



राज्य स्तरीय पर्यावरण समाघात निर्धारण प्राधिकरण, म.प्र.

(पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय, भारत सरकार)

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

वेबसाइट- <http://www.mpseiaa.nic.in>

दूरभाष नं. - 0755-2466970, 2466859

फैक्स नं. - 0755-2462136

No: 2116 / SEIAA/2022

Date: 25/11/22

प्रति,

कलेक्टर

जिला - दमोह (म.प्र.)

विषय: नवीन जिला सर्वेक्षण रिपोर्ट - दमोह (अन्य गौण खनिज - रेत को छोड़कर)

संदर्भ: आपका पत्र क्र. 565/खनिज/2022 दिनांक 31/08/22

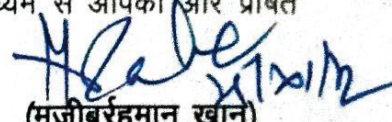
राज्य स्तरीय समाघात निर्धारण प्राधिकरण द्वारा 757वीं बैठक दिनांक 18.11.2022 में निम्नानुसार निर्णय लिया गया :-

राज्य स्तरीय विशेषज्ञ मूल्यांकन समिति (SEAC) की 604वीं बैठक दिनांक 05/11/2022 में दमोह जिले की जिला सर्वेक्षण रिपोर्ट (अन्य गौण खनिज - रेत को छोड़कर) में निम्नानुसार सुझाव सहित अनुशंसा की गई है :

".....समिति दमोह जिले की जिला सर्वेक्षण रिपोर्ट (अन्य गौण खनिज - रेत को छोड़कर) अनुमोदन हेतु विचारार्थ एवं आगामी कार्यवाही हेतु राज्य स्तरीय पर्यावरण समाघात निर्धारण प्राधिकरण की ओर प्रेषित की जाये।"

राज्य स्तरीय समाघात निर्धारण प्राधिकरण (SEIAA) द्वारा विस्तृत चर्चा एवं विचार विमर्श उपरांत SEAC की 604वीं बैठक दिनांक 05/11/2022 के अनुमोदन प्रस्ताव को मान्य करते हुए दमोह जिले की जिला सर्वेक्षण रिपोर्ट (अन्य गौण खनिज - रेत को छोड़कर) का अनुमोदन SEAC द्वारा सुझाई गई उपरोक्त अनुशंसाओं के साथ किया जाता है। तदनुसार जिला कलेक्टर, दमोह को जिला सर्वेक्षण रिपोर्ट जिला पोर्टल पर अपलोड करवाये जाने एवं संचालक, भौमिकी तथा खनिकर्म को सूचित किया जाये।

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


(मुजीबुर्रहमान खान)
सदस्य सचिव

क्र.. /SEIAA/2022 भोपाल दिनांक

प्रतिलिपि :-

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

सदस्य सचिव

कार्यालय कलेक्टर (खनिज शाखा) जिला दमोह

दमोह, दिनांक 31/08/2022

क्रमांक क/खनिज/2022/565

प्रति,

State Expert Appraisal Committee (SEAC)
Paryavaran Parisar, E-5, Arera Colony, Bhopal, Madhya Pradesh 462016

विषय- जिला सर्वेक्षण रिपोर्ट डी.एस.आर. प्रस्तुत किये जाने के संबंध में।

संदर्भ- संचालनालय का पत्र क्रमांक 4765/भौमिकी/न.क./2022 भोपाल दिनांक 08.04.2022

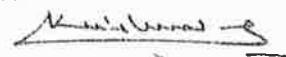
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उपरोक्त विषयांतर्गत संदर्भित पत्र प्राप्त हुआ है, संदर्भित पत्र अनुसार जिला सर्वेक्षण रिपोर्ट (DSR) गठित कमेटी द्वारा तैयार किये जाने के निर्देश दिये गये हैं। संबंधित जिला सर्वेक्षण रिपोर्ट कमेटी के माध्यम से तैयार करा कर जिला पोर्टल पर दावे/आपत्ति प्राप्त हेतु 21 दिवस तक अपलोड की जाना है।

गठित समिति द्वारा प्रारूप डीएसआर तैयार की जाकर, समिति के सदस्यों द्वारा दिनांक 18.04.2022 को अनुमोदन उपरांत कार्यालयीन पत्र क्रमांक क/खनिज/2022/229 दमोह दिनांक 18.04.2022 से जिला पोर्टल (damoh.nic.in) पर सूचना जारी होने की दिनांक से 21 दिवस तक उक्त जिला सर्वेक्षण रिपोर्ट के संबंध में आमजन के दावा/आपत्ति ई-मेल modgmdam@mp.gov.in पर अथवा खनिज कार्यालय में कार्यालयीन समय में स्वयं उपस्थित होकर प्रस्तुत किये जाने हेतु अपलोड कराया गया। सूचना जारी होने की दिनांक से 21 दिवस उपरांत जिला सर्वेक्षण रिपोर्ट के संबंध में किसी भी प्रकार की कोई दावा/आपत्ति इस कार्यालय में प्राप्त नहीं हुआ है।

अतः प्रारूप जिला सर्वेक्षण रिपोर्ट (DSR) आवश्यक कार्यवाही हेतु प्रेषित है।

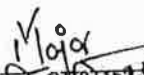
संलग्न-उपरोक्तानुसार



कलेक्टर,
जिला दमोह
दमोह, दिनांक /08/2022

पृ0क्रमांक क/खनिज/2022

प्रतिलिपि:-

1. प्रमुख सचिव, मध्यप्रदेश शासन खनिज साधन विभाग, मंत्रालय वल्लभ भवन, एनेक्सी-2 भोपाल की ओर सूचनार्थ सादर प्रेषित।
2. सदस्य सचिव, State Environment Impact Assessment Authority, M.P. की ओर सूचनार्थ एवं आवश्यक कार्यवाही हेतु।
3. संचालक, प्रशासन तथा खनिकर्म, संचालनालय भौमिकी तथा खनिकर्म, मध्यप्रदेश 29-ए खनिज भवन, अरेरा हिल्स भोपाल की ओर सूचनार्थ सादर प्रेषित।
4. संबंधित समिति सदस्य की ओर सूचनार्थ एवं आवश्यक कार्यवाही हेतु प्रेषित है।



खनिज अधिकारी, कार्यालय
कार्यालय कलेक्टर, (खनिज शाखा) दमोह


26/10/2022

District Survey Report (Minor Minerals): Damoh


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(SPEA)
Parveeran Parisar
E-5, Azara Colony, Bhopal (M.P.)

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

District Survey Report (Minor Minerals): Damoh

1. Introduction

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

1.1 The process of making a DSR includes

- Collection of baseline data from the department
- Development of related maps from satellite and secondary sources
- Tabulation and mapping of existing mining locations and yield
- Suggesting new locations for mining approvals
- Design and Development of DSR as per MoEF guidelines
- Interaction with line department for data / document ownership

1.2 Location and Boundary

Damoh is a district of Madhya Pradesh State located in Central India. The district is part of Sagar Division. It is situated in the north-eastern part of the State and geographically located at 23 degree 09' north latitude and 79 degree 03' east longitude. The district is surrounded by Sagar in the west, Narsinghpur & Jabalpur in the South, Chhatarpur in the North, Panna & Katni in the east. It is situated in a plateau region about 12 miles (19 km) south-east of the Sonar River. It is at an average elevation of 595 meters (1,952 ft.). The district of Damoh has an area of 7,306 square km (2,821 sq. m).

The district has several places of historical importance. One example is the town of Nohta, which is located 21 km from Damoh on the banks of the Gauraya River. It was once a capital of the Chandela Rajputs and has many temples.

1.3 Origin of Name

The city's name comes from Damayanti, the wife of King Nal of Hindu mythology. Damoh was part of the province (subah) of Malwa during the reign of the Mughal emperor Akbar. The city has several old sculptures, including those of the Hindu deities Shiva, Parvati, and Vishnu.

Handwritten signature and stamp:
Parvati Pariser
S. Area Survey, Bhupal (M.P.)

District Survey Report (Minor Minerals): Damoh


1.4 History

Stone Age tools have been found in Singrampur Valley and it is believed that the area has been inhabited for thousands of years. Around the 5th century, it was part of the empire of Guptas of Pataliputra. This has been evidenced by plaques and coins, and monuments from the reigns of Samudragupta, Chandragupta I, and Skandgupta. From the 8th to 12th centuries, some parts of the Damoh district were in the Chedi Empire, ruled by the Kalchuri dynasty from its capital Tripuri. The temple at Nohta demonstrates Kalchuri's influence in the 10th century. Some regions of the district were under the Chandels of the Jejak-Bhukti.

1.5 General Features

Table 1 Administrative Setup of the District

District	TEHSIL & BLOCKS
Damoh	Damoh
	Pathariya
	Batiagarh
	Hatta
	Patera
	Tendukheda
	Jabera
Total	7


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1.6 Location of the District

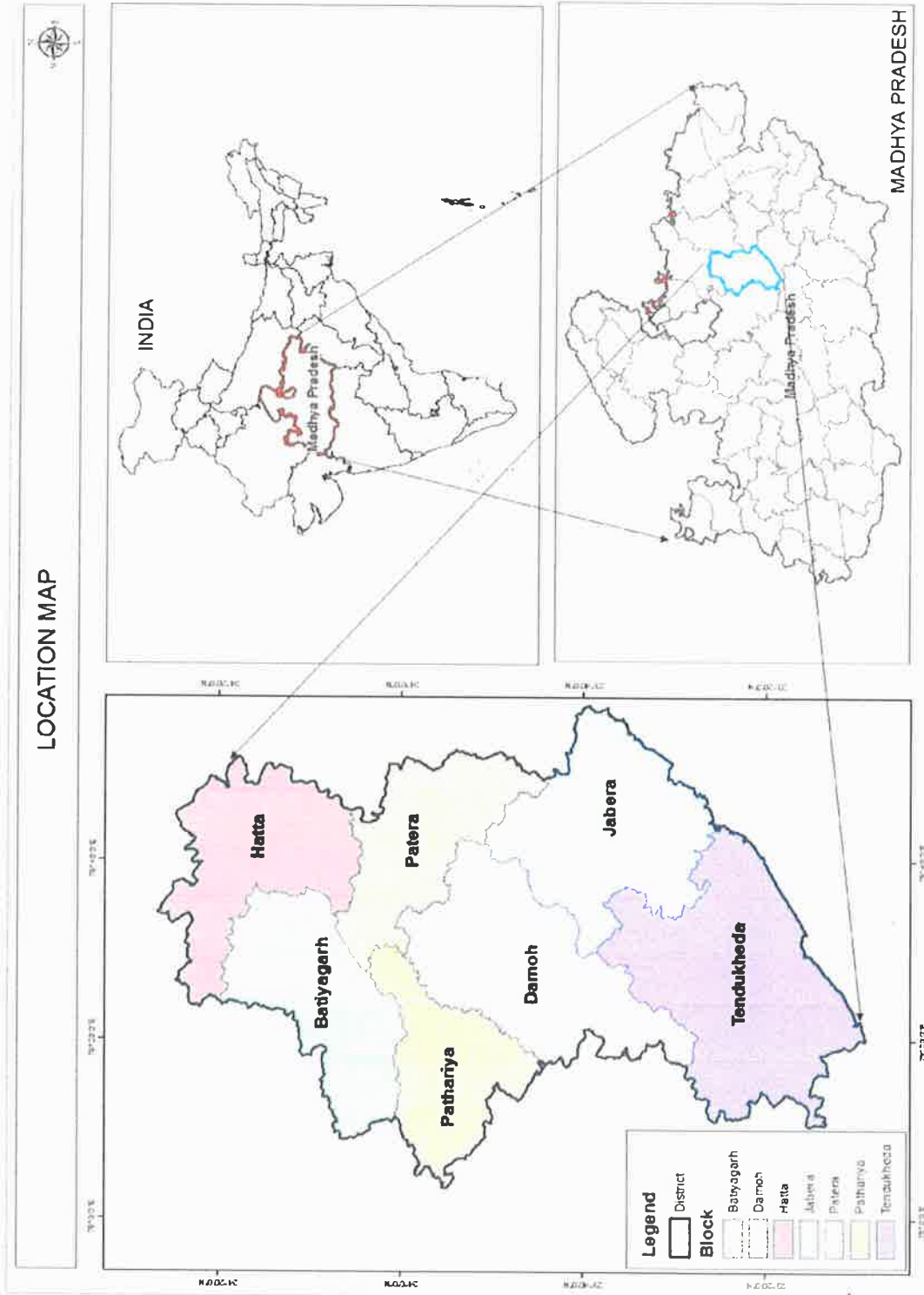
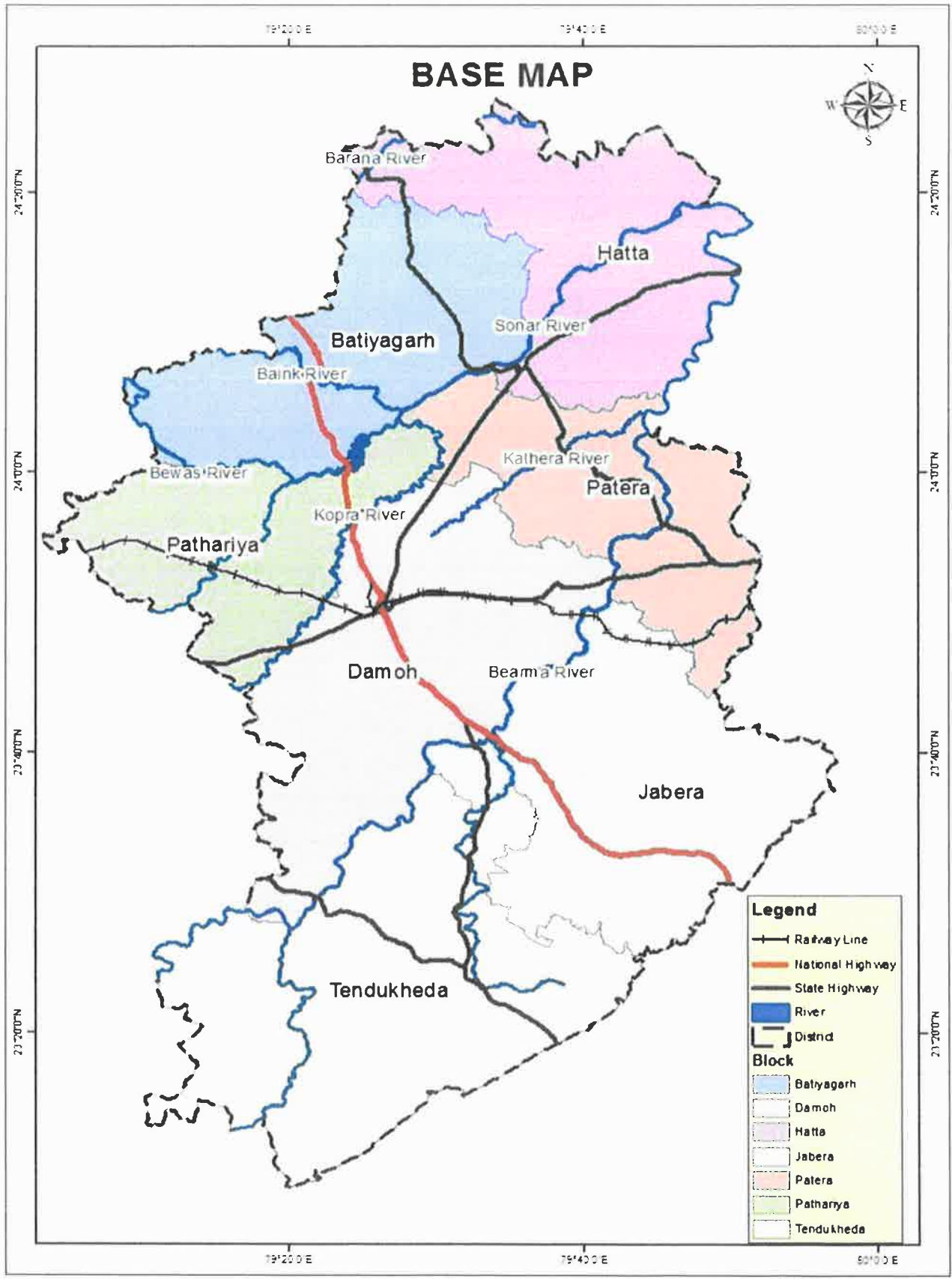


Figure 1 Location Map of the District

[Signature]
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(EIAA)
Parvati Sarisar
Bhopal, M.P.

District Survey Report (Minor Minerals): Damoh



SCALE 1:782775

Figure 2 Base Map of the District

[Signature]
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(SEEA)
Bhopal, India

District Survey Report (Minor Minerals): Damoh

2. Overview of Mining Activity in the District

In Damoh District Limestone are mainly found major mineral. Among minor minerals sand, murrum, flagstone and stone for ballast are found in the district.

Table 2 Mineral Production in the District

Sr. No.	Minerals	Production	No. of Lessees	Total Area (Ha.)
Major Mineral				2702.737
1.	Limestone	4500000 Mt	10	
Minor Mineral				
1.	Sand	35000 cu m	24	
2.	Stone/Gitti	144614 cu m	10	
3.	Murrum	1660 cu m	1	
4.	Flagstone	14370 cu m	8	

Mineral Production Chart

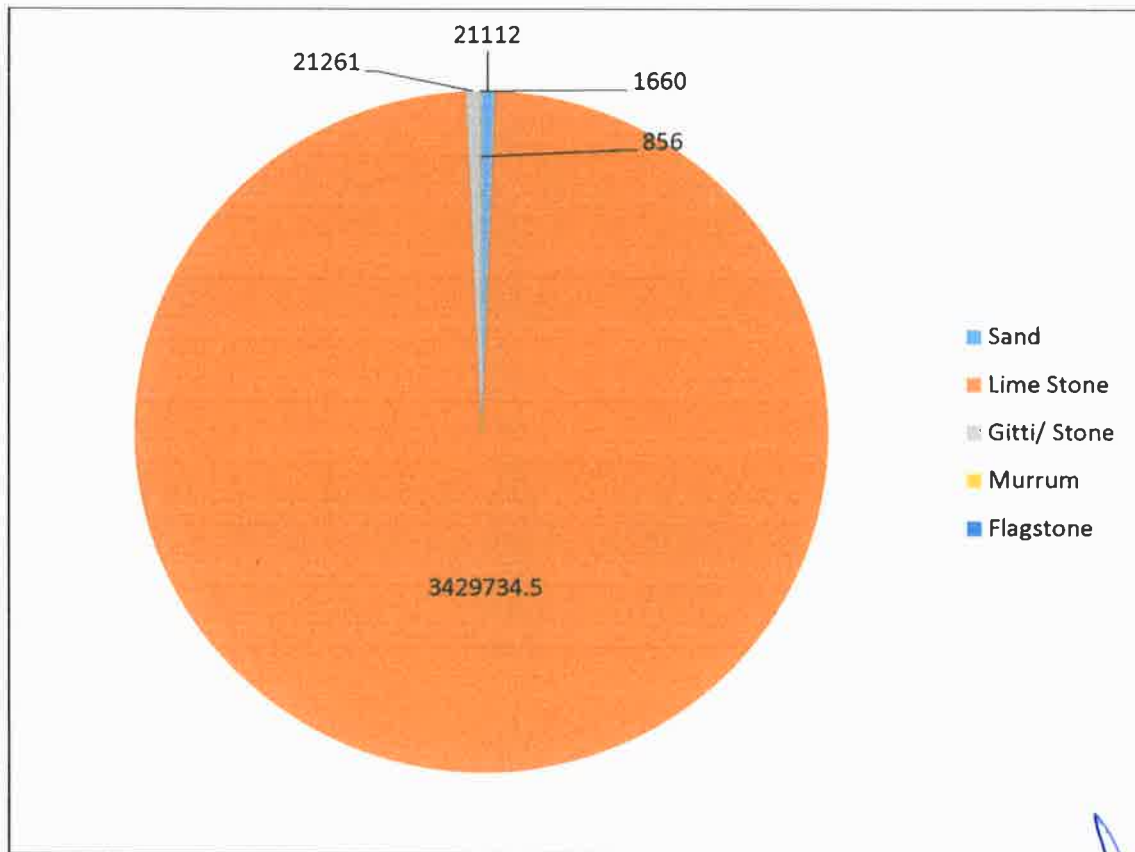



Figure 3 Mineral Productions in the District


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

District Survey Report (Minor Minerals): Damoh

3. General Profile of the District

Table 3 General Profile Data

1. Geographical Position	Damoh District lies between 23°9' and 24°27' North latitude and between 79°3' and 79°57' East longitude And Falls under the survey of India Toposheet No. 55M/5
2. Area and Population	<p>I. Geographical Area (Sq. Km) Total Area (Sq. Km): 7306 Km²</p> <p>II. CENSUS 2011</p> <p>I. Population</p> <p>a. Total Population: 1,264,219</p> <p>b. Male Population: 661,873</p> <p>c. Female Population: 602,346</p> <p>II. Literates</p> <p>a. Total Literates: 747,715</p> <p>b. Male: 445,737</p> <p>c. Female: 301,978</p> <p>III. Main Workers (Census 2011)</p> <p>a. Total Workers: 574,595</p> <p>b. Male Workers: 367,711</p> <p>c. Female Workers: 206,884</p> <p>d. Cultivators: 114,611</p> <p>e. Agricultural Labourers: 250,165</p> <p>f. Other Workers: 142,436</p> <p>V. Languages Spoken in the District</p> <p>At the time of the 2011 Census of India, 68.63% of the population in the district spoke Hindi and 30.27% Bundeli as their first language.</p>
3. Temperature	Mean- Maximum temperature: 32.6°C Mean- Minimum temperature: 18.9°C
4. Rainfall (In mm)	Normal – South West Monsoon: 1065.4mm Annual Rainfall: 1173.00mm
5. Agriculture	<p>a. Total Cultivable Area (Ha): 322.6</p> <p>b. Net Area Sown (Ha): 311.4</p> <p>c. Area Sown more than once (Ha): 94.2</p>

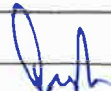
District Survey Report (Minor Minerals): Damoh

6. Rivers, etc.	The area is mainly drained by the Sonar river and by the Bearma river.
7. Revenue Administrative Divisions	Revenue Divisions: a. Revenue Tehsils: 07 b. Revenue Villages: 1229
8. Local Bodies	a. Municipalities: 06 b. Village Panchayats: 460

3.1 Census Data 2011

Table 4 Census Data for year 2011

Description	2011
Actual Population	12,64,219
Male	6,61,873
Female	6,02,346
Population Growth	16.63%
Area Sq. km.	7,306
Density/KM ²	173
Proportion to population of Madhya Pradesh	1.74%
Sex Ratio (Per 1000)	910
Child Sex Ratio (0-6 Age)	928
Average Literacy	69.73
Male Literacy	79.27
Female Literacy	59.22
Total Child Population (0-6 Age)	1,91,968
Male Population (0-6 Age)	99,544
Female Population (0-6 Age)	92,424
Literates	7,47,715
Male Literates	4,45,737
Female Literates	3,01,978
Child Proportion (0-6 Age)	15.18%
Boys Proportion (0-6 Age)	15.04%
Girls Proportion (0-6 Age)	15.34%


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

District Survey Report (Minor Minerals): Damoh

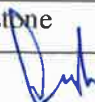
4. Geology of the District

The geologic successions of the district consist of Basalt, Limestone/Dolomitic Limestone, Porcellanite with shale, Quartzitic Sandstone, Shale, Shale with limestone/Sandstone, Unconsolidated Sediment with conglomerate/ Breccia and Vindhyan Sandstone. The very hard and compact sandstone because of fractures act as good repository of groundwater. Shales are clayey in nature and have medium porosity and movement of groundwater through these pore spaces takes place by capillary action. Limestone is also very hard and compact in nature and has very poor porosity opening. Due to secondary porosity, Limestone form good aquifers. Alluvial formations are unconsolidated sediments having high porosity.

Table 5 Geological Profile of the District

Regional Geological Succession	
Group	Lithology
Recent	Alluvium
Sub Recent	Laterite/ Murram
Deccan Trap	Amarkantak Basaltic Lava
Lameta Group	Sandstone, Grit stone, Limestone
Gondwana Group	Shale ,Sandstone, Siltstone
Vindhyan Group	Bhander Group, Sandstone, Shale, Rewa Group Shale, Limestone Semri Group Limestone, Shale with siltstone
Jangle Group	Sandstone Conglomerates, Quartz vein
----- Intrusive Rock-----	
Mahakaushal Group	Phyllite, Conglomerate, quartz, Dolerite dyke, Granite complex body Pegmatite vein etc.

Lithological Succession	
Group	Lithology
Deccan Trap	Amarkantak group Basaltic Lava
Lameta Group	Sandstone, gritstone, Limestone
Gondwana Group	Shale, Sandstone and Siltsone


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

District Survey Report (Minor Minerals): Damoh

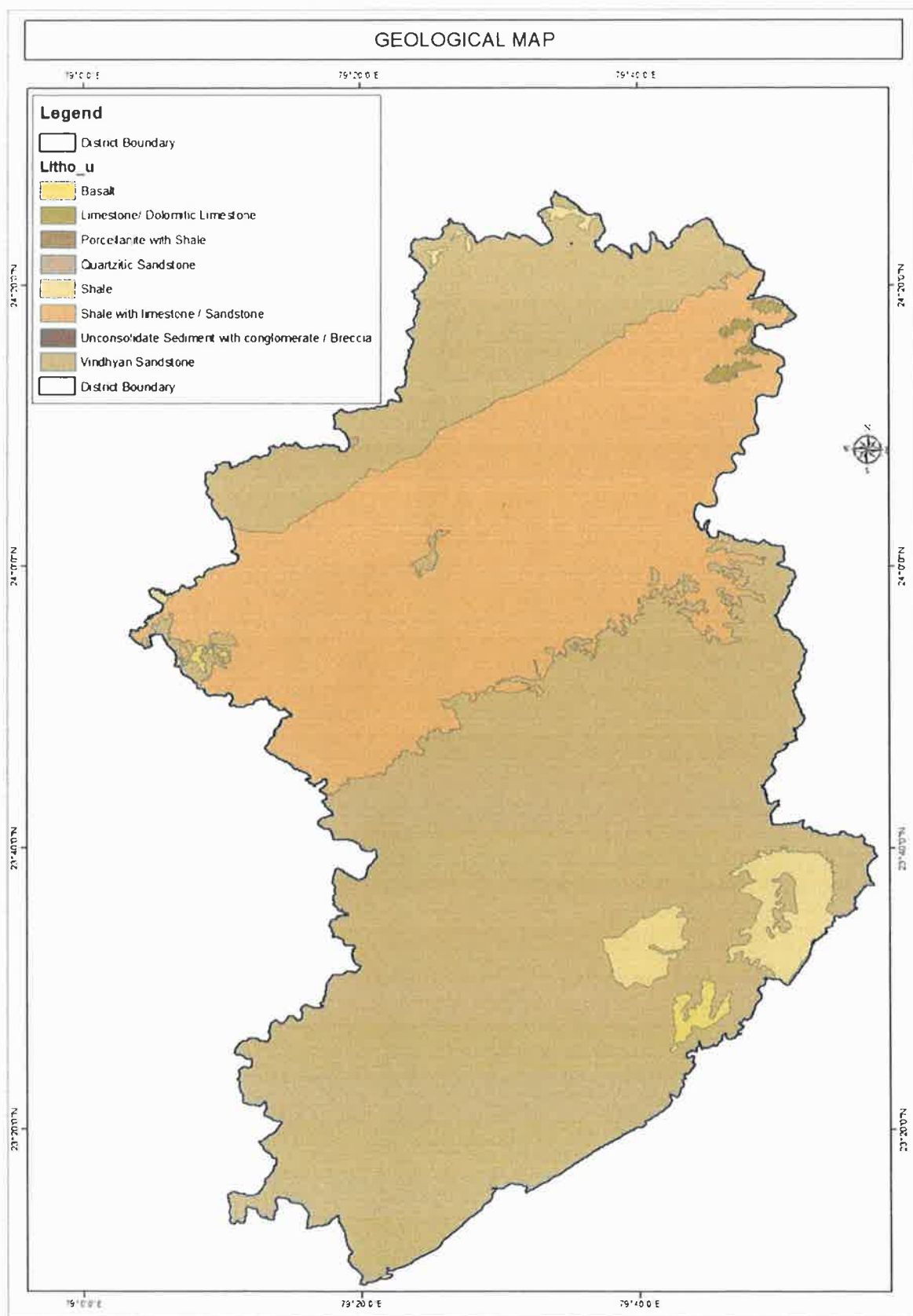


Figure 4 Geological Map of the District

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State Level Environment Impact
Assessment Authority, M.P.
(EPCU)
Paryewaran Park
E-5, Arera Colony, Bhopal (M.P.)

District Survey Report (Minor Minerals): Damoh

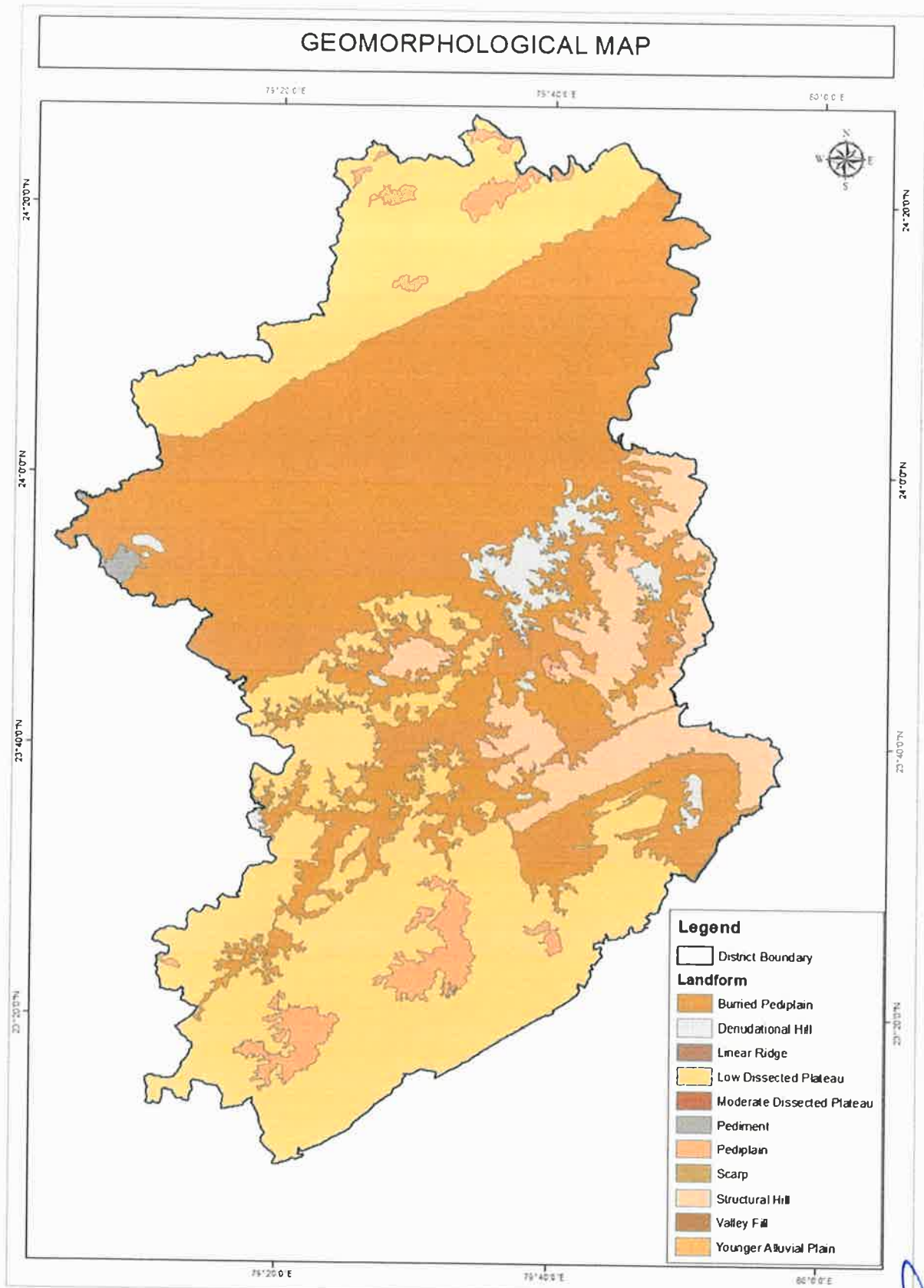
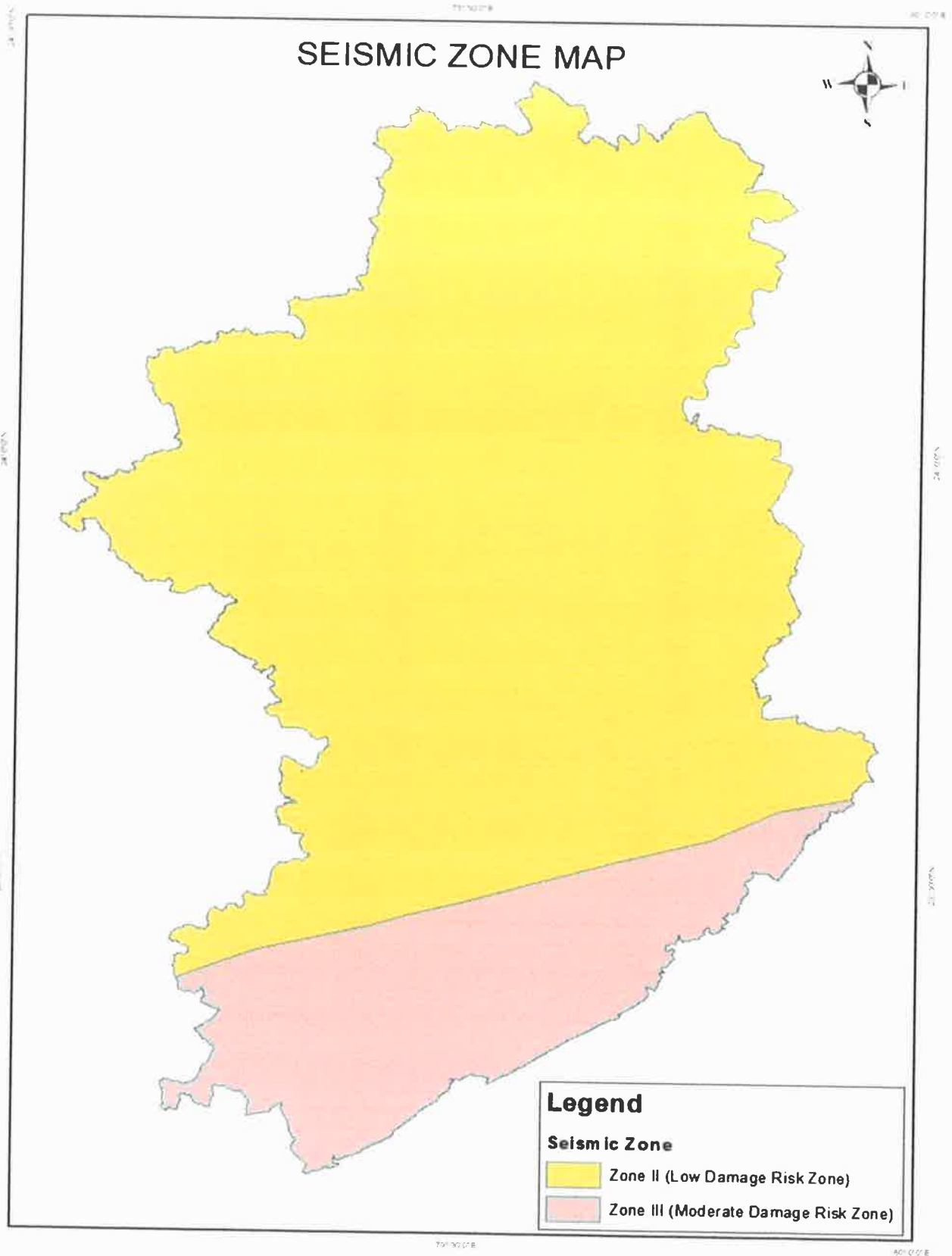


Figure 5 Geomorphologic Map of the District

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[Signature]
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(EPCU)
Paryavaran Parkar
Araon Colony, Bhopal (M.P.)

District Survey Report (Minor Minerals): Damoh



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Figure 6 Details of the Seismic Zone map

[Signature]
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Assessment Authority, M.P.
(EPCU)
Daryevaran Pariser
C-2, Arera Colony, Bhopal (M.P.)

District Survey Report (Minor Minerals): Damoh


4.1 Physiography of the District

Damoh is located among rising hills and following rivers, in the central part of Madhya Pradesh. The district is divided into three physiographic sub-divisions, namely Vindhyan range, Vindhyan Scraps and Bundelkhand uplands. The Vindhyan Scrap covers the entire Sonar Valley and the southern plateau excluding the main line of hills belonging to Vindhyan range. The Sonar Valley can be considered to be separate divisions and the Vindhyan range may be grouped with the rest of the Southern hills. Thus, there are three distinct divisions in the district: -

1. The Southern Plateau
 - I. The Vindhyan range and the Southern precipice.
 - II. The broad Southern Plateaus.
2. The Sonar Valley.
3. The Northwest hill range.

In Damoh the Southern part of Vindhyan range is up to Katangi is called the Bharner range. Beyond this point, the escarpment enclosing the land- lock valley of Singrampur and the hill range in continuation is called Kaimur range. The Southern edge of the plateau and the hills scrap steeply to the South facing the Narmada Valley and the Valley of the Hiran.

The Sonar Valley (Haveli) extends in a belt across the North Central part of the district. It is about 80 Km long from Southwest to Northeast and 32 to 43 Km wide between the Scraps of the Southern and Northern plateau of the Vindhyan, which also forms the local watershed between the Sonar and the Bearma Nala to the Northwest. The drainage lines of the Sonar valley and the Kopra lies into a broad belt of the low alluvial country between the line dissected hills on the Southwest and the scraps of the Northwestern plateau. Thus, the plateau region has been separated from the Northwestern hill range. The Southern plateaus extend in a broad belt from Southwest to Northeast. It is centrally drained by the Bearma and is transverse by a number of spurns and ridges of Vindhyan range.


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

District Survey Report (Minor Minerals): Damoh

5. Drainage of Irrigation Pattern

The area is mainly drained by Sonar River and the Bearma River, which flow in the general slope of the country and flow a tributary of the Narmada, the entire district is drained by Sonar, Bearma and through the tributaries and feeders of the Ken River into Yamuna.

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



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

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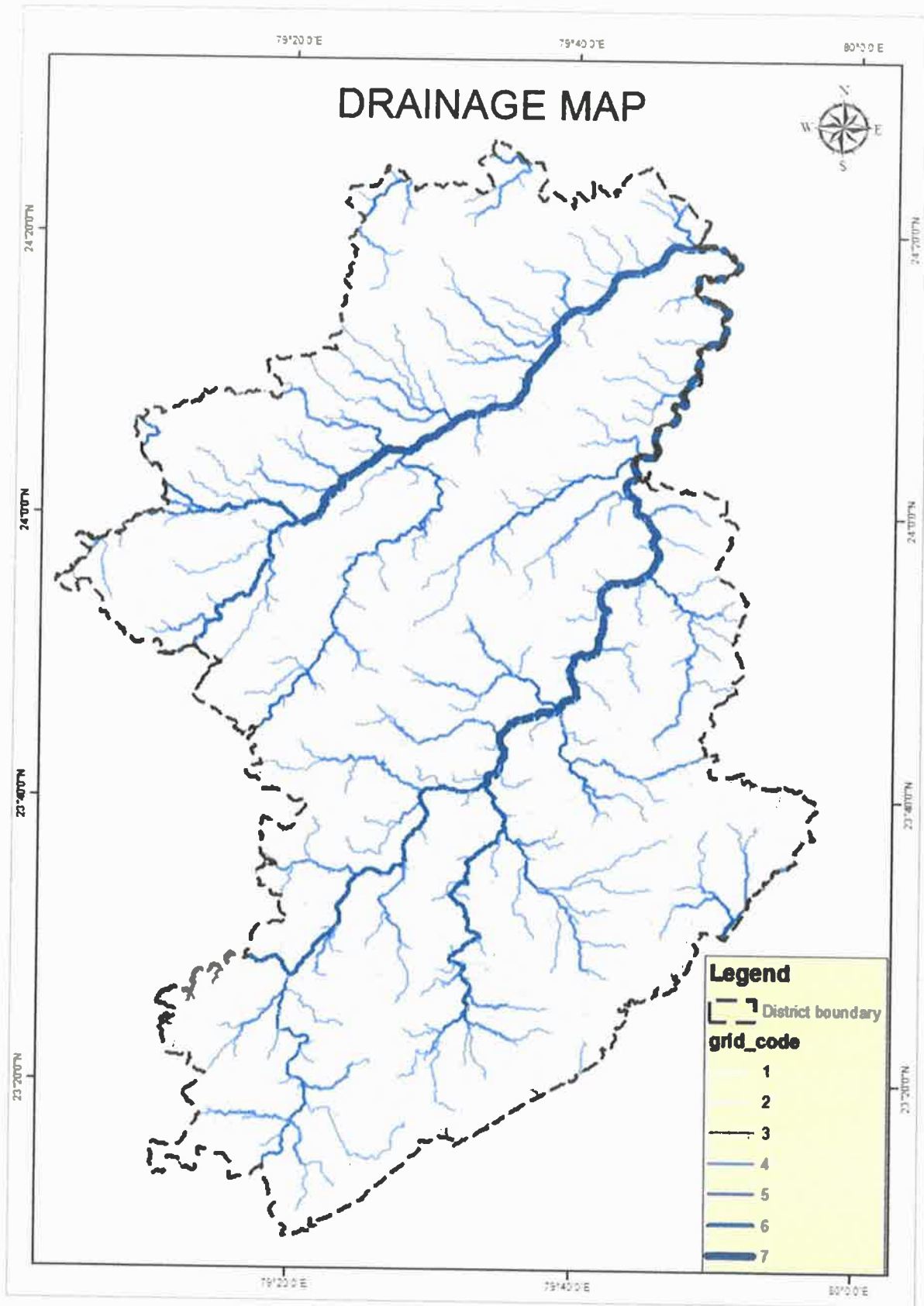


Figure 7 Drainage Map of the District

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State Level Environmental Impact
Assessment Authority, M.P.
(EPCA)
Parvathan Parisar
E-5, Arera Colony, Bhopal (M.P.)

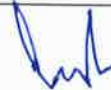
District Survey Report (Minor Minerals): Damoh

6. Land utilization Pattern in the District: Forest, Agricultural, Horticulture, Mining, etc.

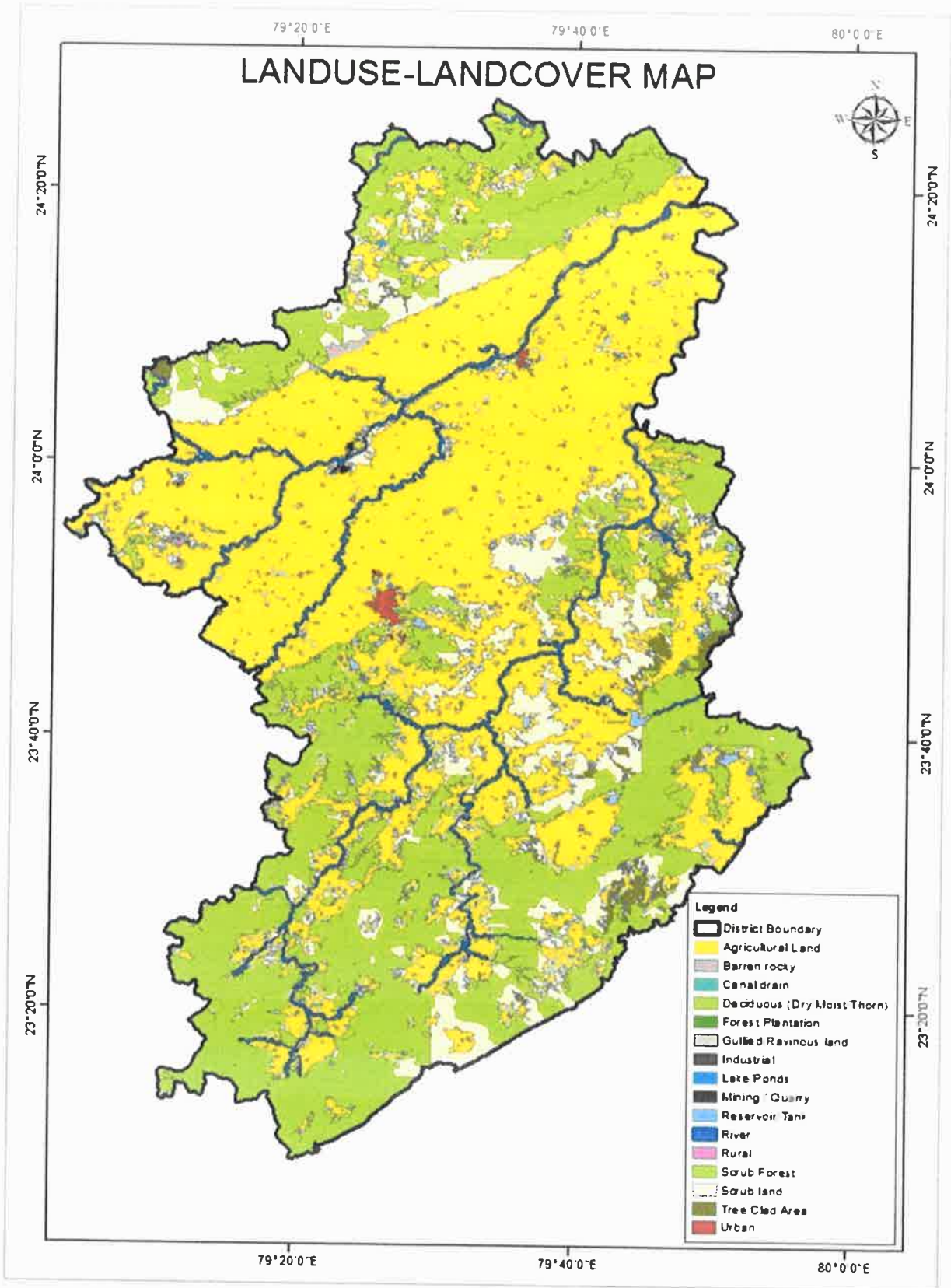
Land use/land cover (LULC) changes are main issues of universal environment change. The Satellite remote sensing data with their monotonous nature have proved to be rather useful in mapping land use/land cover decorations and changes with time. Quantification of such changes is conceivable through GIS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

Table 6 Land Use Pattern of the Study Area

Sr. No.	Class	Area in Ha.	Percentage of coverage
1	Agricultural Land	376065	51.30 %
2	Agricultural Plantation	78	0.01 %
3	Barren rocky	1010	0.14 %
4	Deciduous (Dry/Moist/Thorn)	202656	27.63 %
5	Forest Plantation	57	0.01 %
6	Gullied/Ravenous land	603	0.08 %
7	Industrial	156	0.02 %
8	Lake/Ponds	3099	0.42 %
9	Mining / Quarry	2702.737	0.36 %
10	Reservoir/Tank	3699	0.51 %
11	River	6392	0.87 %
12	Rural	4092	0.56 %
13	Scrub Forest	33280	4.54 %
14	Scrub land	88566	12.08 %
15	Tree Clad Area	8738	1.20 %
16	Urban	1793	0.24 %
	Total	730854	100 %


District Mineral Officer
Management Authority, M.P.
(D.M.O.)
Bharvevaran Bazar
K. S. Jyoti Colony, Bhopal (M.P.)

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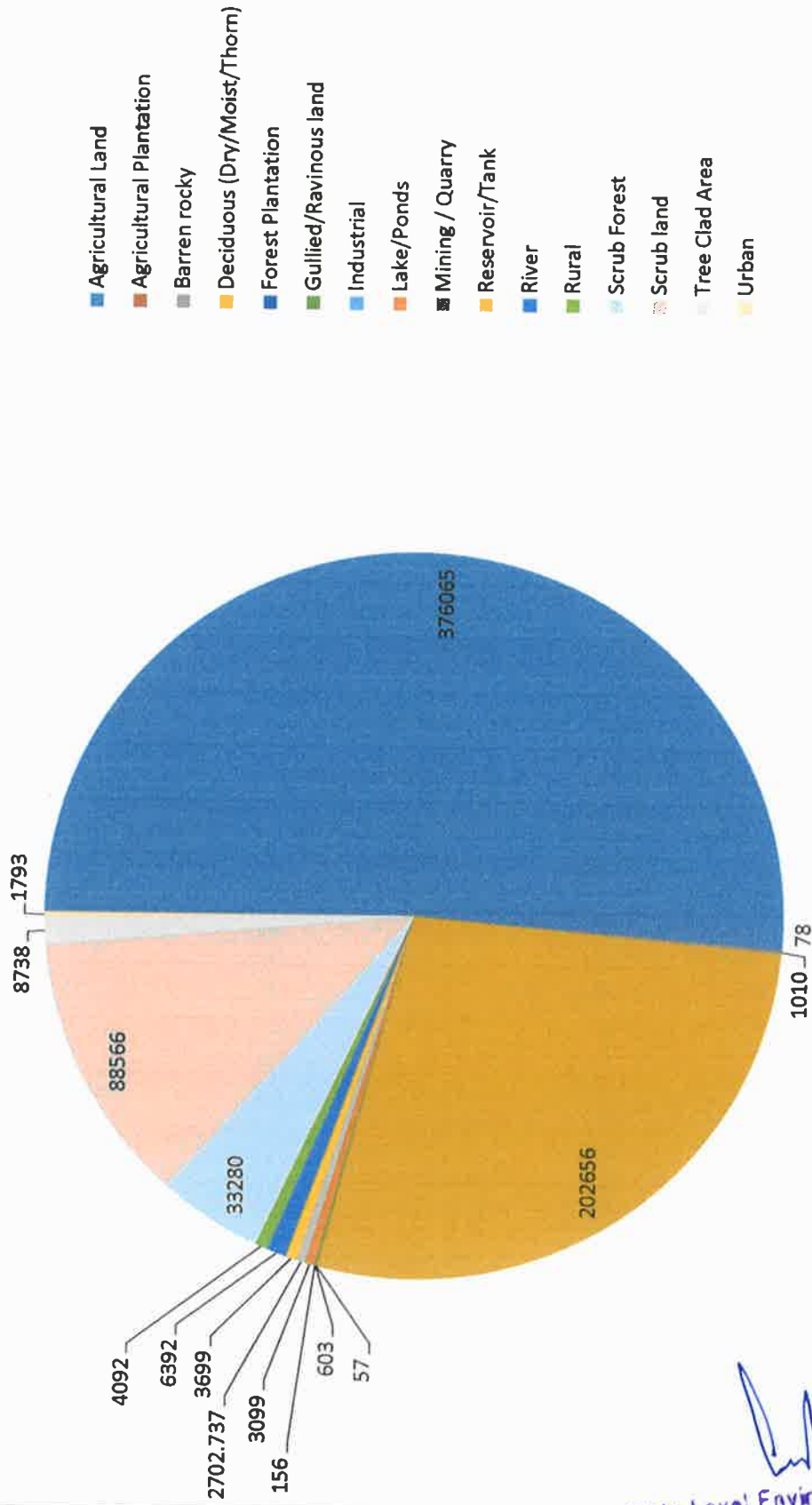


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Figure 8 Land Use and Land Cover Map of the District

[Signature]
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LULC Breakup for the District in Ha.



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

Figure 9 Land Use and Land Cover Breakup of the District

7. Surface Water and Ground Water scenario of the District

7.1 Ground Water

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


During Pre- Monsoon, water level ranged between 1.5 m bgl at Patera and 24.47m bgl at Bhonrasa. Water levels, in general fall between 5 - 20 m bgl. Shallow water levels of less than 3 m bgl occur in a patch in the south-western part of the district falling in Tendukheda block, eastern & central part of Jabera block and central part of Patera block. Maximum part of the district lies between 3-10 mbgl. Deeper water levels, more than 15 m occur in western part of Patharia block. In Batiyagarh , Patharia and Jabera blocks wells are fast drying up perhaps due to higher ground water development.

During post-monsoon period, , the water levels varied from 0.06m bgl at Dhayali to 15.19m bgl at Bhonrasa. The water level, in general lies between 2 to 10 m bgl during this period. Shallow water levels, less than 3 m bgl occur in a small part of the district covering parts of Hatta, Patharia, Patera, Jabera & Tendukheda blocks. Deep water levels above 10 m bgl occur in the northeastern part in Patta, and south western part of Jabera blocks.

Major part of the district shows seasonal fluctuation rise more from 3-10m and in small parts of block Hatta, Patera Cetral part of Damoh, Jabera & Tendukheda blocks shows fluctuation fall from >3to >10m.

7.2 Surface Water

The area is mainly drained by Sonar River and the Bearma River, which flow in the general slope of the country and flow a tributary of the Narmada, the entire district is drained by Sonar, Bearma and through the tributaries and feeders of the Ken River into Yamuna.


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

District Survey Report (Minor Minerals): Damoh

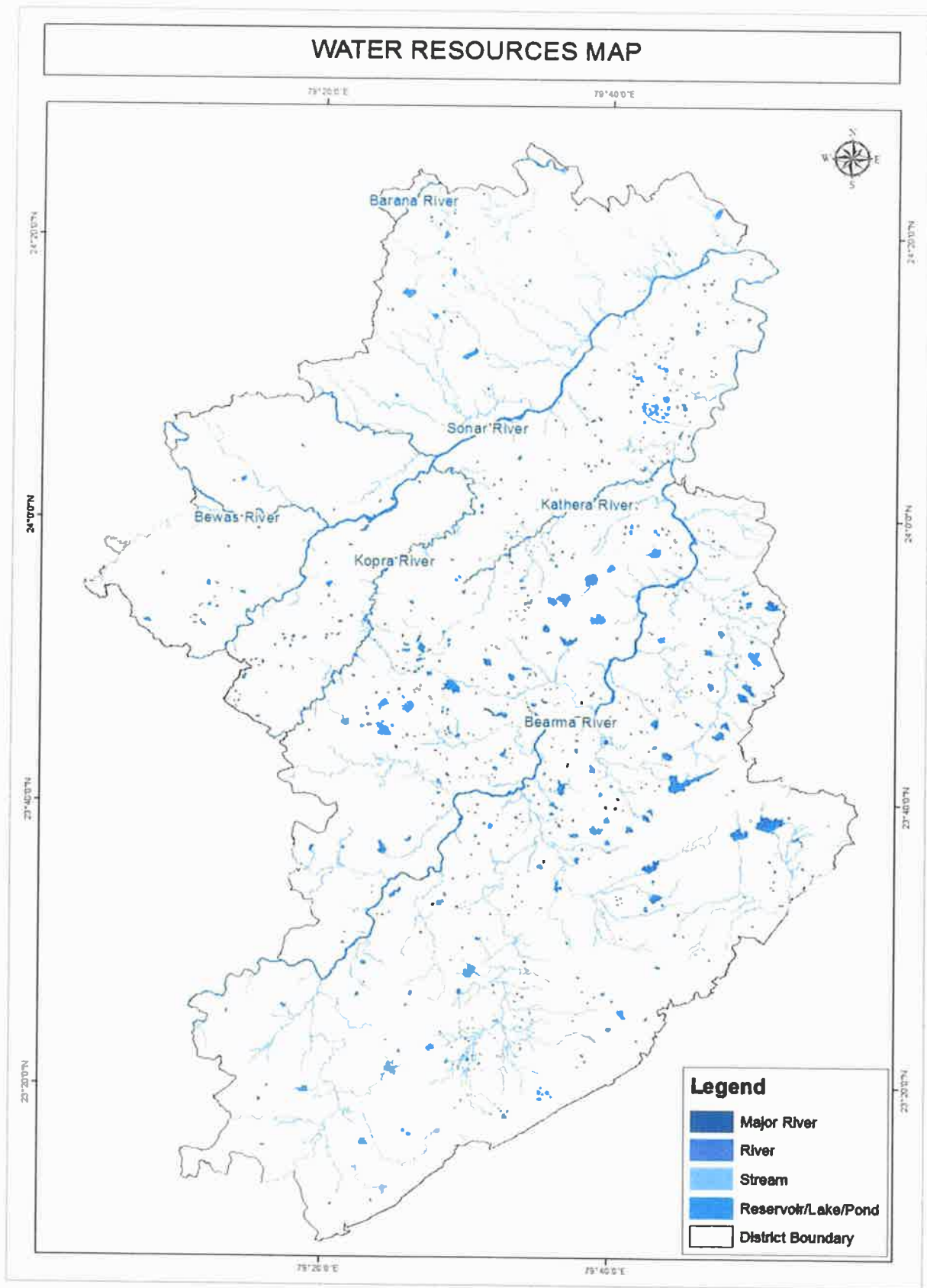


Figure 10 Water Resources Map of the District

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

District Survey Report (Minor Minerals): Damoh

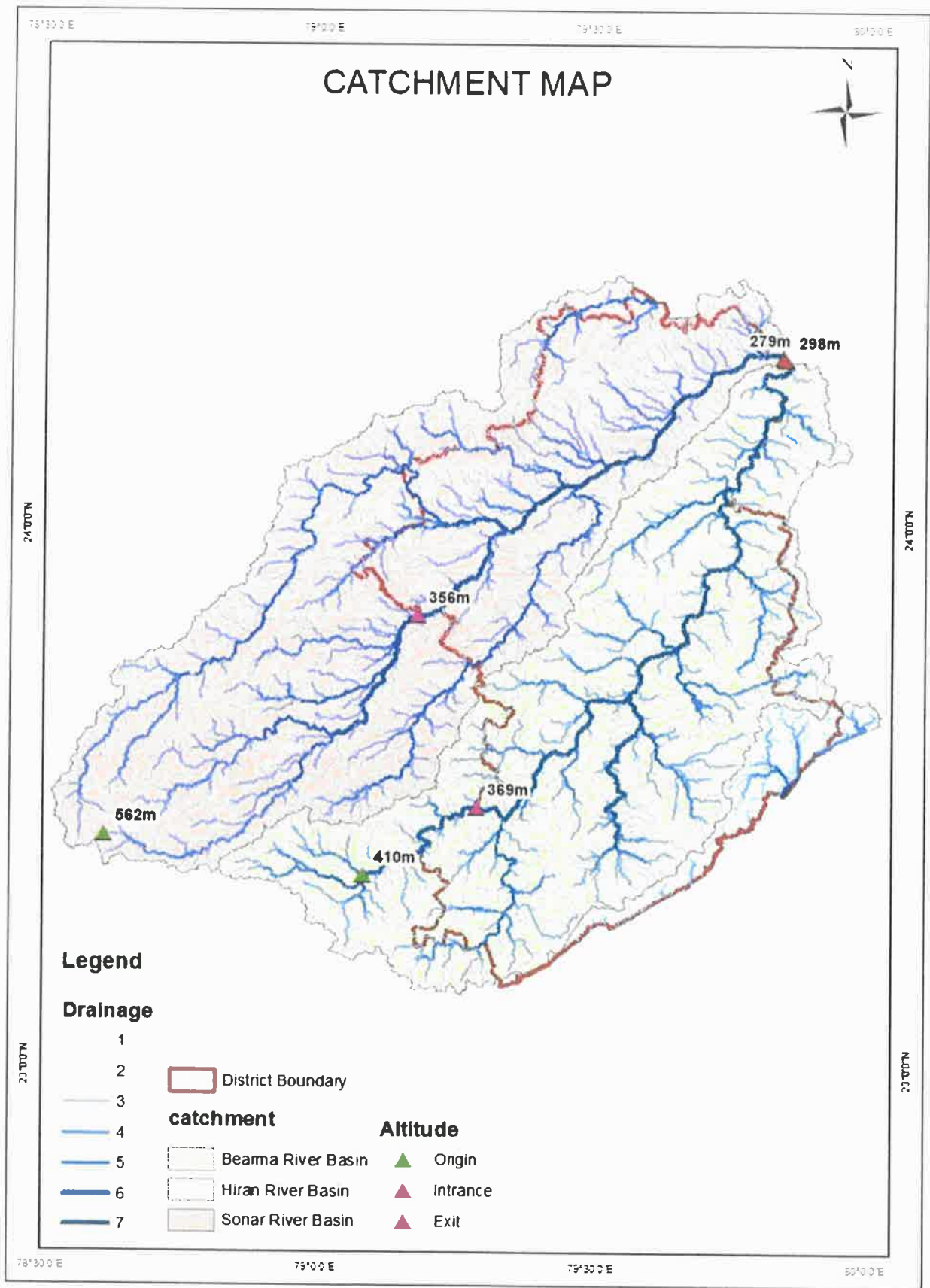


Figure 11 Catchment Map of District

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ASSESSMENT AUTHORITY, M.P.
(SEPPA)
DARVANA, BHANSAR
INDIA

20

District Survey Report (Minor Minerals): Damoh

Table 7 Details of Catchment Area

Sr. No.	Properties	Bearma River Basin	Sonar River Basin
1	Catchment Area up to Exit spot of Particular District	5,949 sq. km	6,958 sq. km
2	Catchment Area of Particular District	4,279 sq. km	2,067 sq. km
3	Length of the Catchment Area	148 km	166 km
4	Length of the Catchment Area of Particular District	136 km	86 km
5	Altitude at Origin of the River	410 m	562 m
6	Altitude at Entrance of the Particular District	369 m	356 m
7	Altitude at Exit of the Particular District	298 m	


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

District Survey Report (Minor Minerals): Damoh

8. Rainfall of the District and Climate Conditions

8.1 Rainfall

The average annual rainfall of Damoh district is 1173.0 mm. Damoh district received maximum rainfall during southwest monsoon period i.e. June to September. About 90.4% of the annual rainfall received during monsoon season. Minimum rainfall is 632mm and Maximum is 1573 mm. Only 9.6% of the annual rainfall takes place between Octobers to May period. Thus, surplus water for ground water recharge is available only during the southwest monsoon period.

Table 8 Details of Month wise Rainfall data of 1 year (2021-22)

Sr. No.	Month	Rainfall (in mm.)
1	June	105-9
2	July	245-5
3	August	248-3
4	September	123-3
5	October	15-8
6	November	Nil
7	December	10-3
8	January	34-7
9	February	8-1
10	March	52-9
11	April	51-0
12	May	2-9

8.2 Climatic Conditions

The Climate of Damoh district, M.P. characterized by a hot summer and general dryness except during the southwest monsoon season. The year may be divided into four seasons. The cold season, December to February is followed by the hot season from March to about the middle of June. The period from the middle of June to September is the southwest monsoon. October and November form the post monsoon or transition period. The nearest observatory is Jabalpur. The meteorological parameters of Jabalpur plateau are used except rainfall.

District Survey Report (Minor Minerals): Damoh

The normal maximum temperature received during the month of May is 42.0°C and minimum during the month of December/ January is 9.7°C. The normal annual mean maximum and minimum temperatures of Damoh district is 32.6°C and 18.9°C respectively.

During the southwest monsoon season the relative humidity generally exceeds 88% (August month). In the rest of the year it is drier. The driest part of the year is the summer season, when relative humidity is less than 31%. May is the driest month of the year.


The wind velocity is higher during the pre-monsoon period as compared to post monsoon period. The maximum wind velocity 8.2 km/hr observed during the month of June and minimum 2.6 km/hr during the month of December. The average normal annual wind velocity of Damoh district is 4.9 km/hr. Normal climatologically parameter of Damoh district.


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

9. Details of the mining leases in the District as per the following format

Table 9 Details of the Flag Stone Mining Leases

Sr. No.	Name Of the Mineral	Name of the Lessee	Address and Contact No. of Lessee	Mining lease Grant Order No. and Date	Area of Mining Lease (ha.)	Period of Mining Lease (Initial)		Period of Mining Lease (1 st and renewal)	Date of commencement of Mining Operation	Status (Working/ Non-Working/ Temp. Working for dispatch etc.)	Captive/ Non-Captive	Obtained Environmental Clearance (Yes/No) with date of grant EC.	Location of the Mining Lease (Latitude & Longitude)		Method of Mining (Opencast / Underground)
						Form	To						Form	To	
1	Flag Stone	Dilip Kumar Rai S/O Shankar Lal Rai	Jabalpur Naka Polytechnic Front of College Damoh 9575451111	172, Date 11-06-2021	1.000	23/08/2016	22/08/2021	1 st 08/06/2021	23/08/2016	Working	Non-Captive	Yes- 7825, Date- 30/03/2021	15	16	Opencast
2	Flag Stone	Ashish Kumar Bhat	Damoh 7415577502	2017, Date - 18/05/2017	1.000	10/07/2017	09/07/2027	-	-	Non-Working	Non-Captive	Yes- 406, Date- 06/10/2016	15	16	Opencast
3	Flag Stone	Narmda Pirsad Dubey S/O Kundan Lal Dubey	Sahjapur Tehsil Tendukhedda- 9993216345	18613 Date- 09/10/2017	1.000	27/04/2018	26/04/2028	-	-	Working	Non-Captive	Yes- 296, Date- 20/04/2018	15	16	Opencast


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

District Survey Report (Minor Minerals): Damoh

4	Flag Stone	Ramakant Rai	Bamori Mala Tehsil Jabera 9993004317	31 Date- 25/09/2019	1,000	14/10/ 2019	13/10/ 2029	-	-	-	Working	Non-Captive	Yes- 343, Date- 24/04/2019	B.P. No.		Opencast	
														Latitude	Longitude		
5	Flag Stone	Bhart Prtap Singh S/O Prtap Naryan Singh	Hindoriya Thsile Damoh 8319540304	10 Date- 03/11/2015	1,000	03/12/ 2015	02/12/ 2025	-	-	-	Working <td rowspan="7">Non-Captive</td> <td rowspan="7">Yes- 6112, Date- 07/10/2015</td> <td colspan="2">B.P. No.</td> <td rowspan="7">Opencast</td>	Non-Captive	Yes- 6112, Date- 07/10/2015	B.P. No.		Opencast	
														Latitude	Longitude		
														1	23°54'22.60"N 79°37'53.91"E		79°37'53.91"E
														2	23°54'22.63"N 79°37'56.31"E		79°37'56.31"E
														3	23°54'21.99"N 79°37'57.90"E		79°37'57.90"E
														4	23°54'22.23"N 79°37'59.87"E		79°37'59.87"E
														5	23°54'20.70"N 79°37'59.83"E		79°37'59.83"E
6	23°54'19.93"N 79°37'58.48"E	79°37'58.48"E															
7	23°54'20.32"N 79°37'56.81"E	79°37'56.81"E															
8	23°54'20.88"N 79°37'56.25"E	79°37'56.25"E															
9	23°54'20.91"N 79°37'55.10"E	79°37'55.10"E															
10	23°54'20.88"N 79°37'54.31"E	79°37'54.31"E															
11	23°54'20.74"N 79°37'53.80"E	79°37'53.80"E															
6	Flag Stone	Tapswani Dubey	Ranjra, Tehsil Jabera- 8839060806	12/02/2019	1,000	11/12 /2020	10/12 /2030	-	-	-	Working	Non-Captive	Yes- 211 Date- 20/05/2020	B.P. No.		Opencast	
														Latitude	Longitude		
														1	23°41'44.69"N 79°38'44.41"E		79°38'44.41"E
														2	23°41'45.00"N 79°38'45.64"E		79°38'45.64"E
														3	23°41'44.86"N 79°38'47.15"E		79°38'47.15"E
														4	23°41'45.54"N 79°38'47.79"E		79°38'47.79"E
														5	23°41'46.29"N 79°38'47.71"E		79°38'47.71"E
														6	23°41'47.45"N 79°38'47.27"E		79°38'47.27"E
														7	23°41'47.18"N 79°38'46.22"E		79°38'46.22"E
														8	23°41'47.96"N 79°38'46.11"E		79°38'46.11"E
														9	23°41'47.94"N 79°38'45.03"E		79°38'45.03"E
														10	23°41'47.02"N 79°38'44.95"E		79°38'44.95"E
														11	23°41'47.61"N 79°38'41.75"E		79°38'41.75"E
12	23°41'46.64"N 79°38'41.64"E	79°38'41.64"E															
13	23°41'45.96"N 79°38'43.56"E	79°38'43.56"E															

State Level Environment Impact Assessment Authority, M.P. (EPCC)
Parvveran Patidar
U.S. Arera Colony, Bhopal (M.P.)

District Survey Report (Minor Minerals): Damoh

Table 9.1 Details of the Murrum Mining Leases

Sr. No.	Name Of the Mineral	Name of the Lessee	Address and Contact No. of Lessee	Mining lease Grant Order No. and Date	Area of Mining Lease (ha)	Period of Mining Lease (Initial)		Period of Mining Lease (1 st /2 nd ... renewal)		Date of commencement of Mining Operation	Status (Working/ Non-Working/ emp. Working for dispatch etc.)	Captive/ Non-Captive	Obtained Environmental Clearance (Yes/No) with date of grant of E.C.	Location of the Mining Lease (Latitude & Longitude)				Method of Mining (Opencast /Underground)
						Form	To	Form	To					B.P. No.	Latitude	Longitude		
1	Murrum	Ajun Nirman In.	D-2 Vasishali Nagar Damoh Mobile No.- 9329574535	2. Date-29-07-2016	1.000	05/08/2016	04/06/2026	-	-	24/08/2016	Working	Non-Captive	Yes-270. Date-28/05/2016	1	23°47'37.34"N	79°26'45.82"E	Opencast	
						7	8	9	10	11	12	13	14	15	2	23°47'38.41"N		79°26'48.82"E
						6	7	8	9	10	11	12	13	14	3	23°47'41.71"N		79°26'47.99"E
						5	6	7	8	9	10	11	12	13	4	23°47'40.86"N		79°26'44.69"E



 District Level Environmental Impact Assessment Authority, M.P.
 Parvati Nagar
 Bhopal, M.P.

Table 9.2 Details of the Stone/Gitti Mining Leases

Sr. No.	Name Of the Mineral	Name of the Lessee	Address and Contact No. of Lessee	Mining lease Grant Order No. and Date	Area of Mining Lease (ha.)	Period of Mining Lease (Initial)		Period of Mining Lease (1 st /2 nd renewal)	Date of commencement of Mining Operation	Status (Working/ Non-Working/ etc.)	Captive/ Non-Captive	Obtained Environmental Clearance (Yes/No) with date of grant E.C.	Location of the Mining Lease (Latitude & Longitude)				Method of Mining (Opencast/ Underground)
						Form	To						Form	To	BP. No.	Latitude	
1	Gitti	श्री हितवीर सिंह खड्डा पिता श्री किलोक सिंह खड्डा	पता पलढी बौराहा माला बाई 1 दसोह 9877412140	Date 16/06/2017	1.000	23/05/2012	22/05/2022	23/05/2017	23/05/2017	Non-Working	Captive	हाँ 262 दिनांक 28/05/2016	1	23°45'39.7"N	79°23'22.4"E	Opencast	
						23/05/2012	22/05/2022	23/05/2017	07/07/2014	Working	Captive	हाँ 2831 दिनांक 03.03.2015	2	23°45'41.5"N	79°23'22.2"E		
						07/07/2014	06/07/2024	-	07/07/2014	Working	Captive		3	23°45'39.7"N	79°23'17.4"E		
						07/07/2014	06/07/2024	-	07/07/2014	Working	Captive		4	23°45'42.6"N	79°23'17.2"E		
2	Gitti	श्री हितवीर सिंह खड्डा पिता श्री किलोक सिंह खड्डा	पता पलढी बौराहा माला बाई 1 दसोह 9877412140	Date 24/06/2014	1.000	07/07/2014	06/07/2024	-	07/07/2014	Working	Captive	हाँ 2831 दिनांक 03.03.2015	1	23°42'19.36"N	79°29'24.09"E	Opencast	
						07/07/2014	06/07/2024	-	07/07/2014	Working	Captive		2	23°42'21.95"N	79°28'26.92"E		
						07/07/2014	06/07/2024	-	07/07/2014	Working	Captive		3	23°42'23.80"N	79°29'25.98"E		
						07/07/2014	06/07/2024	-	07/07/2014	Working	Captive		4	23°42'21.78"N	79°29'22.44"E		
3	Gitti	जादीरा पटेल पिता श्री सोहन प्रसाद पटेल	पता ग्राम खड्डी तार. रदियागढ जिला दसोह 7000692572	Date 17.08 2017	2.000	28/09/2017	25/09/2027	-	28/09/2017	Working	Captive	हाँ 387 दिनांक 14.06.2017	1	24°3'32.94"N	79°15'5.45"E	Opencast	
						28/09/2017	25/09/2027	-	28/09/2017	Working	Captive		2	24°3'35.73"N	79°15'3.18"E		
						28/09/2017	25/09/2027	-	28/09/2017	Working	Captive		3	24°3'31.98"N	79°14'58.19"E		
						28/09/2017	25/09/2027	-	28/09/2017	Working	Captive		4	24°3'29.03"N	79°15'0.57"E		
4	Gitti	जादीरा पटेल पिता श्री सोहन प्रसाद पटेल	पता ग्राम खड्डी तार. रदियागढ जिला दसोह 7000692572	Date 18.07. 2017	1.780	28/09/2017	25/09/2027	-	28/09/2017	Working	Captive	हाँ 386 दिनांक 14.06.2017	1	24°3'28.66"N	79°15'10.28"E	Opencast	
						28/09/2017	25/09/2027	-	28/09/2017	Working	Captive		2	24°3'32.09"N	79°15'10.53"E		
						28/09/2017	25/09/2027	-	28/09/2017	Working	Captive		3	24°3'31.96"N	79°15'4.52"E		
						28/09/2017	25/09/2027	-	28/09/2017	Working	Captive		4	24°3'28.56"N	79°15'4.21"E		

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Joint Assessment Authority, M.S.
(EOPC)
Daryavaran, Bilaspur

District Survey Report (Minor Minerals) Damoh

BP. No.	Latitude	Longitude	BP. No.	Latitude	Longitude	BP. No.	Latitude	Longitude
1	23°20'23.3"N	79°36'39.4"E	1	24°24'45.93"N	79°12'25.82"E	1	23°46'09.67"N	79°22'32.04"E
2	23°20'22.5"N	79°36'39.4"E	2	24°24'46.00"N	79°12'26.65"E	2	23°46'12.30"N	79°22'36.69"E
3	23°20'21.0"N	79°36'39.3"E	3	24°24'40.33"N	79°12'26.08"E	3	23°46'08.10"N	79°22'39.43"E
4	23°20'20.9"N	79°36'40.4"E	4	24°24'40.32"N	79°12'27.61"E	4	23°46'06.40"N	79°22'35.20"E
5	23°20'15.5"N	79°36'39.6"E	5	24°24'39.32"N	79°12'27.53"E	5		
6	23°20'11.9"N	79°36'37.5"E	6	24°24'38.99"N	79°12'24.01"E	6		
7	23°20'10.2"N	79°36'34.1"E	7	24°24'37.40"N	79°12'24.19"E	7		
8	23°20'9.4"N	79°36'32.2"E	8	24°24'37.37"N	79°12'22.80"E	8		
9	23°20'11.1"N	79°36'32.9"E	9	24°24'40.30"N	79°12'23.09"E	9		
10	23°20'15.2"N	79°36'30.4"E	10	24°24'40.39"N	79°12'21.27"E	10		
11	23°20'16.9"N	79°36'30.9"E	11	24°24'40.98"N	79°12'21.24"E	11		
			12	24°24'41.33"N	79°12'24.80"E	12		
			13	24°24'39.55"N	79°12'19.89"E	13		
			14	24°24'39.30"N	79°12'20.96"E	14		
			15	24°24'37.32"N	79°12'21.9"E	15		
			16	24°24'37.20"N	79°12'20.20"E	16		
5	Gitti		6	Gitti		7	Gitti	
	पी.डी.एस. रिजर्व इका. प्रा.लि.			डुलीपद पटेल प्रा. श्री बहुराल चंदेल			अर्जुन मिश्रा इका.	
	पता 127/1, सामा कालोनी बन्देय बाग जबलपुर 9669091111			पता ग्राम सखगुवा पोस्ट करीपुर खेबना जिला सागर 9425662146			पता डी 2 डेवाली नगर दमोह 9329574535	
	Date 16/02/2018			Date 08.05.2018			816 रिनॉक 15/12/2020	
	22/03/2018			17/05/2018			15/12/2020	
	21/03/2028			16/05/2028			14/12/2030	
	6.000			2.05			2.000	
	22/03/2018			17/05/2018			15/12/2020	
	22/03/2018			17/05/2018			15/12/2020	
	Working			Working			Working	
	Captive			Captive			Captive	
	1821 रिनॉक 08/03/2018			1248 रिनॉक 22/08/2019			1248 रिनॉक 22/08/2019	
	Opencast			Opencast			Opencast	

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

District Survey Report (Minor Minerals): Damoh


S	Gitti	नंदिशोर साहू, पिता श्री धनश्याम साहू	पियासी बोलवाई रोड, राहसील के पास परियोजना वि. दमोह 7000427759	148 दिनांक 05. 05.2021	4,000	22/05 /2021	21/05 /2031	-	-	176 दिनांक 14.06. 2021	Working	Captive	7928 दिनांक 31.03.2021	Longitude		Opencast	
														B.P. No.	Latitude		
9	Gitti	श्री संजय कुमार चौरसिया पिता श्री नर्मदा प्रसाद चौरसिया	पियासी 69/2, बोरोखुर्द पॉस्ट कुआखंडावाली बोरो खुर्द हटा राहसील हटा जिला दमोह -	Date 20.06 2019	3,000	11/12 /2020	10/12 /2030	-	-	642 दिनांक 28.10 2021	Non- Working	Captive	56 दिनांक 01 04.2019	Longitude		Opencast	
														B.P. No.	Latitude		
														1	23°13'20.59"N		79°30'44.34"E
														2	23°13'20.89"N		79°30'47.92"E
														3	23°13'22.45"N		79°30'47.65"E
														4	23°13'24.13"N		79°30'47.14"E
														5	23°13'27.68"N		79°30'47.27"E
														6	23°13'30.40"N		79°30'46.71"E
														7	23°13'29.91"N		79°30'42.89"E
														8	23°13'27.73"N		79°30'42.98"E
9	23°13'26.21"N	79°30'43.43"E															
10	23°13'09.0"N	79°30'43.89"E															
10	Gitti	श्री राजेश कुमार अग्रवाल पिता श्री प्रमोद अग्रवाल	पियासी इंडस्ट्रियल एरिया, जबलपुर जाना दमोह 9425095674	167 दिनांक 08/03/2022	2,000	29/03 /2022	28/03 /2032	-	-	29/03/2022	Working	Captive	12/01/2022	Longitude		Opencast	
														B.P. No.	Latitude		
														1	23°46'16.40"N		79°24'55.10"E
														2	23°46'19.30"N		79°24'53.90"E
3	23°46'21.95"N	79°25'00.22"E															
4	23°46'19.56"N	79°25'02.36"E															
11	Gitti	दुलीचंद पटेल पिता श्री बाबूलाल पटेल	ग्राम मन्नापुरा पॉस्ट काणपुर राहसील सागर 9425662146	8130-31 दिनांक 11.06.2019	4,000	11.12. 2020	10.12. 2030	-	-	-	Non- Working	Captive	नहीं	Longitude		Opencast	
														B.P. No.	Latitude		
														1	24°24'45.13"N		79°12'12.79"E
														2	24°24'45.06"N		79°12'15.16"E
														3	24°24'45.97"N		79°12'20.60"E
														4	24°24'46.55"N		79°12'23.63"E
														5	24°24'45.70"N		79°12'25.73"E
														6	24°24'43.73"N		79°12'24.92"E
														7	24°24'41.37"N		79°12'24.73"E
														8	24°24'41.14"N		79°12'19.67"E
														9	24°24'41.89"N		79°12'19.24"E
10	24°24'42.85"N	79°12'15.65"E															
11	24°24'43.11"N	79°12'12.50"E															

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

District Survey Report (Minor Minerals): Damoh


Table 9.3 Details of New Received Application

क्रं	नाम एवं पता	आवेदन दिनांक	प्रकार	ग्राम	तहसील	खसरा	कुल रकबा
1.	विभक्ति स्टोन केशर प्रो. श्री विष्णुधर उरमलिया सा. खेजरा खुर्द ग्राम पांजी पोस्ट विनती	19/2/20 21	पत्थर (केशर से गिट्टी निर्माण)	निमरमुंडा	हटा	301/2,301/5,30 1/6 निजी भूमि	1.34 हे०
2.	श्री लक्ष्मण सिंह लोधी चिलघाट दमोह रोड	26/3/20 21	बोल्डर पत्थर एवं परिष्कृत पत्थर	पडरी	पटेरा	50, शासकीय भूमि	1.00 हे०
3.	श्री पुष्पेंद्र सोनी आत्मज श्री मुन्ना लाल सोनी सा० पटेरा तहसील पटेरा	08/04/2 021	बोल्डर पत्थर एवं परिष्कृत पत्थर	पडरी	पटेरा	50, शासकीय भूमि	1.00 हे०
4.	अर्जुन निर्माण इन्फ्रा० प्राइवेट लि. इंडिया	11/6/20 21	रेह मिट्टी	पोडी फतेहपुर	बटियाग ढ	5 शासकीय भूमि	4.00 हे०
5.	श्री शांतनु मिश्रा बजरिया वार्ड नं 7 दमोह	23/06/2 021	मुरम	कुलुवा उर्फ मारुताल	दमोह	1/123 निजी भूमि	1.00 हे०
6.	श्री शिवेंद्र तिवारी पिता श्री पवन कुमार तिवारी सा. जबलपुर नाका टी. व्ही.एस.एजेंसी के पीछे दमोह	29/06/2 021	मुरम	कुलुवा उर्फ मारुताल	दमोह	1/1 शासकीय भूमि	1.00 हे०
7.	श्रीमती जसमीत कोर खण्डूजा/दिलीमीत खण्डूजा सा० मांगज वार्ड नं 1 दमोह	05/08/2 021	गिट्टी	जमुनिया	दमोह	48, निजी भूमि	1.00 हे०
8.	मूसां कंस्ट्रक्शन श्री मूरेश आजम खान, नया बाजार नं 2 दमोह	08/04/2 021	मुरम	मारुताल	दमोह	1/1 शासकीय भूमि	1.00 हे०
9.	श्री धन्नजय जैन पिता श्री नन्हेलाल जैन सा. सगरा तहसील जबेरा	31/08/2 021	फर्शी पत्थर	रीछई	जबेरा	28, निजी भूमि	1.00 हे०
10.	श्री योगेश चौधरी आत्मज श्री कमलेश कुमार चौधरी, संजय	08/10/2 021	पत्थर से गिट्टी/ रेत	पथरिया	पथरिया	23/1/1(S),	4.00 हे०


 State Level Government
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 (EPCO)
 Bhopal
 Bhopal
 Bhopal

District Survey Report (Minor Minerals): Damoh

	चौराहा पथरिया		निर्माण				
11.	श्री योगेश चौधरी आत्मज श्री कमलेश कुमार चौधरी, संजय चौराहा पथरिया	08/10/2 021	पत्थर से गिट्टी/ रेत निर्माण	पथरिया	पथरिया	23/1/1(S),	4.00 हे०
12.	श्री नंदकिशोर साहू निवासी वार्ड नं 15 पथरिया	01/11/2 021	मुरम	पथरिया	पथरिया	23/1/1(S),	4.00 हे०
13.	श्री नंदकिशोर साहू निवासी वार्ड नं 15 पथरिया	17/11/2 021	गिट्टी	पथरिया	पथरिया	23/1/1(S),	4.00 हे०
14.	श्री राजकुमार तिवारी आत्मज श्री रमेश कुमार तिवारी निवासी गार्ड लाईन मांगज वार्ड , दमोह	21/12/2 021	मुरम	कुलुवा उर्फ मारुताल	दमोह	1/1(S),	2.00 हे०
15	श्री आलोक कुमार गोस्वामी निवासी 374, नया बाजार नंबर 4 पलंदी चौराहा दमोह	12/04/2 022	फर्शी पत्थर	परस्वाहा	जबेरा	8 (एस)	1 हे०
16	श्री उत्तम सिंह लोधी निवासी कांसा रोड नोहटा	25/04/2 022	फर्शी पत्थर	बडगुवा	जबेरा	55/1, 55/2, 55/3 (एस)	1 हे०
17	दिलमीत सिंह खंडूजा	13/05/2 022	गिट्टी	जमुनिया	दमोह	67 (एस)	1 हे०
18	श्री राधेश्याम इन्फा० पार्टनर अजय पटेल, देवेन्द्र कुमार राय	18/07/2 022	गिट्टी एवं एम सेंड	पडरी	पटेरा	40/3/1 (एस), 40/8 (एस)	1.80 हे०
19	श्री आलोक कुमार गोस्वामी आत्मज पुरुषोत्तम नारायण गोस्वामी 374/1 नया बाजार नं 4 पलंदी चौराहा	12/4/20 22	फ्लेग स्टोन (फर्श पत्थर)	परस्वाहा	जबेरा	8(S),	1.00 हे०
20	श्री उत्तम सिंह लोधी वार्ड नं 9 कांसा रोड नोहटा	25/04/2 022	फ्लेग स्टोन (फर्श पत्थर)	बडगुवां	जबेरा	55/1(S) ,55/2(S), 55/3(S),	1.00 हे०


 State Level Environment Impact
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 (EPAA)
 Pariyavaran Parishad
 E-3, Arera Colony, Bhopal (M.P.)

District Survey Report (Minor Minerals): Damoh

10. Details of Royalty or Revenue received in last three years

Table 10 Royalty & Revenue received in last three year

Minerals	Year	Revenue (In Rs.)
Flagstone	2019-2020	41000
	2020-2021	256650
	2021-2022	1603773
Murrum	2019-2020	83000
	2020-2021	0
	2021-2022	280000
Stone/Gitti	2019-2020	6594119
	2020-2021	2551318
	2021-2022	4451457

11. Details of Production of Minor Mineral in last three years

Table 11 Production in last thee year

Minerals	Year	Production (In cum)
Flagstone	2019-2020	386
	2020-2021	137
	2021-2022	4582
Murrum	2019-2020	1660
	2020-2021	0
	2021-2022	5600
Stone/Gitti	2019-2020	45919
	2020-2021	65941
	2021-2022	37095

12. Mineral Map of the District

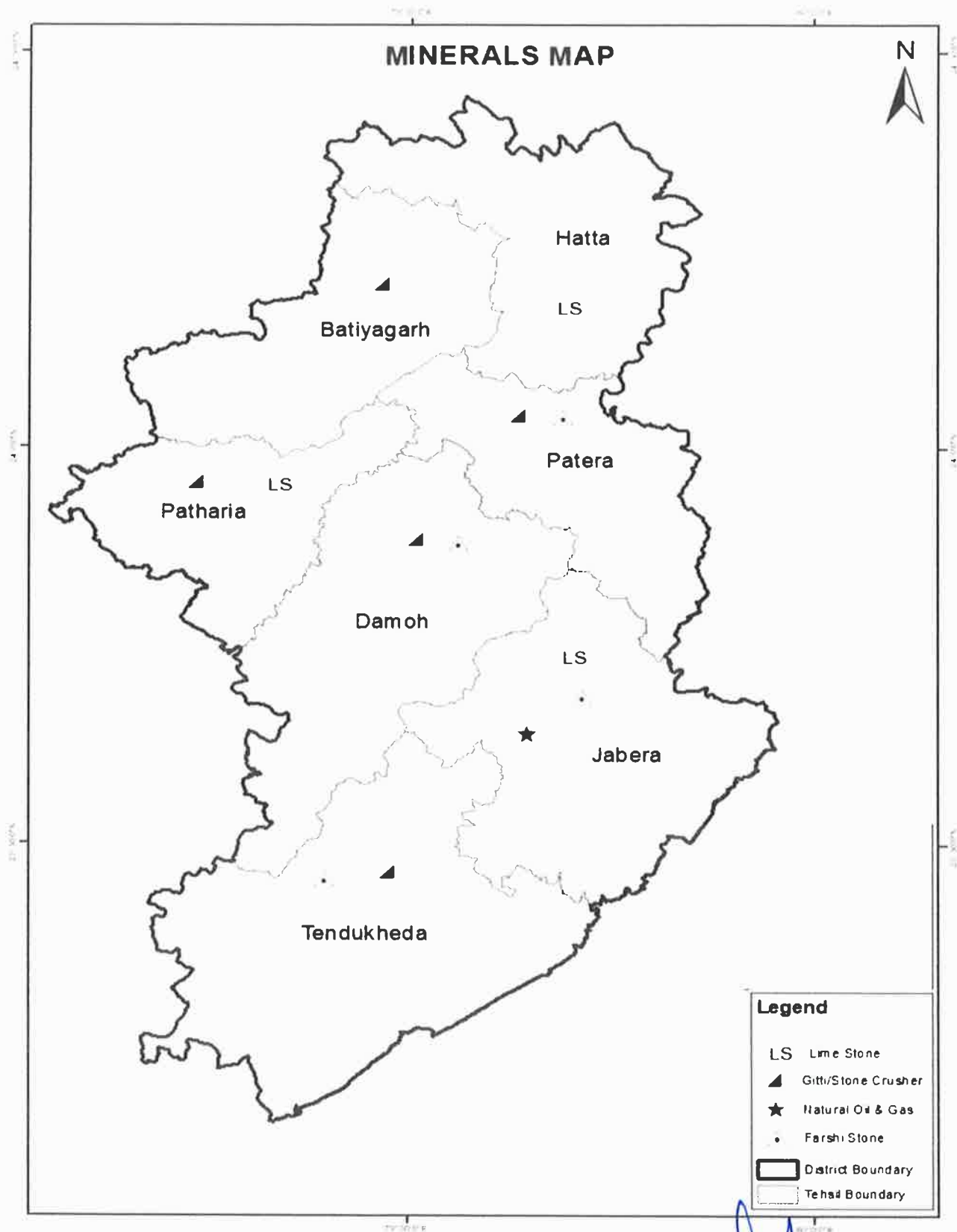


Figure 12 Mineral Map of the District

SCALE 1:782775
State Level Environment Impact
Assessment Authority, M.P.
(EPCO)
Paryavaran Parisar
E-5, Arera Colony, Bhopal (M.P.)

13. List of Letter of Intent (LOI) Holder in the District along with its validity as per the following format

Table 12 List of Letter of Intent Holder


Sr. No.	Name of the Mineral	Name of the Lessee	Address & Contact No. of Letter of Intent Holder	Letter of Intent Grant Order No. & date	Area of Mining lease to be allotted	Validity of LOI	Use (Captive / Non-Captive)	Location of the Mining Lease (Latitude & Longitude)		
								B.P .No.	Latitude	Longitude
1	2	3	4	5	6	7	8	9		
1	Flagstone	श्री धनजंय जैन पिता नन्हलाल जैन	ग्राम सगरा तहसील जबेरा जिला दमोह	197 दिनांक 29.03.20 22	ग्राम रीछई तहसील जबेरा के खसरा नंबर 280 रकबा 1. 000 हेव	6 Month	Non-Captive	1 2 3 4 5 6 7 8 9 10	24°43'28.065" 24°43'28.078" 24°43'27.641" 24°43'27.193" 24°43'26.821" 24°45'26.439" 24°43'27.610" 24°43'28.726" 24°43'30.011" 24°43'29.699"	79°44'32.704" 79°44'32.062" 79°44'30.707" 79°44'29.506" 79°44'28.276" 79°44'27.229" 79°44'27.431" 79°44'27.622" 79°44'27.775" 79°44'29.062"

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

District Survey Report (Minor Minerals): Damoh

B.P .No.	Latitude	Longitude
11	24°43'29.505" N	79°44'30.422" E
12	24°43'29.291" N	79°44'31.824" E
13	24°43'29.050" N	79°44'33.388" E
1	24°2'45.13"N	79°12'12.79"E
2	24°2'45.06"N	79°12'15.16"E
3	24°2'45.97"N	79°12'20.60"E
4	24°2'46.55"N	79°12'23.63"E
5	24°2'45.70"N	79°12'25.73"E
6	24°2'43.73"N	79°12'24.92"E
7	24°2'41.37"N	79°12'24.73"E
8	24°2'41.14"N	79°12'19.67"E
9	24°2'41.89"N	79°12'19.24"E
10	24°2'42.85"N	79°12'15.65"E
11	24°2'43.11"N	79°12'12.50"E

B.P .No.	Latitude	Longitude
2	Gitti	
	श्री डुलीचंद पटेल पिता श्री बाबूलाल जैन	
	ग्राम मझगुवा पोस्ट करगपुर तहसील सागर	
	8130-31 दिनांक 11.06.2019	
	ग्राम गूराकलौ तहसील बटियागढ के खसरा नंबर 29 रकबा 4.000 हे०	
	6 Month	
	Captive	


 State Level Environment Impact
 Assessment Authority, M.P.
 Parveeraj Panisai
 E-5, Area Colony, Bilaspur (M.P.)

District Survey Report (Minor Minerals): Damoh

14. Total Mineral Reserve in the District

Table 13 Total mineral reserve available in the district

Sr. No.	Name of Mineral	Reserve
1	Limestone	193.48 Million Tonne
2	Gitti/ Stone	3869574 m ³
3	Flagstone	1431431 m ³
4	Murrum	42263 m ³

According to mining plan

15. Quality/Grade of Mineral available in the District

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 than Fully mechanized method) for digging, excavation and removal of mineral in conjunction with deep hole drilling and blasting.

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

Fine grained and hard compact basalt/stone is available in the district so that Quality of stone available in Damoh district is building grade stone confirming standards.

Flagstone breaks in smooth, even layers a few centimeters thick and is used in paving. Quartzite Flagstone is hard and compact.

Murrum is the disintegration of rock; it is practically used for filling work in case of road construction and in an embankment. They are good materials, as it can be compacted easily to form hard surface.

And cement grade Limestone (CaO 34% and above) deposit available in the district. This quality can be used in cement industries.


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S.S. Arora Colony, Bhopal (M.P.)

District Survey Report (Minor Minerals): Damoh

16. Uses of Mineral

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


Crushed stone (Gitti): Angular crushed stone is the key material for macadam road construction, which depends on the interlocking of the individual stones' angular faces for its strength. Also use as rip rap, as railroad track ballast, as composite material (with a binder) in concrete, tarmac, and asphalt concrete.

Flagstone: The flagstones are utilized for paving slabs or walkways, patios, flooring, fences and roofing. It may also be utilized for memories and other construction.

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

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

Limestone- Limestone is used in Cement industries, pigment industries, etc.


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

District Survey Report (Minor Minerals): Damoh

17. Demand and Supply of the Mineral in the last three year

Table 14 Demand and supply of the Minerals in last three year

Sr. No.	Name of Mineral	Year	Production & Supply (Mt/In cum)	Remark
1	Lime Stone	2019-20	425414.62 Mt	Cement Plant
		2020-21	3678950 Mt	
		2021-22	3429734.5 Mt	
2	Gitti/ Stone	2019-20	45919 m ³	Minor Mineral such as Stone/Gitti, Murrum, Flagstone are supply basis of Demand on the Market
		2020-21	65941 m ³	
		2021-22	21261 m ³	
3	Flagstone	2019-20	386 m ³	Minor Mineral such as Stone/Gitti, Murrum, Flagstone are supply basis of Demand on the Market
		2020-21	137 m ³	
		2021-22	856 m ³	
4	Murrum	2019-20	1660 m ³	Minor Mineral such as Stone/Gitti, Murrum, Flagstone are supply basis of Demand on the Market
		2020-21	0	
		2021-22	5600 m ³	
5	Boulder	2019-20	27350 m ³	Minor Mineral such as Stone/Gitti, Murrum, Flagstone are supply basis of Demand on the Market
		2020-21	886 m ³	
		2021-22	120 m ³	

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

18. Mining Leases Marked on the map of the district

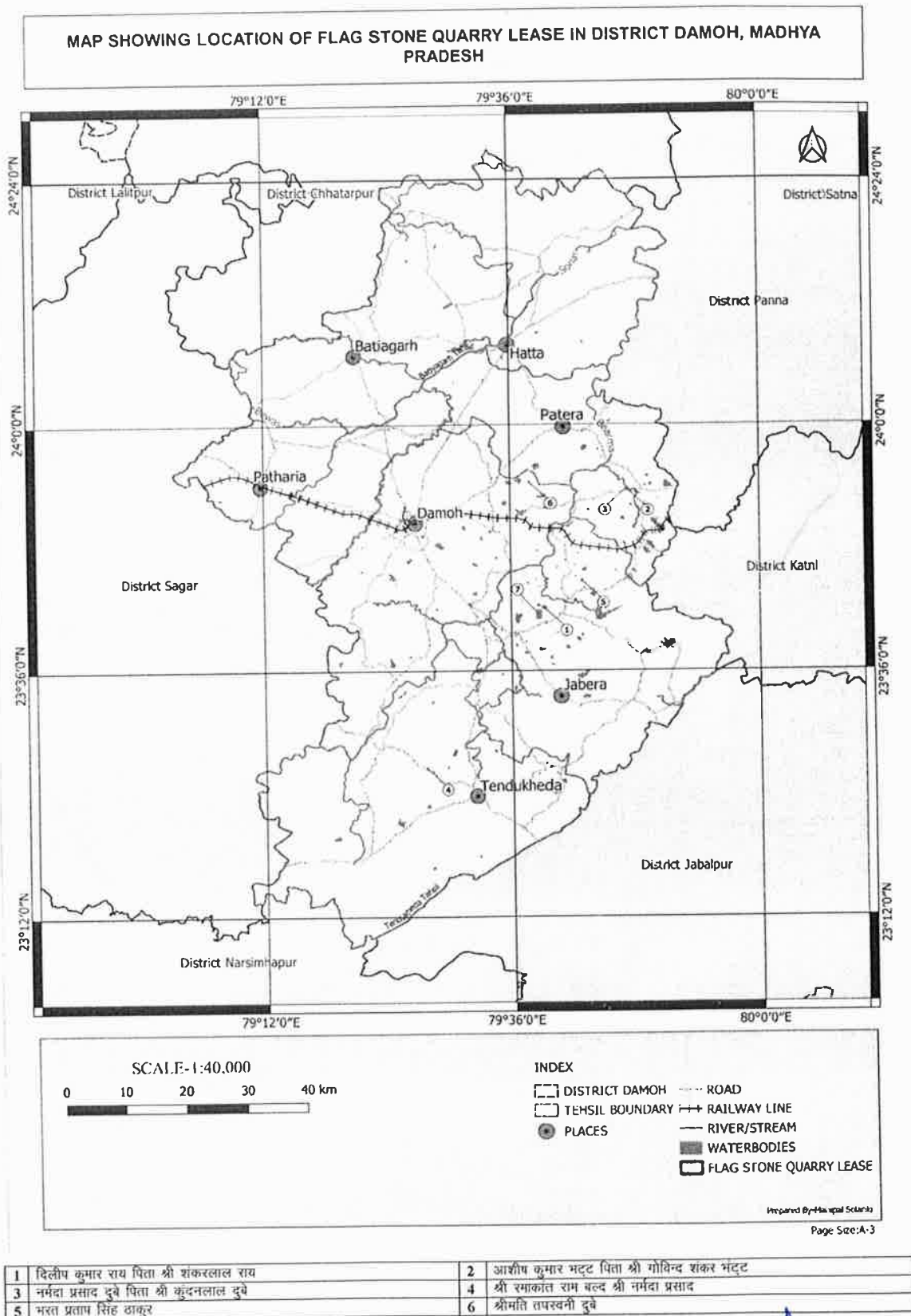



Figure 13 Flagstones Mining Lease Marked on the District Map


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

79°12'0"E

79°36'0"E

80°0'0"E

District Lalitpur

District Chhatarpur

District S...

District Panna

Batiagarh

Hatta

Patera

Patharia

Damoh

District Sagar

District Katni

Jabera

Tendukheda

District Jabalpur

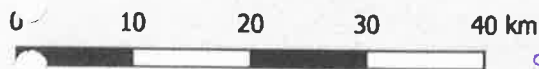
District Narsimhapur

79°12'0"E

79°36'0"E

80°0'0"E

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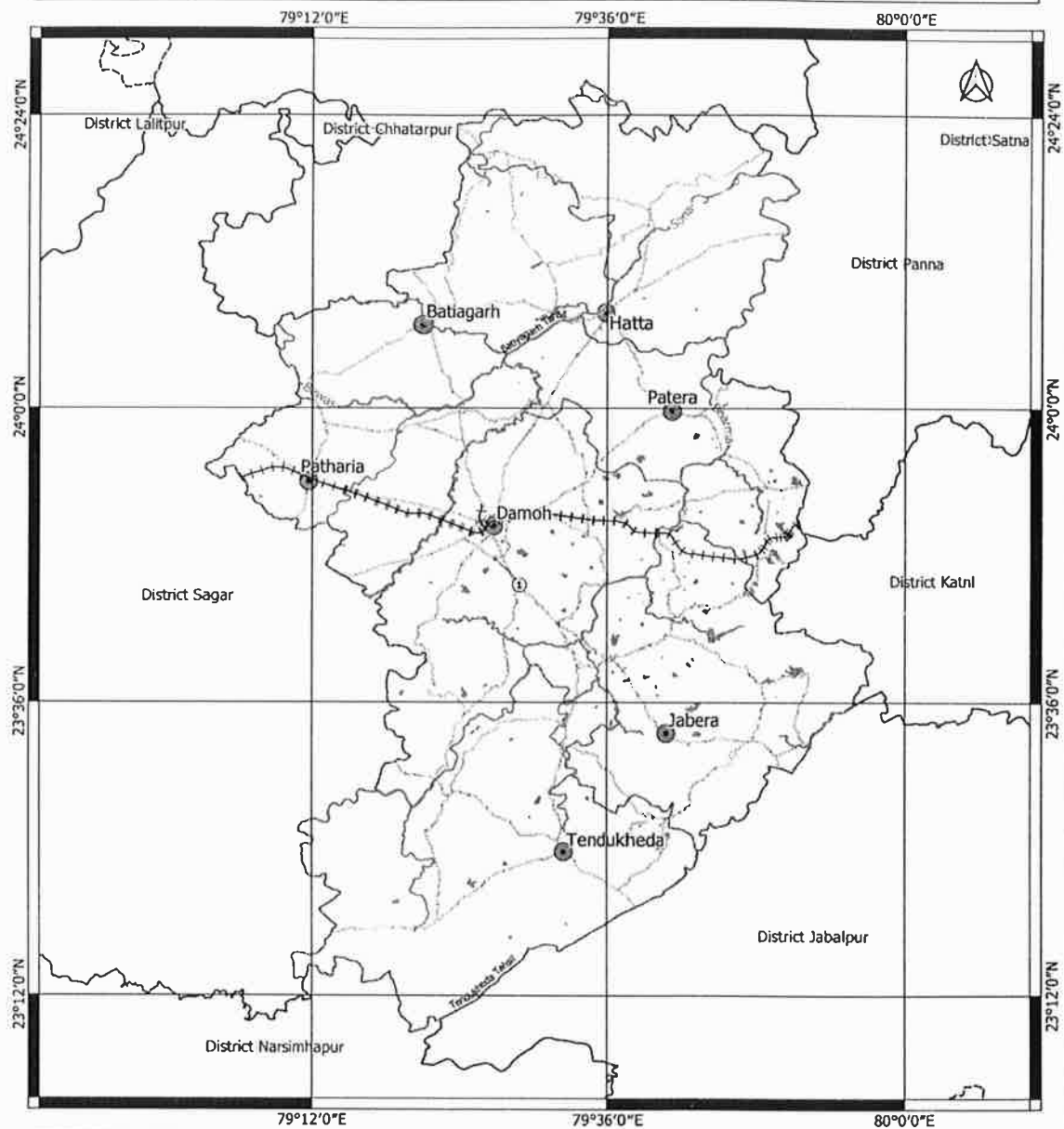


State Level Environment Impact Assessment Authority, M.P. (EPC)
Paryaveeran Parisar
E-5, Arera Colony, Bhopal (M.P.)

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- TEHSIL BOUNDARY
- RAILWAY LINE
- PLACES
- RIVER/STREAM
- WATERBODIES
- FLAG STONE QUARRY LEA

MAP SHOWING LOCATION OF MURRAM QUARRY LEASE IN DISTRICT DAMOH, MADHYA PRADESH



SCALE-1:40,000

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- WATERBODIES
- MURRAM QUARRY LEASE

Prepared By: H. Phule S. K. S. K.

Page Size: A-3

01 अर्जुन निर्माण इफा. Figure 13.1 Murrum Mining Lease Marked on the District Map

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(EPCO)
Suprasim Parivar
E-2, Aruna Colony, Bhopal (M.P.)



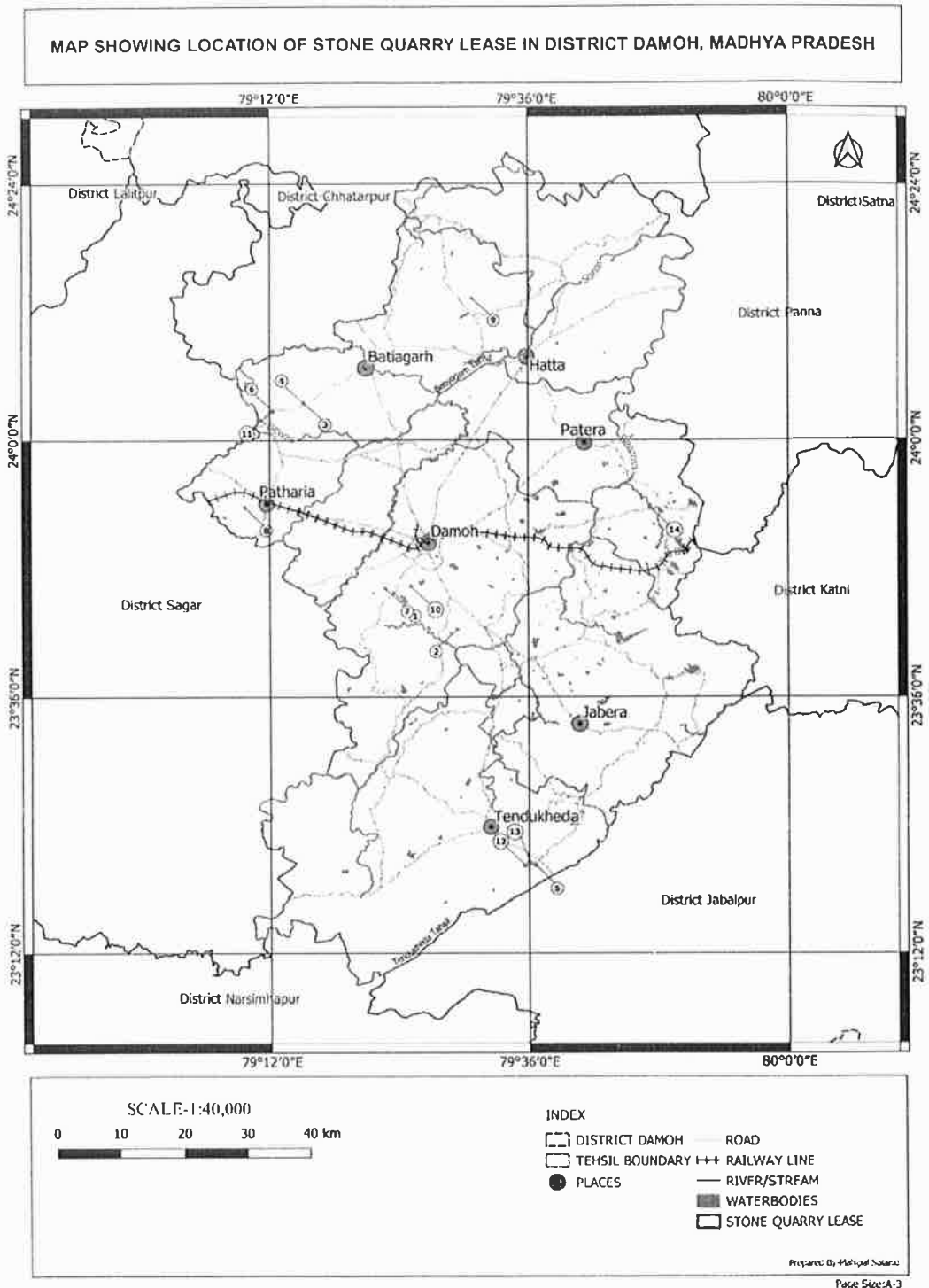
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State Level Environmental Impact Assessment Authority, M.P. (EPCO)
Parvatan Pariser
E-8, Anand Colony, Bhopal (M.P.)

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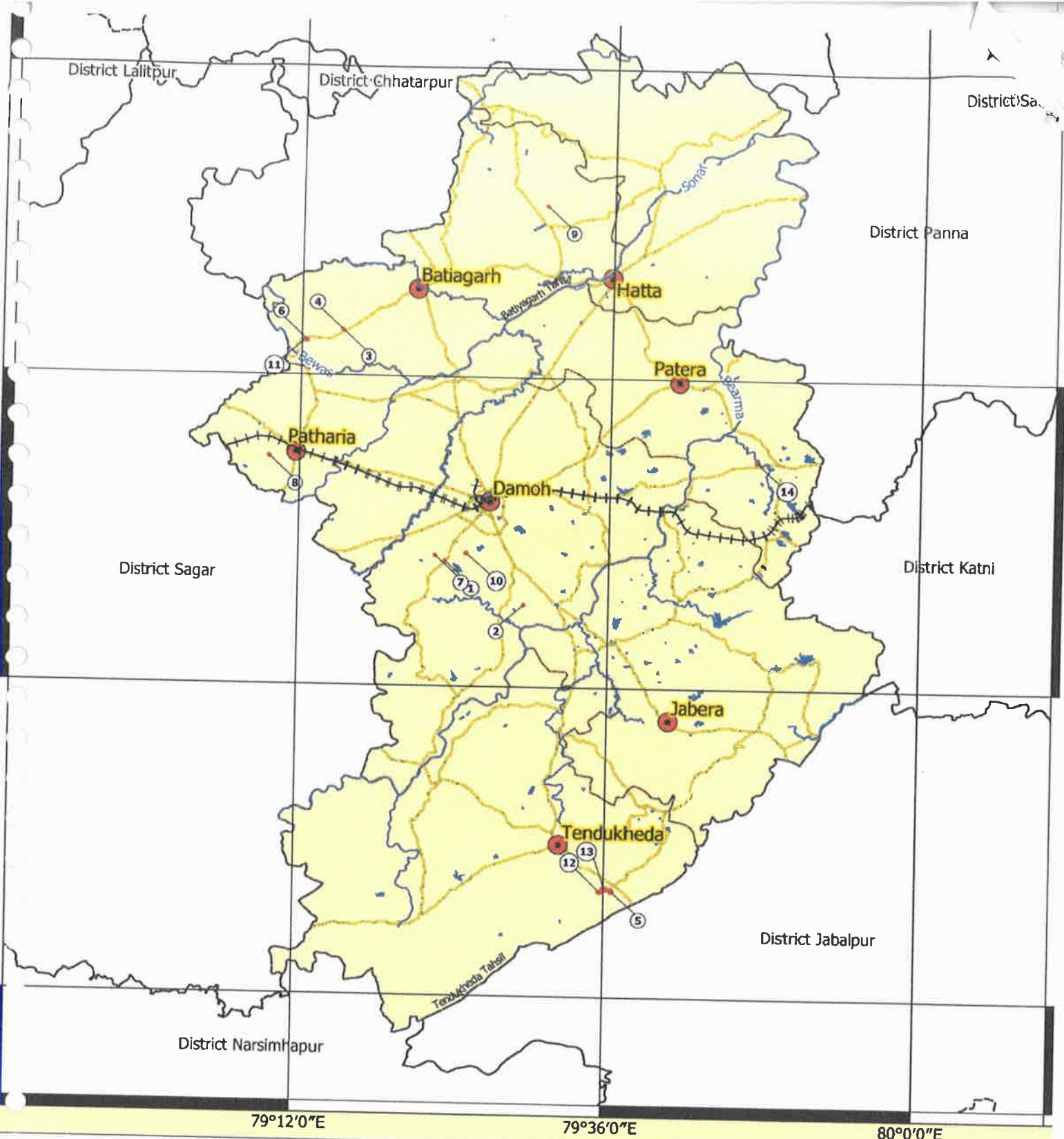
District Survey Report (Minor Minerals): Damoh



1 दिलगीत सिंह खड्का	2 दिलगीत सिंह खड्का
3 जगदीश पटेल पिता	4 जगदीश पटेल पिता
5 पी.डी.एस. रिसोर्स इन्फ्रा. प्रा.लि.	6 दुलीचंद पटेल पिता
7 अर्जुन निर्माण इन्फ्रा.	8 नंदकिशोर साहू
9 राजय कुमार चौरसिया	10 राकेश कुमार अग्रवाल
11 दुलीचंद पटेल पिता	12 पी.डी.एस. रिसोर्स इन्फ्रा. प्रा.लि. प्रो. विकास जैन
13 विकास जैन	14 इन्द्रपाल पटेल

Figure 13.2 Stone/Gitti Mining Lease Marked on the District Map

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



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 - STONE QUARRY LEASE

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State Level Environment Impact
Assessment Authority
(EPCC)


Prepared By-Mahipal Solanki
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1	दिलीप सिंह खंडूजा	2	दिलीप सिंह खंडूजा
3	जगदीश पटेल पिता	4	जगदीश पटेल पिता
5	ए.सी.एस. रिसोर्स इंफ्रा. प्रा.लि.	6	दुलीचंद पटेल पिता
7	एन.निर्माण इंफ्रा.	8	नंदकिशोर साहू

19. Details of the area of where there is a cluster of mining leases viz. number of mining lease, location (latitude and longitude)

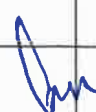
Table 15 Details of the cluster of Mining Lease

Sr. No.	Name of the Mine	Khasra Number	Area (In Ha.)	Tehsil	Latitude	Longitude
1	2	3	4	5	6	7
Batiyagarh Cluster						
1	गुराकला (दुलीचंद पटेल पिता श्री बाबूलाल पटेल पत्ता ग्राम मझगुवां जिला सागर)	760/1/1/2, 760/1/2, 760/1/2, 762, 764, 765	2.05	Batiyagarh		
					BP. No.	Longitude
					1	79°12'25.82"E
					2	79°12'26.65"E
					3	79°12'26.08"E
					4	79°12'27.61"E
					5	79°12'27.53"E
					6	79°12'24.01"E
					7	79°12'24.19"E
					8	79°12'22.80"E
					9	79°12'23.09"E
					10	79°12'21.27"E
					11	79°12'21.24"E


 District Survey Report (Minor Minerals) -
 Assessment Authority, Damoh
 (FDCC)
 Parvavara, Bansi
 E. S. Arera Colony, Bhopal (M.P.)

District Survey Report (Minor Minerals): Damoh

B.P. No.	Latitude	Longitude
12	24°2'41.33"N	79°12'24.80"E
13	24°2'39.55"N	79°12'19.89"E
14	24°2'39.30"N	79°12'20.96"E
15	24°2'37.32"N	79°12'21.9"E
16	24°2'37.20"N	79°12'20.20"E
1	24°2'45.13"N	79°12'12.79"E
2	24°2'45.06"N	79°12'15.16"E
3	24°2'45.97"N	79°12'20.60"E
4	24°2'46.55"N	79°12'23.63"E
5	24°2'45.70"N	79°12'25.73"E
6	24°2'43.73"N	79°12'24.92"E
7	24°2'41.37"N	79°12'24.73"E
8	24°2'41.14"N	79°12'19.67"E
9	24°2'41.89"N	79°12'19.24"E
10	24°2'42.85"N	79°12'15.65"E
11	24°2'43.11"N	79°12'12.50"E
2	गूराकला (डुलीचंद पटेल पिता श्री बाबूलाल पटेल पता ग्राम मझगुवां जिला सागर)	29
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 Assessment Authority,
 (EPCO)
 Parvatan Hansar
 B. Area, Sahay, Bhopal

District Survey Report (Minor Minerals): Damoh

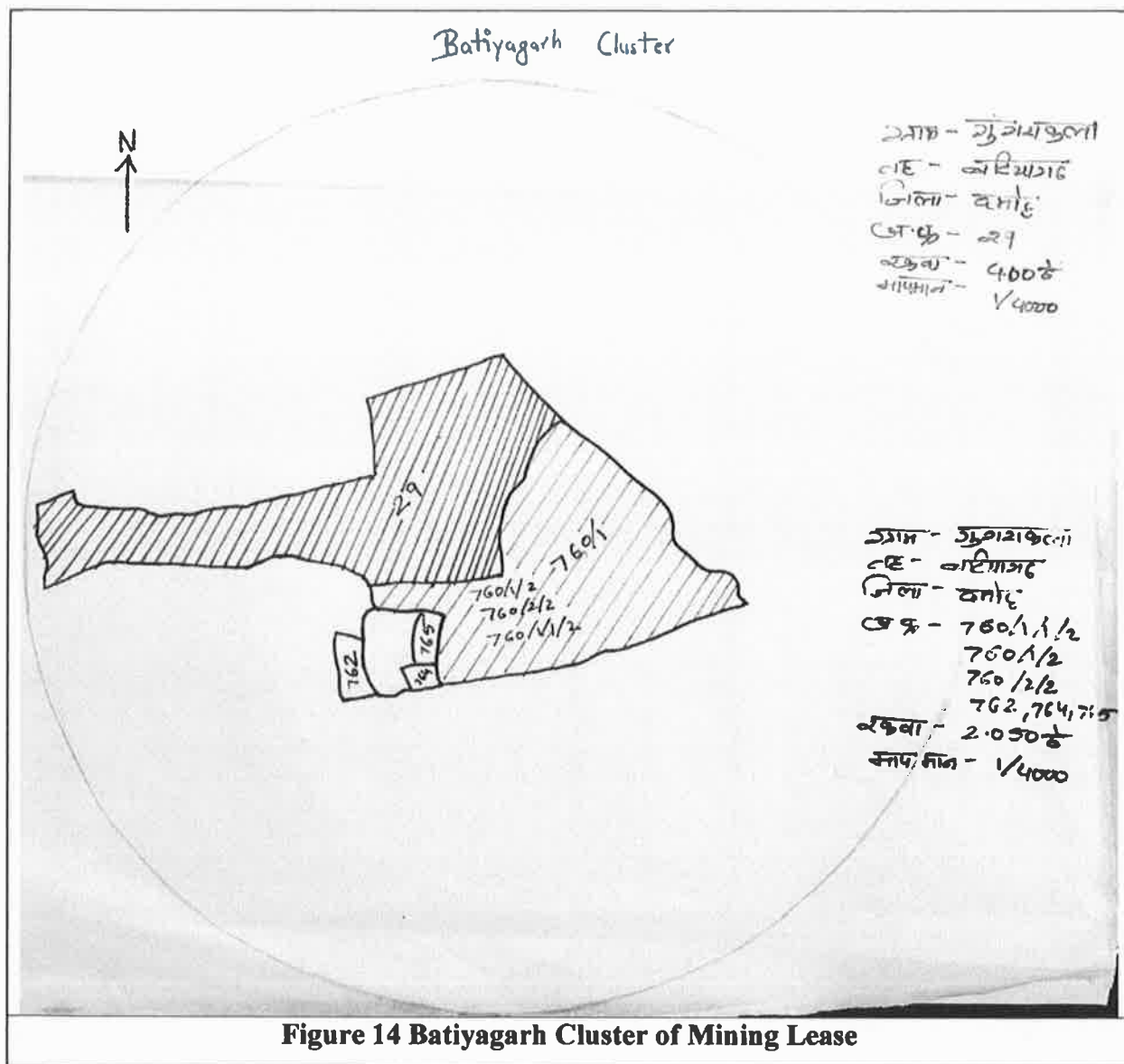



Figure 14 Batiyagarh Cluster of Mining Lease


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


District Survey Report (Minor Minerals): Damoh

20. Details of Eco-Sensitive Area, if any, in the District

Nauradehi Wildlife Sanctuary, covering about 1,197 km², is the largest wildlife sanctuary of Madhya Pradesh state in India. This wildlife sanctuary is a part of 5500 km² of forested landscape. It is located in the centre of Madhya Pradesh, covering parts of Sagar, Damoh, Narsinghpur, and Raisen Districts. It is about 90 km from Jabalpur and about 56 km from Sagar. It is a potential site for the Cheetah Reintroduction in India. The cheetah prey density was reasonable and based on current prey density the area could support about 25 cheetahs. An area of 750 km² was recommended by relocation of 23 villages. After relocating the species, the site could support over 50 cheetahs and Nauradehi could harbor over 70 individuals.

The protected area sits astride two major river basins of India, namely the Narmada, flowing west to the Arabian Sea and the Ganges, flowing east to the Bay of Bengal. Three-fourths of the wildlife sanctuary falls in the basin of Ganges tributary, the Yamuna River, of which the Ken River is a tributary, and one fourth of the sanctuary falls in the Narmada basin. The north flowing Kopra River, Bamner River, Vyarma River and Bearma River, which are tributaries of the Ken River, are the major rivers of this protected area. Some smaller streams flow southerly to the Narmada River in the south of the sanctuary.

Vecrangana Durgawati Wildlife Sanctuary is another wildlife sanctuary in Damoh district of Madhya Pradesh, India. Named after Rani Durgavati, a queen of the Gond people, and covering an area of only 24 sq km, the sanctuary was notified by the Government of Madhya Pradesh in 1996. It lies on either side of the State Highway 36 and lies between the towns of Damoh and Jabalpur. The sanctuary hosts 18 species of mammals, including the leopard, wolf, jackal, Indian fox, the striped hyena and sloth bear besides several species of deer. Besides these, the sanctuary is also home to 177 species of birds, 16 species of fish and reptiles and 10 species of amphibians.


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Table 16 Co-ordinates of Veerangana Durgawati Wildlife Sanctuary

Direction	Co-ordinates	
	Longitude	Latitude
North (A)	79°45'25.129"	23°34'01.327"
East (B)	79°49'13.283"	23°31'20.661"
South (C)	79°48'31.757"	23°30'49.125"
West (D)	79°42'39.339"	23°32'11.2"

Table 17 Co-ordinates of Eco-sensitive zone

Direction	Co-ordinates	
	Longitude	Latitude
North (A1)	79°45'26.26"	23°35'6.548"
East (B1)	79°50'23.638"	23°31'15.657"
South (C1)	79°48'31.229"	23°29'44.128"
West (D1)	79°41'28.575"	23°32'11.473"



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District Survey Report (Minor Minerals): Damoh

Table 18 List of Villages with Geographical Coordinates within the Nauradehi Eco sensitive Zone

Sl. No.	Name of division	Name of village	District	Longitude	Latitude
1	Damoh	Deotara Puranyau	Damoh	79°42'35.12"	23°32'39.33"
2	Damoh	Tilgwan	Damoh	79°46'44.4"	23°32'24.4"
3	Damoh	Gubra	Damoh	79°49'57.2"	23°31'74.0"
4	Damoh	Bhainsa	Damoh	79°45'25.8"	23°30'44.6"
5	Damoh	Dhaneta	Damoh	79°49'35.70"	23°32'58.32"
6	Damoh	Lamtara	Damoh	79°50'17.25"	23°32'24.93"
7	Damoh	Singrampur	Damoh	79°44'58.9"	23°38'15.2"
8	Damoh	Tanwra	Damoh	79°44'19.64"	23°30'45.67"
9	Damoh	Jogikhera	Damoh	79°41'47.97"	23°32'04.56"
10	Damoh	Sanwra	Damoh	79°44'01.7"	23°29'57.21"

35	Nauradehi	Chirai	Damoh	79°22'33.10"E	23°38'42.65"N
36	Nauradehi	Mankagaon	Damoh	79°21'56.57"E	23°37'4.65"N
37	Nauradehi	Hinou	Damoh	79°19'30.81"E	23°35'22.10"N
38	Nauradehi	Murai	Damoh	79°20'15.44"E	23°34'28.28"N
39	Nauradehi	Amrikalan	Damoh	79°20'6.53"E	23°33'47.30"N
40	Nauradehi	Khagar	Damoh	79°21'34.87"E	23°36'35.58"N
41	Nauradehi	Maujakalan	Damoh	79°21'6.19"E	23°35'44.13"N
42	Nauradehi	Suheta	Damoh	79°22'54.05"E	23°34'41.98"N
43	Nauradehi	Jamuniya	Damoh	79°24'29.74"E	23°35'6.12"N
44	Nauradehi	Somkheda	Damoh	79°24'15.68"E	23°34'4.79"N
45	Nauradehi	Duhli	Damoh	79°22'0.99"E	23°31'19.30"N
46	Nauradehi	Guari	Damoh	79°21'59.72"E	23°31'28.68"N
47	Nauradehi	Sooradehi	Damoh	79°22'9.97"E	23°30'50.62"N
48	Nauradehi	Mgabher	Damoh	79°22'5.71"E	23°30'34.03"N
49	Nauradehi	Nayakheda	Damoh	79°22'12.41"E	23°30'22.03"N
50	Nauradehi	Jhapan	Damoh	79°22'17.34"E	23°30'9.41"N
51	Nauradehi	Sihri	Damoh	79°21'47.23"E	23°27'20.99"N
52	Nauradehi	Dhana	Damoh	79°19'43.62"E	23°25'36.86"N
53	Nauradehi	Cheema Dhana	Damoh	79°20'24.18"E	23°25'36.94"N
54	Nauradehi	Chikhli	Damoh	79°19'51.78"E	23°19'44.88"N
55	Nauradehi	Bansi	Damoh	79°20'21.43"E	23°19'37.27"N
56	Nauradehi	Pidrai	Damoh	79°19'56.58"E	23°18'57.17"N
57	Nauradehi	Kopadeori	Damoh	79°20'33.73"E	23°17'46.88"N
58	Nauradehi	Taradehi	Damoh	79°20'57.92"E	23°17'18.42"N
59	Nauradehi	Jhantara	Damoh	79°19'20.02"E	23°15'13.12"N
60	Nauradehi	Pipla	Damoh	79°18'48.89"E	23°16'50.68"N
61	Nauradehi	Khantara	Damoh	79°18'38.85"E	23°17'41.53"N
62	Nauradehi	Sarasbagli	Damoh	79°19'23.52"E	23°16'1.93"N
63	Nauradehi	Chorkhamariya	Damoh	79°19'39.43"E	23°16'29.97"N
64	Nauradehi	Sarratuda	Damoh	79°19'10.88"E	23°16'0.39"N
65	Nauradehi	Kotkheda	Damoh	79°19'14.07"E	23°15'13.19"N

District Survey Report (Minor Minerals): Damoh

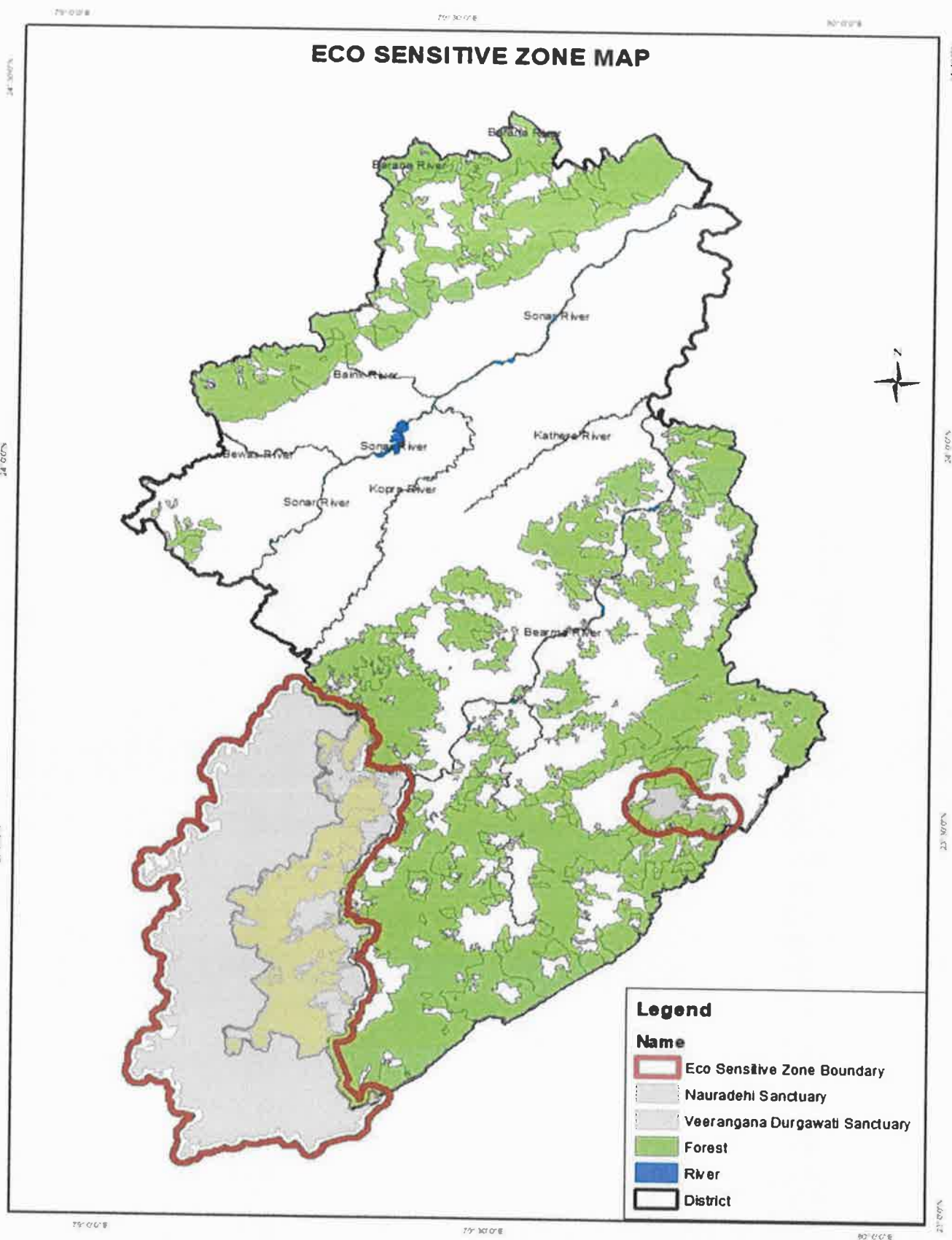


Figure 15 Eco-Sensitive map of the District

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State Level Environment Impact
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(EPCO)
Parveeran Parisar
E-5, Area Colony, Bhopal (M.P.)

District Survey Report (Minor Minerals): Damoh

21. Impact on the Environment (Air, Water, Noise, Soil, Flora & Fauna, Land Uses, Agriculture, forest etc.) due to Mining Activity

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

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

21.1 Air

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

The major air pollutants due to mining activity includes: -

Particulate Matter (Dust) of various sizes.


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

21.2 Water Impact

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

21.3 Noise

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


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21.4 Land Environment


There shall be no major impacts of minor mineral 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/pouches. Polythene bags are used by the workers to bring their food etc.

21.5 Flora and Fauna

The impact on biodiversity is difficult to quantify because of its diverse and dynamic characteristics.

Mining activities generally result in the deforestation, land degradation, water, air and noise pollution which directly or indirectly affect the faunal and floral status of the project area.

However, occurrence and magnitude of these impacts are entirely dependent upon the project location, mode of operation and technology involved.


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District Survey Report (Minor Minerals): Damoh

22. Remedial Measure to mitigate the impact of Mining on the Environment

22.1 Air Environment

Mitigated measures suggested for air pollution controls are based on the baseline ambient air quality of the area

The following measures are proposed to be adopted in the mines such as,

- Dust generation shall be reduced by using sharp teeth of shovels.
- Wet drilling shall be carried out to contain the dust.
- Controlled blasting techniques shall be adopted.
- Water spraying on haul roads, service roads and overburden dumps will help in reducing considerable dust pollution.
- Proper and regular maintenance of mining equipment's have to be considered.
- Transport of material in trucks covered with tarpaulin.
- The mine pit water can be utilized for dust suppression in and around mine areas.
- Information on wind direction and meteorology will be considered while planning, so that pollutants, which cannot be fully suppressed by engineering technique, will be prevented from reaching the nearby agriculture area.
- Comprehensive green belt around overburden dumps has to be carried out to reduce to fugitive dust emissions in order to create clean and healthy environment.

22.2 Water Environment

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

District Survey Report (Minor Minerals): Damoh

- Domestic sewage from site office & urinals/latrines provided in ML is discharged in septic tank followed by soak pits.

22.3 Noise Environment


- Periodic maintenance of machinery, equipment shall be ensured to keep the noise generated at minimum.
- Development of thick green belt around mining area and haul roads to reduce the noise.
- Provision of earplugs to workers exposed to high noise generating activities. Workers and operators at work site will be provided with earmuffs.
- Conducting periodical medical check-up of all workers for any noise related health problems.
- Proper training to personnel to create awareness about adverse noise level effects.
- Periodic noise monitoring at suitable locations in the mining area and nearby habitations to assess efficacy of adopted control measures.
- During the blasting, optimum spacing, burden and charging of holes will be made under the supervision of competent qualified mines foreman, mate as approved by Director of Mines safety.

22.4 Land Environment

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

22.5 Biological Environment

- Development of gap filling saplings in the safety barrier left around the quarry area.


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




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23. Reclamation of Mined out area (best practice already implement in the district, requirement as per rule and regulation, proposed reclamation plan)

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


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24. Risk Assessment & Disaster Management Plan

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

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

24.1 General Responsibilities during an Emergency

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


24.2 Co-ordination with Local Authorities

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

24.3 Disaster Management Plan

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

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


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- Rapid control and containment of Hazardous situation
- Minimum the risk and impact of event/ accident
- Effective prevention of damage to property.

In order to achieve effectively the objectives of emergency planning, the critical elements that form the backbone of Disaster Management Plan (DMP) are: -

- Reliable and early detection of an emergency and immediate careful planning.
- The command, co-ordination and response organization structure along with availability of efficient trained personnel.
- The availability of resources for handling emergencies.
- Appropriate emergency response action.
- Effective notification and communication facilities.
- Regular review and updating DMP.
- Training of the concerned personnel.
- Steps taken for minimizing the effects may include rescue operations, first aid, evacuation, rehabilitation and communicating promptly to people living nearby.

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


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25. Details of the Occupational Health issues in the District (Last five year data of number of patients of Silicosis & Tuberculosis is also needs to be submitted)

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

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

Physical Hazards due to Mining Operations:

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


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

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

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

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

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


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

Table 19 Number of Health Centers in Damoh District

Sr. No.	Name of District	Block Name	DH/CH	CHC	PHC	SHC	MO	Total No. of Beds	Total No. of Ambulance
1.	Damoh	Damoh	1	1	1	30	17	211	3
2.		Batiagarh	0	0	1	20	7	22	1
3.		Hattaa	1	2	1	21	5	40	2
4.		Jabera	0	1	1	27	1	36	1
5.		Patharia	0	1	1	23	2	36	2
6.		Patera	0	1	1	18	4	36	1
7.		Tendukhera	0	1	1	23	2	36	1
8.				2	7	7	162	38	417

Table 20 Number Tuberculosis Patient's list of Damoh District

Sr. No.	Year	Tuberculosis Patient's
1	2017	3043
2	2018	3190
3	2019	3240
4	2020	2932
5	2021	3106

Table 21 Silicosis Patient's list of Damoh District

Sr. No.	Year	Silicosis Patient's
1	2017	Ni
2	2018	Nil
3	2019	Nil
4	2020	Nil
5	2021	Nil

No Silicosis Patient's in the district

Malaria control in Madhya Pradesh is complex because of vast tracts of forest with tribal settlement. Fifty four million individuals of various ethnic origins, accounting for 8% of the total population of India, contributed 30% of total malaria cases, 60% of total

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falciparum cases and 50% of malaria deaths in the country. Ambitious goals to control tribal malaria by launching "Enhanced Malaria Control Project" (EMCP) by the National Vector Borne Disease Control Programme (NVBDCP), with the World Bank assistance, became effective in September 1997 in eight north Indian states. Under EMCP, the programme used a broader mix of new interventions, i.e. insecticide-treated bed nets, spraying houses with effective residual insecticides, use of larvivorous fishes, rapid diagnostic tests for prompt diagnosis, treatment of the sick with effective radical treatment and increased public awareness and IEC.

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

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

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

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

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

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

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

However the afforestation should always be carried out in a systematic and scientific manner. It is proposed to carry the plantation along the river bank, both sides of approach roads by considering 80% rate of survival. Trees like Karanj, Sheesham, Mango, Neem and some other varieties will be planted in consultant with forest department.

Table 22 Lease wise Plantation Details

Sr. No.	Name of Lessee & Address	Village	Khasra No.	Area	Lease Period	Proposed Tree Plantation	Tree Plantation by Lessee
1	दिलीप कुमार राय पिता श्री शंकरलाल राय सा. जबलपुर नाका दमोह	लखनी	897/2, 897/3, 639	1.000	08/06/2021- 07/06/2026 (05 Year)	100	40
2	आशीष कुमार भट्ट पिता श्री गोविन्द शंकर भट्ट पता दमोह	पडरी	46	1.000	10/07/2017- 09/07/2027 (10 Year)	200	15
3	नर्मदा प्रसाद दुबे	बगदरी	10	1.000	27/04/2018-	100	40

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	पिता श्री कुंदनलाल दुबे पता ग्राम सहजपुर तह. तेन्दूखेडा				26/04/2028 (10 Year)		
4	श्री रमाकांत राम बल्द श्री नर्मदा प्रसाद सा. बम्होरी माला तह. जबेरा	सगरा	13	1	14/10/2019- 13/10/2029 (10 Year)	100	30
5	भरत प्रताप सिंह ठाकुर सा. हिण्डोरिया	हिण्डोरिया	1651	1	02/12/2015- 01/12/2025 (10 Year)	100	70
6	श्रीमति तपस्वनी दुबे सा. रंजरा तहसील जबेरा	लखनी	765, 766, 767, 768/3	1	11/12/2020- 10/12/2030 (10 Year)	120	25
7	अर्जुन निर्माण इंफ्रा. पता डी 2 वैशाली नगर दमोह	जमुनिया	1/147/2, 1/147/3	1	05/08/2016- 04/08/2026 (10 Year)	100	650
8	दिलमीत सिंह खंडूजा पिता श्री त्रिलोक सिंह खंडूजा पता मांगज वार्ड दमोह	जमुनिया	67	1	23/05/2012- 22/05/2022 (10 Year)	100	170
9	दिलमीत सिंह खंडूजा पिता श्री त्रिलोक सिंह खंडूजा पता मांगज वार्ड दमोह	इमलिया नायक	470	1	07/07/2014- 06/07/2024 (10 Year)	500	750
10	जगदीश पटेल पिता श्री तोडल प्रसाद पटेल पता ग्राम खडेरी तह. बटियागढ जिला दमोह	खडेरी	15/1	2	26/09/2017- 25/09/2027 (10 Year)	500	90
11	जगदीश पटेल पिता श्री तोडल प्रसाद पटेल पता ग्राम खडेरी तह. बटियागढ जिला दमोह	खडेरी	14	1.78	26/09/2017- 25/09/2027 (10 Year)	500	25
12	पी.व्ही.एस. रिसोर्स इंफ्रा. प्रा.लि. पता 127/1, संगम कालोनी बल्देव बाग	पाडाझिर	121, 123, 127, 128, 129, 130	6	22/03/2018- 21/03/2028 (10 Year)	100	30

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	जबलपुर						
13	दुलीचंद पटेल पिता श्री बाबूलाल पटेल पता ग्राम मझगुवां जिला सागर	गूगराकला	760/1/2, 760/1/2, 762, 764, 763	2.05	17/05/2018- 16/05/2028 (10 Year)	500	175
14	अजुन निर्माण इंफ्रा. पता डी 2 वैशाली नगर दमोह	जमुनिया	112	2	15/12/2020- 14/12/2030 (10 Year)	400	200
15	नंदकिशोर साहू पिता श्री घनश्याम साहू निवासी बोंतराई रोड़, तहसील के पास पथरियां जि. दमोह	पथरिया	23/1	4	22/05/2021- 21/05/2031 (10 Year)	2000	50
16	सजय कुमार चौरसिया निवासी आजाद वार्ड हटा तहसील हटा जिला दमोह	फतेहपुर	5	3	11/12/2020- 10/12/2030 (10 Year)	300	25
17	श्री राकेश कुमार अग्रवाल निवासी इंडस्ट्रियल एरिया, जबलपुर नाका दमोह	अमाटा	111	2	29/03/2022- 28/03/2032 (10 Year)	100	00
18	दुलीचंद पटेल पिता श्री बाबूलाल पटेल पता ग्राम मझगुवां जिला सागर	गूगराकला	29	4	11/12/2020- 10/12/2030 (10 Year)	250	50
19	पी.व्ही.एस. रिसोर्स इंफ्रा. प्रा.लि. प्रो० विकास जैन पता 127/1, संगम कालोनी बल्देव बाग जबलपुर	पाडाझिर	63	5.688	(10 Year)	100	00
20	श्री विकास जैन पता 127/1, संगम कालोनी बल्देव बाग जबलपुर	पाडाझिर	50	6	(10 Year)	100	00
21	इंद्रपाल पटेल पिता श्री शिवचरण पटेल पता गांधी वार्ड हटा	पडरी	49	2	17/05/2018 - 16/05/2028 (10 Year)	500	20



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Table 23 Recommended Plant species for green belt development/plantation

Sr. No.	Botanical Name	Family	Common Name
1.	Bougainvillea glabra Choisy	Nyctaginaceae	Booganbel
2.	Hibiscus rosa- sinensis L	Malvaceae	Gurhal
3.	Nerium indicum Mill	Apocynaceae	Kaner
4.	Polyalthia longifolia	Annonaceae	Ashok
5.	Ailanthus excelsa Roxb	Simaroubaceae	Maha nimba
6.	. Butea monosperma (Lamk.) Taub	Fabaceae	Khakhra/Palash
7.	Cassia fistula L.	Caesalpiaceae	Amaltas
8.	Mangifera indica L.	Anacardiaceae	Mango
9.	Terminalia cattapa L.	Combretaceae	Jangli badam
10.	. Tectona grandis L	Verbenaceae	Teak/ Sagun
11.	Mangifera Indica	Anacardiaceae	Mango
12.	Bambusa Vulgaris	Poeceae	Bamboo
13.	Artocarpur hetreophyllus	Moraceae	Kathal
14.	Azadirachta indica A. Juss	Meliaceae	Neem
15.	Ficus religiosa L	Moraceae	Pipal
16.	Dalbergia sissoo	Fabaceae	Sissoo
17.	Ficus benghalensis	Moraceae	Bargad
18.	Manilkara hexandra	Spotaceae	Khirmi
19.	Terminalia chebula	Combretaceae	Harra
20.	Phyllanthus emblica	Phyllanthaceae	Amla
21.	Terminalia bellircia	Combretaceae	Bahera
22.	Psidium guajaya	Myrtaceae	Guava

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


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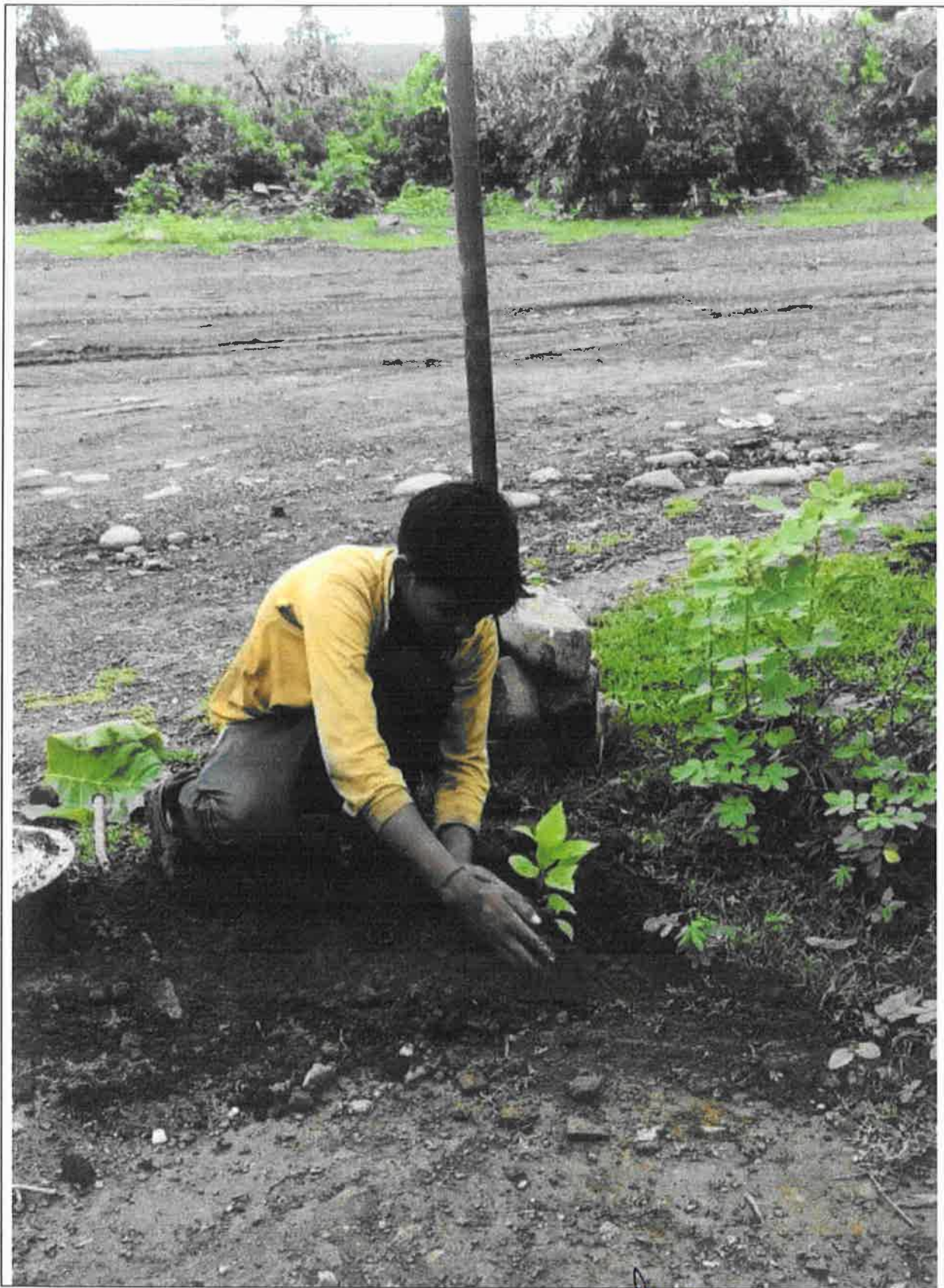
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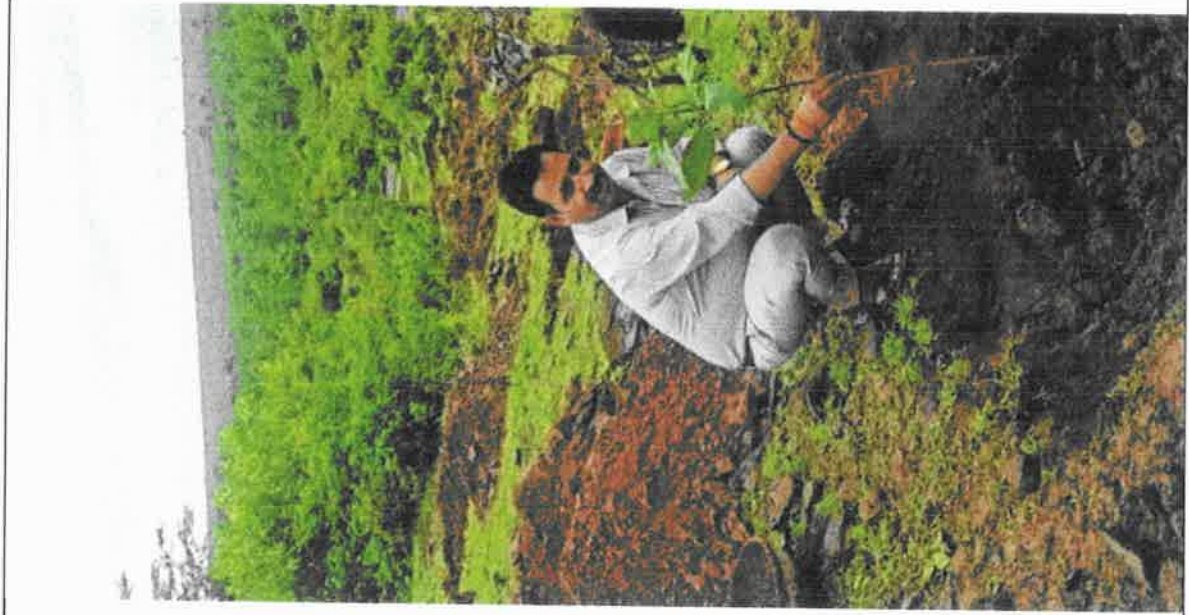
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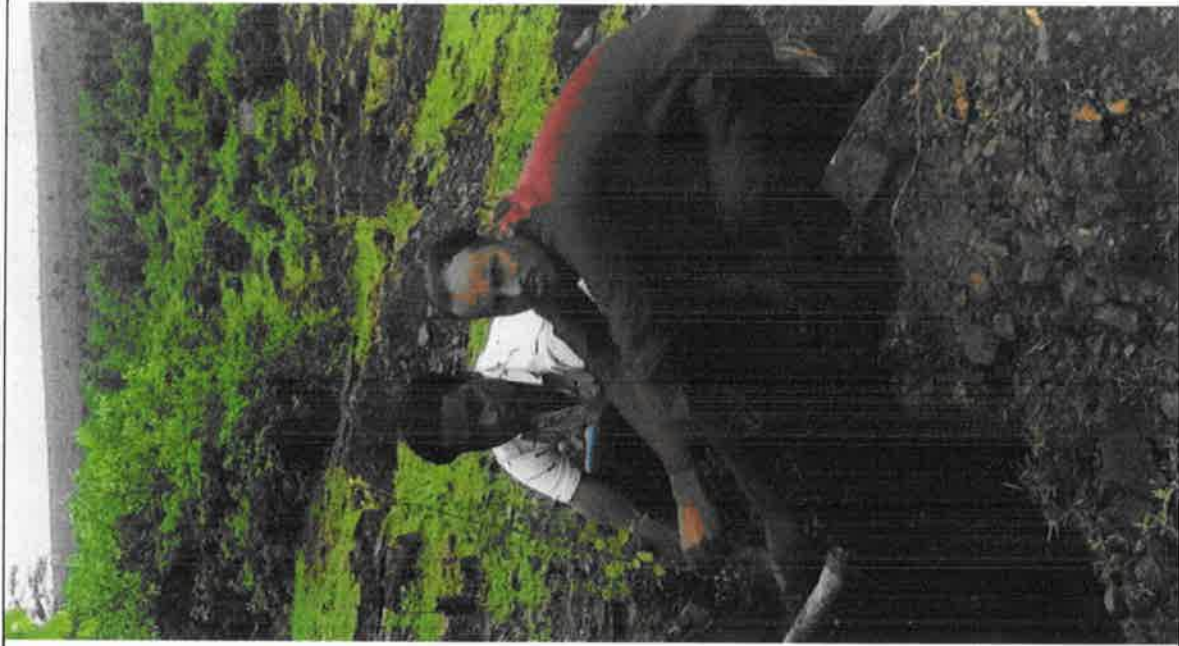
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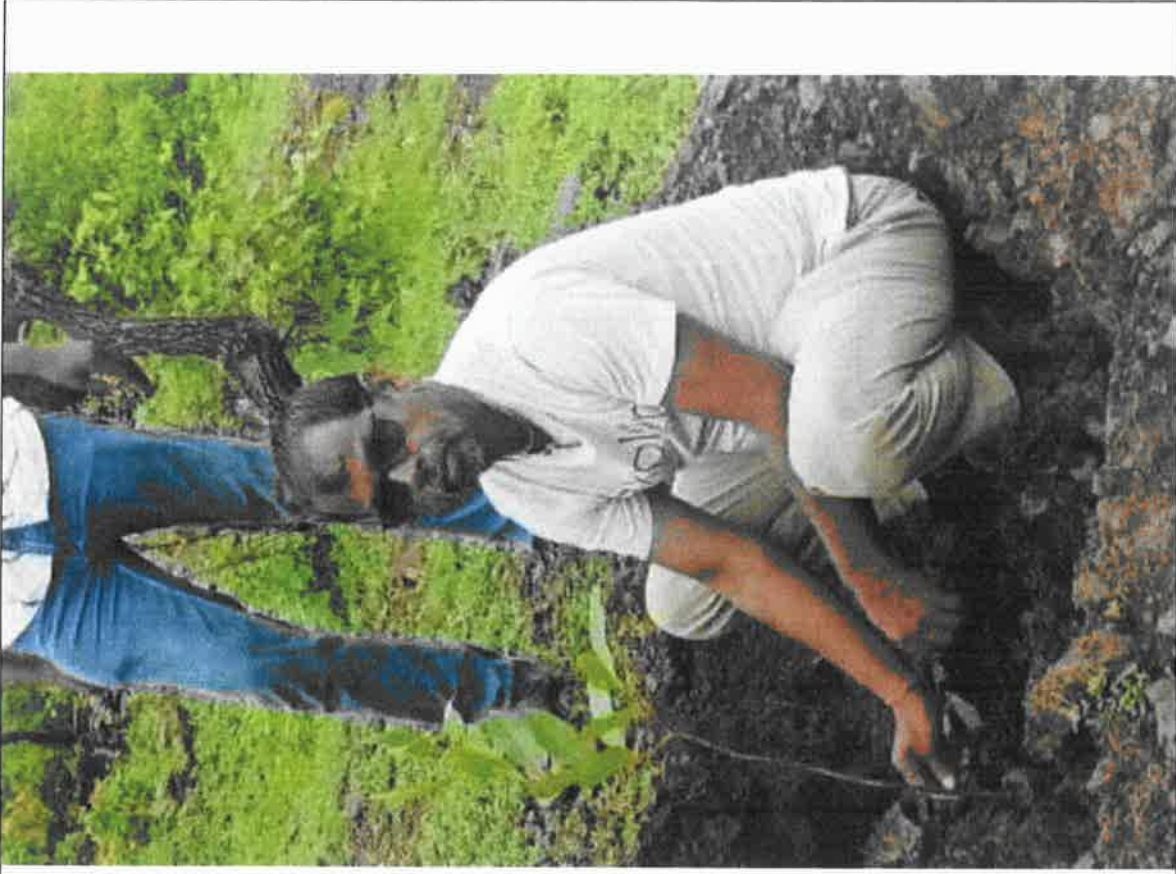

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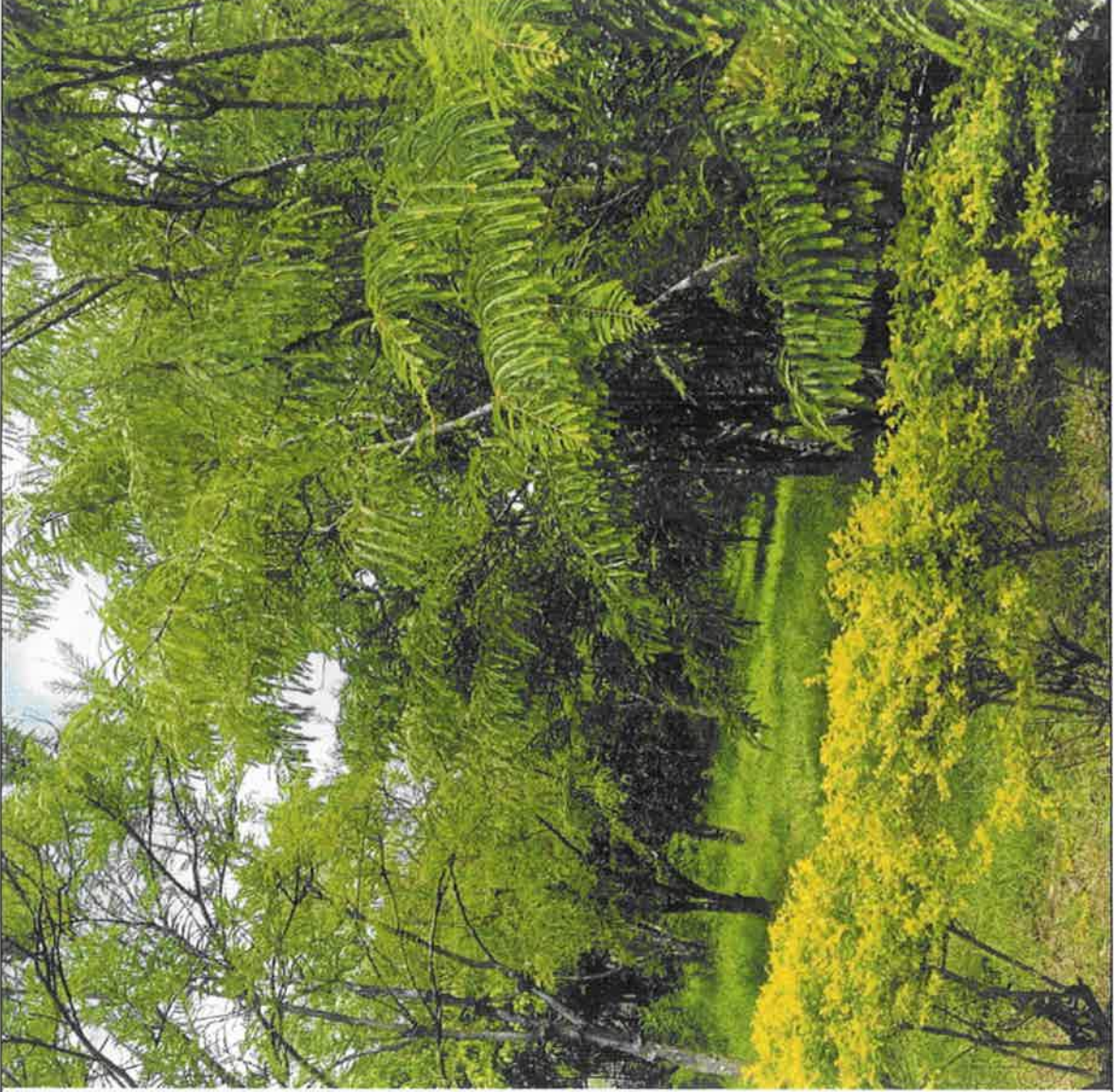
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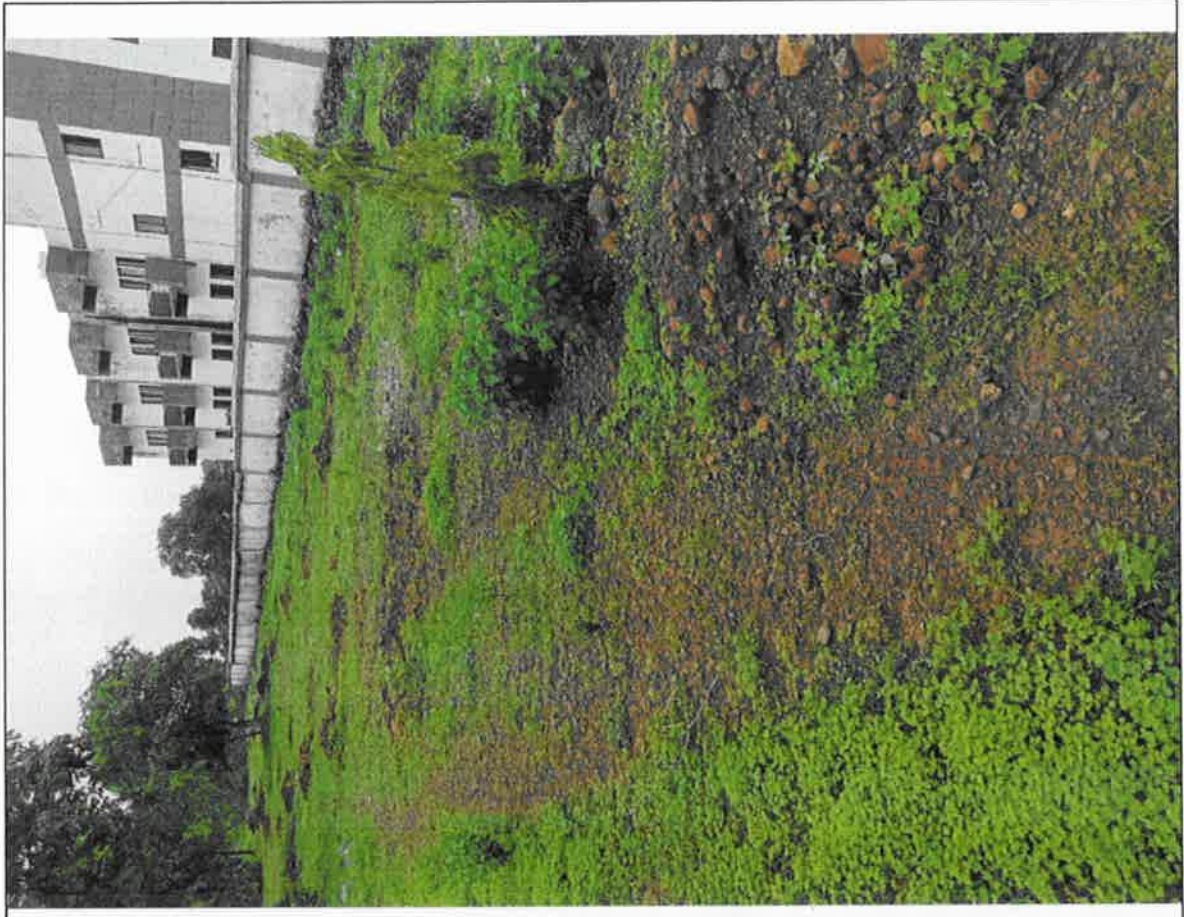
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Pervinakar Partner
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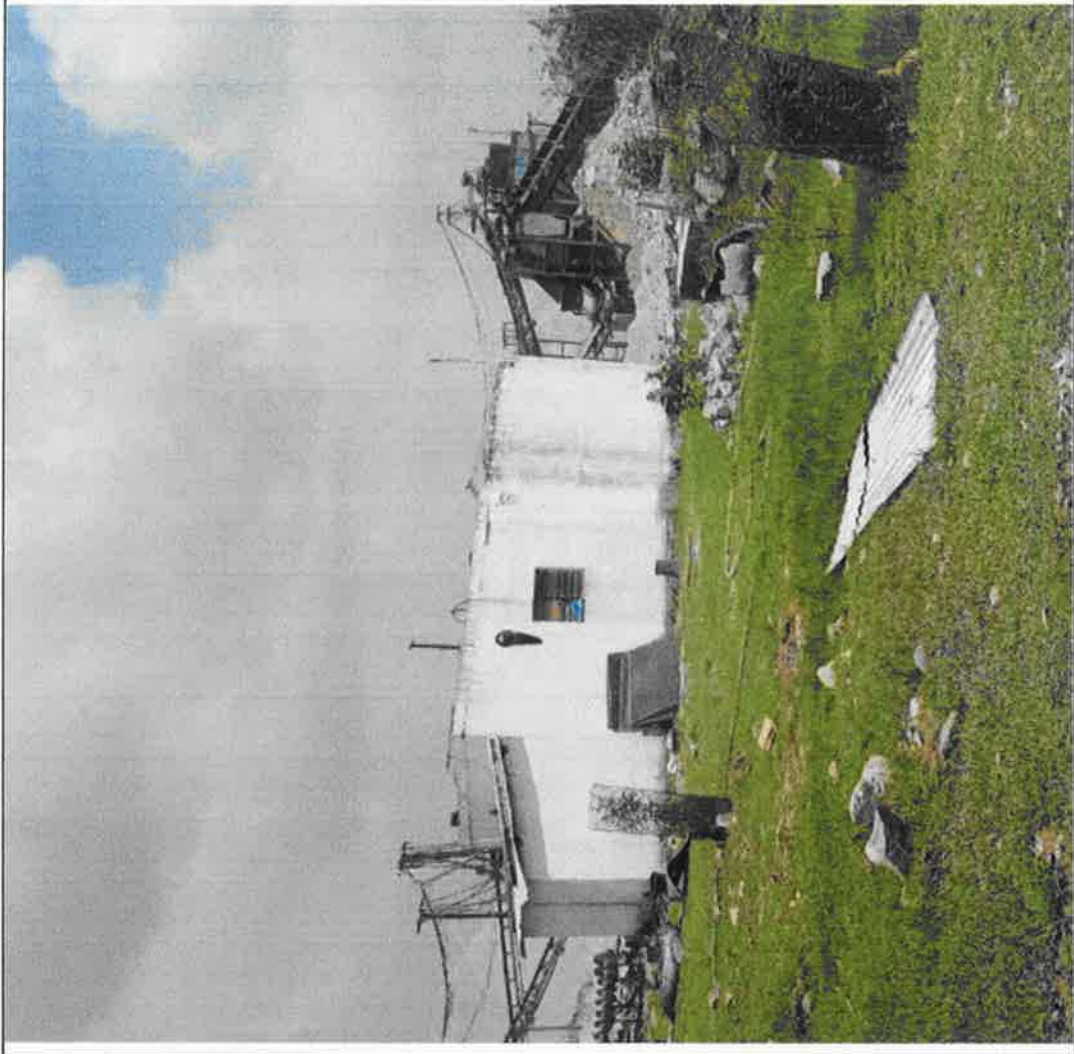
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Parvveen Parloor
E-5, Atrera Colony, Bhopal (M.P.)

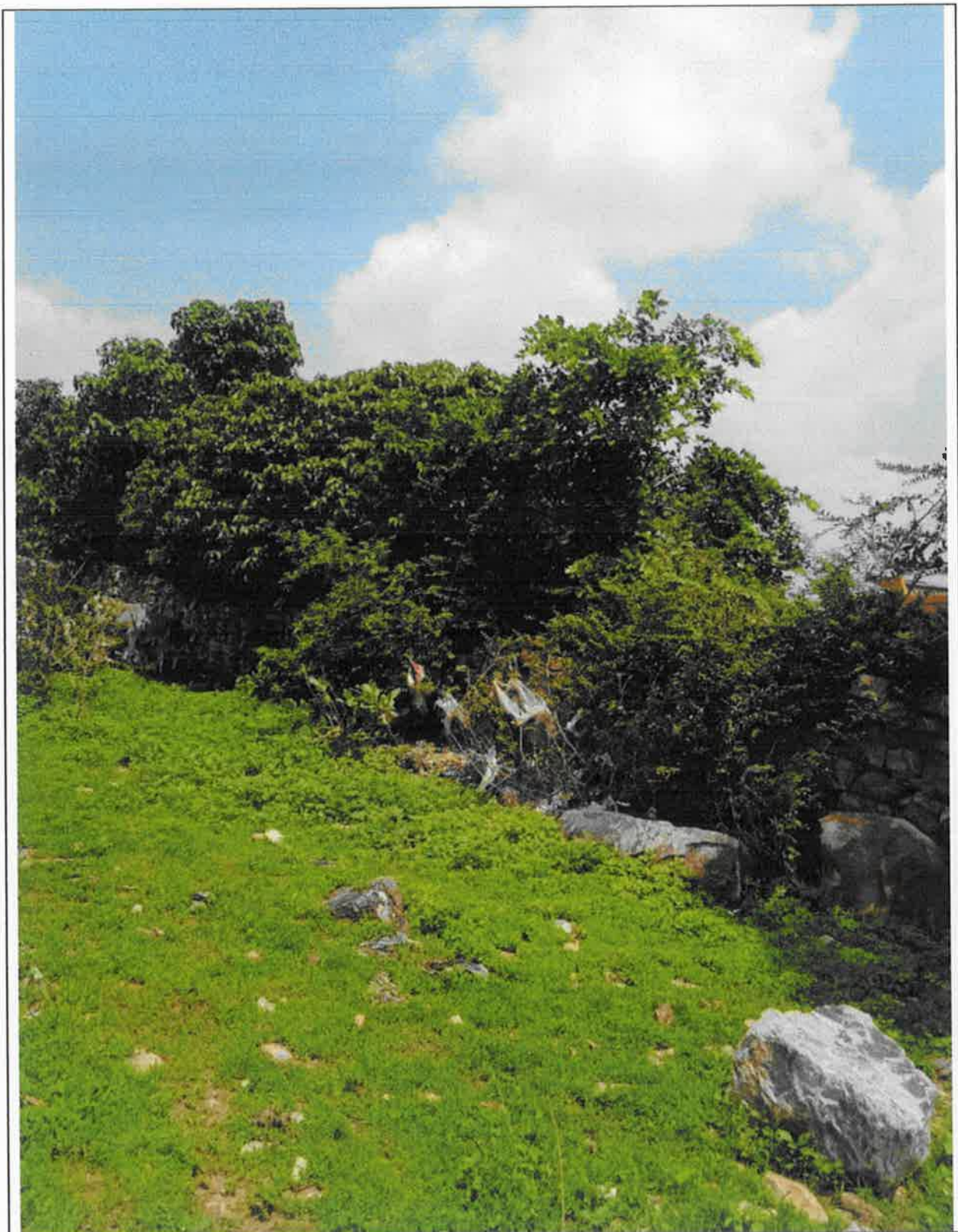
District Survey Report (Minor Minerals): Damoh



Chief Engineer, Minor Minerals
Assessment Authority, M.P.
(SFCU)

Parvavaran Pariser
P.O. Akara Colony, Bhopal (M.P.)

District Survey Report (Minor Minerals): Damoh



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

District Survey Report (Minor Minerals): Damoh



[Handwritten Signature]
State Level Environment Impact
Assessment Authority, M.P.
(EPCO)
Perveeran Park
Aare Colony, Bhopal (M.P.)

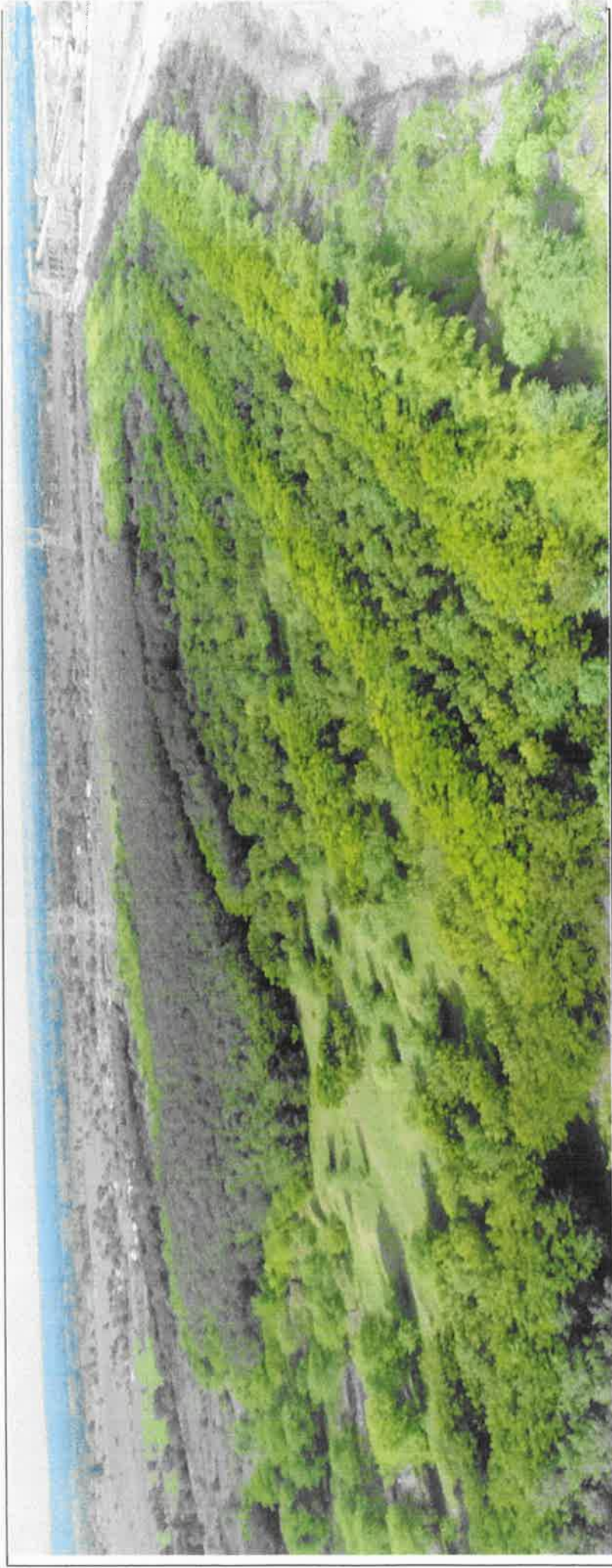
District Survey Report (Minor Minerals): Damoh



[Signature]
 Government Impact
 Assessment Authority, M.P.
 (EPCO)
 Parvateen Park,
 B-S, Arera Colony, Bhopal, (M.P.)

District Survey Report (Minor Minerals): Damoh

Green Belt Development



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

District Survey Report (Minor Minerals): Damoh




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

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

District Survey Report (Minor Minerals): Damoh




Dr. Parvatan Pariser, IAS, IAS
Environment Authority, M.P.
(ECCO)
Parvatan Pariser
P.O. Arera Colony, Bhopal (M.P.)

District Survey Report (Minor Minerals): Damoh

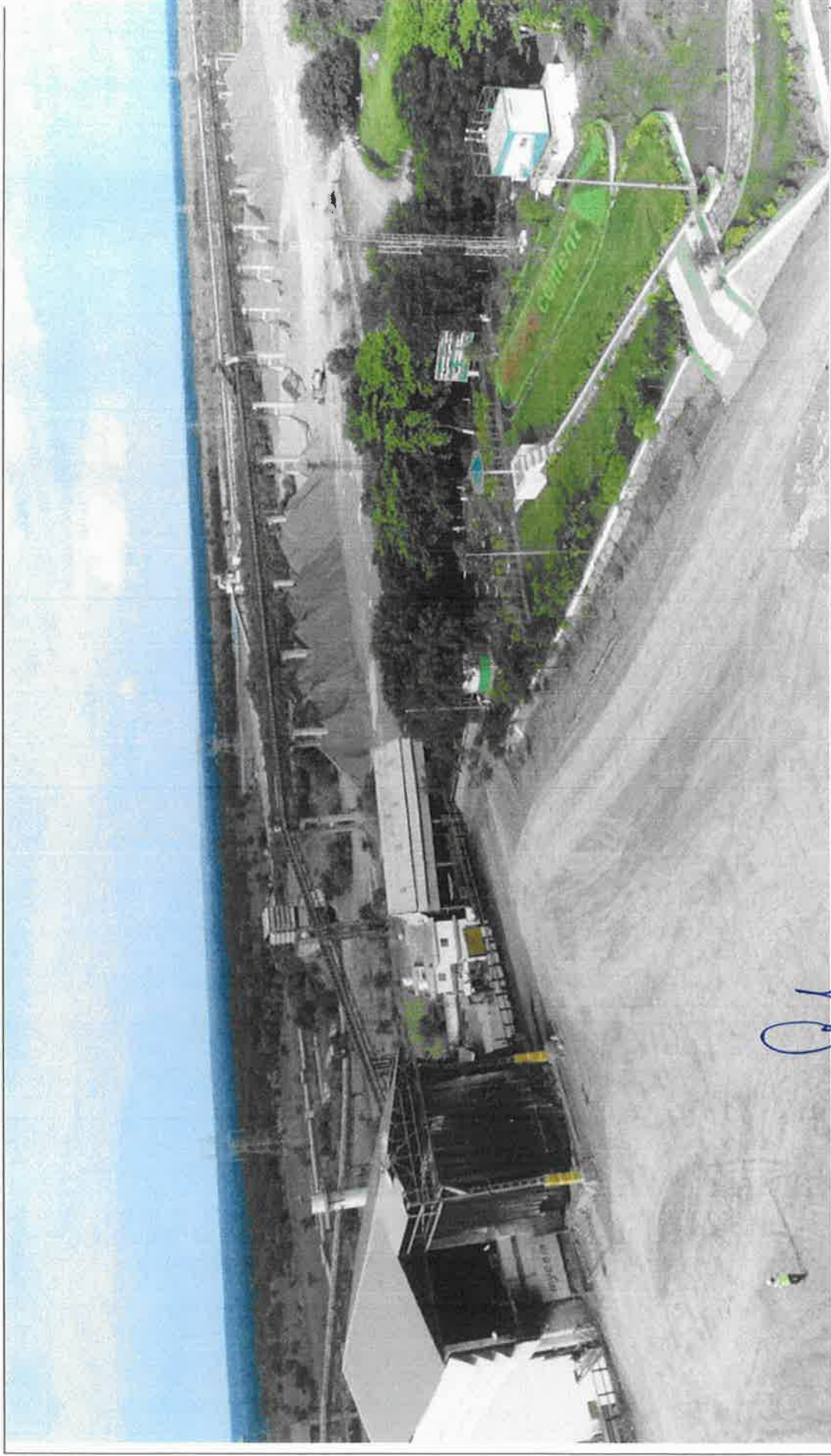


State Level Environment Impact
Assessment Authority, India
(SEIAA)

Parvati Nagar, Bhopal (M.P.)

District Survey Report (Minor Minerals): Damoh

AAQMS at view point near crusher area



Subodh K. Singhania, IAS
Assessment Authority, M.P.
(EPCO)
Paryaveran Park
E-5, Arera Colony, Bhopal (M.P.)

District Survey Report (Minor Minerals): Damoh

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 are 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 updating 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 dispatch 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 Director
Assessment Authority, M.P.
(E&CD)
Paryavaran Parishad
E-5, Arera Colony, Bhopal (M.P.)

