

EXECUTIVE SUMMARY OF DRAFT EIA REPORT

FOR
Environmental Clearance for Proposed Paraiguda-Putpura Riverbed Sand Mining Project

S.N.	Address of Applied land	Land Khasra	Area of applied lease	Total Cluster Area
1	Village –Pairaguda, Tehsil – Kasdol District – Balodabazar-Bhatapara	1 (Part)	4.99 Hect.	21.98 Hect.
2	Village –Putpura, Tehsil – Kasdol District - Balodabazar-Bhatapara	1/1(Part)	4.99 Hect.	

Applicant Name & Address

Name of Applicant	Address
Umesh Kumar Barman	City-H.No.-28/104, Satnami Chowk, Khamhardih Basti, Shankar Nagar, Tehsil & District – Raipur (Chhattisgarh) Pincode - 492007

Terms of Reference

Name of Applicant	Number and date of Terms of reference
Umesh Kumar Barman	Vide letter no. 333/S.E.A.C.C.G./Ret Khadan /2730 Nawa Raipur Atal Nagar, Dated 19/04/2024
Umesh Kumar Barman	Vide letter no. 505/S.E.A.C.C.G./Ret Khadan /2742 Nawa Raipur Atal Nagar, Dated 13/05/2024

ENVIRONMENTAL CONSULTANT



Environmental Consultancy & Laboratory
(Lab. Gazetted by MoEF-Govt. of India)

M/s. ULTRA-TECH
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EXECUTIVE SUMMARY

1.0 Introduction

The proposed project is a project of Mining of Riverbed Sand Mine (Total lease area in cluster including 2 applied mine is 21.98 Ha of Riverbed Sand) village – Pairaguda & Putpura, tehsil - Kasdol, district - Balodabazar-Bhatapara, State Chattishgarh. Details of the entire lease are discussed in other coming chapters. The lease holder in the cluster is Umesh Kumar Barman owner of Pairaguda & Putpura Sand Mine having lease area of 9.98 Ha. TOR issued in favour of project proponent whose details is as follow –

Pairaguda Sand Mine – Vide letter no. 333/S.E.A.C.C.G./Ret Khadan/2730 Nawa Raipur Atal Nagar, Dated 19/04/2024.

Putpura Sand Mine –Vide letter no. 505/S.E.A.C.C.G./Ret Khadan/2742 Nawa Raipur Atal Nagar, Dated 13/05/2024.

As per MoEF Notification dated 15.01.2016 Appendix – XI (6) ‘A cluster shall be formed when the distance between the peripheries of one lease is less than 500 m from the periphery of other lease in a homogeneous mineral area’. The proposed Riverbed Sand mining is an individual mine.

Project Location –

Khasra No. 1(Part) & 1/1(Part) of Village –Pairaguda & Putpura, Tehsil – Kasdol, District – Balodabazar-Bhatapara Pairaguda &Putpura Riverbed Sand mine of Lessee Umesh Kumar Barman featured in the Survey of India Toposheet No 64 K/6,7,2,3.



Figure 1: Location map of the Project Site

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Table E.1: Environmental Setting of Proposed Riverbed Sand Mining Projects

Particulars	Details					
Name of the Project	Pairaguda Riverbed Sand Mining Project, Area: 4.99 Ha. (Govt. land)			Putpura Riverbed Sand Mining Project, Area: 4.99 Ha. (Govt. land)		
Location of the Project	Village - Pairaguda, Tehsil- Kasdol, District- Balodabazar-Bhatapara, State- Chhattisgarh			Village- Putpura, Tehsil- Kasdol, District- Balodabazar-Bhatapara, State- Chhattisgarh		
Geographical Coordinates:	Pillars	Latitude(N)	Longitude(E)	Pillars	Latitude(N)	Longitude(E)
	P1	21°31'28.43"N	82°19'8.01"E	P1	21°31'23.86"N	82°18'57.68"E
	P2	21°31'34.18"N	82°19'13.93"E	P2	21°31'19.91"N	82°18'49.14"E
	P3	21°31'38.64"N	82°19'8.85"E	P3	21°31'24.66"N	82°18'45.43"E
	P4	21°31'33.38"N	82°19'2.87"E	P4	21°31'28.78"N	82°18'53.47"E
Size of the Project	4.99 Ha			4.99 Ha		
Nearest Highway	NH 130 B at 13.10 km towards north (Balodabazar-Sarangarh Road)			NH 130 B at 13.30 km towards north (Balodabazar-Sarangarh Road)		
Nearest railway station	Bhatapara at 44.75 km towards north-west.			Bhatapara at 44.50 km towards north-west.		
Nearest Airport	Bilaspur Airport -55.30 Km toward north-west.			Bilaspur -55.50 Km toward north-west.		
Nearest town/City	kasdol at 14.50 km towards north-east			Palari at 14.40 km towards west		
Densely populated or built-up area	kasdol at 14.50 km towards north-east			Palari at 14.40 km towards west		
Archaeologically important places	None within 10 km radius			None within 10 km radius		
Water Body	Name	Pairaguda Sand Mine		Putpura Sand Mine		
	Dam	16.25 Km towards north-east		16.75 Km towards NE		
	Reservoir	3.30 km towards north		3.70 km towards N		
	Irrigation Canal	2.40 Km towards north-west		2.45 Km towards NW		
	Water Supply / Irrigation Scheme / Anicut –	Anicut at 6.30 Km towards south-west & At 5.45 Km towards north-east		Anicut at 5.75 km towards SW & At 6.00 km NE		
	Nalla	220 m towards east		540 m towards NE		
	Tank /Pond	Village pond at 1.25 Km towards north - east		1.00 Km towards S		
Protected areas as per Wildlife Protection Act	None within 10 km radius					

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Particulars	Details
(Tiger reserve, Elephant reserve, Biospheres, National parks, Wildlife sanctuaries, community reserves and conservation reserves)	
Reserved / Protected Forests	<ul style="list-style-type: none"> • Bharka RF : 1.20Km • Mudiyadih RF : 0.35Km • Ghirghol RF : 1.30 Km • Rohasi RF: 1.50 Km • Dharaseo RF: 5.30 Km
Defense Installations	None within 10 km radius
Seismicity	Since project site comes under Seismic zone II, which is least active zone for earthquakes as per IS: 1893 (Part 1: 2002).
Wildlife Sanctuary	None within 10 km radius
National Park	None within 10 km radius
Biosphere reserves	None within 10 km radius
Important migration routes of birds	None within 10 km radius
Ramsar sites (Wetlands of International Importance)	None within 10 km radius
Unique or threatened ecosystems	None within 10 km radius
Important topographical features, including ridges, river valleys, shorelines, and riparian areas	None within 10 km radius

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Particulars	Details
Mangrooves	None within 10 km radius
Physical Sensitive Receptors	None within 10 km radius
Notified Ground Water Zone by CGWA	None within 10 km radius
Critically Environmental polluted Area	None within 10 km radius
Pollution Sources	None within 10 km radius

2.0 Project Description

The proposed project of Paraiguda&Putpura Riverbed Sand mine having an area of 9.98 hect is situated at Village- Pairaguda & Putpura, Tehsil- Kasdol , District: Balodabazar-Bhatapara, State: Chattishgarh. The proposed method of mining is open cast semi mechanized mining.

Table E-2: Salient Features of the Proposed Mining Project

INFORMATION	DETAILS	
Name of the project	Pairaguda Riverbed Sand Mine	Putpura Riverbed Sand Mine
Village	Pairaguda	Putpura
Tahsil	Kasdol	Kasdol
District	Balodabazar-Bhatapara	Balodabazar-Bhatapara
State	Chhattisgarh	Chhattisgarh
Toposheet No	64 K/6	64 K/6
Name of Leaseholders	Umesh Kumar Barman	Umesh Kumar Barman
Address and Contact details of Lease Holders	S/o.Shri Anand Barman H.No. 28/104,Satnami Chowk, Khamhardih Basti, Shankar Nagar City –Raipur, District- Raipur Pin code – 492007	S/o.Shri Anand Barman H.No. 28/104,Satnami Chowk, Khamhardih Basti, Shankar Nagar City –Raipur, District- Raipur Pin code – 492007
Name of the Mineral to be mined	Riverbed Sand	Riverbed Sand
Type of land	Govt. Land	Govt. Land

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Status of Operation (New Project or Existing Project operating since)	New Project	New Project
Mine Area	4.99 Ha	4.99 Ha
Ultimate depth of mining	3 m	3 m
Minable Reserve	89,820 cum	89,820 cum
Production Capacity	89,820 cum/yr	89,820 cum/yr
Life of Mine	Not applicable as applied area is river bed sand mine where mine pit gets replenished during moonsoon season	
Quantity of topsoil and Overburden estimated to be removed	Nil. This is ordinary river bed sand. There have no any top soil or overburden.	
Method of Mining	Opencast Semi-Mechanized	
No.of working days	240 Days	
SeismicZone	SeismicZone II	

2.1 Mining Methodology

The method of mining is open cast semi-mechanized i.e. ordinary sand will be excavated in layers of 1meter depth to avoid ponding effect and after first layer is excavated; the process will be repeated for the next layer so on up to a depth of 3 meter in Riverbed. Sand will be gathered in small hips on suitable areas as instructed for loading purpose. Loading will be done by deploying light capacity and light weight loaders.

2.2 Water Requirement-

The total water requirement shall be 10.00 KLD for domestic, green belt and sprinkling purpose, which will be sourced from Water Tankers from nearby village. Detail of water requirement is given below:

Table E-3.1A: Water Requirement Details

Sr. No.	Usage	Water Requirement	
1.	Greenbelt Development@ 2.5 L/tree	1000Trees X 2.5Lit/day = 2500Lit/day	2.50 KLD
2.	Dust Suppression @ 0.5 L/Sqm (twice a day)	Haul/Approach road Area = (500 m Length x 4 m width =2000 sqm.) x 0.5 li/sqm = 1000lit /day x 2 time = 2000 lit/day	2.00 KLD
3.	Domestic Purpose	14 workers x 25 lit per day = 350	0.50 KLD

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	@25 lpd/worker	Lit/Day or say 0.50 lit/day	
Total ::			5.00KLD

Table E-3.1B: Water Requirement Details

Sr. No.	Usage	Water Requirement	
1.	Greenbelt Development @ 2.5 L/tree	1000 Trees X 2.5 Lit/day = 2500 Lit/day	2.50 KLD
2.	Dust Suppression @ 0.5 L/Sqm (twice a day)	Haul/Approach road Area = (500 m Length x 4 m width = 2000 sqm.) x 0.5 li/sqm = 1000 lit /day x 2 time = 2000 lit/day	2.00 KLD
3.	Domestic Purpose @25 lpd/worker	14 workers x 25 lit per day = 350 Lit/Day or say 0.50 lit/day	0.50 KLD
Total ::			5.00 KLD

2.3 Power Requirement

Power is not required in operation phase of the proposed project, as diesel equipments will be used. Open cast semi mechanized method will be used for excavation. There is no power requirement for the project as excavators will run on diesel and the excavation will be done only daytime.

2.4 Manpower Requirement

The mining project will generate direct & indirect employment. About 28 per day people will get direct employment, and some persons will also be affected indirectly and employed with allied and related industries, such as transportation, maintenance, etc. Following staff & workers are proposed to be employed: -

Table E-4: Manpower Details of Pairaguda & Putpura Sand Mine

S.No.	Category	No. of Person	
		Pairaguda Sand Mine	Putpura Sand Mine
1	Assistant Manager	1	1
2	Foreman	1	1
3	Supervisor staff	1	1
4	Supervisor cum First Alder (Skilled)	2	2
5	Semi – Skilled/ skilled Labours	2	2
6	Unskilled personnel	2	2
7	Driver and Machine operators	5	5
Total		14	14

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3.0 Description of Environment

The area around the proposed mining site has been surveyed for physical features and existing environmental scenario. The field survey and baseline monitoring has been done from the period of **20th October 2023-20th January 2024(Post Monsoon)**.

The observations for Post monsoon (20th October 2023-20th January 2024) are summarized below:

3.1 Meteorology

The secondary meteorological data of the study period collected from (<https://www.nasa.gov.in/>). The month wise meteorological data is given in Table E-5.

Table E-5: Meteorological Data of the study area (NASA Power)

Period	Wind Speed (m/s)			Temp (°C)			Relative Humidity (%)			Rainfall (mm)			Solar Radiation		
	Max	Min	Avg	Max	Min	Avg	Max	Min	Avg	Max	Min	Avg	Max	Min	Avg
Oct -23	3.66	0.34	1.94	28.4	14.24	21.04	100	53.2	76.6	0	0	0	856.7	0	227.24
Nov -23	5.11	0.23	2.24	27.9	12.21	20.24	100	51.9	82.81	0.71	0	0.01	769.85	0	181.93
Dec -23	7.43	0.38	2.41	26.35	10.13	16.82	100	44.6	80.95	1.92	0	0.04	725.95	0	169.49
Jan - 24	3.69	0.13	2.30	26.23	7.38	17.91	100	44.4	78.2	0	0.01	0.01	762.83	0	154.18

Source: Weather Summary for 20th October 2023 - 20th January 2024(<https://www.nasa.gov.in/>)

3.2 Air Environment

The ambient air quality is carried out at 08 locations in and around the project site and studies are carried out as per CPCB standards. It is observed that, all the values are within the prescribed limits as per National Ambient Air Quality Standards (NAAQS), 2009.

The observations for Post monsoon (20th October 2023-20th January 2024) are summarized below:

3.3 Noise Environment

Noise levels were monitored in eight locations including project within the study area. The noise levels ranged between 52.2 to 58.0 dB (A) during day time and noise levels ranged between 46.0 to 49.3 dB (A) during night time. Over all the monitored noise levels are found to be within the stipulated standards set by CPCB.

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3.4 Water Environment

In order to establish the baseline water quality, 3 ground water and 5 surface water samples were collected and analyzed in the study area. The quality of surface water samples was compared with surface water specification IS 2296:1982 and as per CPCB water quality criteria the class of water comes under Class A for all of the stations (Propagation of wildlife and fisheries). The ground water samples were compared with drinking water specification IS 10500:2012 standards.

3.5 Soil Quality

A total of 8 samples in and around the project site are collected and analysed. It has been observed that the pH of the soil quality ranged from 7.0 (S4 & S5) to 7.8 (S3) indicating that the soil is slightly alkaline in nature.

Table E- 6: ENVIRONMENTAL BASELINE STUDY

Particular	Number of Locations	Description
Background Ambient Air Quality Monitoring	Sampling was done at 10 Locations	PM ₁₀ :-40 to 63 µg/m ³ PM _{2.5} :-12 to 32 µg/ m ³ SO ₂ :- 5 µg/ m ³ to 10µg/ m ³ NOx:- 10 to 24 µg/ m ³ CO:-0.1 to 0.9 mg/ m ³ SiO ₂ -0.01 to 0.05 µg/ m ³
Noise Level Monitoring	Monitored at 10 Locations	Noise Level During Day Time :- 52.2 to 58.0 dB (A) Noise Level During Night Time:- 46.0 to 49.3 dB (A)
Water Sampling	Ground water sampling was done at - 5 Locations	pH :- 7.2 to 7.4 ; TDS :- 364 to 458 mg/l ; Total Hardness :- 248 to 300 mg/l SO ₄ :-52 mg/l to 62 mg/l; Chloride :- 57 mg/l to 72 mg/l; Zn & Fe: - Below detectable limit.
	Sampling:- 4 at Surface water	pH :- 7.2 to 7.5 ; TDS :- 217 mg/l to 594 mg/l; Dissolve oxygen: - 5.5 to 6.00 mg/l. Chloride :- 42 mg/l to 122 mg/l; Calcium :- 25 mg/l to 66 mg/l; Magnesium :- 14 mg/l to 39 mg/l; Total Hardness :- 134 to 314 mg/l ;

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Soil Sampling	Sampling was done at 10 Locations	pH :- 7.0 to 7.8 Nitrogen:- 166 to 198 kg/ha. Phosphorus:- 43 to 56 kg/ha Potassium :- 286 to 389 kg/ha Electric Conductivity:-0. 323 to 0.496 ms/cm
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Land Use/Land Cover of the Study Area

The location of the project is situated near Pairaguda village. Pairaguda village is located in Kasdol tehsil of Balodabazar-Bhatapara district in Chhattisgarh, India. As per 2009 stats, Pairaguda village is under putpura gram panchayat. Kasdol is nearest town to Pairaguda for all major economic activities. The district is bounded by Bilaspur and Janjgir districts in the north, Raigarh districts in the east, Mahasmund & Raipur districts in the south and Bemetara & Mungeli districts in the west. Baloda-Bazar is the District headquarters is situated in the mid-western part of the district. Bhatapara, Balodabazar, Kasdol, Simga, Palari & Bilaigarh are some of the major towns/villages. Nearby city Palari is at 14.50 km towards West. The village area falls on the Survey of India topo sheet 64 K/6 of SOI (Survey of India). The LULC map in Figure 11.2 and Table 11.5 shows that the analysis consists of 8 areal classes Water body, Canal, River, Crop Land, Settlement, Sand banks, shrublands and vegetation.

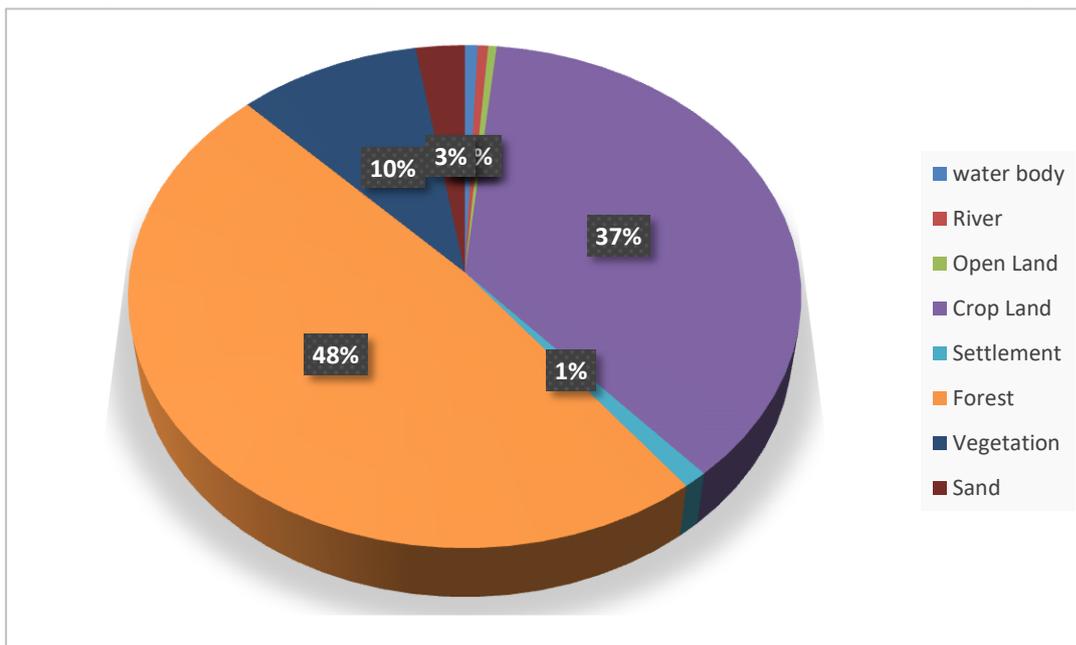


Figure 2: LULC Classification (10 km radius Proposed Project Area) of the project site

3.6 Biological Environment

Based on land use map & topo sheet there are patches of Reserve forest at various direction and distance within 10 km of study area.

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SN	Name of forest block	Type of Forest	Distance (km)
1	Near Bharka	Reserved forest	1.20
2	Near Muriyadih	Reserved forest	0.35
3	Near Ghirghol	Reserved forest	1.30
4	Near Rohasi	Reserved forest	1.50
5	Near Dharaseo	Reserved forest	5.30

3.7 Socio-economic Environment

According to recent censuses (2011) Population of study area is (10 Km radius from project site) 68617 in 13945 households. Male population is 34035 and female population is 34582. Highest population in study area is Rohasi town (5249).

There are 13945 households in the study area and the average size of household is 5 members per household in the study area. The dependent population below 6 years is 11209 (16.3 % of the total population) in the study area. The sex ratio of the study area is 1016 females per 1000 males. The sex ratio of the study area is equals compare to district sex ratio of Baloda Bazar (1004). (Source: <https://balodabazar.gov.in/en/>)

4.0 Anticipated Environment Impacts and Environment Management Plan

Land/Soil Environment Impact Mitigation

The mitigation measure of the land environment includes:

- The Riverbed Sand excavated from the lease area will be completely sellable resulting no dump with in the lease area.
- Due to semi mechanised mining operation emission from the Riverbed Sand mines are negligible, there will be no impact on the surrounding soil quality and cropping pattern of the area.
- The propose project falls under the seismic zone –II (Low Hazard Risk Zone). Since this project will not have physical infrastructure to be constructed, no impact of seismicity is envisaged in this project. Further, this project will not change/alter the seismic behaviour of the area.

Air Impact Mitigation

The mitigation measures undertaken in the mine for control of air pollution are:

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- Checking of vehicles and machinery to ensure compliance to Indian Emission Standards Transportation vehicles and machinery to be properly and timely maintained and serviced regularly to control the emission of air pollutants in order to maintain the emissions of NO_x and SO_x within the limits established by CPCB.
- Total 4.0 KLD water required for riverbed sand mines towards dust suppression purpose for which 1 no. of water tanker with 4000 liter capacity will be hired and used for water sprinkling twice in a day in haul roads, dumping site, loading and unloading site of each lease and this will be regularly monitored by the lease management. Water sprinkling on transport road side, stock yard (if any) etc. will be done by tractor mounted water sprinkler.
- Regular impaction and grading of haul roads will be done to clear the accumulation of loose material
- All the mines workers will be provided with the dust masks.
- Trees can act as efficient biological filters. As this is a small lease, the area available for plantation is very less. However a well planned plantation programme has been proposed for the mining area to arrest the dust pollution within the lease boundary. There is the proposal for continuous plantation along the river bank and both side of the road connecting the cluster.
- Vehicles with valid PUC shall be used for transporting the minerals to avoid the exhaust emission.
- A greenbelt development plan is prepared with local species. The greenbelt will reduce the dust levels
- Regular monitoring of the air quality as per the monitoring plan detailed in Chapter 6 of this EIA report, shall be adopted during the operation phase, to ensure that, the air quality is within the desired limits prescribed by CPCB.

Noise Impact Mitigation

- No noise polluting work shall be carried out in the night hours
- Provision of PPE's for the workers
- Vehicles to be serviced regularly and maintained properly to avoid any unwanted generation of noise or vibration from them
- Green belt plantation and garden trees will help in reducing the noise, traffic related pollution and heat island effects.
- Proper lubrication, muffling and modernization of equipment shall be used to reduce the noise during operation phase.
- Regular monitoring of the noise levels as per the monitoring plan detailed in Chapter 6 of this EIA report, shall be adopted during the operation phase, to ensure that, the noise levels are within the limits prescribed by CPCB.

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Water Impact Mitigation

- Provision of temporary toilets for laborers
- Domestic waste water will be treated into septic tank followed by soak pit outside of the proposed cluster project with a safe distance and no wastewater will be allowed to be get discharged into the water body
- Any areas with loose debris within the lease hold should be planted.
- Ground water table will not be intersected during the mining activity

Biological Impact Mitigation

- Green Belt will be developed along with river bank, haul roads and plantation will be done on undisturbed area.
- Total area of green belt proposed would be nearly 20% of the mining lease and surrounding area.
- Local species will be planted in consultation with Forest Department.

Socio-Economic Environment Impact Mitigation

- Employing local people for mining work.
- Providing proper facilities for sanitation for the construction workers such as temporary toilets.
- Barricades, fences and necessary personnel protective equipment shall be provided to the construction workers.
- The health of workers will be checked for general illness; at periodic intervals, as per the local laws and regulations.

5.0 Environmental Monitoring Program

Environmental monitoring shall be carried out at the locations to assess the environmental health in the post period. A post study monitoring programme is important as it provides useful information on the following aspects.

- It helps to verify the predictions on environmental impacts presented in this study.
- It helps to indicate warnings of the development of any alarming environmental situations, and thus, provides opportunities for adopting appropriate control measures in advance.

Detailed EMP plan during the operation phase is given chapter 6 of EIA report.

6.0 Risk Assessment

The hazards and its risk assessed during the operation phase of the proposed Riverbed Sand mining project are low, medium & high. The project proponents are proposed to implement all the mitigation measures to prevent the impact or consequences of the risk expected to be happened in both the project sites. The level of impact after implementing the mitigation measures will be low/medium in all the hazards identified.

7.0 Emergency Response and Disaster Management Plan

Impact of disaster can be significantly reduced through attempts at preparedness, mitigation, and post-event rehabilitation work. Based on hazard identification in the proposed project, an emergency plan has been prepared and the same plan will be implemented by the project implementing agency with the coordination of District Authorities to minimize the damage. The risk assessment and disaster management plan is detailed in Chapter 7 of the EIA report.

8.0 Project Benefits

Mining is back bone of infra-structure development of country. Proposed project has following benefits as given below:

- Employment for local people
- Revenue for the State Government in form of excise duties, GST, taxes, levies etc.
- Generate business opportunity for the people
- Need based funds will be used for welfare of people in villages
- EMP funds will improve environmental quality.
- The operation of the Riverbed Sand mining would help to improve socio-economic condition of people in villages through separate fund allocated for Need Based Activity.

9.0 Budget for Social Development

The total estimated cost of the project is 52.43 lacs. Rs 1,44,000/- lac will be allocated for Need based activity for causes of village for drinking water, sanitation, education, health.

10.0 Environment Management Plan (EMP)

The detailed Environment Management Plan has been prepared based on the mining activities and the impacts imparting on land/soil, air, noise, water by the activities. The EMP and the cost for the environment protection measures are detailed in Chapter 10 of EIA report.

Expenditure Proposed for Environmental Protection Activities:

Executive Summary of Draft EIA Report of Pairaguda & Putpura on Mahanadi river at Village- Pairaguda & Putpura Tehsil: Kasdol, District – Balodabazar-Bhatapara, State- Chattishgarh of Umesh Kumar Barman.

S.No.	Particulars	Pairaguda Sand Mine		Putpura Sand Mine	
		Capital Cost in Rs	Recurring Cost in Rs	Capital Cost in Rs	Recurring Cost in Rs
1	Air Pollution Control	-	72,000	-	72,000
2	Green Belt Development	1,59,125	2,57,000	1,60,625	2,57,000
3	Maintenance of Road	-	40,000	-	40,000
4	Facilities for Mine workers	50,000	63,000	50,000	63,000
	Total ::	2,09,125	4,32,000	2,10,625	4,32,000
	Total Capital Cost in Rs	4,19,750			
	Total Recurring Cost in Rs	8,64,000			
	Total Cost of EMP in Rs	12,83,750			

11.0 Conclusion

As discussed, it is safe to say that the collection of minor minerals from the proposed lease area is not likely to cause any significant impact on the ecology of the area as the mineral is and waste generated is non-toxic and does not harm the surrounding environment.

Adequate measures will be taken to control the fugitive emissions to be generating during mining operation. Socio-economic condition of the surrounding villages will improve in long run due to involvement of local population and improvement of infrastructure facilities. Green belt development in the statutory boundary, approach roads, schools are proposed with the participation of local people. This proposed plantation in the area will improve the aesthetic look along with betterment of ecology and environment of the locality.