ENVIRONMENTAL AUDIT REPORT OF

BAJITPUR SAND GHAT OF GAYA DISTRICT ON MORHAR RIVER



FOR

Bihar State Mining Corporation Limited (Govt. Of Bihar Undertaking)

Date of Audit - 10.02.2022

Prepared By:



COGNIZANCE RESEARCH INDIA PRIVATE LTD.

(Accredited by QCI/NABET, Govt. of India)

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Report Code	CRIPL/BSG/2022/05		
Project	Bajitpur Sand Ghat at Morhar River Vill Bajitpur, Tehsil- Aamas, Dist Gaya,		
	Khasra No305, 320, Area- 30.0 Ha.		
Client	Bihar State Mining Corporation Ltd. (Govt. of Bihar Undertaking) Address – Room No. 164, Vikas Bhawan (New Secretariat), Bailey Rd. Patna – 800015.		
Consultant	Cognizance Research India Pvt. Ltd. G-20, Sector – 117, Noida – 201301.		
Audit Date	10 Feb 2022		
Final Report 24.02.2022			

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DECLARATION OF THE AUDITOR:

- We Cognizance Research India Pvt. Ltd. has been prepared the report independently.
- We have expertise in conducting environmental audits, including knowledge of the Act, Regulations and any guidelines that have relevance to the proposed activity.
- We have prepared this report as per the Work Order Scope issued vide letter no.03/vivid-53/21-611.
- Based on information provided to us by the project proponent, and in addition to the site visit conducted by us we have presented the results and conclusion.

AUDIT OBJECTIVES

- 1. Implementation of Sustainable Sand Mining Management Guidelines 2020.
- 2. Use of Latest technology/Drone to Monitor the Mining activities.
- 3. Evaluation of the EC/CTE/CTO Compliances
- 4. Ensure conservation of the river equilibrium and its natural environment by protection and restoration of the ecological system. Mining companies maintain adequate control system to minimize environment damage impacts.
- 5. Ensure that the rivers are protected from bank and bed erosion beyond its stable profile.
- 6. Promotion of environmental awareness through participatory auditing process

Scope of Work asPer the Work Order of BSMCL

S.no	Scope	Compliance
1.	Ensure prevention of illegal mining with the use of drone and any other latest technology	Drone Survey Carried Out. Site Photos attached on Page no.23- 24
2.	Submission of drone generated report in readable format including with statutory obligations	Drone Survey Carried Out. Site Photos attached on Page no. 23-24
3.	Evaluate compliances being done by the contractors with statutory obligations pertaining to Environmental Laws/CTE/CTO/EC	Complied in the Report
4.	Make recommendations to improve the environmental compliance of the contractors from time to time	Complied in the Report
5.	Ensure implementation of recommendation of the auditor by the contractors during the contract period	Will be complied after approval of the EA report.
6.	To identify emerging environmental concerns and evaluate environmental and safety conditions in sand mining	Complied in the report
7.	Assessment of the progress achieved in implementing the enforcement and monitoring guidelines for sand Mining 2020	Report is prepared following the guidelines for sand Mining 2020
8.	The auditor have to submit structed audit report inclusive of evaluation reports	Complied.
9.	An evidence report including all the evidences collected during the course of audit such as site visit reports, photos, drone images in readable format	Complied. Attached as Annexure- CD Submitted for the Same
10.	A sperate Executive Summary of the main audit conclusions and recommendations on each aspect of the audit	Complied
11.	The auditor will submit soft copy of audit report including images, sound, videos etc in readable/Legible form	Complied CD Submitted for the Same

Project Details

The Bajitpur Sand Ghat at Morhar River, Vill.- Bajitpur, Tehsil- Aamas,Dist.- Gaya. Area-30.0 Halease is allotted to M/S Westlink Trading Pvt.Ltd. and EC has been Granted on 23.10.2019 By SEIAA Bihar. Later EC has been transferred to BSMCL By Letter No. 152 dated 30/09/2021 by SEIAA BIHAR. BSMCL appointed M/s Rajendra & Sons Infra Pvt. Ltd., (Director- Kumar Nagendra, S/o- Rajendra singh, 15, Mother Teresa Marg, North S.K. Puri, Patna.) as a contractor for execution of work and comply all the conditions mentioned in EC letter and CTO. Hence M/s Rajendra & Sons Infra Pvt. Ltd. (contractor) is fully responsible for complying all these conditions mention in EC letter and CTO.

Geographical location

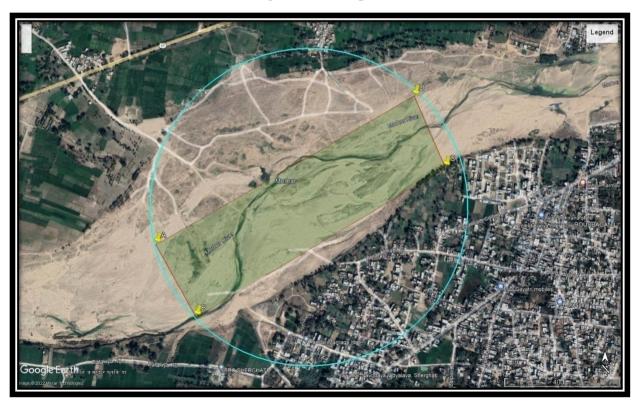
Pillars	Latitude(N)	Longitude(E)
A	24°33'36.50"N	84°46'37.80"E
В	24°33'28.32"N	84°46'43.00"E
С	24°33'45.37"N	84°47'14.37"E
D	24°33'53.80"N	84°47'10.60"E

Nearest Railway	Guraru Railway Station approx 27.80km towards Northdirection			
Station				
Nearest Airport	Gaya International Airport approx 26.10 km towards North-East direction			
Nearest Highway	SH 69- 0.68km towards North-West Direction			
	NH 19- 1km towards North Direction			
Nearest Habitation	Sherghati village approx 0.50 km towards West direction			
	Bajitpur Village approx 0.20 km towards West direction			

Fig-1 Pillar coordinate map



Fig 2- 500m map



Audit Check list as per the Scope of work for The Project

S. No.	Conditions	Observation	Compliance/ Non- Compliance	Action to be taken	Remarks
Envir	onment Clearance Spe	cific and General co	nditions audit		
1.	It shall be ensured that there shall be no mining beyond 03 m or up to water Level whichever is less further meaning thereby that no mining activity in ruining stagnant water in the river in the issue of Sand Mining. The Distance from the bank of the river shall be as per the Bihar Minor Mineral and concession Rule (2014) and amendment thereof	Mining depth is limited up to 03 meter only. Safety distance has been left from the both the banks of the river as per BMMCR (2014) & as per MOEFCC guidelines.	Complied	Nil	
2.	The Project proponent shall ensure that wherever deployment of labour attracts the Mines Act, the provision thereof shall be strictly followed.	The provision of mines act is being followed strictly.	Complied	Nil	
3.	The project proponent shall prepare the plan of mining in conformity with the mine lease conditions and the Rules prescribed in this regard clearly showing the no work zone in the mine lease i.e., the distance from the	Mining work is being performed as per the approved mine plan. Safety distances from both the river bank as well as from the main channel has been left as no mining zone.	Complied	Nil	

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	bank or river to be left un-worked (Non mining area)				
4.	The project proponent shall. undertake adequate safeguard measures during, extraction of river bed material and ensure that due to this activity the hydrogeological regime of the surrounding shall not be affected.	Condition is being complied.	Complied	Nil	
5.	The project proponent will provide protective respiratory devices to workers working industy area and they shall also be provided with adequate training and information on safety and health aspects. Periodical medical examination of the workers engaged in the project shall be carried out and records maintained. For the purpose, schedule of health examination of the workers should be drawn and followed accordingly.	Protective respiratory devices such as nasal masks are being provided among working peoples. Other protective measures like hand gloves and boots are being provided to the workers. Safety trainings is being organized regularly. Periodic health check-up will be carried out and record of the same will be maintained as per conditions.	Complied	Nil	
6.	Solid waste material viz, plastic bags. glasses etc. to be generated during, project activity will be separately stored in bins and managed as per Solid Waste Management rules.	No other solid waste are being generated at the site. Little amount of solid waste like packets, pouches and food residues are being generated. Separate bins have	Complied	Nil	

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		heen provided near the mining site to collect above mentioned wastes.			
7.	Natural /customary paths used by villagers should not be obstructed at any time by the activities proposed under the project.	Condition is being followed strictly.	Complied	Nil	
8.	PP shall maintain minimum distance from Reserved <i>I</i> Protected Forests as stipulated in applicable guidelines.	No RF & PF is present nearby the site	Complied	Nil	
9.	The project proponent should implement suitable conservation measures to augment ground water resources in the area in consultation with the Ground Water Directorate, Government of BiharCentral Ground Water Board.	Condition is being followed	Complied	Nil	
10.	Effective safeguard measures should be taken to control fugitive emissions so as to ensure that RSPM (PM10 and PM 2.5) levels are within prescribed limits.	Regular water sprinkling is being done to control fugitive emissions.	Complied	Nil	
11.	Pre-placement medical examination and periodical	Condition is not being followed	Not complied	It was suggested by the audit team to conduct the periodical medical	

	carried out and	; -		examination	
	records maintained.			of the	
				workers and	
				keep it in	
				record.	
	The project	No any			
	proponent shall take	endangered fauna			
	all precautionary	has been recorded			
	measures during	in the nearby site.			
	mining operation for	If found			
12.	O 1	precautionary	NA	NA	
12.	protection of	measures will be	1471	1171	
	endangered fauna as				
	_	taken care as per			
	prescribed the	wildlife			
	Wildlife	(protection) act			
	(protection)Act.1972.	1972.			
	The project				
	proponent shall				
	obtain Consent to				
	establish and				
	Consent to Operate				
12	from the Bihar State	Condition has	Committed	NI:1	
13.	Pollution Control	been complied	Complied	Nil	
	Board, Patna and	1			
	effectively				
	implement all the				
	conditions stipulated				
	therein.				
	No river sand				
	mining be allowed				
1.4	in rainy season	Condition is being	Complied	Nil	
17.	(July, August, and	complied	Complica	1111	
	September).				
	To submit annual				
	replenishment report				
	certified by an				
	authorized agency.				
	In case the				
	replenishment is				
	lower than the				
15.	approved rate of	Condition is being	Complied	Nil	
	production, then the	complied	Compiled	. 111	
	mining activity				
	/Production levels				
	shall be decreased				
	/stopped accordingly				
	till the				
	replenishment is				
	completed.				
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16.	In river flood plain mining, a buffer of 3 meter be left from the river bank for mining.	Buffer of more than 3 meters have been left from the river banks.	Complied	Nil	
17.	In mining from agricultural field, a buffer of 3 meter be left from the adjacent field.	Condition is being complied	Complied	Nil	
18.	Mining shall be done in layers of 1 m depth to avoid ponding effect and after first layer is excavated, the process will be repeated for the next layers.	Condition is being complied	Complied	Nil	
19.	No stream should be diverted for the purpose of sand mining. No natural Water courses And/ or water resources are obstructed due to mining operations.	Condition is being complied	Complied	Nil	
20.	No labour camp be allowed in riverbed.	Condition is being complied	Complied	Nil	
21.	Mining should begin only after pucca pillar marking the boundary of lease area is erected at the cost of the lease holder after certification by the mining official and its geo coordinates are made available to the SEIAA, Bihar.	Condition has been complied, photographs are attached as Annexure.	Complied	Nil	
22.	Lease shall keep a correct account of quantity of mineral	Condition is being complied	Complied	Nil	

, 1111	Dajitpui, Telisii- Aa	illus, 21st. Guyun		, 	
	registration number				
	of vehicle, person in				
	Cargo of\ vehicle				
	and mine plan. This				
	should be produced				
	before officers of				
	Central Government				
	and State for				
	inspection.				
	Noise arising out of				
	mining and				
	processing shall be				
	abated and	Condition is being	~		
23.	controlled at source	complied	Complied	Nil	
	to	• • · · · · · · · · · · · · · · · · · ·			
	keep within				
	permissible Unit.				
	permissione onit.	Regular water			
		sprinkling is being			
	The pollution due to	done on the			
	transportation load	transportation			
	on the environment	route and mined			
24.			Complied	Nil	
24.	•	material is being	Complied	INII	
	controlled & water	covered during			
	sprinkling will also	transportation to			
	be done regularly.	control dust			
		emission.			
	Air Pollution due to	Site			
	dust, exhaust				
	emission or fumes				
	during mining and				
25.	processing phase	Condition is being	Complied	Nil	
	should be controlled	complied	- r		
	and kept in				
	permissible limits				
	specified under				
	environmental laws.				
	The mineral				
	transportation shall				
	be carried out	Condition is being			
	through covered	complied,			
	trucks only and the	photographs			
26.	Vehicles carrying		Complied	Nil	
	the mineral shall not	regarding this is	_		
	be overloaded.	attached as			
	Wheel washing	Annexures.			
	facility should				
	be installed and				
			1	1	1

	used,	, <u>-22.</u>			
27.	Restoration of Flora affected by mining should be done immediately. Twice the number of trees destroyed by mining be planted preferably of indigenous species.	No any trees has been destroyed due to mining activity. No any flora are also affected due to mining because the mining activity is being done on dry part of river bed.	Complied	Nil	
28.	No mining lease shall be granted in the forest area without forest clearance in accordance with the provisions of the Forest Conservation Act, 1980 and the rules made there under.	1980 and rules made under this.	Complied	Nil	
29.	minimum surface soil disturbance.	No surface soil will be affected because the mining area is river bed and proper safety distances has been maintained from the surface soil area.	Complied	Nil	
30.	Adequate steps to cheek soil erosion and control debris flow etc. by constructing engineering structures should be ensured.	Safety distances has been maintained from the both the river banks to avoid soil erosion.	Complied	Nil	
31.	Site clearance and tidiness shall be maintained.	Condition is being complied.	Complied	Nil	
32.	The proponent shall take all possible precautions for the protection of	Condition is being complied.	Complied	Nil	

	U 1	mas,Dist Gaya.F			
	environment and control of pollution				
33.	Junction at take-off point of approach road with main road be property developed with proper width and geometry required for safe movement of traffic by lease holder at his own cost.	Condition is being followed.	Complied	Nil	
34.	Health and safety of workers should be taken care of.	Condition is being complied.	Complied	Nil	
	Project Proponent shall appoint an Occupational Health Specialist for Regular and Periodical medical examination of the workers engaged in the Project and records maintained; also, Occupational health check-ups for workers having some ailments like BP, diabetes, habitual smokers, etc. shall be undertaken once in SLX months and necessary remedial/preventive measure taken accordingly. Recommendations of National Institute for Labour for ensuring good occupational environment for mine workers shall be adopted. The Distance from	Condition is not being complied	complied	It was suggested to the proponent to appoint occupational Health Specialist as soon as possible	
36.	N.H. Railway Line,		Complied	Nil	

, 4114	Dagripui, Telisti- Ac	anas,21st. Sayan	20.0114		
	Reservoir, Bridge shall be adopted as per Bihar	Condition is being			
	Minor Mineral and	complied.			
	concession Rule				
	(2014) and				
	amendment thereof.				
	The proponent shall				
	not conduct sand				
	mining where				
	mining, can cause				
	danger to site of				
37.	Flood protection	Condition is being	Complied	Nil	
	works, places of	complied.			
	cultural religious,				
	historical, and				
	archeological				
	importance.				
	Vehicles only with				
38.	fitness and PUC	Condition is being	Complied	Nil	
	Certificates should	complied.	1		
	be used. Project Proponent				
	shall ensure that the				
	road may not be			It was	
	damaged due to			suggested to	
•	transportation of the	Condition is not	Non	proponent to	
39.	mineralwill be as per	being complied	complied	work on this	
	IRC Guidelines with	properly	-	condition	
	respect to complying			strictly	
	with traffic				
	congestion density.				
	No stacking of sand				
40.	is allowed on road	Condition is being	Complied	Nil	
	side along national	complied.	-		
	highways The PP shall make				
	arrangement for	Condition is being			
41.	drinking Water, first	complied.	Complied	Nil	
	aid facility.	tompnou.			
	Adequate steps				
	should be taken to				
	check soil erosion				
42.	and control debris	Condition is being	Complied	Nil	
42.	flow etc. by	complied.	Complied	INII	
	constructing				
	engineering				
40	structures.		C 1: 1	NT'I	
43.	Proponent will		Complied	Nil	

V 111	VIII Bajitpur, Tensii- Aamas, Dist Gaya. Area- 30.0 Ha.					
	provide adequate sanitary facility in the form of <i>mobile</i> toilets to the labours engaged for <i>the</i> project work.	Condition is being complied.				
44.	washing of all transport vehicles should be clone inside the mining lease.	Condition is being complied.	Complied	Nil		
45.	The Proposed route for transportation should not pass-through private land. But in case is passes permission from private land owner obtained.	Condition is being complied.	Complied	Nil		
Conse	nt To Establish condit	ions audit				
1.	The proponent shall obtain 'Consent-to-Operate' under sections 21 of the Air Act, 1981 prior to commissioning of the plant from Bihar State Pollution Control Board.	Condition has been complied.	Complied	Nil		
2.	The unit shall install D.G. Set(s) with integral acoustic enclosure as per the norms of the Board, so that, it shall conform Ambient Noise Level as prescribed by the Board. Accordingly submit ANL report to the Board just	been installed	NA	NA		

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	after commissioning of the plant.				
3.	Maximum depth of sand quarrying in the river bed shall not exceed 3 meters measured from the un-mined bed level at any point of time or the water table whichever is less.	Condition is being complied.	Complied	Nil	
4.	National Highways or State Highways and shall be prohibited within 100 meters of both sides of any other bridge(s).	Condition is being complied.	Complied	Nil	
5.	No sand quarrying shall be permitted within 50 meters from any public places, i.e., cremation ghat, or any religious place etc.	Condition is being complied.	Complied	Nil	
6.	No quarrying shall be permitted within 5 meters from both banks of the river.	Condition is being complied.	Complied	Nil	
7.	Quarrying of sand shall be prohibited within 100 meters up-stream and down-stream from any dam/weir or any such similar structures.	Condition is being complied.	Complied	Nil	
8.	No quarrying shall be permitted within		Complied	Nil	

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	46 meters distance from flood control				
	embankments. The				
	quarrying shall be				
	restricted up to a	G 11.1			
	depth of 1.8 meters	Condition is being			
	within 46 meters to	complied.			
	61 meters distance				
	from the said				
	embankment and				
	shall further				
	restricted up to a				
	depth of 2.4 meters				
	within 61 meters to				
	91 meters distance				
	from the above said				
	embankment.				
	Extraction of sand				
	shall be permitted				
	only after obtaining				
	No-Objection				
	Certificate from the				
	Water Resources				
	department in case				
9.	of the rivers where	Condition is being	Complied	Nil	
	from Irrigation	complied.			
	channels are out				
	flowing.				
	Washing of vehicles				
	shall be done only				
	inside the mining				
	area.				
	Mining shall be				
10.	carried out between	Condition is being	Complied	Nil	
	6:00AM to 7:00PM.	complied.			
	Mining shall not be				
11.	carried out during	Condition is being	Complied	Nil	
11.	rainy season (i.e.,	complied.	Complied	1411	
	June to September).				
	Carrying of minerals				
	shall be done in				
12.	completely covered	Condition is being	Complied	Nil	
12.	vehicles both	complied.	Complied	1111	
	underneath and over				
	the heap.				
	Water spraying				
13.	mechanism to		Compliad	NI:1	
	control dust		Complied	Nil	
	pollution have to be	Condition is being			
		<u> </u>			

	purchased and (a)	complied.		<u> </u>	
	proof of purchase &	compiled.			
	(b) Photographs				
	have to be attached.				
14.	Carrying of minerals shall be done through a fixed route and the same shall be attached with the application.	Condition is being complied.	Complied	Nil	
15.	Proof of plantation at least 500 trees of a least 4 feet height on river-side / road- side with proper protection shall be submitted along with the application for CTO	Condition has been complied by previous client, care of plantation is being done by present proponent	NA	NA	
16.	Details of JCB/Poclain excavator fitted with GPS instrument shall be submitted along with its registration number [(a) Proof of Purchase & (b) Photographs have to be attached.]	Condition is not being complied	Non complied	It was suggested to proponent to comply this condition	
17.	Details of water tank with sprayer shall be provided with GPS along with its registration number. [(a) Proof of Purchase & (b) Photographs have to be submitted.]	Condition is not being complied	Non complied	It was suggested to proponent to comply this condition	
18.	Proof of purchase of Earmuff/protective gear 50 in numbers has to be submitted with its [(a) [(a) Proof of Purchase & (b)].	Earmuff/protective gear have been purchased.	Complied	Nil	
19.	Proof of Android-	Condition is not	Non	It was	
17.	based phone/CCTV	being complied	complied	suggested to	

Vill.- Bajitpur, Tehsil- Aamas, Dist.- Gaya. Area- 30.0 Ha.

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	(Closed Circuit			proponent to	
	Television) / PC			comply this	
	(personal Computer)			condition	
	/ internet connection				
	/power backup/				
	barcode/ QR code				
	reader, scanner,				
	check point/post has				
	been				
	procured/installed				
	like [(a) Proof of				
	Purchase & (b)				
	Photographs.				
	The unit shall have a				
	display board near				
	the site stating name				
	of unit/Industry with	Condition has			
	/Name of proprietor	been complied,			
20.	with address and ref	photographs is	Complied	Nil	
	memo no and date of	attached as	_		
	consent with its	annexure.			
	validity period				
	granted by the				
	Board.				

Drone Survey Report:

As per the scope of work we have carried out Drone surveillance of entire sand ghat and it has been found that

- ➤ Pillar demarcation has been found proper.
- ➤ Pollution controlling activity such as dust suppression and plantation is being carried out.
- ➤ No mining is being done in river active channel.
- > Safety distance has been left from the bank of the river.
- Mining is being done under allowable depth.
- > Transportation of excavated material is being done in covered trucks/tractors.
- > Transportation of sand is being done with all the safety procedures.
- ➤ No illegal sand mining has been found throughout the sand ghat.

CONCLUSION

This audit involved extensive consultation with all the persons working with or directly or indirectly associated with the mining activity, interactions with key personnel on wide range of issues related to Environmental aspects. The audit has identified several environmental friendly observations. The recommendations are also mentioned with some observations such as training conduction, occupational health officer appointment, repairing of haul roads activities. The audit team certify that the overall site is maintained well from environmental perspective. The proponent has assured to follow the compliance suggested by the audit team.

(Drone Surveillance Photographs)

Bajitpur Sand Ghat, Dist-Gaya

Created on February 15,2022

Captured on February 11, 2022

DroneDeploy



Site Photos



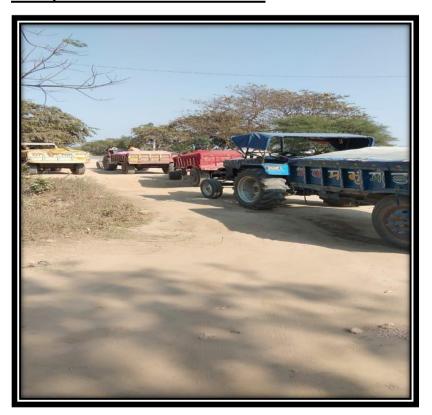
Environmental Audit Report Bajitpur Sand Ghat at Morhar River Vill.- Bajitpur, Tehsil- Aamas,Dist.- Gaya.Area- 30.0 Ha.



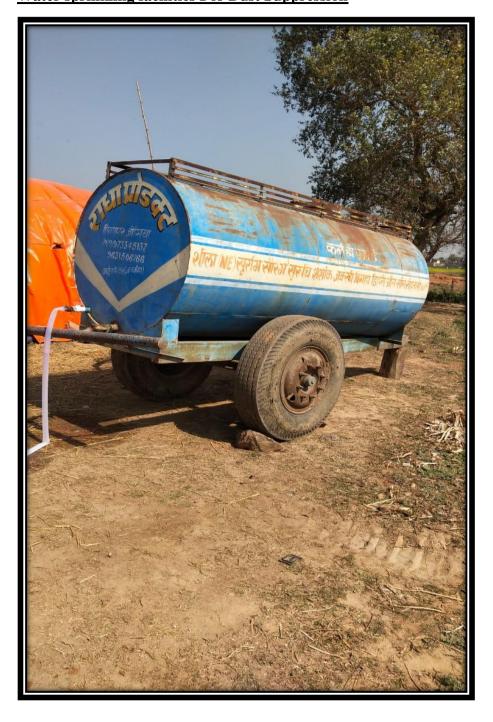




Transportation with covered vehicles



Environmental Audit Report Bajitpur Sand Ghat at Morhar River Vill.- Bajitpur, Tehsil- Aamas, Dist.- Gaya. Area- 30.0 Ha. <u>Water sprinkling facilities For Dust Suppression</u>













Green Belt



PUC Certificate

