

FORM-I, PRE-FEASIBILITY REPORT

FOR

TERMS OF REFERENCE

FOR

**Sand Ghat Mining Project Supaul unit 04
(Haiya River Block – 01 and Tilawe River Block –
01)**

PROPOSED CAPACITY: 49200 cum/year or 88560 TPA

AT

**(Haiya River Block 01 - Village – Sitapur, Anchal –
Basantpur)
(Tilawe River Block 01- Village – Amha, Anchal – Supaul)
Dist – Supaul (Bihar)**

APPLICANT

**M/S A.K SINGH & CO
Anirudh Kumar Singh
S/o –Shri Arun Singh
Address : - MIG A/42, Housing Colony,
Dhanbad, Jharkhand – 826001**



CONSULTANT
P&M Solution
C-88, Sector 65, Noida -201301 – U.P
A QCI –NABET Accredited Organization



FORM I

(I) Basic Information																																															
S.No.	Item	Details																																													
1.	Name of the project/s	Sand Ghat Mining Project Supaul unit 04 (Haiya River Block – 01 and Tilawe River Block – 01)																																													
2.	S. No. in the schedule	S. No. 1(a)																																													
3.	Proposed capacity /area /length /tonnage to be handled/command area/lease area/number of wells to be drilled	Proposed Capacity - 49200 cum/year or 88560 TPA Area – 8.20 ha (Haiya River Block 01 – 5.50 ha + Tilawe River Block 01 – 2.70 ha)																																													
4.	New/Expansion/Modernization	New																																													
5.	Existing Capacity/Area etc.	Area –8.20 ha																																													
6.	Category of Project i.e. ‘A’ or ‘B’	Category ‘B1’																																													
7.	Does it attract the general condition? If yes, please specify.	No																																													
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9.	Location	<table border="1"> <thead> <tr> <th>S. No</th> <th>Sand Ghat</th> <th>Area (in Ha)</th> <th colspan="2">Co-ordinates</th> <th>Ghat/Village</th> <th>River</th> </tr> </thead> <tbody> <tr> <td>1</td> <td rowspan="4">Supaul Unit 04 (Haiya River Block 01)</td> <td rowspan="4">5.50</td> <td>1</td> <td>26°27'8.16"N 87° 0'39.62"E</td> <td rowspan="4">Sitapur Sand Ghat, Village – Sitapur, Anchal – Basantpur, Dist – Supaul (Bihar)</td> <td rowspan="4">Haiya</td> </tr> <tr> <td>2</td> <td>26°27'8.94"N 87° 0'45.40"E</td> </tr> <tr> <td>3</td> <td>26°27'0.08"N 87° 0'50.61"E</td> </tr> <tr> <td>4</td> <td>26°26'57.61"N 87° 0'44.89"E</td> </tr> </tbody> </table> <table border="1"> <thead> <tr> <th>S. No</th> <th>Sand Ghat</th> <th>Area (in Ha)</th> <th colspan="2">Co-ordinates</th> <th>Ghat/Village</th> <th>River</th> </tr> </thead> <tbody> <tr> <td>1</td> <td rowspan="4">Supaul Unit 04 (Tilawe River Block 01)</td> <td rowspan="4">2.70</td> <td>1</td> <td>26° 2'39.30"N 86°40'11.20"E</td> <td rowspan="4">Amha Sand Ghat, Village – Amha, Anchal – Supaul, Dist – Supaul (Bihar)</td> <td rowspan="4">Tilawe</td> </tr> <tr> <td>2</td> <td>26° 2'37.54"N 86°40'15.31"E</td> </tr> <tr> <td>3</td> <td>26° 2'28.35"N 86°40'10.04"E</td> </tr> <tr> <td>4</td> <td>26° 2'29.08"N 86°40'8.62"E</td> </tr> </tbody> </table>						S. No	Sand Ghat	Area (in Ha)	Co-ordinates		Ghat/Village	River	1	Supaul Unit 04 (Haiya River Block 01)	5.50	1	26°27'8.16"N 87° 0'39.62"E	Sitapur Sand Ghat, Village – Sitapur, Anchal – Basantpur, Dist – Supaul (Bihar)	Haiya	2	26°27'8.94"N 87° 0'45.40"E	3	26°27'0.08"N 87° 0'50.61"E	4	26°26'57.61"N 87° 0'44.89"E	S. No	Sand Ghat	Area (in Ha)	Co-ordinates		Ghat/Village	River	1	Supaul Unit 04 (Tilawe River Block 01)	2.70	1	26° 2'39.30"N 86°40'11.20"E	Amha Sand Ghat, Village – Amha, Anchal – Supaul, Dist – Supaul (Bihar)	Tilawe	2	26° 2'37.54"N 86°40'15.31"E	3	26° 2'28.35"N 86°40'10.04"E	4	26° 2'29.08"N 86°40'8.62"E
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Applicant: M/S A.K SINGH & CO (Anirudh Kumar Singh)

	Plot/Survey/Khasra No.	SAND GHAT	KHATA	KHESRA	
		Haiya River Block 01	64, 172, 86, 33, 04, 27.	485, 899, 897, 896,894, 893	
		Tilawe River Block 01	232, 215, 77, 97.	3110, 3111, 3112, 3646	
		Haiya River Block 01 Village – Sitapur, Anchal – Basantpur, Dist – Supaul (Bihar) Tilawe River Block 01 Village – Amha, Anchal – Supaul, Dist – Supaul (Bihar)			
10.	Nearest railway station/airport along with distance in kms.	Railway station			
		SAND GHAT	Name	Distance & Direction	
		Haiya River Block 01	Laitgram Railway Station	Approx. 10 km towards S direction	
		Tilawe River Block 01	Supaul Railway Station	Approx. 11 km towards NW direction	
		Airport			
		SAND GHAT	Name	Distance & Direction	
		Haiya River Block 01	Jay Prakash Narayan	Approx. 215 km towards SW direction	
		Tilawe River Block 01	Jay Prakash Narayan	Approx. 165 km towards SW direction	
11.	Nearest Town, city, District Headquarters along with distance in kms.	Nearest Town			
		SAND GHAT	Name	Distance & Direction	
		Haiya River Block 01	Birpur	Approx. 6.50 km towards N direction	
		Tilawe River Block 01	Supaul	Approx. 11 km towards NW direction	

Applicant: M/S A.K SINGH & CO (Anirudh Kumar Singh)

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Tilawe River Block 01	Supaul	Approx. 11 km towards NW direction									
12.	Village Panchayats, Zilla Parishad, Municipal Corporation, Local body (complete postal addresses with telephone nos. to be given)	Haiya River Block 01 – (Gram Panchayat - Hirday Nagar) Tilawe River Block 01 – (Gram Panchayat – Amha)									
13.	Name of applicant	M/S A.K SINGH & CO Anirudh Kumar Singh									
14.	Registered Address	S/o –Shri Arun Singh Address : - MIG A/42, Housing Colony, Dhanbad, Jharkhand – 826001									
15.	Address for correspondence										
	Name	M/S A.K SINGH & CO Anirudh Kumar Singh									
	Designation (Owner/Partner/CEO)	Owner									
	Address	S/o –Shri Arun Singh Address : - MIG A/42, Housing Colony, Dhanbad, Jharkhand – 826001									
	Pin Code	826001									
	E-mail	aksinghco2018@gmail.com									
	Telephone No.	-----									
	Fax No.	-									
16.	Details of Alternative Sites examined, if any. Location of these sites should be shown on a toposheet.	The mineral is site specific. Thus no alternative site was examined.									
17.	Interlinked Projects	No									
18.	Whether separate application of interlinked project has been submitted?	No									
19.	If yes, date of submission	No									
20.	If no, reason	NA									

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21.	Whether the proposal involves approval/ clearance under: if yes, details of the same and their status to be given. (a)The forest (Conservation) act, 1980? (b) The wildlife (Protection) act, 1972? (C) The C.R.Z Notification, 1991?	No No No
22.	Whether there is any Government Order/Policy relevant/relating to the site?	No
23.	Forest land involved (hectares)	No
24.	Whether there is any litigation pending against the project and /or land in which the project is propose to be set up? (a) Name of the Court (b) Case No. (c) Orders/directions of the Court, if any and its relevance with the proposed project.	No

(II) Activity**1. Construction, operation or decommissioning of the Project involving actions, which will cause physical changes in the locality (topography, land use, changes in water bodies, etc.)**

S.No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities /rates, wherever possible) with source of information data
1.1	Permanent or temporary change in land use, land cover or topography including increase in intensity of land use (with respect to local land use plan)	No	There will be no change in the land use. Mining will be semi-mechanized/OTFM mine, along the dry bed of the river bed keeping Safety Distance left.
1.2	Clearance of existing land, vegetation and buildings?	No	There is no vegetation and building. Hence, no clearance of any vegetation, building and land will be required.
1.3	Creation of new land uses?	No	The mining activity will be confined to the lease area; there will be no creation of new land uses.

1.4	Pre-construction investigations e.g. bore houses, soil testing?	No	Not required.
1.5	Construction works?	No	No construction work is required for the proposed activity except for temporary rest shelter. All the laborers involved in wining will be from the nearby villages.
1.6	Demolition works?	No	No demolition is involved during the project.
1.7	Temporary sites used for construction works or housing of construction workers?	No	There will be no construction works or housing for construction workers. However temporary rest shelter will be constructed at the mine site. Sand will be load directly into trucks, dumper etc. for this purpose local people will be hired, and hence no temporary sites for housing will be required.
1.8	Above ground buildings, structures or earthworks including linear structures, cut and fill or excavations	No	The work involves excavation of sand from river bed.
1.9	Underground works including mining or tunneling?	No	There will not be any underground mining or tunneling.
1.10	Reclamation works?	No	The river bed has been shallowed due to deposition of minor minerals during a long (many years) course of time. So natural flow pattern, direction, etc. has been changed that caused flooding problems in fields/region. The RBM mining activity will only channelize the river.
1.11	Dredging?	No	The work involves only excavation of sand from dry river bed and as such no dredging will be done.
1.12	Offshore structures?	No	Not required for this project.
1.13	Production and manufacturing	No	Sand will be excavated from the river

	processes?		bed. The changes in the locality will be temporary/activity dependent.
1.14	Facilities for storage of goods or materials?	No	Sand will be load directly into trucks, dumper etc. hence no storage facility will be required.
1.15	Facilities for treatment or disposal of solid waste or liquid effluents?	No	No waste/effluent will be generated at the mine site. The area is devoid of soil cover, therefore generation of top soil shall be nil. All quantities of Sand to be exploited shall be saleable. Therefore no question arises for waste management.
1.16	Facilities for long term housing of operational workers?	No	Local people will be hired / employed for the RBM mining activity. Thus no housing facility will be developed.
1.17	New road, rail or sea traffic during construction or operation	Yes	There will be an increase in traffic because of few trucks for transportation of minerals.
1.18	New road, rail, air waterborne or other transport infrastructure including new or altered routes and stations, ports, airports etc?	No	No new construction takes place as the available facilities are sufficient enough.
1.19	Closure or diversion of existing transport routes or infrastructure leading to changes in traffic movements?	No	There would be no closure or diversion of existing routes, which would change the traffic movements.
1.20	New or diverted transmission lines or pipelines?	No	Not required.
1.21	Impoundment, damming, culverting, realignment or other changes to the hydrology of watercourses or aquifers?	No	No impoundment, damming, culverting, realignment or other changes to the hydrology of watercourses or aquifers is envisaged.
1.22	Stream crossings?	No	No stream crossings are involved.
1.23	Abstraction or transfers of water from ground or surface waters?	Yes	About 0.9 KLD for dust suppression, approx. 1.0 KLD will be required for

			drinking purpose and apart from this 0.16 KLD water for plantation will also be required. Total requirement will be 2.06 KLD.
1.24	Changes in water bodies or the land surface affecting drainage or run-off?	Yes	The RBM mining activity definitely changes the flow pattern; drainage etc. but these changes will be positive.
1.25	Transport of personnel or materials for construction, operation or decommissioning?	Yes	Sand will be excavated and loaded by Shovels, Hoe and Pans and transportation to local markets.
1.26	Long-term dismantling or decommissioning or restoration works?	Yes	Plantation will be raised along both sides of roads and civic amenities in consultation with the local authorities.
1.27	Ongoing activity during decommissioning which could have an impact on the environment?	No	Being semi-mechanized/OTFM excavation process no decommissioning would be there which could have any impact on environment.
1.28	Influx of people to an area in either temporarily or permanently?	No	Mostly local people will be deployed to carry out RBM mining extraction. So no influx of people will be seen.
1.29	Introduction of alien species?	No	No such introduction of alien species is foreseen.
1.30	Loss of native species or genetic diversity?	No	No loss of native species or genetic diversity is expected.
1.31	Any other actions?	No	--
2. Use of Natural resources for construction or operation of the Project (such as land, water, materials or energy, especially any resources which are non-renewable or in short supply):			
S.No.	Information/checklist confirmation	Yes/No	Details thereof (with approximate quantities /rates, wherever possible) with source of information data
2.1	Land especially undeveloped or agricultural land (ha)	No	The activity will be done in the river bed. The total mining lease area is govt. land.
2.2	Water (expected source & competing users) unit: KLD	Yes	About 2.06 KLD water will be required for the proposed mining project for

			domestic and dust suppression & plantation purpose.
2.3	Minerals (MT)	No	No minerals are required for this project.
2.4	Construction material – stone, aggregates, sand/Moran / soil (expected source – MT)	No	No construction material is required for this project. On the other hand, construction material will be produced.
2.5	Forests and timber (source – MT)	No	Not required for this project.
2.6	Energy including electricity and fuels (source, competing users) Unit: fuel (MT), energy (MW)	No	No power will be required as mining will be done from sunrise to sunset.
2.7	Any other natural resources (use appropriate standard units)	No	No other natural resources will be used.
3. Use, storage, transport, handling or production of substances or materials, which could be harmful to human health or the environment or raise concerns about actual or perceived risks to human health.			
S.No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
3.1	Use of substances or materials, which are hazardous (as per MSIHC rules) to human health or the environment (flora, fauna, and Water supplies)	No	This project operation will not involve any hazardous materials.
3.2	Changes in occurrence of disease or affect disease vectors (e.g. insect or water borne diseases)	No	No change in occurrence of diseases is expected. However insect and other poisonous bites are quite possible. For this first aid facility will be made available at site.
3.3	Affect the welfare of people e.g. by changing living conditions?	Yes	This project will provide livelihood to the workforce during the operation which help in improving the living conditions.
3.4	Vulnerable groups of people who could be affected by the project e.g. hospital patients, children, the elderly etc.	No	This project will not affect the vulnerable groups of people.
3.5	Any other causes	No	Transportation is one of the major

			activities during the project. Accidents may occur, which could be avoided by taking due care and precautions.
4. Production of solid wastes during construction or operation or decommissioning (MT/month)			
S.No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
4.1	Spoil, overburden or mine wastes	No	No overburden will be generated due to the operation.
4.2	Municipal waste (domestic and or commercial wastes)	No	There will not be any waste generation during operation of this project.
4.3	Hazardous wastes (as per Hazardous Waste Management Rules)	No	No hazardous wastes are envisaged.
4.4	Other industrial process wastes	No	No industrial process waste is envisaged.
4.5	Surplus product	No	No surplus products are expected as all production will be lifted side by side.
4.6	Sewage sludge or other sludge from effluent treatment	No	No effluent treatment involved.
4.7	Construction or demolition wastes	No	No construction or demolition wastes are expected.
4.8	Redundant machinery or equipment	No	No redundant machinery or equipment is involved.
4.9	Contaminated soils or other materials	No	No contaminated soils are generated.
4.10	Agricultural wastes	No	No agricultural wastes are produced.
4.11	Other solid wastes	No	No other solid wastes are generated.
5. Release of pollutants or any hazardous, toxic or noxious substances to air (Kg/hr)			
S.No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
5.1	Emissions from combustion of fossil fuels from stationary or mobile sources.	Yes	During operational phase there may be emissions by movement of vehicles (vehicular exhaust) which will be minimized by using only PUC certified

			& Bharat IV stage vehicles in the mining lease area.
5.2	Emissions from production processes.	No	No emissions from the production process.
5.3	Emissions from materials handling including storage or transport	Yes	There will be emission dust during the transportation of sand from source to the market. Effective water sprinkling on haul road will be done to reduce haul road dust emissions. Also the truck will be covered by polythene sheet during transportation.
5.4	Emissions from construction activities including plant and equipment	No	No construction activity will be done.
5.5	Dust or odors from handling of materials including construction materials, sewage and waste	No	Dust emission is expected during handling of minerals i.e. during loading of minerals. This can be minimized by sprinkling water.
5.6	Emissions from incineration of waste	No	No incineration of waste is done, hence no emission is expected.
5.7	Emissions from burning of waste in open air (e.g. slash materials, construction debris)	No	No burning of waste is done, hence no emission is expected.
5.8	Emissions from any other sources	No	--
6. Generation of Noise and Vibration, and Emissions of Light and Heat:			
S.No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
6.1	From operation of equipment e.g. engines, ventilation plant, crushers	No	Although semi mechanized/OTFM method is used. Service/maintenance of equipment or machinery is done on regularly basis, so no noise and vibrations are envisaged.
6.2	From industrial or similar processes	No	No such processes are involved
6.3	From construction or demolition	No	No construction work is proposed.

6.4	From blasting or piling	No	Blasting and piling is not proposed for the mining process.
6.5	From construction or operational traffic	Yes	Noise will be generated from vehicular movement. PUC certified vehicles will be deployed for the operations.
6.6	From lighting or cooling systems	No	Mining will be carried during day time and in open area. Thus there is no need for lighting and cooling systems.
6.7	From any other sources	No	--

7. Risks of contamination of land or water from release of pollutants into ground or into sewers, surface waters, groundwater, coastal waters or the sea:

S.No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
7.1	From handling, storage, use or spillage of hazardous materials	No	Since no hazardous material will be used or produced at the site, no risk of contamination of land or water envisaged.
7.2	From discharge of sewage or other effluents to water or the land (expected mode and place of discharge)	No	No discharge of sewage or other effluents will be there.
7.3	By deposition of pollutants emitted to air into the land or into water	No	Adequate measures to suppress dust and not to allow dust to become airborne are provided.
7.4	From any other sources	No	Not envisaged.
7.5	Is there a risk of long term build up of pollutants in the environment from these sources?	No	Scraping of accumulated dust build-up on road will be done frequently to keep the road in good order, thus avoiding any risk to environment.

8. Risk of accidents during construction or operation of the Project, which could affect human health or the environment

S.No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
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8.1	From explosions, spillages, fires etc from storage, handling, use or production of hazardous substances	No	No hazardous substance will be used or produced during the proposed mining operations.
8.2	From any other causes	Yes	Accidents are possible during loading and unloading of material. First aid facilities will be provided the site.
8.3	Could the project be affected by natural disasters causing environmental damage (e.g. floods, earthquakes, landslides, cloudburst etc)?	No	The mine lease area lies in Seismic Zone V. This zone is classified as low to moderate hazard risk. No major earthquake has been observed in the district during last 20 years. The district has, however experienced minor tremors on a few occasions.

9. Factors which should be considered (such as consequential development) which could lead to environmental effects or the potential for cumulative impacts with other existing or planned activities in the locality

S.No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
9.1	Lead to development of supporting facilities ancillary development or development stimulated by the project which could have impact on the environment e.g.: • Supporting infrastructure (roads, power supply, waste or waste water treatment, etc.) • Housing development • Extractive industries • Supply industries • Other	Yes	With improvement in availability of employment living standard of the people will raise which itself may lead to building activity. These are positive impacts.
9.2	Lead to after-use of the site, which could have an impact on the environment	No	The site will not be used for any other purpose since it is the stream bed. Sand will get replenished in every monsoon

			season.
9.3	Set a precedent for later developments	No	Proposed mining activity can set a precedent for increase in infrastructure developmental activity.
9.4	Have cumulative effects due to proximity to other existing or planned projects with similar effects	Yes	The proposed project is coming within cluster condition. There is other mines are coming within 500m of mining lease area So, there may be cumulative effects due to these projects.

(III) Environmental Sensitivity

S.No.	Areas	Name/ Identity	Aerial distance (within 15 km.) Proposed project location boundary			
1	Areas protected under international conventions, national or local legislation for their ecological, landscape, cultural or other related value	Nil	--			
2	Areas which are important or sensitive for ecological reasons - Wetlands, watercourses or other water bodies, coastal zone, biospheres, mountains, forests	Haiya & Tilawe River	Project site is located on Haiya & Tilawe River			
3	Areas used by protected, important or sensitive species of flora or fauna for breeding, nesting, foraging, resting, over wintering, migration	Nil	--			
4	Inland, coastal, marine or underground waters	Nil	--			
5	State, National boundaries	Nil	--			
6	Routes or facilities used by the public for access to recreation or other tourist, pilgrim areas	-		SAND GHAT	Name	Distance & Direction
				Haiya River Block 01	SH- 91	Approx. 1 km towards W direction
				Tilawe River Block 01	Chaugara Laukaha Saharsa Rd	Approx. 100 m towards

Applicant: M/S A.K SINGH & CO (Anirudh Kumar Singh)

			<table border="1"> <tr> <td></td><td></td><td>E direction</td></tr> </table>			E direction																		
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7	Defense installations	Nil	--																					
8	Densely populated or built-up area	-	<table border="1"> <tr> <td>SAND GHAT</td><td>Name</td><td>Distance & Direction</td></tr> <tr> <td>Haiya River Block 01</td><td>Birpur</td><td>Approx. 6.50 m towards N direction</td></tr> <tr> <td>Tilawe River Block 01</td><td>Supaul</td><td>Approx. 11 km towards NW direction</td></tr> </table>	SAND GHAT	Name	Distance & Direction	Haiya River Block 01	Birpur	Approx. 6.50 m towards N direction	Tilawe River Block 01	Supaul	Approx. 11 km towards NW direction												
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9	Areas occupied by sensitive man-made land uses (<i>hospitals, schools, places of worship, community facilities</i>)	<u>Nearest hospitals</u> <u>Nearest school</u> <u>Places of worship</u>	Nearest hospitals <table border="1"> <tr> <td>SAND GHAT</td><td>Name</td><td>Distance & Direction</td></tr> <tr> <td>Haiya River Block 01</td><td>Patel Sp. Medical</td><td>Approx. 6.50 m towards S direction</td></tr> <tr> <td>Tilawe River Block 01</td><td>Sadar Hospital, Supaul</td><td>Approx. 10 km towards NW direction</td></tr> </table> Nearest school <table border="1"> <tr> <td>SAND GHAT</td><td>Name</td><td>Distance & Direction</td></tr> <tr> <td>Haiya River Block 01</td><td>Divya Sanatan School</td><td>Approx. 1.60 m towards SW direction</td></tr> <tr> <td>Tilawe River Block 01</td><td>Jhahura middle school</td><td>Approx. 1 km towards N direction</td></tr> </table> Places of worship <table border="1"> <tr> <td>SAND GHAT</td><td>Name</td><td>Distance & Direction</td></tr> </table>	SAND GHAT	Name	Distance & Direction	Haiya River Block 01	Patel Sp. Medical	Approx. 6.50 m towards S direction	Tilawe River Block 01	Sadar Hospital, Supaul	Approx. 10 km towards NW direction	SAND GHAT	Name	Distance & Direction	Haiya River Block 01	Divya Sanatan School	Approx. 1.60 m towards SW direction	Tilawe River Block 01	Jhahura middle school	Approx. 1 km towards N direction	SAND GHAT	Name	Distance & Direction
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Haiya River Block 01	Sankatmo chan Hanuman Mandir Sitapur Chowk	Approx. 10 km towards NW direction							
Tilawe River Block 01	Hanuman Mandir	Approx. 1 km towards N direction							
10	Areas containing important, high quality or scarce resources (<i>ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals</i>)	Nil	--						
11	Areas already subjected to pollution or environmental damage. (<i>those where existing legal environmental standards are exceeded</i>)	Nil	--						
12	Areas susceptible to natural hazard which could cause the project to present environmental problems (<i>earthquakes, subsidence, landslides, erosion, flooding or extreme or adverse climatic conditions</i>)	Nil	Seismic Zone V <i>Source:</i> BMTPC						

“I hereby given undertaking that the data and information given in the application and enclosures are true to the best of my knowledge and belief and I am aware that if any part of the data and information submitted is found to be false or misleading at any stage, the project will be rejected and clearance give, if any to the project will be our risk and cost”.

Date: 03.01.2023

Place: Supaul

M/S A.K SINGH & CO
Anirudh Kumar Singh
S/o –Shri Arun Singh
Address : - MIG A/42, Housing Colony,
Dhanbad, Jharkhand – 826001

NOTE:

1. The Projects involving clearance under Coastal Regulation Zone Notification, 1991 shall submit with the application a C.R.Z map duly demarcated by one of the authorized agencies, showing the project activities, w.r.t. C.R.Z. (at the stage of TOR) and the recommendations of the state Coastal Zone management Authority (at the stage of EC). Simultaneous action shall also be taken to obtain the requisite clearance under the provisions of the C.R.Z. Notification, 1991 for the activities to be located in the CRZ.
2. The projects to be located within 10 km of the National Parks, Sanctuaries, Biosphere Reserves, Migratory Corridors of Wild Animals, the project proponent shall submit the map duly authenticated by Chief Wildlife Warden showing these features vis-à-vis the project location and the recommendations or comments of the Chief Wildlife Warden thereon (at the stage of EC).”
3. All correspondence with the Ministry of Environment & Forests including submission of application for TOR/ Environmental Clearance, subsequent clarifications, as may be required from time to time, participation in the EAC Meeting on behalf of the project proponent shall be made by the authorized signatory only. The authorized signatory should also submit a document in support of his claim of being an authorized signatory for the specific project”.

1. EXECUTIVE SUMMARY

The proposed sand mine project is situated at Haiya River Block 01 (Mauja– Sitapur, Anchal- Basantpur, District- Supaul (Bihar) and at Tilawe River Block 01 (Mauja – Amha, Anchal- Supaul, District- Supaul (Bihar) over an area of (Haiya River Block 01 – 5.50 ha + Tilawe River Block 01 – 2.70 ha) 8.20 hectares. The state government has given consent for Sand mining to M/S A.K SINGH & CO Anirudh Kumar Singh S/o –Shri Arun Singh Address : - MIG A/42, Housing Colony,Dhanbad, Jharkhand – 826001. This project falls under Category- “B1” as per EIA Notification 2006 (amended till date) of the Ministry of Environment and Forests & Climate Change, New Delhi. The proposed cost of the project is Rs. 0.8341 crore. The proposed project activity will be carried out in inactive channel of riverbed of Haiya & Tilawe River.

Salient feature

S.No.	Information	Details		
1.	Project name	Sand Ghat Mining Project Supaul unit – 04 (Haiya River Block – 01 and Tilawe River Block – 01)		
2.	Mining Lease Area	Area – 8.20 ha (Haiya River Block 01 – 5.50 ha + Tilawe River Block 01 – 2.70 ha)		
3	Plot/Survey/Khasra No.	SAND GHAT	KHATA	KHESRA
		Haiya River Block 01	64, 172, 86, 33, 04, 27.	485, 899, 897, 896, 894, 893
		Tilawe River Block 01	232, 215, 77, 97.	3110, 3111, 3112, 3646
4	Location of mine			
	Mauja:	Haiya River Block 01	Tilawe River Block 01	
		Sitapur	Amha	
	Anchal:	Basantpur	Supaul	
	District :	Supaul	Supaul	
	State :	Bihar	Bihar	

	Toposheet No.	72 J/12, 72 J/16, 72K/09, 72K/13			
5	River/Nalla/Nadi	Haiya & Tilawe River			
6	Minerals of mine	Sand			
7	Proposed Production	Proposed Capacity - 49200 cum/year or 88560 TPA			
8	Bulk Density	1.8 g/cm ³			
9	Method of mining	Open Cast semi-mechanized/OTFM Method			
10	Drilling or Blasting	No			
11	No of working days	250 days			
12	Water demand	Domestic Water : 1.0 KLD Dust Suppression: 0.9 KLD Plantation= 0.16 KLD			
		Total Water Requirement: 2.06 KLD			
13	Man Power	22			
14	Nearest railway station	SAND GHAT	Name	Distance & Direction	
		Haiya River Block 01	Laitgram Railway Station	Approx. 10 km towards S direction	
		Tilawe River Block 01	Supaul Railway Station	Approx. 11 km towards NW direction	
15	Nearest NH/SH	SAND GHAT	Name	Distance & Direction	
		Haiya River Block 01	SH- 91	Approx. 1 km towards W direction	
		Tilawe River Block 01	SH -66	Approx. 4 km towards NE direction	
16	Nearest airport	SAND GHAT	Name	Distance & Direction	

		Haiya River Block 01	Jay Prakash Narayan	Approx. 215 km towards SW direction	
		Tilawe River Block 01	Jay Prakash Narayan	Approx. 165 km towards SW direction	

2. INTRODUCTION

2.1 Identification of Project and Project Proponent

The details are as given below:

Name of the applicant	M/S A.K SINGH & CO Anirudh Kumar Singh
Name & Address of Lessee	S/o –Shri Arun Singh Address : - MIG A/42, Housing Colony, Dhanbad, Jharkhand – 826001
Name of Mine	Sand Ghat Mining Project Supaul unit – 04 (Haiya River Block – 01 and Tilawe River Block – 01)
Mineral	Sand
Area (ha)	8.20 ha
Status of Mine	Fresh Application for EC (new)

2.2 Brief description of the nature of the project

The proposed project is of Sand Mining at Haiya River Block 01 (Mauja – Sitapur, Anchal-Basantpur, District- Supaul (Bihar) and at Tilawe River Block 01 (Mauja – Amha, Anchal-Supaul, District- Supaul (Bihar) over an area of (Haiya River Block 01 – 5.50 ha + Tilawe River Block 01 – 2.70 ha) 8.20 hectares. It has been proposed to collect approximately Capacity - 49200 cum/year or 88560 TPA.

No mining activity will be undertaken during the monsoon season. So the material will be replenished during the monsoon season every year.

2.3 Need for the project and its importance to the country and region

The project lies on the bed of Haiya & Tilawe River. The sediment in the form of river bed material (RBM) deposited in inactive channel the last many years had changed the shape of the Son bed from a valley to a raised land. Hence, it is necessary to remove the materials so that the stream gets channelized. Due to rapid infrastructure development in India, the demand of construction material has increased. To supply this demand, mining of Sand is done. This project operation will provide employment directly and indirectly to the people residing in vicinity, thus improving the Socio-economic status of the area.

2.4 Demands-Supply Gap

The demand for sand is ever growing with the growth of the infrastructure sector in our country. The mineral is used mainly in the construction activities like buildings, bridges etc. The requirement for the mineral is always high in the nearby cities and towns. Therefore there is always a good demand of the mineral in the domestic market.

2.5 Domestic/ Export Markets

The demand in the domestic market is high especially in the nearby towns and cities and hence the need for Sand mining.

2.6 Export Possibility

There is no proposal to export the mineral as the minerals excavated, cater to the indigenous demand and the development is a never ending process.

2.7 Domestic/ Export Markets

a) DOMESTIC MARKET

There is always an ever increasing demand of these minerals in the domestic market.

b) EXPORT MARKET

The proposed mining activity is for indigenous consumption only for real state, road making etc. So no export will be envisaged.

2.8 Employment Generation

The total direct manpower requirement for the proposed mining operation will be around 22. Significant Indirect employments is also expected due to the associated activities. This project operation will provide livelihood to the poorest section of the society. Depending upon the General shifts working, following will be the proposed manpower.

Employment detail

S. No.	Category	Numbers
1.	Administration	1
2.	Supervisor	2
3.	Skilled	05
4.	Un-skilled	14
TOTAL		22

3 PROJECT DESCRIPTION

3.1 Type of project including interlinked and interdependent projects, if any

The proposed project is for the extraction of Sand from the bed of Haiya & Tilawe River by opencast semi mechanized/OTFM operation. This is an independent project.

3.2 Location

The mining lease area is located in Haiya River Block 01 (Mauja– Sitapur, Anchal- Basantpur, District- Supaul (Bihar) and at Tilawe River Block 01 (Mauja – Amha, Anchal- Supaul, District- Supaul (Bihar) over an area of (Haiya River Block 01 – 5.50 ha + Tilawe River Block 01 – 2.70 ha) 8.20 hectares. The proposed project activity will be carried out in the bed of the River Son. Toposheet No. 72 J/12, 72 J/16, 72K/09, 72K/13.

The project site is located at:

S. No	Sand Ghat	Area (in Ha)	Co-ordinates		Ghat/Village	River
1	Supaul Unit 04 (Haiya River Block 01)	5.50	1	26°27'8.16"N 87° 0'39.62"E	Sitapur Sand Ghat, Village – Sitapur, Anchal – Basantpur, Dist – Supaul (Bihar)	Haiya
			2	26°27'8.94"N 87° 0'45.40"E		
			3	26°27'0.08"N 87° 0'50.61"E		
			4	26°26'57.61"N 87° 0'44.89"E		
	Supaul Unit 04 (Tilawe River Block 01)	2.70	1.	26° 2'39.30"N 86°40'11.20"E	Amha Sand Ghat, Village – Amha, Anchal – Supaul, Dist – Supaul (Bihar)	Tilawe
			2.	26° 2'37.54"N 86°40'15.31"E		
			3.	26° 2'28.35"N 86°40'10.04"E		
			4.	26° 2'29.08"N 86°40'8.62"E		

3.3 Details of alternate sites considered

The mine lease has been decided by the district administration and the lease is granted to the lessee by way of open auction and hence no alternate site was considered.

3.4 Size or magnitude of operation

The proposed mine has lease over an area of 8.20 ha. The total extractable material would be approx Capacity - 49200 cum/year or 88560 TPA.

3.5 Project description with process details

3.5.1 Method for developing and working the deposits

The Sand deposited as river bed material will be collected in its existing form.

Reserve estimation:-

The geological reserves have been each stretches & for individual blocks. Geological reserves have been completed through cross sectional area method. The area of each section line is multiplied by strike influence to get the volume.

The summary of reserves is as below:

GEOLOGICAL RESERVES

Haiya River Block 1

Classification	Code	Quantity of Sand
A) Mineral Reserves		Cum
1) Proved Mineral Reserves	111	55000
Total		55000

Tilawe River Block 1

Classification	Code	Quantity of Sand
B) Mineral Reserves		Cum
2) Proved Mineral Reserves	111	27000
Total		27000

Total Geological Reserve = of Haiya River Block 01 & Tilawe River Block 01 = (55000 + 27000) = 82000 cum or 147600 tonnes

Mineable reserve:

Mineable reserves have been computed up to 1m depth from surface. The volume multiplied by bulk density (1.8 g/cm^3) to get the tonnage.

The minerals excavated from the river bed will be replenished gradually during the monsoon season every year. And the area pertaining to palaeochannels of the river will be leveled & restored back

MINEABLE RESERVES

Haiya River Block 1

Bench Level (mRL)	Length (m)	Width (m)	Depth (m)	Volume (cum)	Tonnes
72.5-71.5	325	157	1	51025	91845
Total				51025	91845

Tilawe River Block 1

Level (mRL)	Length (m)	Width (m)	Depth (m)	Volume (cum)	Tonnes
47-46	300	72	1	21600	38880
Total				21600	38880

Total Mineable Reserve of Haiya River Block 01 and Tilawe River Block 1 = (51025 + 21600)
= 72625 cum or 130725 tonnes

3.5.2 Method of mining

Mining activity will be carried out by open cast semi-mechanized/OTFM method. No OB/ waste material will be produced in river bed. The sand shall be exploited upto depth of 3.0m only through the formation of bench height 1.5m & width 6.0m. An approach road having width 6.0m & gradient 1:12 shall be provided for the movement of loading machineries & transportation of sand. The sand shall be exploited with the deployment of an excavator & filled into Tractors/Trucks & transported to various buyers

Working Depth (below ground level)

During the lease period, the deposit will be worked from the top surface to 1 m bgl or above groundwater level whichever is less. The depth would be worked out based on the replenishment rate.

Restriction on mining:

- i) Sand and gravel shall not be extracted up to a distance of 1 km from major bridges and highways on both sides, or five times (5x) of the span (x) of a bridge/public civil structure (including water intake points) on up-stream side and ten times (10x) the span of such bridge on down side, subjected to a minimum of 250 meters on the upstream side and 500 meters on the downstream side.
- ii) No quarrying shall be permitted within 50 (fifty) metres of any public place i.e. cremation Ghat or any religious place etc.
- iii) No quarrying shall be permitted within 5 (five) metres from both banks of the river.
- iv) The quarrying of sand shall be prohibited within 100 (one hundred) metres upstream and downstream from any dam/weir or any other structure erected for irrigation purpose.
- v) Sand Ghats should preferably be located on the river side embankment. For low embankment less than 6 metres height, quarrying should not be done within 25 metre from toe/heel of the embankment and depth of mining should not be more than 1.00 metre. In case of higher embankments, the distance should not be less than 50 metre and depth of mining should be maximum 1.50 metre and at a distance of 75 metre of more mining depth should be maximum 2.00 metre. In order to obviate the development of flow parallel to embankment, crossbars of width eight times the depth of mining pits spaced at 50 to 60 metres center to center should be left in the mining pits.
- vi) The irrigation outlet shall be maintained at the same level as that of the river bed and in no case the river bed level shall be permitted to be below the irrigation outlet level. No quarrying shall be permitted around the infiltration well/intake well up to a distance of 5 meters.

- vii) The extraction of sand shall be permitted only after obtaining a No Objection Certificate from the Water Resources Department in the case of rivers where from irrigation channels are out flowing.
- viii) No quarrying of sand shall be permitted in any private land owned by a person other than the settlee unless the settle obtains the consent of the concerned land owner/raiyat.
- ix) No quarrying of sand shall be permitted in any area which the State Government notifies as a restricted area.
- x) Sand and gravel shall not be allowed to be extracted where erosion may occur, such as at the concave bank.
- xi) Mining depth should be restricted to 3 meters and distance from the bank should be $\frac{1}{4}$ th or river width and should not be less than 7.5 meters.

3.6 Raw Material Required Along With Estimated Quantity, Likely Source, Marketing Area of Final Product/S, Mode of Transport of Raw Material and Finished Product

No raw material will be required in the proposed project. The operation involves the extraction of Sand in its existing form and loaded into trucks/trolleys which will transport the material to the local market. The existing roads will be utilized for the transport of Sand from mine site to market.

3.6.1 Use of Mineral

Minor mineral namely Sand is used as construction material for buildings, bridges etc.

3.6.2 Mineral Beneficiation

No mineral beneficiation is involved.

3.6.3 Surface Transport

The transportation of Sand will be carried out by the purchaser through their own transport. There are all weather an unmetalled road and then a metalled road right up to the mines to dispatch the material from mines to the market. It will be purchased by the customers at mine site and transported by them through their own arrangement of trucks. The practice is quite sound in

the area and ensure continuous lifting of the material. However necessary arrangement of truck can be done from the local truck operator union.

3.7 Resource optimization/ recycling and reuse

Minerals are generally depleting asset once mined; but minerals like Sand will be replenished naturally. Thus a scientific approach will be taken up for excavation of mineral with systematic method.

3.8 Availability of water its source, energy/ power requirement and source

3.8.1 Water Requirement

Total water requirement will be 2.06 KLD. This water will be supplied by private tankers.

S. No.	Purpose	Water Requirement (KLD)
1.	Dust Suppression	0.9
2.	Domestic	1.0
3.	Green Belt	0.16
Total		2.06

3.8.2 Power Requirement

All the activities will be carried out in Semi Mechanized/OTFM manner. The material will be extracted and loaded by shovel, pan, sieve etc. The operation will be done only from sun rise to sun set hence there is no power requirement for the project at site.

3.9 Quantity of wastes to be generated (liquid and solid) and scheme for their management/ disposal.

3.9.1 Solid Waste Generation & its Disposal

There are no mineral rejects of any kind produced during mining, therefore, no provision of stock yard is proposed. The entire mineral produced is saleable.

3.9.2 Liquid Effluent

No liquid effluents will be discharged due to the proposed project.

4. SITE ANALYSIS

4.1 Connectivity

Particulars	Distance/direction			
Nearest Railway Station	SAND GHAT	Name	Distance & Direction	
	Haiya River Block 01	Laitgram Railway Station	Approx. 10 km towards S direction	
	Tilawe River Block 01	Supaul Railway Station	Approx. 11 km towards NW direction	
Nearest Highway	SAND GHAT	Name	Distance & Direction	
	Haiya River Block 01	SH- 91	Approx. 1 km towards W direction	
	Tilawe River Block 01	SH -66	Approx. 4 km towards NE direction	
Nearest Airport	SAND GHAT	Name	Distance & Direction	
	Haiya River Block 01	Jay Prakash Narayan	Approx. 215 km towards SW direction	
	Tilawe River Block 01	Jay Prakash Narayan	Approx. 165 km towards SW direction	

4.2 Land form, land use and land ownership

The proposed activity is to take place in the bed of inactive channel of the River Haiya & Tilawe and hence there will be no change in land use. The area is owned by the State of Bihar.

4.3 Topography

Topography and general geology and local / mine geology of the mineral deposit including drainage pattern

The area represents a rough and rugged topography. A detailed geological map with contour interval. The area of Haiya River Block 1 shows a general slope toward N-W while the highest RL of 72.5 m occurring on the South–West side of the area along boundary pillar, whereas the lowest RL of 71.5 m within the lease area is found along S-W slope near boundary line. The area of Tilawe River Block 1 shows a general slope toward N-W while the highest RL of 46 m occurring on the South–West side of the area along boundary pillar, whereas the lowest RL of 47 m within the lease area is found along S-W slope near boundary line.

Regional Geology

Geologically, it represents nearly two third of Bihar is under cover of Ganga basin composed of alluvium and masks the nature of basement rocks.

Age	Geology	Occurrences
Quaternary	Alluvial Deposits (Sand, Clay, Silt, Fragments)	North Bihar Plain & Central Bihar Plain
Tertiary	Sand Stones & Clay Stones	North Champaran Hills
Gondwana	Coal Measures, Forming a series of Small outlier basins	Banka District
Vindhya	Sandstones, Shales, Limestones, etc.	Parts of Bahbhua and Rohtas dist
Satpura	Schist, Phyllite, Quartzite	Part of Aurangabad, Gaya, Nawada,

		Nalanda, Sheikhpura and Munger District
Proterozoic	Mica Schist, amphibolites, quartzite, granite, dolerite and pegmatite	Nawada, Jamui and Banka
Archaean	Gneisses, Granites, Schists, Phyllites, quartzite, amphibolites & intrusive all metamorphosed sedimentary and igneous rocks	Part of Aurangabad, Gaya, Nawada, Jamui, Banka and Bhagalpur

Local Geology of Area:

The sand layers of Supaul quaternary alluvial sequence form the major repository of ground water in the district which occur under unconfined condition in shallow zone and semi-confined to confined condition in the deeper zone. The thickness of the aquifer in the district varies from 15 mt to 90 mt which is mainly controlled due to the irregular sloping nature of the bed on which sediments rest. The composition of the sediment is not uniform thus the aquifers are of heterogeneous in character. In general, sand layer predominant in the district barring the clay bed which gradually thickness in South. These granular zones yield 150 m³/hr to 250 m³/hr for a draw down of 4.7 mt to 8.00 mt as observed from the state tubewells. The sub-surface lithology of the alluvial tract is known down to 200 mbgl The transmissivity of this sand/Gravel bed is calculated to be 3000 m²/day under confined condition. At Barharia the aquifer below 50 mt is proved to be in leaky artisan condition with a transmissivity value of 2000 m²/day. The ground water hydraulics largely depend upon the nature of sediments i.e. grain size and sorting and is depositional setup. Occurrence and movement of ground water in this hydrogeological unit is controlled by primary porosity of the sediment. In the entire district, ground water occurs under both phreatic and confined condition and at some places they are also found to be under semi-confined condition.

4.4 Existing land use pattern

The area considered for mining of river bed material has not been utilized for any purpose other than for the natural flow of the river. The objective of this operation is only to regulate the flow

in its natural course which is presently being hindered by the sedimentation over a long period of time.

4.5 Soil classification

The district in general possesses alluvial soil. The soils are of poorly drained type. The areas close to the Kosi channels possess soil types of sandy loam, loamy sand and sand character, whereas, the areas away from the river channels consist of silty sand to sandy silt in nature. The soils in general are fine textured away from the river course and rivulets and coarse textured along their courses.

Source: https://cgwb.gov.in/District_Profile/Bihar/Supaul.pdf

4.6 Climatic data from secondary sources

RAINFALL & CLIMATE

The area has warm and humid climate with high temperature and medium to high rainfall. The temperatures are lowest during December-January with an average minimum of 8°C to 10°C and maximum of 24°C to 25°C. The temperatures in the hottest months of April to June are minima 23°C to 25°C and maxima 35°C to 38°C. The normal rainfall for the district stands at 1404 mm. Most of the rainfall (80% to 90%) is received from mid-June to mid-October. The late September-October rains (locally known as 'Hathia') are very crucial to agriculture in the region and their timing and distribution make all the difference between plenty and scarcity.

The last 18 years annual rainfall data shows that the variation within the minimum of 669 mm (2006) to a maximum of 1794 mm (1999). After the year 1999/2000, there has been an overall decrease in the annual rainfall.

Source: https://cgwb.gov.in/District_Profile/Bihar/Supaul.pdf

5. PLANNING BRIEF

5.1 Planning concept

Production will be done as per the market demand not exceeding Capacity- 49200 cum/year or 88560 TPA.

5.2 Population projection

The project will employ most of the workers from nearby villages. There will not be any increase in population due to the project.

5.3 Land use planning

The land use of the mine lease area is the river bed of River Haiya & Tilawe and there will be no change in land use after operation. The Sand will be replenished every year during the monsoon season. The ultimate land use of the mine lease area will not be change.

5.4 Amenities/facilities

Temporary rest shelters, water facility and portable toilets will be made available to the mine workers.

6. PROPOSED INFRASTRUCTURE

6.1 Industrial area (Processing Area)

No industrial area is proposed.

6.2 Residential area (Non Processing Area)

The mine workers will be hired from nearby villages, so residential areas will not be made.

6.3 Green belt

About 82 trees will be planted in next five years. Plantation will be raised along both sides of roads and civic amenities in consultation with the local authorities.

6.4 Connectivity

Haiya River Block 01

The mine site Haiya River Block 01 is well connected via an approach road of approx. 110 m to a metalled road which further connected to SH – 91.

Laitgram Railway Station is at approx. 10 km towards S direction.

Tilawe River Block 01

The mine site Tilawe River Block 01 well connected via an approach road of approx. 40 m to a metalled road which further connected to SH – 66.

Supaul Railway Station is at approx. 11 km towards NW direction.

6.5 Drinking Water Management

Water for drinking and operations is required to be 2.06 KLD. It is proposed to obtain water for drinking and operations from water tanker or nearby villages.

6.6 Sewerage System

No sewerage system is proposed.

6.7 Industrial Waste Management

Not applicable

6.8 Solid Waste management

No solid waste generation is expected from the mining operation.

6.9 Power Requirement & Supply/ Source

The operation will be done only from sun rise to sun set hence there is no power requirement for the project at site.

6.10 Environmental Management Plan

The environmental management plan consists of the set of mitigation, management, monitoring and institutional measures to be taken during the implementation and operation of the project, to eliminate adverse environmental impacts or reduce them to acceptable levels. The present environmental management plan addresses the components of environment, which are likely to be affected by the different operations in the mine area.

Budget Allotted for the Environmental Management Plan:-

Sl. No.	Measures	Capital Cost (In Rs.)	Recurring Cost (In Rs.)
1.	Pollution Control Dust Suppression /Water Sprinkling	-	1,50,000
2.	Pollution Monitoring i) Air pollution ii) Water pollution iii) Soil Pollution iv) Noise Pollution	-	1,00,000
3.	Green belt development	82,000	50,000
4.	Construction & Maintenance of haul road	37,500	75,00,000
Total		1,19,500	3,75,000

- Approx. 1000 Rs./sapling along with tree guard.
- Approx. 50,000 Rs. for part time gardener.
- Approx. 2.5 Lakhs per km for haul road construction.
- For haul road maintenance labors will be employed on 300 Rs/Day.

6.11 Social Infrastructure

The Applicant shall spend some amount of project cost for the development of the area as per the local needs i.e. treatment of poor, schools, temples and other social work.

7. REHABILITATION AND RESETTLEMENT (R&R) PLAN

Not Applicable.

8. PROJECT SCHEDULE & COST ESTIMATES

The project will commence once Environmental Clearance and other necessary certificates are obtained from the respective departments. The Total cost of project would be around Rs. 0.8341 crore.

BREAK UP OF COST

Sr. No.	Description	Cost in Rs.
1	Labor Cost, Equipment, etc.	70,11,000
2	Miscellaneous (Green belt, Road, CER etc)	1,00,000
3	Auction Cost	12,30,000
TOTAL		83,41,000

Corporate Social Responsibility cost :-

CSR cost will be 2% of the total project cost. This amount will be used for social welfare.

CSR COST is $83,41,000 \times 2\% = \text{Rs. } 1,66,820/-$

9. ANALYSIS OF PROPOSAL

The project involves collection of river bed material. This is very essential in order to prevent widening of the riverbeds and to prevent flooding off and damage to the adjoining areas. This can only be achieved by maintaining the existing course of the river.

The river banks, on both sides are covered by vegetation and human habitats. Widening of river banks results in excessive erosion; resulting in damage to flora, agricultural land and settlements which are situated at very close proximity.

This project operation will provide livelihood to the poorest section of the society. It provides employment to the people residing in vicinity directly or indirectly by the project. The sand extracted is in high demand in the local market. This is also ensured scientific method of sand extraction.
