EXECUTIVE SUMMARY OF DRAFT EIA REPORT

FOR

Environmental Clearance for Proposed Kurud Riverbed Sand Mining Project

S.N	Name of Project Proponent	Number and date of Terms of reference	Land Khasra	Area of applied lease (Ha.)	Annual Production Capacity (Cum/Year)	Address of Applied land
1.	Krishna Kashyap	TO23B0107CG5397373N, Dated 24/12/2025	2742 (Part)	10	1,80,000	Village – Kurud Tehsil-Arang, District - Raipur, Chhattisgarh

Applicant Name Address

S.No	Name of Applicant	Address
1.	Krishna Kashyap	Ward No 5, Chhatauna/Jarhagaon, Tehsil – Jarhagaon, District- Mungeli, Pin code - 495330 (C.G.)

ENVIRONMENTAL CONSULTANT

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

M/s. ULTRA-TECH

ENVIRONMENTAL LABORATORY AND CONSULTANCY

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Validity Upto - 18/10/2027

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1. Project Name and Location

Proposed Kurud Sand Mine project on Mahanadi River over 10.00 hectare area is situated at khasra no. 2742(part) of village Kurud, Gram Panchayat Kurud, tehsil Arang, district Raipur, state Chhattisgarh. LOI of project is issued in favor of Shri Krishna Kashyap vide letter number 2738/ Khani /Ret Nilami (Reverse Auction)/ 2023-24 Raipur dated 26/09/2023, under Chhattisgarh Minor Mineral Ordinary Sand (Quarrying and Trade) Rules, 2019 and Chhattisgarh Minor Mineral Rule 2015.

This mining project is categorised under Category 'B1' Project or activity 1(a) as per EIA Notifications 2006 and its subsequent amendments and will be appraised at SEAC, Chattisgarh. The lease is individual project 10 Ha area. As per EIA Notification dated 15th January 2016 and MoEF&CC OM vide letter No. L-11011/175/2018-IA-II (M) Dated 12.12.2018 and and NGT order dated 13th September 2018 all the area from 5 to 25 ha falling under category B2 will be considered as B1 including cluster situation and therefore proposed project is categorized under B1 category.

2. Production and Capacity – if expansion proposal then existing products with capacities and refrence to earlier ec -

Applied lease is fresh new sand mining lease for proposed annual capacity of 1,80,000 cum/year.

Project Proponent applied only for EC which do not involve any type of expansion.

3. Requirement of Land, Raw Material, Water, Power, Fuel with Source of supply.

- **Land Area:** The total land area is 10 hectare.
- **Raw Material:** No, any raw material is required for the mining of sand.
- **Water:** Total water requirement will be around 9 KLD out of which 7 KLD will be used in dust suppression and plantation. Remaining 2 KLD will be used for domestic purposes (sanitation & drinking). The water will be collected from active river water channel or from jurisdictional Gram Panchayat through tankers.
- **Power:** Mining operations will be conducted only during day time hours. No power is required during the operational phase of the project. The mining machinery, including excavators, loaders, and transport vehicles, will be diesel-powered.

- **Fuel:** Sand Excavation activity will be done through contractual machines. Sand will be loaded to the transportation vehicles of buyers coming to buy sand at sand mine, therefore transportation will not be undertaken by project proponent. Therefore no direct fuel is required to project proponent for the operation of the project. Machine contractors/transporters will arrange their fuel requirement through nearest diesel fuelling stations.

4. Process Description in brief, specifically indication the gaseous emission, liquid effluent and solid/hazardous waste.

- **Gaseous emission:**

1) Stationery sources: Nil

2) Mobile sources: The emission of SOx and NOx may cause due to use of diesel operated tractors, excavator, loader, and tippers etc.

- **Liquid effluent:** Only domestic effluent is expected to be generated from temporary rest huts / Office at outside of mine near bank of river which will be treated through septic tank followed by soak pits.
- **Solid Waste:** No sub-grade/waste mineral will be generated during excavation of sand. There is no residential or commercial arrangements, in turn would not generate any municipal waste.

5. Measures for mitigating the impact on the environment and mode of discharge or disposal.

As this is a sand mining project, after excavation of the sand the area will remain the same through replenishment of river and it does not have any kind of impact. There is no sewage and other effluents are discharged into the water or on the land.

6. Capital Cost of the Project, Estimated time of completion.

Total project cost of the entire project will be 90.00 lakhs (including market value of government riverbed land) and the estimated time of completion is up to 5 years from the grant of EC of this project, date of agreement for mining with government & work order to applicant.

7. Site selected for the project- Nature of land – Agricultural (Single/double crop), barren, Govt. /Private Land, status of is acquisition, nearby (in 2-3 km) water body, population, within 10 km other industries, forest. Eco-sensitive zones, accessibility.

- **Land Details:** The mining lease area of Kurud Sand Mine, covers an area of 10 hectare is in riverbed government riverbed Government land.
- **Water Body:** The project site is situated over Mahanadi River itself.
- **Eco-sensitive zones:** Barnawapara Wildlife Sanctuary ESZ Area is located around 30.012 km.
- **Forest Land:** The project site does not fall under forest land. The distances from the project site to the nearest forest lands are-
  - Sirpur Reserve Forest, which is approximately 1.35 km
  - Pirhi Reserved Forest, which is approximately 2.40 km.
  - Khamtarai Reserved Forest, which is about 6.00 km.
  - Kukradih Reserved Forest, which is approximately 7.00 km
- **Industries within 10 Km:** None within 10 km.
- **Population:** Although the study area (10 km radius from the project location) is divided based on secondary data (Population Census 2011), the total population of the study area is 54631; there are 10538 households on a surface area of 315 square kilometres. In the study area, the total male population is 26864, which is somewhat higher than the female population of 27767.

Accessibility:

1. Swami Vivekananda Airport is 45 km away from the project site.
2. Belsonda Railway Station which is 22.00 km away from the project site.
3. Nearest bus stand is Arang Bus Stand which is 4.50 km away from the project site.
4. Nearest Highway is Raipur - Saraipali highway which is 12.10 km away from the project site.

8. Baseline environmental data – air quality, surface and ground water quality, soil characteristic, flora and fauna, socio-economic condition, of the nearby population.

Parameters	Number of Location	Particulars		
Analysis of Air quality Station	8 Air quality Analysis	PM_{10}	-	39 to 55µg/m3.
		PM2.5	-	13 to 24µg/m3.
		SO2	-	6 to 16 µg/m3
		NOx	-	7 to 20µg/m3.
		CO	-	0.4 to 1.1 µg/m3
Noise Level Analysis	8 Noise quality Analysis	Day Time Noise Level	-	46.0 to 49.5 dB(A)
		Night Time Noise Level	-	37.3 to 48.1 dB(A)
Ground Water Analysis	8 ground water quality Analysis	PH	-	7.4 to 7.9
		Total Dissolved Solids	-	438 to 678 mg/L
		Total Hardness	-	231 to 344 mg/L
		Chlorides	-	100 to 159 mg/L
		Sulphates	-	55 to 80 mg/L
Surface Water Analysis	8 Surface water quality Analysis	PH	-	7.1 to 7.5
		Dissolved Oxygen	-	5.5 to 6.3 mg/L
		Total Dissolved Solids	-	204 to 522 mg/L
		Chlorides	-	47 to 133 mg/L
		Sulphates	-	21 to 42 mg/L
		Total Hardness	-	114 to 238 mg/L
Soil Analysis	8 Soil quality Analysis	PH	-	7.3 to 7.9
		Nitrogen	-	220 to 356 kg/ha
		Phosphorus	-	25 to 58 kg/ha
		Potassium	-	120 to 185 kg/ha

SOCIO ECONOMIC - According to recent censes (2011) Population of study area is (10 Km radius from project site) 54,631 Working population of the study area is 25,423 whereas Non-working population is study area is 29,208 which also includes population of below 15 years age and population which are not willing to any work and population after retirement age are also included in this category. Working male are 13,120 and 12,303 are female in population whereas 13,744 male & 15,464 female are non –working.

	Total Village	Total Pop.	Total Working Pop.	Working Population		Non Working Pop.	Non Working Pop. Male	Non Working Pop. Female
				Male	Female			
Total	**57**	**54,631**	**25,423**	**13,120**	**12,303**	**29,208**	**13,744**	**15,464**

9. Identification of hazardous in handling processing and storage of hazardous material and safety system provided to mitigate the risk

There is no any hazardous material involved in this process as it is Sand mining project.

10. Likely impact of the project on Air, Water, Land, Flora-fauna nearby population.

SN	Components	Potential Sources of pollution	Magnitude of pollution	Control Measures	Responsibility	Time frame	Monitoring
1	**Air**	- Movement of Vehicles - Excavation - Loading & Unloading - Transport of Sand	High	- Mobile Sprinklers/dust suppression through Tankers. - Plantation in River banks and transportation route. - Periodic Maintenance of vehicles - PUC certified vehicles. - Parking provision and proper traffic arrangement	EMP Cell	6 month	Twice a week
2	**Noise & Vibration**	- Movement of vehicle - Machinery Operation	Moderate	- Plantation in River banks and transportation route. - PPE kit for workers. - Maintenance of Ramp & Haul Road - Periodic Maintenance of vehicles - lubrication, muffling and modernization - Mining will be done in day time.	EMP Cell	6 month	Once a month
3	**Water**	- Mine Drainage - Domestic sewage - Oil Spills	High	- Mining will be done in dry season. -3 m Buffer zone will be left, if any active river channel present in lease area and Mining will be done. - Mining will be done 1.20 m above from subsurface water. - Temporary toilets with Septic Tank & Soak Pit. - Prevention of spillage of oil from machine & equipment's.	EMP Cell	12 month	Once in a quarter
4	**Soil**	- Top Soil Quality	-	No top soil generated from sand mining.	-	-	-
5	**Solid Waste**	- Domestic Solid	Moderate	- Temporary toilets with Septic Tank & Soak Pit at outside of mine near bank of river.	EMP Cell	Life of mine	Once a month
6	**Land Use**	- Change in land use	Moderate	- River itself replenishes the excavated area in rainy season. - Precautions will be taken for the avoidance of spillage of oil, diesel etc. from vehicles and equipment's.	EMP Cell	Life of mine	At conseptual stage
7	**Ecology & Biodiversity**	- Vehicle Movement - Change in land use	Moderate	- Plantation at river bank & transporting rout. - River itself replenishes the excavated area in rainy season. -3 m Buffer zone will be left, if any active river channel present in lease area to protect water channel and aquatic animals.	EMP Cell	6 month	Once in a month

				- Educating locals			
8	**Risk & Hazard**	- Inundation - Slope failure - Fire	High	- No mining activity is permitted at the time of flood in river or water flow from the lease area. -3 m Buffer zone will be left, if any active river channel present in lease area and Mining will be done - Fire extinguisher	EMP Cell	12 month	Once in a month
9	**Socio-Economic**	- Loss of Agriculture land - Reduction/loss of water availability - Effect on health due to mining activities	High	- Mining will be done 1.20m above from subsurface water. -3 m Buffer zone will be left, if any active river channel present in lease area and Mining will be done. -Local population will be employed - Lease area permitted for sand mining. - Dust suppression through Tankers. - Public Hearing Compliances - CER - First Aid & Periodic Medical Check-up.	EMP Cell	12 month	Once in a year

11. Emergency preparedness plan in case of natural or in plant emergencies-

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

12. Issues raised during public hearing- Not yet to be done.

13. CSR/CER plan

As per Para 3 & 6 of MOEF office memorandum number F. No. 22-65/2017-IA.III dated 01/05/2018 and 30/09/2020 CER along with EMP is applicable on mining projects in place of CSR works. Project Proponent is individual person whereas CSR is applicable over PP registered under Companies Act 2013 who qualifies the criteria's given in that Law.

During the production, the mine owner will pay royalty and contribute 30-35% of it as DMF & cess to the state government. State government will utilize the DMF funds for Corporate Social Responsibility (CSR) activities in the affected region, prioritizing the needs of local people and regional development.

Therefore it is our humble request to accept the proposal for CER & EMP and recommend the case for grant of EC.

The proposal for CER is given below-

S. No.	Present estimated market value of land nearby applied area based on Central Valuation Board, Chhattisgarh	Cost of Office & Rest Huts with toilet	Cost of Machineries and Equipment	Estimated cost Ramp & site development	Miscellaneous cost	Total Project Cost (in Lacs)	Percentage of Capital Investment to be spent	Amount required for CER (in Rs.)	Amount Proposed for CER (in Rs.)
1.	82.00	2.00	2.00	2.00	2.00	90.00	2%	1,80,000	1,90,000

14. Occupational Health Measures-

Occupational safety and health is very closely related to productivity and good employer-employee relationship. The factors of occupational health in mining of River bed Sand mining project are mainly dust and land degradation. Safety of employees during operation and maintenance etc. shall be as per Mines rules and regulations.

Occupational hazards involved in mines are related to dust pollution, noise pollution and injuries from equipment and fall from high places. DGMS has given necessary guidelines for safety against these occupational hazards. The management will strictly follow these guidelines.

15. Post Project monitoring plan-

Post-project environmental monitoring is a complex system of observations, assessment and forecast of changes in the state of the environment under the influence of anthropogenic factors, monitoring is an information system of observations with an optimal number of parameters for assessing and forecasting changes.