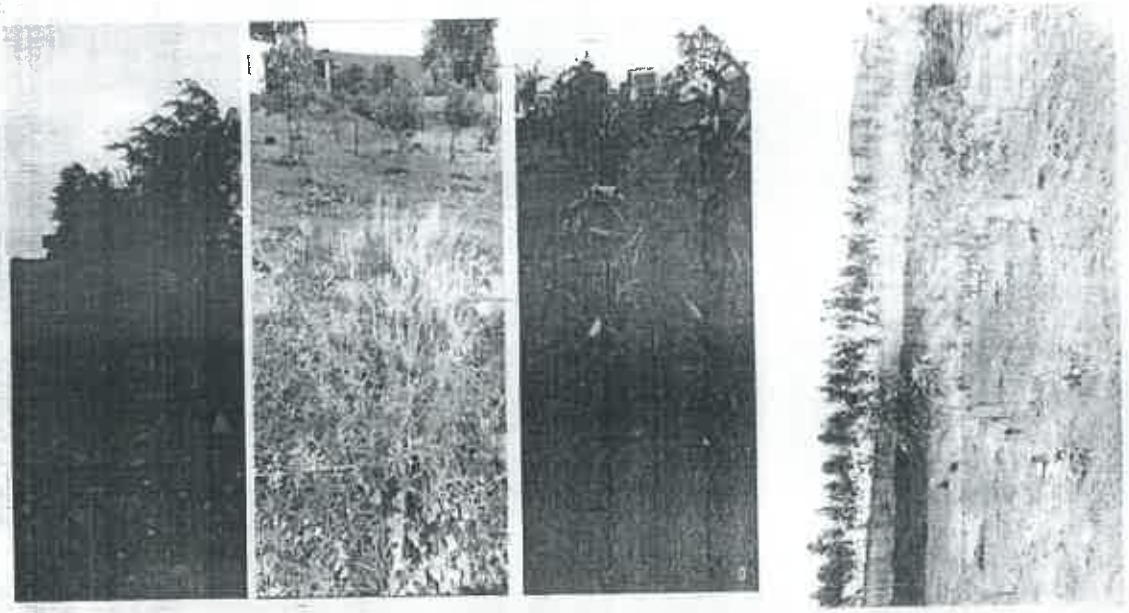
श्री सुशील खोडियार आ. श्री लीलाधर खोडियार
जमनिया माल ख. नं. 848 रकवा 1.00हे.

चन्द्रप्रकाश शर्मा पिता रामावतार,
भरद्वारा रैयत ख. नं. 405/2 रकवा 2.00हे.

श्री सुमित खनूजा आ.श्री कुलदीप खनूजा, जमुनिया माल ख.नं. 853,545 रकवा 3.07हे.

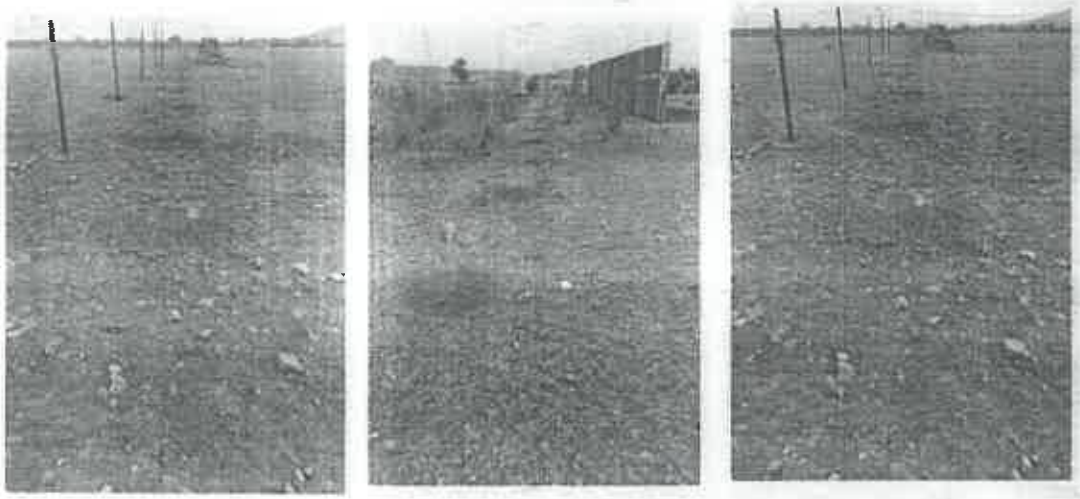


श्री संजीव खनूजा आ.श्री रामचन्द्र खनूजा,गणेशपुर मय धनगॉव रै. ख.नं. 235 रकवा 2.00हे.

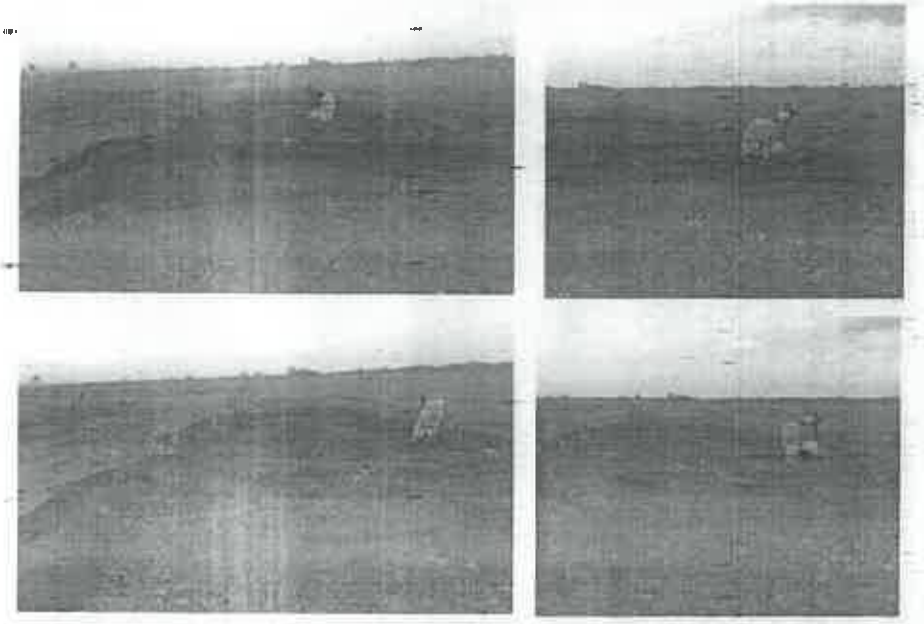


श्री जय सिंह आ. श्री मोहित सिंह,
सिमरिया ख. नं. 217/2, 517/5, 217/7 रकवा 1.00हे.

श्री प्रभात मिश्रा आ. श्री जगतनारायण मिश्रा, पड़रिया माल ख. नं. 94 रकवा 1.00हे.



श्री सुरेन्द्र बिलागर आ. श्री माधोसिंह, घानाघाट नं. 501/1/2, 502, 503/1,503/2 रकवा 1.00हे.



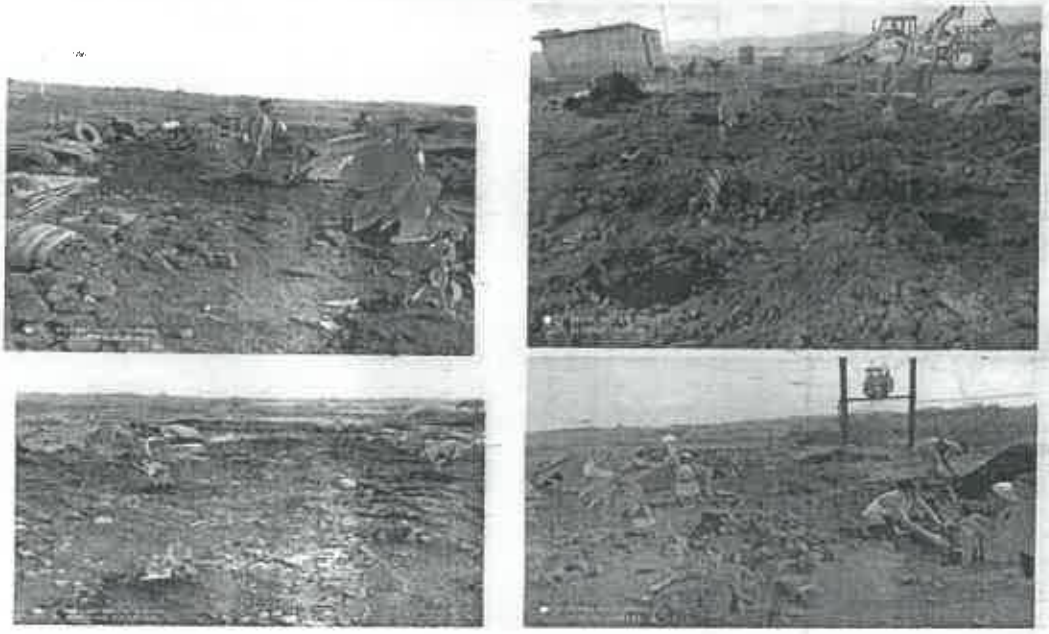
गंगावती पति श्री भोपाल सिंह,
मडियारास ख. नं. 116/2 रकवा 1.00हे.



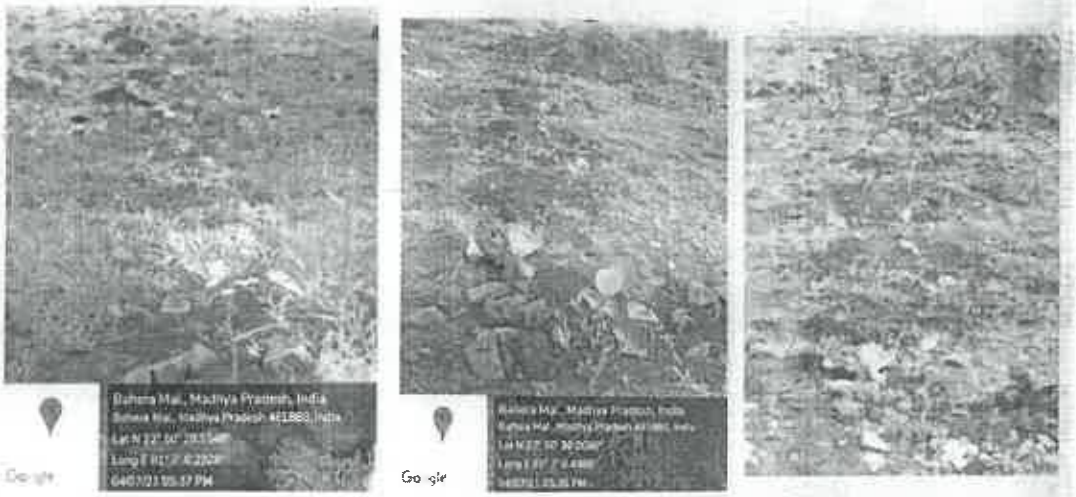

श्री जयेश पाठक आ.श्री दुष्यंत पाठक, बरखोह, खसरा नं. 207 रकवा 1.00हे.




श्री राजेश बिलागर आ. श्री उदयसिंह, कोहका ख. नं. 826/2, 827/1 रकवा 1.00हे.

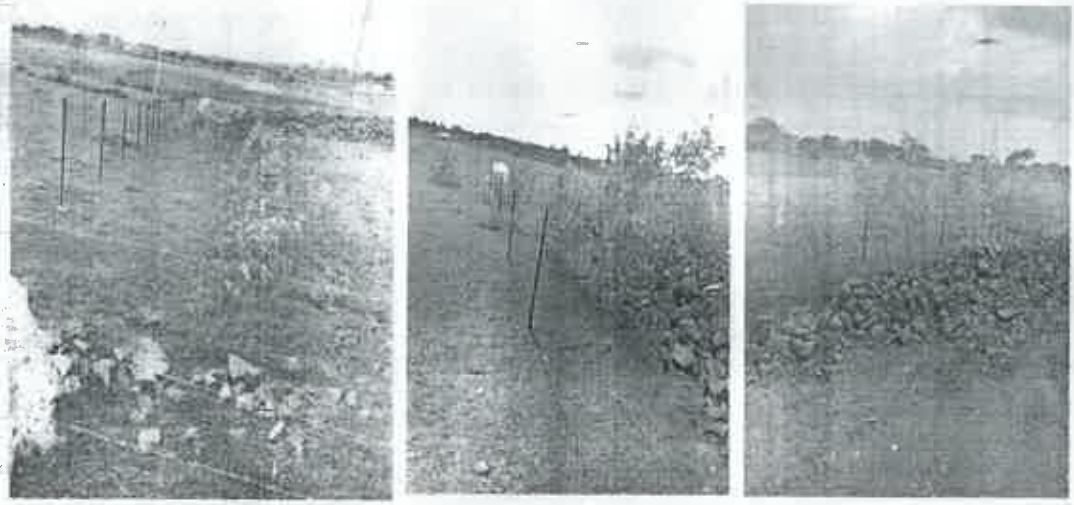


सुनील राजपूत आत्मज श्री तेज सिंह राजपूत, बहेरा रैयत ख. नं. 11 रकवा 1.00हे.

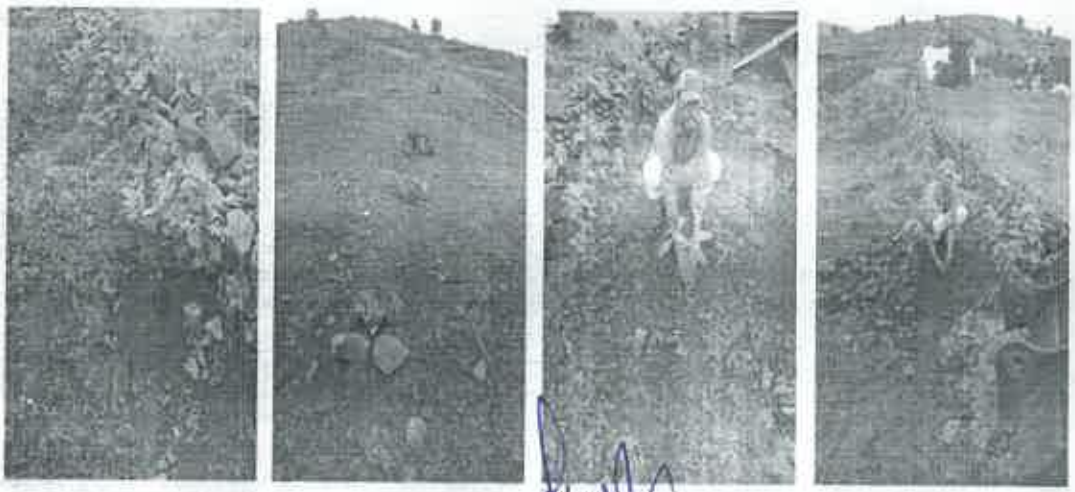


State Level Environment Impact Assessment Authority, M.P.
Parisar
E-5, ... y, Bhopal (M.P.)

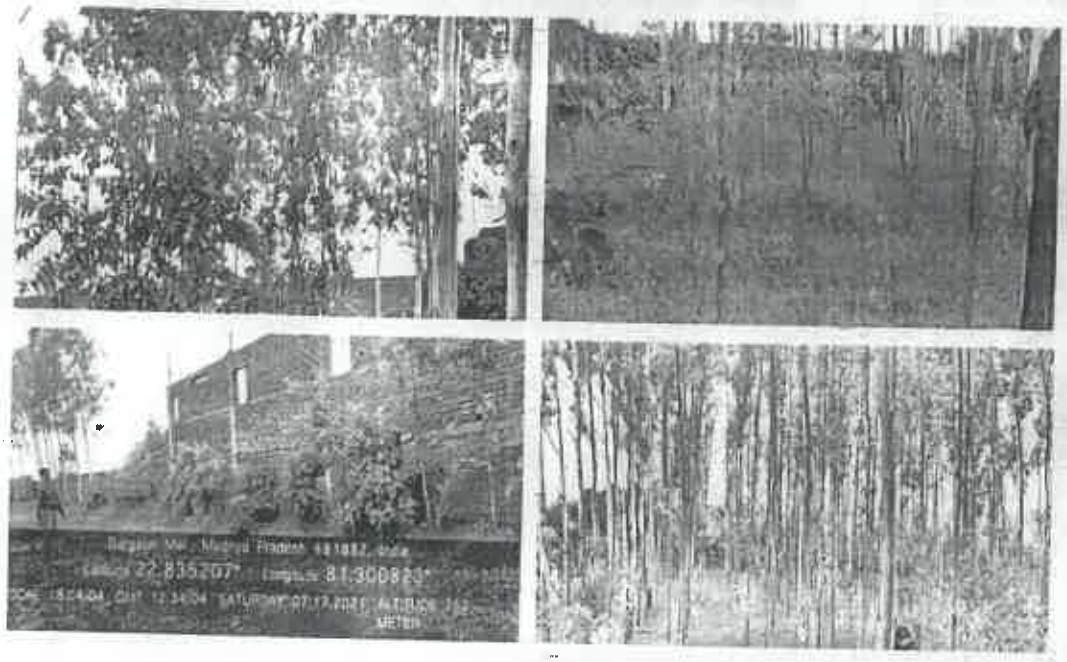
शत्रुघन पाराशर आ.-श्री सुरेन्द्र सिंह,
खिरसारी ख. नं. 823/1, 823/2, 824 रकवा 1.00हे.



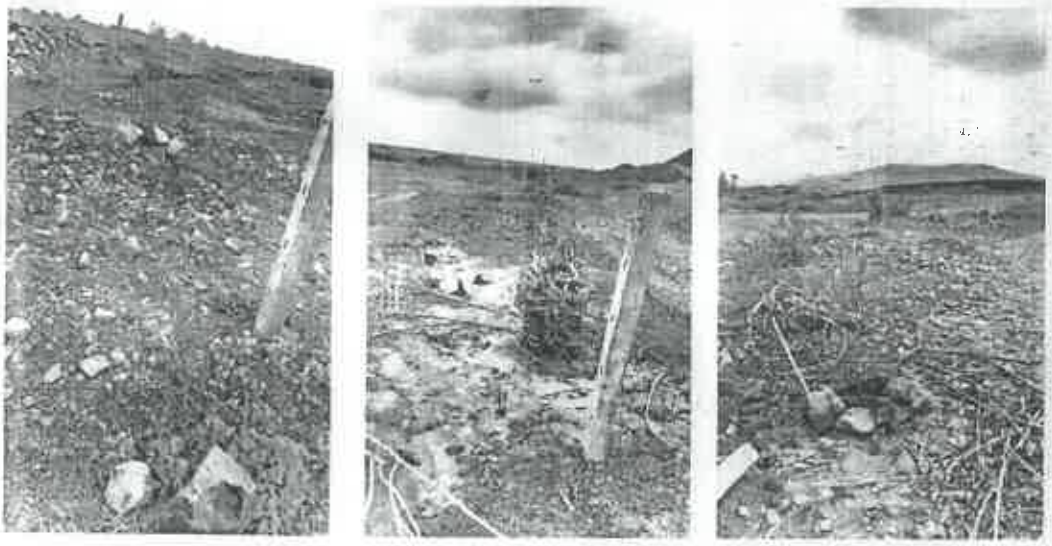
राजेन्द्रपाल कुशराम आ.श्री रायसिंह
करनपुरा माल ख. नं. 85 रकवा 1.00हे.



अजय साहू आत्मज श्री द्वारका प्रसाद साहू, बरगॉव ख. नं. 289 रकवा 0.71हे.



श्री प्रमोद साहू आ. श्री नेमचंद साहू, रतना माल ख. नं. 1 रकवा 2.00हे.



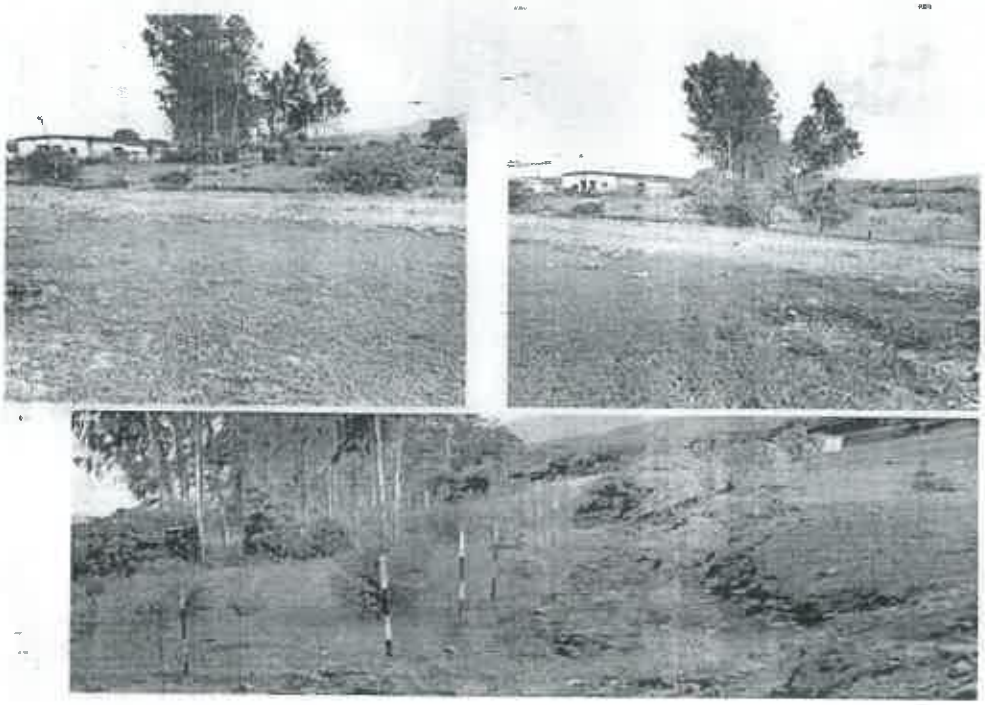
चाचा भतीजा इन्टरप्राईजेज प्रो. रमेश कुमार जायसवाल-
मोहतरा ख. नं. 57 रकवा 1.00हे.

श्री टीकाराम साहू, आ.श्री माहन लाल साहू,
बरगॉव ख. नं. 1683 रकवा 2.00हे.

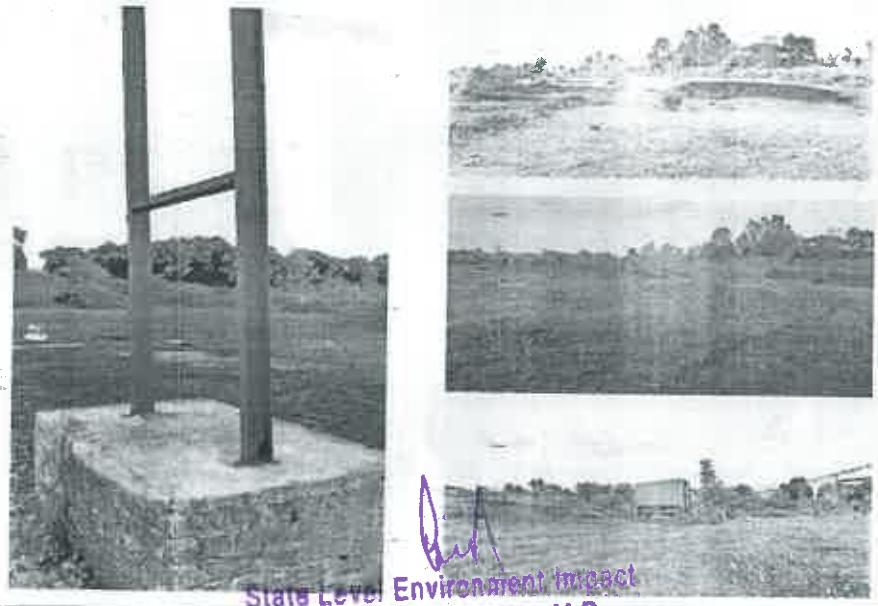
श्री प्रमोद साहू आ. नेमचंद साहू, करौंदा रैयत ख. नं. 24 रकवा 2.00हे.

श्री अभिषेक स्टोन क्रेशर प्रो. श्रीमति रेखा गोस्वामी पति संतोषपुरी गोस्वामी, शपपुरा, खसरा नं. 790/1 रकवा 0.70हे.

श्री राजीव कुमार साहू पिता श्री शम्भू प्रसाद साहू, मोहतरा ख.नं. 24 रकवा 2.00हे.



श्री अरूण कुमार गुप्ता आ. श्री इंदरचंद गुप्ता, शहपुरा माल ख. नं. 802/2 रकवा 1.00हे.



अमन साहू पिता श्री संतोष साहू, लालपुर माल ख.नं. 813 रकवा 2.00हे.

आशिया बेगम पति श्री अब्दुल रज्जाक,
मेंहदवानी ख. नं. 626 रकवा 1.00हे.

श्री प्रताप सिंह धुर्वे आ.श्री कुवंर सिह, डुंगरिया, ख.नं. 81, 82 रकवा 1.00हे.

शारदा राय आ.श्री सीताचरण राय, टिकराखम्हरिया ख.नं. 13/2 रकवा 0.69हे.

संदीप राय पिता सुरेन्द्र कुमार राय,
भरद्वारा ख. नं. 62/5, 62/6, 65 रकवा 2.00हे.

श्रीमति नंदिनी मरकाम पति श्री संतोष मरकाम, कठौतिया खसरा नं. 139 रकवा 1.00हे.

CHAPTER-27

ANY OTHER INFORMATION

The well developed Environmental management plan and Remedial measures is proposed to carryout in all mining areas in the District.

CER/CSR activities shall be carried out by providing social and welfare measures to the local community of the nearby villages. The main activities would be like drinking water facilities for the government schools children, public toilets to the local community and government schools, conducting free medical camps, providing solar lights to the villages besides encouraging the local cultural activities of the area. Any other CSR and CER activities as guided by the DEAC during the grant of Environmental Clearance Shall be implemented.

Further, several welfare measures are also taking for the mine affected People/mine affected Villages through District Mineral Foundation Trust Fund which is remitted by the Quarry lease holders.

This District Survey Report has been prepared by carrying out field work. The details related to the occurrence of mineral resources and other data of the district are subject to updation from time to time. Mining can become more environmentally sustainable by developing and integrating practices that reduce the environmental impact of mining operations. These practices include measures such as reducing water and energy consumption, minimizing land disturbance and waste production, preventing soil, water, and air pollution at mine sites, and conducting successful mine closure and reclamation activities.

Before granting of any quarrying lease, parameters related to geosciences and sustainable developments have to be considered. The introduction of e-permit system and implementation of Mineral Dealers Rule and the despatch slips / transit permits with tampered proof security features and tracking of mined out minerals would fetch more revenue to the State Exchequer as well as sustainable development.

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

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