सेन्ट्रल कोलफील्ड्स लिमिटेड
(भारत सरकार का एक उपक्रम / कोल इंडिया लि. की एक अनुषंगी कंपनी)
पंजीकृत कार्यालय : दरभंगा हाउस, राँची 834 001 (झारखण्ड)
CIN : U10200JH1956GOI000581
Fuelling Sustainable Growth
CENTRAL COALFIELDS LTD.
परियोजना पदाधिकारी कार्यालय, मगध -परियोजना मगध-संघमित्रा क्षेत्र
अवंतिका, गांव-कुंडी, पो.- सराधु, जिला.- चतरा, झारखण्ड-825321
e-mail: pomagadhms@gmail.com
Website: www.centralcoalfields.in

28/01/25

Ref No: - PO (Magadh)/192.36/2024-25/4229 Dated: - 28.01.2025

To,

The Divisional Forest Officer
Chatra South Division
Chatra

Sub: Pointwise compliance of conditions of Stage-I Clearances for 192.36 Ha Forest land of Magadh East OCP, CCL issued by MoEF&CC, Govt. Of India, vide F. No 8-27/2022-FC dated 27.05.2024 (Revised)

Ref NO: Memo NO:- 219 Dated 28.01.2025

Dear Sir,

The Pointwise compliance of conditions of Stage-I Forest Clearance for 192.36 Ha Forest land of Magadh East OCP, CCL issued by MoEF&CC, Govt. Of India, vide F. No 8-27/2022-FC dated 27.05.2024 in Chatra District of Jharkhand is being furnished below (8 copy) for kind perusal and further needful.

Compliance of Stage - I FC conditions of Magadh OCP (192.36Ha) granted vide reference no 8-27/2022-FC dated 27.05.2024

	Stage – I FC conditions	Compliance Status
	Legal status of the diverted forest land shall remain unchanged;	Magadh OCP undertakes that Legal status of the diverted forest land shall remain unchanged. Undertaking enclosed as **Annexure - 1.**
2 (i)	**Compensatory Afforestation :** The User agency shall provide suitable non-forest land equivalent to the forest land proposed to be diverted for the purpose of compensatory Afforestation. the said land shall be transferred and mutated in the name of the forest department and notified as protected forest	As per the latest guidelines issued by MoEF&CC on dt 17.12.2024 (copy enclosed as **Annexure -2**), the Central Agencies/PSUs which were granted 'In-Principle' approval stipulating CA over non-forest land before notification of Van (Samrakshan Evam Samvardhan) Amendment Rules, 2024, shall be allowed to submit compliance of 'In- Principle' approval along with CA proposal over DFL in lieu of NFL. As per the aforesaid guideline, Double degraded Forest land is now being accepted for the purpose of raising CA in lieu of Forest land to be diverted. The related Para v (a) of MoEF & CC guideline is reproduced below: - *With regards to the applicability of the provisions of the Van (Samrakshan*

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	under the provisions of Indian Forest Act, 1927 or the State specific laws;	*Evam Samvardhan) Amendment Rules, 2024 in respect of proposals of the Central Agencies/PSUs and captive coal blocks of the State PSUs which were granted 'in-principle' approval stipulating CA over non-forest land, the following clarification is given in this regard:*
(ii)	The non-forest land identified for raising Compensatory Afforestation shall be demarcated by concrete pillars of suitable size and handed over, free from all encumbrances to the State Forest Department before the Final/Stage-II approval;	*"Proposals, which were submitted by the States/UTs before notification of Van (Sanrakshan Evam Samvardhan) Amendment Rules, 2024, along with the proposal of raising CA over degraded forest land (DFL) and were granted 'in- principle approval stipulating CA over non-forest land (NFL), shall be allowed to submit compliance of in- principle approval along with CA proposal over DFL in lieu of NFL The Central Government will consider and grant final approval in such cases stipulating CA over DFL".*
(iii)	The cost of compensatory afforestation at the prevailing wage rates as per compensatory afforestation scheme and the cost of survey, demarcation and erection of permanent pillars, if required on the CA land, shall be deposited in advance with the Forest Department by the user agency. The CA will be maintained for 10 years. The scheme may include afforestation of indigenous species with appropriate provision for anticipated cost increase for works scheduled for subsequent years. The work of compensatory afforestation shall start within two years of issue of order of diversion of forest lands.	Accordingly, a demand of Rs 44,45,81,478.00/- (Rupees Forty-Fore Crores Forty-Five Lakh Eighty-One Thousand Four Hundred Seventy-Eight only), **(In which Rs 2,20,67,613.83/- is for Pillaring, & Rs 42,25,13,864.17/- for Plantation)** has been raised by DFO Chatra (S) vide letter no 38 dated 03.01.2025 for raising compensatory Afforestation (CA) over 385.00 Ha of degraded forest land in lieu of 192.36 Ha Forest land of Magadh OCP. The payment of Rs 44,45,81,478.00/- has been paid in CAMPA A/c vide UTR no. ICICR22025012207409611 dated 22.01.2025. The payment related proofs along with the demand note raised by DFO Chatra is enclosed as **Annexure - 3** Duly signed Levies format is attached for kind reference as **Annexure 10.** Further to the above, Magadh OCP, CCL undertakes to pay the deficit amount, if any, in respect of Compensatory Afforestation from the money already realized by State Forest Dept. The undertaking to this effect is attached at **Annexure-4.**
(i)	**Net Present Value**: The User Agency shall transfer the funds towards the cost of Net Present Value (NPV) of the forest land being diverted under this proposal in accordance with the MoEF&CC's guidelines dated 6.01.2022 read with guidelines dated 19.01.2022;	A total Amount of **Rs 23,63,31,572.00** (@ Rs. 12,28,590/ Ha) as NPV has been paid in respect of Magadh East OCP (192.36 Ha) The payment has been made as per the following details:

	Amount paid (In Rs.)	**RTGS UTR no.**	**Date**
1st Time NPV Payment	17,85,55,080/-	SBINR520171018000706	18.10.2017
2nd Time NPV Payment	5,77,76,492/-	ICICR22024121206706850	12.12.2024
Total Amount	Rs. 23,63,31,572.00		

The payment related proofs along with the demand note raised by DFO Chatra (S) (of 1st Time NPV Payment) is enclosed as Annexure - 5

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		The payment related proofs along with the demand note raised by DFO Chatra (S) (of 2nd Time NPV Payment) is enclosed as Annexure - 6 (Total payment of Rs 26,99,53,985.00, out of which Rs 5,77,76,492.00 is for balance NPV & Rs 21,21,77,493.00 as Penal NPV) Duly signed Levies format is attached for kind reference as **Annexure 10.**
(ii)	At the time of payment of the Net Present Value (NPV) at the present rate, the user agency shall furnish an undertaking to pay the additional amount of NPV, if so determined, as per the final decision of the Hon'ble Supreme Court of India;	Magadh OCP undertakes to pay the **additional amount of NPV, if so determined**, as per the final decision of the **Hon'ble Supreme Court of India.** Undertaking enclosed as **Annexure - 7**
4	Keeping in view the violation over 34.54 Ha of forest land, the State Govt. shall take action as per Para 1.16 of the consolidated Guidelines and Clarifications issued under Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980;	Comment of DFO Chatra (S)- Ref: letter no. 1693 dtd 19.07.2023 The land which has been broken by the User Agency is GMJJ Land, which comes under administrative control of District authority of Jharkhand govt. However, User Agency agrees to make payments of all applicable levies and implement all compliances as directed by the authorities. Para 1.16 of the consolidated Guidelines and Clarifications issued under Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980 is as under: (ii) In cases where the proposal under Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980 is under consideration and forest land is diverted before grant of FC (a) The penalty for violation shall be equal to NPV of forest land per hectare for each year of violation from the date of actual diversion as reported by the inspecting officer with maximum up to five (5) times the NPV plus 12 percent simple interest from the date of raising of such demand till the deposit is made. (b) State Government will initiate disciplinary action against the official concerned for not being able to prevent use of forest land for non-forestry purpose without prior approval of Government of India. (c) Central Government will initiate suitable action against the concerned offender. (d) User Agency responsible for violation shall be prosecuted under relevant local Act of the State and/or Central Act for unauthorized use of forest land without the permission of State authority. Total violation has been reported over 34.54 Ha. of forest land (GMJJ Land) as per IRO site inspection Report in different years. However the Use of GMJJ land mentioned in voilation was already in use by the respective tenants. Above mentioned land which are said to be voilated were already settled by the revenue department of state Govt of Jharkhand in favor of concerend tenants. DFO Chatra South has raised demand for payment of Penal NPV vide letter no 2013 dated 07.10.2024 for amount **Rs. 21,21,77,493.00 (Twenty-One Crore Twenty-One Lac Seventy-Seven Thousand Four Hundered Ninety-Three Rupees Only)** based on violation reported from IRO Ranchi. The said amount **Rs. 21,21,77,493.00 (Twenty-One Crore Twenty-One**

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		Lac Seventy-Seven Thousand Four Hundered Ninety-Three Rupees Only) has been deposited online in CAMPA account. Vide URT No ICICR22024121206706850 Dated 12.12.2024 (Total payment of Rs 26,99,53,985.00, out of which Rs 5,77,76,492.00 is for balance NPV & Rs 21.21,77,493.00 as Penal NPV) Payment details enclosed as **Annexure – 6** Duly signed Levies format is attached for kind reference as **Annexure 10.**
5	The Wildlife Management Plan duly approved by the PCCF Wildlife/ CWLW shall be implemented at the cost of user agency;	Wildlife Management Plan has been approved by PCCF-CWLW vide Order No 39; dated 29.11.2023. Accordingly Demand note was raised by DFO vide letter no 2840 Dated: 06.04.2023 Payment of **Rs 71,89,00,000.00** has been made to Jharkhand CAMPA Account No 150725887235525 vide UTR No. ICICR42024080300000879 on dt 03.08.2024 Copy of approval of WLMP Enclosed as **Annexure - 8** Copy of demand Note for implementation WLMP & its Payment details Enclosed as **Annexure – 9** Duly signed Levies format is attached for kind reference as **Annexure 10.**
6	It has been informed by the State/UA, that due to operational efficacy, 13.04 Ha area (out of 96.72 Ha already diverted forest area) for Magadh OCP is being used in the adjoining Sanghmitra project. In this regard, the User Agency shall submit a detailed proposal seeking approval for transfer of 13.04 Ha diverted forest area from Magadh OCP to Sanghmitra OCP prior to Stage – II approval;	Breakup of Forest land Falling in Magadh OCP. Forest Chatra and Latehar 1. 96.72 Ha. Already diverted vide reference no 8-38/2008-FC; dated 18th October, 2010. (Chatra District) 2. Present proposal 192.36 Ha. stage 1 granted vide reference 8-27/2022-FC dated 27th May, 2024. (Chatra District) 3. The remaining 357.75 Ha. Forest land Lies in Latehar District, for which separate proposals will be initiated due to CS/RS issue. Already diverted forest land 96.72 Ha. Is Planned in such a way that 83.04 Ha. will be utilised for Magadh and 13.04 Ha. will be utilised for Sanghmitra OCP which is under the administrative control of Same Area General Manager in CCL. With respect to Sanghmitra OCP the status:- PR of Sanghmitra OCP was approved vide Ref. No CIL:XI(D):04112:2024:31382; dated: 15th Jan. 2024. As Sanghmitra OCP mine of CCL is yet to be operationalised, transfer of area of 13.04 Ha. of 96.72 Ha. which is likely to be shared from Magadh to Sanghmitra will be done only when Sanghmitra OCP becomes operational. Therefore at that time (before starting work in forest patch of Sanghmitra OCP) the proposal seeking approval for transfer of 13.04 Ha diverted forest area from Magadh OCP to Sanghmitra OCP as per condition no. 6 will be submitted. Thus condition No 6 Complied.
7	The State Government shall upload the KML tiles of the area under diversion and the accepted area for raising compensatory afforestation in the e-Green watch portal of FSI, before handling over forest land to the user agency	To be Complied by State Forest Department

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8	All the funds received from the user agency under the project shall be transferred/deposited in CAMPA account only through **e-portal** (https://parivesh.nic.in/); Amount deposited through other mode will not be accepted as compliance of the Stage-I clearance.	All the demands raised by DFO Chatra South have been transferred/deposited in CAMPA account only, through e-portal (https://parivesh.nic.in/). (Levies CAMPA format enclosed as **Annexure - 10)**

Sl No	Particulars	Demand Raised vide	Amount Paid (RS)	UTR No	Date
1	CA	Letter no 38; dated: 03.01.2025	44,45,81,478.00	ICICR 22025012207409611	22.01.2025
2	WLMP	Letter no 2840; dated: 06.12.2023	71,89,00,000.00	ICICR 42024080300000879	03.08.2024
3	NPV	Letter no 1010; dated: 25.03.2017	17,85,55,080.00	SBINR 52017101800070615	18.10.2017
		Letter no 2389; dated: 09.12.2024	5,77,76,492.00	ICICR 22024121206706850	12.12.2024
	Total NPV	23,63,31,572			
4	Penal NPV	Letter no 2389; dated: 09.12.2024	21,21,77,493.00	ICICR 22024121206706850	12.12.2024
5	SMC	Letter no 2064; dated: 17.10.2024	3,53,20,000.00	ICICR 22024111106162260	11.11.2024
Total Amount Paid			**1,64,73,10,543.00**		

Summary of the Performa for remittance of fund in ad-hoc- CAMPA Levies form enclosed as **Annexure – 11**

9	Following activities, as per approved plan / schemes, shall be undertaken in the lease area by the User Agency under the supervision of the State Forest Department. Approved scheme/plan shall be submitted to the Ministry along with compliance of Stage-I approval:	Magadh Project CCL undertakes that all the activities in the lease area will be carried out as per the approved mining plan and Report on Soil Erosion Mitigative measure and Top Soil management Plan prepared by CMPDI. The report is enclosed as **Annexure - 12**
(i)	Mitigative measures to minimize soil erosion and choking of stream shall be implemented within a period of three year with effect from the issue of Stage- II clearance in	Undertaking Enclosed as **Annexure – 13 (i)**

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	accordance with the approved Plan in consultation with the State Forest Department.	
(ii)	Planting of adequate drought hardy plant species and sowing of seeds, in the appropriate area within the mining lease to arrest soil erosion in accordance with the approved scheme;	Undertaking Enclosed as **Annexure – 13 (ii)**
(iii)	Construction of check dams, retention /toe walls to arrest sliding down of the excavated material along the contour in accordance with the approved scheme;	Undertaking Enclosed as **Annexure – 13 (iii)**
(iv)	Stabilize the overburden dumps by appropriate grading/benching, in accordance with the approved scheme, so as to ensure that angles of repose at any given place is less than 280; and	Undertaking Enclosed as **Annexure – 13 (iv)**
(v)	No damage shall be caused to the top-soil and the user agency will follow the top soil management plan.	Undertaking Enclosed as **Annexure – 13 (v)**
10	User agency either himself or through the State Forest Department shall undertake gap planting and soil & moisture conservation activities to restock and rejuvenate the degraded open forests (having crown density less than 0.40), if any, located in the area within 100 meter from outer perimeter of the mining lease. The plan for plantation and SMC activities will be prepared and submitted to MoEF&CC before Stage-II Clearance;	As per MoEF& CC guidelines dated 7th June 2022, a demand note (0.5 % of project cost) of Rs 3.532 Crores has been raised by DFO Chatra South vide letter no 2064 dated 17.10.2024. Accordingly, Payment of 0.5% of the project cost as advance towards the cost of implementation of SMC has been deposited online in CAMPA account. vide UTR no ICICR22024111106162260 dated 11.11.2024. Copy of Demand note and Payment Proof enclosed as **Annexure - 14** Magadh Project undertakes to pay the the deficit amount, if any, in respect of Soil & moisture Conservation Plan from the money already realized i.e 0.5 % of project cost (Rs. 3,53,20,000/-) in instant case- after obtaining final approval from Competent authority in the State, prior to actual working on the Forest area. Undertaking enclosed as **Annexure - 15**.

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11	**Safety Zone Management**: Following activities, at project cost, shall be undertaken by the user agency for the management of safety zone as per relevant guidelines issued by the Ministry's guidelines:	
(i)	User agency shall ensure demarcation of safety zone (7.5 meter strip all along the inner boundary of the mining lease area), and its fencing, protection and regeneration by erecting adequate number of 6 feet high RCC boundary pillars inscribed with DGPS coordinates with barbed wire fencing and deploying adequate number of watchers under the supervision of the State Forest Department;	Magadh OCP undertakes that the demarcation of safety zone will be done (7.5 meter strip all along the inner boundary of the mining lease area), and its fencing, protection and regeneration will be done by erecting adequate number of 6 feet high RCC boundary pillars inscribed with DGPS coordinates with barbed wire fencing and deploying adequate number of watchers under the supervision of the State Forest Department. Undertaking enclosed as **Annexure - 16**
(ii)	Boundary of the safety zone of the mining lease, adjacent to habitation/roads, should be properly fenced by the user agency;	Magadh OC Project undertakes to properly fence Boundary of the safety zone of the mining lease, adjacent to habitation/roads. Undertaking enclosed as **Annexure - 17**
(iii)	Safety zone shall be maintained as green belt around mining lease and to ensure dense canopy in the area, regeneration shall be taken up in this area by the user agency at project cost under the supervision of the State Forest Department;	Magadh OC Project undertakes to maintain a safety zone as green belt around mining lease and to ensure dense canopy in the area, regeneration will be taken up in this area under the supervision of the State Forest Undertaking enclosed as **Annexure - 18**
(iv)	The State Government and the user agency shall ensure that safety zone is maintained as per the prescribed norms;	Agreed, Magadh OCP undertakes safety zone will be maintained as per the prescribed norms; Undertaking enclosed as **Annexure - 19**
12	The R&R Plan shall be implemented as per the R&R Policy of State Government in consonance with National R&R Policy, Government of India before the commencement of the project work and	The R&R Plan shall be implemented as per the approved R&R Policy of Coal India Ltd. (CIL). Copy of approved R&R plan enclosed as **Annexure - 20** Undertaking enclosed as **Annexure - 21**

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	implementation. The said R&R Plan will be monitored by the State Government/Regional Office of MoEF&CC along with indicators for monitoring and expected observable milestones;.	
13	The User Agency shall prepare a list of existing village tanks and other water bodies with GPS co-ordinates located within five km from the mine lease boundary. This list is to be duly verified by the concerned Divisional Forest Officer. The User Agency shall regularly undertake desilting of these village tanks and other water bodies so as to mitigate the impact of siltation of such tanks/water bodies. A detailed approved plan for de-silting of identified ponds and water bodies to be prepared in consultation with forest department and shall be submitted to MoEF& CC before Stage-II approval;	De-siltation Plan involving list of existing village tanks and other water bodies with GPS co-ordinates located within five kms from the mine lease boundary has been prepared in consultation with State Forest Department. The same has been duly verified by DFO, Chatra South. Copy of De-Siltation plan enclosed as **Annexure - 22** Undertaking enclosed as **Annexure - 23**
14	The user agency shall explore the possibility of translocation of maximum number of trees identified to be felled and shall ensure that any tree felling shall be done only when it is unavoidable and that too under strict supervision of the State Forest Department;	**Agreed** Magadh OCP undertakes to explore the possibility of translocation of maximum number of trees identified to be felled and shall also ensure that any tree felling shall be done only when it is unavoidable and that too under strict supervision of the State Forest Department. Also, the trees should be felled in phased manner as per the requirement in the approved Mining Plan with prior permission of concerned DFO. Undertaking enclosed as **Annexure - 24**
15	The cost of felling of trees shall be deposited by the User Agency with the State Forest Department;	**Agreed.** Magadh OCP undertakes to deposit the costs associated with tree felling as required by the State Forest Department Undertaking enclosed as **Annexure - 25**
16	The User Agency shall undertake mining in a phased manner after taking due care for reclamation of	**Agreed.** Magadh OCP undertakes that the mining operation and reclamation of mined out area will be done as per the approved Mining Plan/Mine closure Plan.

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	the mined over area. The concurrent reclamation plan as per the approved mining plan shall be executed by the User Agency from the very first year, and an annual report on implementation thereof shall be submitted to the Nodal Officer, Forest (Conservation) Act, 1980, in the concerned State Government and the concerned Regional Office of the Ministry. If it is found from the annual report that the activities indicated in the concurrent reclamation plan are not being executed by the User Agency, the Nodal Officer or the concern Addl. Principle Chief Conservator of Forests (Central) may direct that the mining activities shall remain suspended till such time, such reclamation activities area satisfactorily executed;	Undertaking enclosed as **Annexure - 26**
17	The User Agency shall comply with the Hon'ble Supreme Court order on re-grassing, and re-grass the mining area and any other areas which may have been disturbed due to mining to restore them to a condition which is fit for growth of fodder, flora, fauna, etc. in a timely manner;	**Agreed.** Magadh OCP undertakes to comply with the Hon'ble Supreme Court order on regrassing, and re-grass the mining area and any other areas which may have been disturbed due to mining to restore them to a condition which is fit for growth of fodder, flora, fauna, etc. in a timely manner; Undertaking enclosed as **Annexure - 27**
18	Period of diversion of the said forest land under this approval shall be for a period co-terminus with the period of the mining lease proposed to be granted under the Mines and Minerals (Development and Regulation) Act, 1957, as amended and the Rules framed there-under;	Agreed Undertaking enclosed as **Annexure - 28**

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19	The User Agency shall obtain the Environment Clearance as per the provisions of the Environmental (Protection) Act, 1986, if required;	Magadh OCP has been granted EC for 20 MTPA vide letter no. J-11015/865/2007-IA.II(M) dt 27.10.2008 Copy enclosed as **Annexure - 29**
20	No labour camp shall be established on the forest land and the User Agency shall provide fuels preferably alternate fuels to the labourers and the staff working at the site so as to avoid any damage and pressure on the nearby forest areas;	**Agreed** Undertaking enclosed as **Annexure - 30**
21	The boundary of the diverted forest land, mining lease and safety zone, as applicable, shall be demarcated on ground at the project cost, by erecting four feet high reinforced cement concrete pillars, each inscribed with its serial number, distance from pillar to pillar and GPS coordinates;	**Agreed** Magadh OCP Undertakes that the boundary of the diverted forest land, mining lease and safety zone, as applicable, shall be demarcated on ground at the project cost, by erecting four feet high reinforced cement concrete pillars, each inscribed with its serial number, distance from pillar to pillar and GPS coordinates; Undertaking enclosed as **Annexure - 31**
22	The layout plan of the mining plan/ proposal shall not be changed without the prior approval of the Central Government and the forest land shall not be used for any purpose other than that specified in the proposal;	**Agreed** Undertaking enclosed as **Annexure - 32**
23	The forest land proposed to be diverted shall under no circumstances be transferred to any other agency, department or person without prior approval of the Central Government;	**Agreed** Undertaking enclosed as **Annexure - 33**
24	No damage to the flora and fauna of the adjoining area shall be caused;	**Agreed** Undertaking enclosed as **Annexure - 34**
25	The user agency shall comply all the provisions of the all Acts, Rules, Regulations, Guidelines,	**Agreed** Undertaking enclosed as **Annexure - 35**

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MAGADH OCP

	Hon'ble Court Order (s) and NGT Order (s) pertaining to this project, if any, for the time being in force, as applicable to the project;	
26	The User Agency shall submit the annual self - compliance report in respect of the above stated conditions to the State Government, concerned Regional Office and to this Ministry by the end of March every year regularly;	**Agreed** Undertaking enclosed as **Annexure - 36**
27	Any other condition that the Ministry of Environment, Forests & Climate Change may stipulate from time to time in the interest of conservation, protection and development of forests & wildlife shall be carried with by the State Government and user agency;	**Agreed** Undertaking enclosed as **Annexure - 37**
28	Violation of any of these conditions will amount to violation of Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980 and action would be taken as prescribed in para 1.16 of consolidated guidelines and clarifications issued under Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980 as issued by this Ministry on dated 29.12.2023.	**Agreed** Undertaking enclosed as **Annexure - 38**

You are requested to kindly consider the compliance and forward the proposal.

Thanking you

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Yours Faithfully
Project Officer
Magadh OCP

SADALA SATYANARAYAN
PROJECT OFFICER
MAGADH OCP

सेन्ट्रल कोलफील्ड्स लिमिटेड
(भारत सरकार का एक उपक्रम / कोल इंडिया लि. की एक अनुषंगी कंपनी)
पंजीकृत कार्यालय : दरभंगा हाउस, राँची 834 001 (झारखण्ड)
CIN : U10200JH1956GOI000581
Fuelling Sustainable Growth
CENTRAL COALFIELDS LTD.
परियोजना पदाधिकारी कार्यालय, मगध -परियोजना मगध-संघमित्रा क्षेत्र
अवंतिका, गांव-कुंडी, पो.- सराधु, जिला:- चतरा, झारखण्ड-825321
e-mail: pomagadhms@gmail.com
Website: www.centralcoalfields.in

Annexure - 1

Proposal No:- FP/JH/MIN/87235/2020 Dated:-19.03.2021
File No:- 8-27/2022-FC dated 27.05.2024
Project Name:- Magadh East OCP (192.36 Ha)

Subject: - Undertaking in respect of compliance of conditions no-1 of in principal approval (Stage-I) obtained for proposal of non-forest use of 192.36 ha in favour of M/s Central Coalfields Limited for non-forestry use of 192.36 Ha of forest land for Magadh Opencast Project, Chatra South Forest Division in Chatra District of Jharkhand against the Magadh OCP.

UNDERTAKING TO CONDITION NO - 1

Magadh OCP, CCL undertakes that "Legal status of the diverted forest land shall remain unchanged."

Project Officer
Magadh Opencast Project
SADALA SATYANARAYAN
PROJECT OFFICER
MAGADH OCP

ANNEXURE-2

Government of India
Ministry of Environment, Forest and Climate Change
(Forest Conservation Division)
Indira Paryavaran Bhawan,
Aliganj, Jor Bagh Road,
New Delhi: 110003
Dated: December, 2024

To

The Addl. Chief Secretaries of Forests/Principal Secretary (Forests),
All States Governments and Union territory Administrations

Sub: Streamlining of the approval process with regards to compensatory afforestation as envisaged in the Van (Sanrakshan Evam Samvardhan) Rules, 2023 as amended on 20.09.2024 – reg.

Madam/Sir,

I am directed to refer to the above subject and toinform that based on the references received from the Ministry of Mines, and Ministry of Coal, the provisions related to raising of compensatory afforestation, as envisaged in the Van (Sanrakshan Evam Samvardhan) Rules, 2023 as amended on 20.09.2024, have been reviewed by the Ministry and after due deliberations, the Central Government, in accordance with the provisions of section 3C of the Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980 hereby issues the following clarifications:

i. Provisions of Rule 14(1) of the Van (Sanrakshan Evam Samvardhan) Rules, 2023, provides that the non-forest land identified for raising Compensatory Afforestation (CA) is to be notified as Protected Forests before final approval (Stage-II) approval is granted by the Central Government. However, in cases where non-forest land identified for CA has been transferred and mutated in favour of the State Forest Department (SFD), the Central Government may accord final approval keeping in view the fact that provisions of the Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980 become applicable on such lands being entered as forest in government record/record of rights.
ii. In such cases, referred in para (i) above, the non-forest land forest land proposed for CA, shall be notified as Protected Forest under section 29 of the Indian Forest Act, 1927 of local forest Act before handing over of forest land to the User Agency by the State Government. The Nodal Officer, after notification of such non-forest lands, shall upload a copy of said notification on the PARIVESH portal.
iii. For the purpose of rule 13(4)(a) of the States or Union territory Administrations, having forest area more than 33% of their total geographical area, concerned State Government/UT Administrationmay authorise a suitable officer to issue certificate of non-availability of the suitable non-forest land for raising CA.
iv. As per the provisions of the Van (Sanrakshan Evam Samvardhan) Amendment Rules, 2024, projects of Central Government entities/CPSU and captive coal blocks of the State PSUs are eligible for raising CA over degraded forest land which will be double in extent of the forest land being diverted. Accordingly, the State Government/UT shall not insist for providing non-forest land as CA unless in cases wherein the Central Government

23.01.25
SADALA SATYANARAYAN
PROJECT OFFICER
MAGADH OCP

Agencies/CPSUs or State Government PSUs with captive coal blocks are forthcoming to provide non-forest land available with them as CA or the State Government/UT Administration is willing to provides non-forest land on such terms and condition which is agreed by the Central Government Agencies/CPSUs or State Government PSUs in case of captive coal blocks.

v. With regards to the applicability of the provisions of the Van (Sanrakshan Evam Samvardhan) Amendment Rules, 2024 in respect of proposals of the Central Agencies/PSUs and captive coal blocks of the State PSUs which were granted 'in-principle' approval stipulating CA over non-forest land, the following clarification is given in this regard:
   a. Proposals, which were submitted by the States/UTs before notification of Van (Sanrakshan Evam Samvardhan) Amendment Rules, 2024, along with the proposal of raising CA over degraded forest land (DFL) and were granted 'in-principle' approval stipulating CA over non-forest land (NFL), shall be allowed to submit compliance of 'in-principle' approval along with CA proposal over DFL in lieu of NFL. The Central Government will consider and grant final approval in such cases stipulating CA over DFL.
   b. Proposals, which were submitted by the States/UTs along with CA proposal over non-forest land and were granted 'in-principle' approval stipulating CA over non-forest land (NFL), can also be allowed to submit compliance of 'in-principle' approval along with CA proposal over DFL provided the non-forest land proposed for CA is not transferred and mutated in favour of the State Forest Department. In such cases, the Central Government or its Regional Office, based on the request of the State/UT Government or user agency, shall amend the condition of in-principle approval to raise CA over DFL on a case to case basis and subsequently the User Agency shall submit the compliance of in-principle for the obtaining the 'final' approval.

In view of the above, the State Government and Union territory Administrations are requested to take into consideration the guidelines mentioned hereinabove while considering the proposals submitted under section 2 of the Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980.

This issues with the approval of the competent authority.

Yours faithfully,

Signed by
Charan Jeet Singh
Date: 17-12-2024 13:56:41

(Charan Jeet Singh)
Scientist 'E'

Copy to:

1. Director, PMO, South Block, New Delhi
2. Secretary, Ministry of Mines /Coal /Steel/ Power/ Railways/ MoRT&H/ Defence/MHA
3. Secretary, Ministry of Defence, Government of India
4. Principal Chief Conservator of Forests & HoFF, All States Governments and Union territory Administrations
5. Dy Director General of Forests (Central) All Regional Offices of the MoEF&CC

27.01.25
SADALA SATYANARAYAN
PROJECT OFFICER
MAGADH OCP

6. Nodal Officers, dealing with the matters related to the Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980, All States Governments and Union territory Administrations
7. Head, NIC, MoEFCC for aligning the PARIVESH 2.0 as per above

SADALA SATYANARAYAN
PROJECT OFFICER
MAGADH OCP

ANNEXURE – 3

Office of Divisional Forest Officer, Chatra South Forest Division, Chatra.

E-mail:- dfo-chatrasouth@gov.in Phone:-8987790213

Letter No.:- 39 **Date :-** 03/01/2025

To,

The Project Officer,
Magadh OCP, M-S Area CCL.

Subject:- Demand letter for depositing levy for Compensatory Afforestation against forest land diversion of 192.36 Ha of forest land for Magadh East OCP in favor of M/s Central Coalfield Limited (CCL).

Ref:- Office order संख्या–01/यो0व0–30/2020–21 दिनांक 08.08.2024 of Additional Principal Chief Conservator of Forest Development, Jharkhand, Ranchi, and Letter no. -08 dated -02.01.2025 of PCCF-Cum-ED, Nodal, Jharkhand, Ranchi, and Your letter no.- Po(Magadh)/Demand Note/2024-25/3599 Dated- 18.12.2024.

Kindly refer the letter in the reference wherein In-Principle approval has been accorded to the captioned project subject to certain conditions.

A. As per condition No.2(i) of the said letter,

"The user agency shall provide suitable non-forest land equivalent to the forest land proposed to be diverted for the purpose of compensatory afforestation. The said land shall be transferred and mutated in the name of the forest department and notified as protected forest under the provisions of India forest act, 1927 or the state specifies laws"

With reference to the above conditions and as per latest guidelines issued vide letter no-FC-11/158/2024-FC dated-17-12-2024 of MoEF&CC, GOI, para 5(i) which states :

"Proposals, which were submitted by the States/ UTs before notification of Van (Sanrakshan Evam Samvardhan) Amendment Rules, 2024, along with the proposal of raising CA over degraded forest land (DFL) and were granted 'in-principle' approval stipulating CA over non-forest land (NFL), shall be allowed to submit compliance of 'in-principle' approval along with CA proposal over DFL in lieu of NFL. The Central Government will consider and grant final approval in such cases stipulating CA over DFL".

B. In compliance of the above-mentioned condition of stage-I approval and in light of latest guideline issued by MoEF&CC, GoI, a demand note of **Rs. 44,45,81,478.00** (Forty-Four Crore Forty-Five Lakh Eighty-One Thousand Four Hundred and Seventy-Eight only) for Compensatory Afforestation over 385.00 Ha (Gross Area 491.32 Ha) of degraded forest land in lieu of diversion of 192.36 Ha of forest land in Chatra South Forest Division is being raised.

C. It is requested to deposit the above mentioned amount i.e. **Rs. 44,45,81,478.00** (Forty-Four Crore Forty-Five Lakh Eighty-One Thousand Four Hundred and Seventy-Eight Rupees only) in favor of Chatra South Forest Division in CAMPA Account. The amount should be deposited to CAMPA Fund only through e-portal (https://parivesh.nic.in) and copy of challan/receipt shall be sent to this office for records.

Sent for necessary action.

Enclosure:- Estimate Attached.

Your faithfully,

Divisional Forest Officer
Chatra South Forest Division, Chatra

27.01.25
SADALA SATYANARAYAN
PROJECT OFFICER
MAGADH OCP

ICICI Bank

Date-22-01-2025

TO WHOMSOEVER IT MAY CONCERN

This is to certify that CENTRAL COALFIELDS LIMITED has made the below mentioned payment from their current account 017505009227 with our bank:-

Sr.No.	Beneficiary Name	Amount	Beneficiary accout no	Bene IFSC	UTR	Date
1	JHARKHAND CAMPA	444581478.00	150725887235413	UBIN0996335	ICICR22025012207409611	22-01-2025

It is clarified that this information is furnished in strict confidence and without any risk and responsibility on our part or on the part of any Bank's officials in any respect more particularly either as guarantor or otherwise.

This certificate is issued at the specific request of the said customer.

Regards

ICICI Bank Limited Ranchi Branch 150

Autrorised Signatory

ICICI Bank-Ltd

Ratu Road Ranchi -834001

22-01-25

SADALA SATYANARAYAN
PROJECT OFFICER
MAGADH OCP

ICICI Bank Limited
Tower,
Modi Heights, Shop # 05 & 06
Opp. All India Radio Station,
Ranchi- 834001,
Jharkhand, India

Website www.icicibank.com
CIN.: L65190GJ1994PLC021012

Regd. Office : ICICI Bank
Near Chakli Circle,
Old Padra Road,
Vadodara 390 007, India.

AGENCY COPY

यूनियन बैंक Union Bank of India

आन्ध्रा Andhra

NEFT / RTGS CHALLAN for CAMPA Funds

Date : 21-01-2025

Agency Name.	Central Coalfields Limited
Application No.	5887235413
MoEF/SG File No.	8-27/2022-FC
Location.	JHARKHAND
Address.	DARBHANGA HOUSE, CCL, RANCHIRanchi
Amount(in Rs)	444581478/-

Amount in Words :Forty-Four Crore Forty-Five Lakh Eighty-One Thousand Four Hundred and Seventy-Eight Rupees Only

NEFT/RTGS to be made as per following details;

Beneficiary Name:	JHARKHAND CAMPA
IFSC Code:	UBIN0996335
Pay to Account No.	150725887235413 Valid only for this challan amount.
Bank Name & Address:	Union Bank Of India FCS Centre,21/1, III Floor, Jelitta Towers, Mission Road, Bengaluru-560027

- This Challan is strictly to be used for making payment to CAMPA by NEFT/RTGS only

BANK COPY

यूनियन बैंक Union Bank of India

आन्ध्रा Andhra

NEFT / RTGS CHALLAN for CAMPA Funds

Date : 21-01-2025

Agency Name.	Central Coalfields Limited
Application No.	5887235413
MoEF/SG File No.	8-27/2022-FC
Location.	JHARKHAND
Address:	DARBHANGA HOUSE, CCL, RANCHI Ranchi
Amount(in Rs)	444581478/-

Amount in Words :Forty-Four Crore Forty-Five Lakh Eighty-One Thousand Four Hundred and Seventy-Eight Rupees Only

NEFT/RTGS to be made as per following details;

Beneficiary Name:	JHARKHAND CAMPA
IFSC Code:	UBIN0996335
Pay to Account No.	150725887235413 Valid only for this challan amount.
Bank Name & Address:	Union Bank Of India FCS Centre, 21/1, III Floor, Jelitta Towers, Mission Road, Bengaluru-560027

- This Challan is strictly to be used for making payment to CAMPA by NEFT/RTGS only

Note:**After making the required payment through challan, if the payment status has not been updated even after 7 working days, then kindly mail a copy of your challan with transaction date and reference id to Email: fcsblr@unionbankofindia.bank , epurse@unionbankofindia.bank, ubin0903710@unionbankofindia.bank**

UTR No:- ICICR22025012207409611

Amount :- 44,45,81,478.00

Date :- 22.01.2025

21.01.25

SADALA SATYANARAYAN
PROJECT OFFICER
MAGADH OCP

CCL
Fuelling Sustainable Growth
CENTRAL COALFIELDS LTD.

सेन्ट्रल कोलफील्ड्स लिमिटेड
(भारत सरकार का एक उपक्रम / कोल इंडिया लि. की एक अनुषंगी कंपनी)
पंजीकृत कार्यालय : दरभंगा हाउस, राँची 834 001 (झारखण्ड)
CIN : U10200JH1956GOI000581
परियोजना पदाधिकारी कार्यालय, मगध -परियोजना मगध-संघमित्रा क्षेत्र
अवंतिका, गांव-कुंडी, पो.- सराधु, जिला:- चतरा, झारखण्ड-825321
e-mail: pomagadhms@gmail.com
Website: www.centralcoalfields.in

Annexure – 4

Proposal No:- FP/JH/MIN/87235/2020 Dated:-19.03.2021
File No:- 8-27/2022-FC dated 27.05.2024
Project Name:- Magadh East OCP (192.36 Ha)

Subject: - Undertaking in respect of compliance of conditions no-2 of in principal approval (Stage-I) obtained for proposal of non-forest use of 192.36 ha in favour of M/s Central Coalfields Limited for non-forestry use of 192.36 Ha of forest land for Magadh Opencast Project, Chatra South Forest Division in Chatra District of Jharkhand against the Magadh OCP.

UNDERTAKING TO CONDITION NO – 2

Magadh OCP, CCL undertakes to Pay the deficit amount if any in respect of CA payment from the money already realized (i.e. Rs 44,45,81,478.00/- Rupees Forty-Fore Crores Forty-Five Lakh Eighty-One Thousand Four Hundred Seventy-Eight only) which is already deposited by CCL in CAMPA Account.

27.01.25
Project Officer
Magadh Opencast Project
SADALA SATYANARAYAN
PROJECT OFFICER
MAGADH OCP

Annexure 5

कार्यालय : प्रधान मुख्य वन संरक्षक–सह–कार्यकारी निदेशक, बंजर भूमि विकास बोर्ड, झारखण्ड, राँची।

वन भवन, डोरण्डा, राँची, झारखंड, पिन–834002, Email : pccf-odnodal@gov.in

पत्रांक :– 868 दिनांक :– 23/9/24

सेवा में,

वन प्रमण्डल पदाधिकारी,
चतरा दक्षिणी वन प्रमण्डल, चतरा।

विषय :– **सी0सी0एल0 मगध परियोजना द्वारा पूर्व में जमा किए गए Advance Paid NPV राशि के सत्यापन के संबंध में।**

प्रसंग :– आपका पत्रांक 1759 दिनांक 27.08.2024

महाशय,

उपर्युक्त विषयक प्रासंगिक पत्र के संदर्भ में सूचित करना है कि भारत सरकार, पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय, नई दिल्ली के पत्रांक F.No.11-85/2016-FC दिनांक 31.03.2016 द्वारा निर्गत दिशा–निर्देश के आलोक में मेसर्स सी0सी0एल0 मगध परियोजना के द्वारा NPV मद में कुल रू० 17,85,55,080/– RTGS UTR No. SBINR52017101800070615 के माध्यम से दिनांक 18.10.2017 को जमा किया गया है, जिसे reconcile किया गया है। उक्त राशि यथा रू० 17,85,55,080/– Voucher No.- 40 dated – 18.10.2017 द्वारा कैम्पा खाता में जमा है।

अतः अनुरोध है कि मेसर्स सी0सी0एल0 मगध परियोजना में NPV मद में पूर्व की जमा राशि कुल रू० 17,85,55,080/– को घटाकर मांग पत्र निर्गत करने के क्रम में अग्रतर कार्रवाई की जाय।

विश्वासभाजन,

प्रधान मुख्य वन संरक्षक–सह–कार्यकारी निदेशक,
बंजर भूमि विकास बोर्ड, झारखण्ड, राँची।
20/09/2024

SADALA SATYANARAYAN
PROJECT OFFICER
MAGADH OCP

(97)

कार्यालय:– वन प्रमंडल पदाधिकारी, चतरा दक्षिणी वन प्रमंडल।

वन भवन चतरा– 825401 (झारखण्ड)
Ph. & Fax (0) - 06541- 222303 E-mail:- dfochatrasouth@gmail.com

पत्रांक– 1010 दिनांक– 25/03/2017

सेवा में

श्री आलोक कुमार,
उप महाप्रबंधक,
सी०सी०एल०, दरभंगा हाउस,
रांची (झारखण्ड)।

विषय:– सी०सी०एल० के मगध खुली खदान परियोजना के लीज क्षेत्र में पड़ने वाली अप्रयोजित वन भूमि 96.72 हे० के अलावे शेष वन भूमि की NPV दिनांक 31.03.2017 तक जमा करने के संबंध में।

प्रसंग:– भारत सरकार पर्यावरण वन एवं जलवायु परिवर्तन मंत्रालय नई दिल्ली का पत्र संख्या 11-599/2014 FC दिनांक 01.04.2015, इस कार्यालय का पत्रांक 206 दिनांक 25.01.2016, 1714 दिनांक 08.06.2016 एवं 2187 दिनांक 20.07.2016

महाशय,

उपर्युक्त विषयक प्रसंगाधीन पत्र के संदर्भ में सूचित करना है कि आपसे पूरे परियोजना के लीज क्षेत्र का Approved Mining Plan 1:4000, प्रगावित मौजों पर भिन्न–भिन्न भूमि को अलग–अलग रंगों से दर्शाते हुये एवं भूमि विवरणी सारांश के साथ संबंधित राजस्व पदाधिकारी/अपर समाहर्त्ता के हस्ताक्षर के साथ समर्पित करने हेतु अनुरोध किया गया था, परन्तु SO (P&P), मगध आम्रपाली क्षेत्र ने अपने पत्रांक 221 दिनांक 19.08.2016 द्वारा आधा अधूरा प्रतिवेदन समर्पित किया है जिसमें पूरी परियोजना में लीज हेतु अधिसूचित वनभूमि 80.23 हे० एवं गैर मजरूआ जंगल–झाड़ी भूमि 236.85 कुल 319.08 हे० का उल्लेख है।

ज्ञातव्य है कि उक्त परियोजना हेतु पूर्व में अधिसूचित वनभूमि 19.20 हे० एवं गैर मजरूआ जंगल–झाड़ी भूमि 77.52 हे० = 96.72 हे० हस्तानांतरित किया जा चुका है जिसका NPV की राशि 8.03 लाख रू० प्रति हे० की दर से 7,76,66,160.00 रू० कैम्पा खाता में जमा किये जाने की सूचना प्राप्त है।

प्राप्त सूचना के अनुसार इस परियोजना में बचे अवशेष अधिसूचित वनभूमि 51.03 हे० एवं गैर मजरूआ जंगल–झाड़ी 161.33 हे० कुल 222.36 हे० का NPV की राशि 8.03 लाख रू० प्रति हे० की दर से 17,85,55,080.00 रू० की मांग की जा रही है।

अतः अनुरोध है कि 17,85,55,080.00 (सतरह करोड़ पचासी लाख पच्चपन हजार अस्सी) रू० कैम्पा खाता में जमा करते हुये पावती रसीद शीघ्र इस कार्यालय में समर्पित किया जाय ताकि सरकार को प्रतिवेदित किया जा सके। यह भी सूचित करना है कि Authentication Land schedule (प्रमाणीकरण भूमि अनुसूची) कैडस्ट्रल मैप पर भूमि को भिन्न–भिन्न रंगों से दर्शाते हुये संबंधित अंचलाधिकारी/अपर समाहर्त्ता के हस्ताक्षर के साथ समर्पित करना अनिवार्य है। पूरे लीज क्षेत्र हेतु समर्पित भूमि विवरणी एवं Authentication Land schedule में भिन्नता पाई जाएगी तो ऐसी स्थिति में जंगल–झाड़ी एवं वनभूमि हेतु NPV की अतिरिक्त राशि की मांग किये जाने पर शीघ्र कैम्पा खाता में जमा करने हेतु एक बाध्यता प्रमाण–पत्र (Undertaking) भी समर्पित करना अनिवार्य है।

विश्वासभाजन

25/3/17

वन प्रमंडल पदाधिकारी,
चतरा दक्षिणी वन प्रमंडल।

25/3/17

11.12.14

SADALA SATYANARAYAN
PROJECT OFFICER
MAGADH OCP

सेन्ट्रल कोलफील्ड्स लिमिटेड
(भारत सरकार का एक उपक्रम)
(दरभंगा हाउस, राँची-834029)
CENTRAL COALFIELDS LIMITED
(Govt. of India Undertaking)
Darbhanga House, Ranchi- 834 029
फोन/Phone: (0651) 2360184फैक्स/Fax: (0651) 2360184,
वेबसाईट/Website:http://www.ccl.gov.in

Ref. No. CCL/DGM-HOD (E&F)/ 2017/ 12661-81

Date: 25.10.2017

To,
The Divisional Forest Officer
Chatra South

Sub: Payment of Rs. 17,85,55,080.00 for NPV in respect of Magadh OCP (222.36 Ha) vide RTGS UTR no. SBINRS2017101800070615 dtd. 18.10.17

Ref : Your letter no. 1010 dtd. 25.03.17

Dear Sir,

This is to inform you that on 18.10.2017 an amount of Rs. 17,85,55,080.00 (Seventeen Crores Eighty Five lakhs Fifty five thousand and Eighty rupees only) has been deposited in CAMPA account, CAF Account, Jharkhand(037100101025212), Corporation Bank, New Delhi, Block II, CGO Complex Lodi Road, New Delhi vide RTGS UTR no. SBINRS2017101800070615 from SBI, CCL Campus Ranchi (11048999027) as NPV in respect of Magadh OCP (222.36 Ha).

The payment is being made under protest.

Thanking you.

Yours faithfully,

25.10.17

DGM/HOD (E&F)
CCL, Ranchi

Encl : Copy of RTGS for Rs. 17,85,55,080.00 (Seventeen Crores Eighty Five lakhs Fifty five thousand and Eighty rupees only)as deposited in CAMPA A/C Jharkhand vide UTR no. SBINRS2017101800070615 from SBI, CCL Campus Ranchi (11048999027)

SADALA SATYANARAYAN
PROJECT OFFICER
MAGADH OCP

Copy for kind information to:-

1) The PCCF, Department of Forest, Environment & Climate Change, GOJ, Van Bhawan Ranchi
2) The PCCF cum Nodal officer , GOJ, Van Bhawan Ranchi
3) The Dy Secy., Deptt of Forest, Environment & Climate Change, GOJ, Nepal House Ranchi
4) The RCCF, Hazaribagh
5) The CF, Chatra

Copy for Kind information to :

6) The DF, CCL
7) The Dir (T/P&P), CCL
8) Ts to CMD

Copy to :

9) The GM (Magadh & Amrapali Area)
10) The Staff officer (P&P), Magadh & Amrapali Area
11) The Project Officer, Magadh Project

25.10.17

11.11.24

SADALA SATYANARAYAN
PROJECT OFFICER
MAGADH OCP

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Account Summary
Account Statements
Pending Statement

Account Statements

31-Oct-2017 [03:26 PM IST]

Account Statement for the period 18/10/2017 to 18/10/2017

Account Number	00000011048999027	Branch	CCL CAMPUS
Address	C/O SBI RANCHI BRANCH C/O SBI RANCHI BRANCH RANCHI RANCHI - 834001.	Account Type	CA-GEN-PUB OTH-NONRURAL-INR
Account Name	CENTRAL COALFIELDS LTD		
Interest Rate(% p.a.)	0.0		
Drawing Power	0.00	Balance as on 18 Oct 2017	1,07,52,848.11
MOD Balance	32,25,036.75		
CIF No.	60288731402		
IFS Code	SBIN0010400		
MICR Code	834002023		
Nomination Registered	No		

View Another Statement

Number of transactions 13

Date (Value Date)	Narration	Ref/Cheque No.	Branch Code	Debit	Credit	Balance
18-Oct-2017 (18-Oct-2017)	TO CLEARING KDT CMS CFC OUTWARD 467331	467331	10400	38,370.00		1,07,14,478.11
18-Oct-2017 (18-Oct-2017)	TO CLEARING SBI SHASHI BHUSHAN 467301	467301	10400	85,617.00		1,06,18,661.11
18-Oct-2017 (18-Oct-2017)	TO DEBIT THROUGH CHEQUE 467366	467366	10400	5,94,786.06		1,00,23,875.05
18-Oct-2017 (18-Oct-2017)	TO DEBIT THROUGH CHEQUE SBI for neft 467372	467372	10400	98,06,424.00		1,17,451.05
18-Oct-2017 (18-Oct-2017)	TRANSFER CREDIT SWEEP DEPOSIT BY TRANSFER	SWEEP FROM 37195840312	10400		3,08,254.31	4,25,705.36
18-Oct-2017 (18-Oct-2017)	TO DEBIT THROUGH CHEQUE SBI TO NEFT 467369	467369	10400	3,66,941.36		58,764.00
18-Oct-2017 (18-Oct-2017)	TRANSFER CREDIT SWEEP DEPOSIT BY TRANSFER	SWEEP FROM 37195840312	10400		25,84,525.69	26,44,289.69
18-Oct-2017 (18-Oct-2017)	TO DEBIT THROUGH CHEQUE SBI 467365	467365	10400	25,81,135.69		63,154.00
18-Oct-2017 (18-Oct-2017)	BY TRANSFER RTGS UTR NO: HDFCR52017101818565734 CCL DARBHANGA HOUSE	TRANSFER FROM 31995650441301 CCL DARBHANGA HOUSE	4430		18,70,00,000.00	19,70,63,154.00
18-Oct-2017 (18-Oct-2017)	TO DEBIT THROUGH CHEQUE SBI TR 467376	467376	10400	7,050.00		19,70,56,104.00
18-Oct-2017 (18-Oct-2017)	CHQ TRANSFER RTGS UTR NO: SBINR52017101800079015 467381 CAF AC JHARKHAND	467381 CAF AC JHARKHAND	10400	17,45,55,080.00		25,01,024.00
18-Oct-2017 (18-Oct-2017)	TO DEBIT THROUGH CHEQUE SBI 467375	467375	10400	3,38,109.88		22,62,914.12
18-Oct-2017 (18-Oct-2017)	CHEQUE WDL WITHDRAWAL TRANSFER BY CHEQUE 284330	TRANSFER FROM 11683177870 284330	4855	21,650.00		22,41,264.12

https://corp.onlinesbi.com/khata/statementbydate.htm

1/2

25.10.17

Scanned by CamScanner

SADALA SATYANARAYAN
PROJECT OFFICER
MAGADH OCP

SBI

State Bank of India
CCL Campus Branch(10400)
CCL Headquarter
Darbhanga House
Ranchi.
Pin Code : 834001

Phone: 9771450354 Email : sbi.10400@sbi.co.in

TO WHOM IT MAY CONCERN

Date 06/08/2024

SL NO	BENEFICIARY NAME	AMOUNT	BENEFICIARY A/C NO	BENEFICARY IFSC	UTR	DATE OF TXN
1	CAMPA ACCOUNT CAF JHARJHAND	178,55,5080/-	37100101025212	CORP0000371	SBINR5201710 1800070615	18/10/2017

This is to certify that RTGS of Rs. 17,85,55,080(Rs.Seventeen crore eighty five lakh fifty five thousand eighty only) made in favour of Ad Hoc Campa CAF account jharkhand (037100101025212), Corporation Bank , new Delhi block 2, CGO complex Lodi Road new delhi by debit account no Central Coalfield Limited Ltd Ranchi A/c no 11048999027 on 18/10/2017 vide RTGS no SBINR52017101800070615 , IFSC Code CORP 0000371.

BRANCH MANAGER
SBI CCL CAMPUS

SADALA SATYANARAYAN
PROJECT OFFICER
MAGADH OCP

Annexure 6

Office of Divisional Forest Officer,
Chatra South Forest Division, Chatra
E-mail : dfo-chatrasouth@gov.in Phone : 8987790213

Letter No. 2389 Date : 09/12/2024

To,

The Project officer,
Magadh OCP, Tandwa, Chatra.

Subject :- In-Principle (Stage-I) approval of Central Government under Forest (Conservation) Act. 1980 for diversion of 192.36 of Forest land in favour of CCL for Magadh OCP in Chatra South Forest Division in Chatra District of Jharkhand state reg.

Ref. :- Your letter No. 1256 dated 01.07.2024 and Letter No No. 868 dated 23.09.2024 of PCCF, ED, Jharkhand, Letter No 2013 dated 07.10.2024 of this office.

Sir,

Please refer the letter captioned, wherein, a demand of Rs. **26,99,53,985.00 (Twenty-Six Crore Ninenty-Nine Lac Fifty-Three Thousand Nine Hundred Eighty-Five rupees only)** towards cost of NPV and Penal NPV was raised. However, a correction was sought by office of Nodal officer, ED Jharkhand regarding densiy of forest land to be diverted. A fresh demand, after making necessary corrections, is hereby, made.

It was reported that in compliance of circular no. 11-599/2024-FC dated 01.04.2015 Magadh OCP, CCL had already diposited an amount of Rs. 17,85,55,080.00 (Seventeen Crore Eighty-Five Lac Fifty-Five Thousand and Eighty rupee) vide RTGS transection no. SBINR52017101800070615 dated 18.10.2017 regarding advance payment of NPV demanded against diversion of 192.36 ha of forest land. The compensatory levies so deposited by CCL was verified by the office of PCCF-cum-ED, Nodal, Jharkhand vide his letter no 868 dated 23-09-2024. Accordingly, after adjusting the advance payment made by CCL, a fresh demand for payment of balance amount is being raised as per conditions imposed in In-Principle (Stage-I) approval of Central Government under Forest (Conservation) Act, 1980 for diversion of 192.36 of Forest land in favour of CCL for Magadh OCP:

A. **NPV Demand: As per Condition No 3 (i) of In-principle approval**

- Density of forest proposed for diversion :- 0.6
- Eco-class :-3

Hence, applicable rate of NPV per ha. as per prevailing rates: Rs. 12,28,590.00 (Twelve Lakhs Twenty-Eight Thousand Five Hundred Ninety Rupees).

Total for 192.36 Ha. (1228590.00 lakh/ ha x 192.36 ha) = Rs. 23,63,31,572.4 or 23,63,31,572.00 (Twenty-three Crore Sixty-three lac Thirty-one Thousant Five Hundred Seventy-Two only)

Also, it was requested to adjust the already paid amount for NPV Rs.17,85,55,080.00 (Seventeen Crore Eighty-Five Lac Fifty-Five Thousand and Eighty rupee).

Hence, after adjusting already paid NPV amount (23,63,31,572.00 - 17,85,55,080.00) = Rs. **5,77,76,492.00** (Five Crores Seventy-seven Lac Seventy-six thousand Four Hundred Ninty-two Rupees).

11.12.24
SADALA SATYANARAYAN
PROJECT OFFICER
MAGADH OCP

B. Penal NPV Demand: As per Condition No 4 & 28 of In-principle approval

As per Chapter 1 General Clarifications And Court Orders of Van (Sanrakshan Evam Samvardhan) Rules, 2023

"The penalty for violation shall be equal to NPV of forest land per hectare for each year of violation from the date of actual diversion as reported by the inspecting officer with maximum up to five (5) times the NPV plus 12 percent simple interest from the date of raising of such demand till the deposit is made.

Total violation has been reported over 34.54 Ha. of forest land. As per condition no. penal NPV is calculated below :-

i. Calculation for 5 times NPV of violation Area

Penal NPV demand as per IRO Site inspection Report						
Sl No (a)	**Year of Violation (b)**	**Time in Year (c)**	**Area in Ha (d)**	**Present NPV Rate (e)**	**Multiplication factor (f)**	**Amount in Rs (g=d*e*f)**
1	**up to 19.11.2016**	10	27.21	1228590	5	167149669.50
2	**19.11.2016 to 07.05.2019**	9	5.59			34339090.50
3	**After 07.05.2019**	6	1.74			10688733.00
Total			**34.54**			**212177493.00**

So, the total Penal NPV Amount is Rs 21,21,77,493.00 (Twenty-One Crore Twenty-One Lac Seventy-Seven Thousand Four Hundered Ninety-Three Rupees Only).

ii. Demand Note for 12 percent simple interest from the date of raising of this demand till the deposit is made will be issued after submission of Payment details by the user agency.

Total of A + B = 5,77,76,492.00 (NPV) + 21,21,77,493.00 (Penal NPV)
= **26,99,53,985.00**

Therefore, it is requested to deposit the the remaining amount i.e Rs. **26,99,53,985.00 (Twenty-Six Crore Ninenty-Nine Lac Fifty-Three Thousand Nine Hundred Eighty-Five rupees only)** in CAMPA Account. The amount should be deposited to CAMPA fund only through e-portal (https://parivesh.nic.in) against 192.36 ha of forest land in favor of Chatra South Forest Division along with and undertaking for depositing additional amount of NPV, if so determined, as per final approval of the Hon'ble Supreme Court of India, as mandated under Condition no 3 (ii) of In-principle approval.

Sent for necessary action.

Your Faithfully

09/12/24

Divisional Forest Officer,
Chatra South Forest Division, Chatra

16.12.24
SADALA SATYANARAYAN
PROJECT OFFICER
MAGADH OCP

ICICI Bank

Date-12-12-2024

TO WHOMSOEVER IT MAY CONCERN

This is to certify that CENTRAL COALFIELDS LIMITED has made the below mentioned payment from their current account 017505009227 with our bank:-

Sr. No.	Beneficiary Name	Amount	Beneficiary accout no	Bene IFSC	UTR	Date
1	JHARKHAND CAMPA	26,99,53,985.00	150725887235221	UBIN0996335	ICICR22024121206706850	12-12-2024

It is clarified that this information is furnished in strict confidence and without any risk and responsibility on our part or on the part of any Bank's officials in any respect more particularly either as guarantor or otherwise.

This certificate is issued at the specific request of the said customer.

Regards

ICICI Bank Limited ★ Ratu Road, Ranchi ★ 150

Autrorised Signatory

ICICI Bank-Ltd

Ratu Road Ranchi -834001

SADALA SATYANARAYAN
PROJECT OFFICER
MAGADH OCP

AGENCY COPY

यूनियन बैंक Union Bank of India

NEFT / RTGS CHALLAN for CAMPA Funds

Date : 10-12-2024

Agency Name.	Central Coalfields Limited
Application No.	5887235221
MoEF/SG File No.	8-27/2022-FC
Location.	JHARKHAND
Address.	DARBHANGA HOUSE, CCL, RANCHIRanchi
Amount(in Rs)	269953985/-

Amount in Words :Twenty-Six Crore Ninety-Nine Lakh Fifty-Three Thousand Nine Hundred and Eighty-Five Rupees Only

NEFT/RTGS to be made as per following details;

Beneficiary Name:	JHARKHAND CAMPA
IFSC Code:	UBIN0996335
Pay to Account No.	150725887235221 Valid only for this challan amount.
Bank Name & Address:	Union Bank Of India FCS Centre,21/1, III Floor, Jelitta Towers, Mission Road, Bengaluru-560027

- This Challan is strictly to be used for making payment to CAMPA by NEFT/RTGS only

BANK COPY

यूनियन बैंक Union Bank of India

NEFT / RTGS CHALLAN for CAMPA Funds

Date : 10-12-2024

Agency Name.	Central Coalfields Limited
Application No.	5887235221
MoEF/SG File No.	8-27/2022-FC
Location.	JHARKHAND
Address:	DARBHANGA HOUSE, CCL, RANCHI Ranchi
Amount(in Rs)	269953985/-

Amount in Words :Twenty-Six Crore Ninety-Nine Lakh Fifty-Three Thousand Nine Hundred and Eighty-Five Rupees Only

NEFT/RTGS to be made as per following details;

Beneficiary Name:	JHARKHAND CAMPA
IFSC Code:	UBIN0996335
Pay to Account No.	150725887235221 Valid only for this challan amount.
Bank Name & Address:	Union Bank Of India FCS Centre, 21/1, III Floor, Jelitta Towers, Mission Road, Bengaluru-560027

- This Challan is strictly to be used for making payment to CAMPA by NEFT/RTGS only

Note:**After making the required payment through challan, if the payment status has not been updated even after 7 working days, then kindly mail a copy of your challan with transaction date and reference id to Email: fcsblr@unionbankofindia.bank , epurse@unionbankofindia.bank, ubin0903710@unionbankofindia.bank**

UTR No.:- ICICR22024121206706850

Amount :- 269953985/-

Date :- 12/12/2024

12.12.24

SADALA SATYANARAYAN
PROJECT OFFICER
MAGADH OCP

CCL
Fuelling Sustainable Growth
CENTRAL COALFIELDS LTD.

सेन्ट्रल कोलफील्ड्स लिमिटेड
(भारत सरकार का एक उपक्रम / कोल इंडिया लि. की एक अनुषंगी कंपनी)
पंजीकृत कार्यालय : दरभंगा हाउस, राँची 834 001 (झारखण्ड)
CIN : U10200JH1956GOI000581
परियोजना पदाधिकारी कार्यालय, मगध -परियोजना मगध-संघमित्रा क्षेत्र
अवंतिका, गांव-कुंडी, पो.- सराधु, जिला: चतरा, झारखण्ड-825321
e-mail: pomagadhms@gmail.com
Website: www.centralcoalfields.in

Annexure – 7

Proposal No:- FP/JH/MIN/87235/2020 Dated:-19.03.2021
File No:- 8-27/2022-FC dated 27.05.2024
Project Name:- Magadh East OCP (192.36 Ha)

Subject: - Undertaking in respect of compliance of conditions no-3(ii) of in principal approval (Stage-I) obtained for proposal of non-forest use of 192.36 ha in favour of M/s Central Coalfields Limited for non-forestry use of 192.36 Ha of forest land for Magadh Opencast Project, Chatra South Forest Division in Chatra District of Jharkhand against the Magadh OCP.

UNDERTAKING TO CONDITION NO - 3(ii)

Magadh OCP, CCL undertakes to pay the additional amount of NPV, if so determined, as per the final decision of the Hon'ble Supreme Court of India.

Project Officer
Magadh Opencast Project

SADALA SATYANARAYAN
PROJECT OFFICER
MAGADH OCP

Office of the Principal Chief Conservator of Forests,
Wildlife & Chief Wildlife Warden, Jharkhand.
Van Bhawan, Doranda, Ranchi-834002
Email : pccf-wildlife@gov.in,Phone No. 0651-2481744

LiFE Lifestyle for Environment

Office Order No...39..... Date...29/11/2023

Sanction Order of the combined Site-Specific Wildlife Management Plan with reference to (i) Diversion of 96.72 ha of forest land for Magadh OCP in Rajhara area in favour of M/s Central Coalfields Limited (CCL), presently in Chatra South Forest Division in Chatra district of Jharkhand.

AND

(ii) Proposed Diversion of 192.36 ha of forest land for Magadh OCP Phase -2 in favour of M/s Central Coalfields Limited (CCL), in Chatra South Forest Division in Chatra district of Jharkhand.

The instant Site-Specific Wildlife Management Plan (referred to as "the Plan" here in after) has been submitted by M/s. **Central Coalfields Limited (CCL)** (referred to as "the User Agency or M/s CCL ") in pursuance of the following conditions/ Terms of Reference laid by MoEF&CC under item no 18 of Stage-II vide letter no F.No. 8-38/2008-FC dated 18.10.2010 for diversion of 96.72 Ha of forest land under Magadh OCP in Rajhara area in favour of M/s Central Coalfields Limited (CCL), presently in Chatra South Forest Division in Chatra district of Jharkhand.

The aforesaid Terms of Reference laid by the Central Government reads as follows:

Condition no 18- *"The User Agency to bear cost of implementation of conservation plan to be prepared in consultation with the CWLW of the state for the Hazaribagh National Park and its buffer zone adjoining CCL mining zone"*

As per the report submitted by Regional Chief Conservator of Forests, Hazaribagh, vide his office letter no. 1766 dated 18.07.2023 , the User Agency or M/s CCL submitted proposal for Magadh OCP Phase-2 to Government Of India for diversion of remaining 192.36 ha forest land under Chatra South Forest Division . With reference to this diversion proposal MoEF & CC Govt of India raised queries on 14 points vide their letter no. F.No. 8-27/2022 FC dated 28.04.2023, out of which following queries were related to preparation and implementation of Wildlife Management Plan by User Agency –

Query no. vii – *The undertaking to bear the cost of of implementation of Wildlife Management Plan has not been submitted by the user agency which shall be provided.*

Query no. xi – *As per the information received, the condition no 18 of the Stage-II approval dated 18.10.2010 for diversion of 96.72 ha forest land has not been complied, which needs justification. Moreover, a copy of Wildlife Management Plan approved by the CWLW shall be submitted.*

Query no. xiii –*The State Government shall furnish details of steps taken by the State Forest Department to rectify the lapses happened in the past regarding the implementation of WLMP of 96.72 ha proposal in the past.*

SADALA SATYANARAYAN
PROJECT OFFICER
MAGADH OCP

In compliance of the condition laid by MoEF&CC under item no 18 of Stage-II vide letter no F.No. 8-38/2008-FC dated 18.10.2010 for diversion of 96.72 ha of forest land under Magadh OCP in Rajhara area and query raised with reference to diversion of remaining 192.36 ha forest land under Chatra South Forest Division. vide their letter no. F.No. 8-27/2022 FC dated 28.04.2023, the User Agency M/s Central Coalfields Limited (CCL) submitted a combined Site Specific Wildlife Management Plan for both diversion of forest land proposals of Magadh project prepared in consultation with Divisional Forest Officer, Chatra South Forest Division and RCCF Hazaribagh for forest land involved in both the proposals (96.72 ha + 192.36 ha. Total - 289.08 ha) falling in Chatra district, as the impact area of aforesaid both the proposals is same.

In the above stated background, the Regional Chief Conservator of Forests. Hazaribagh (RCCF. Hazaribagh) vide his letter no. 1766 dated 18.07.2023 has submitted the Plan to the office of the undersigned for its due sanction.

In order to examine the plan prescriptions a communication was issued to the Regional Chief Conservator of Forests, Hazaribagh, vide this office letter no. 1295 dated 13.10.2023. to arrange a Power-Point Presentation of the plan on 17-10-2023 in the Office chamber of the undersigned. The presentation was made by the Project proponent in the presence of RCCF. Hazaribagh, Chief Conservator of Forests Wildlife, Ranchi, DFO Chatra South Forest Division. DFO Hazribagh Wildlife Division, Sri Ranjan Samanta, CM (Env.) CCL-HR. Sri Nirpendra Nath, General Manager, Magadh Sanghmitra Area. CCL. Sri Mrigank Shekhar. Asstt. Manager (Env.) Magadh OCP, Rabeya Naaz, Dy. Mgr.(Env.). CCL Hq. and Sri Hemant Kumar. Consultant, SIDHA.

The cost of the proposed 10 year Site Specific Wildlife Management Plan with respect to the activities to be carried out by DFO, Chatra South Forest Division has been estimated to be Rs. 4836.34 lakh and for DFO Hazaribagh Wildlife Division estimated to be Rs. 2352.66 lakh. The summary of the proposed interventions (component wise) under the Plan with the objective of conservation of forest and wildlife resources as also to mitigate the impacts of mining on forests and wildlife is as follows:

Summary of the Wildlife Management Plan for Magadh OCP

		Proposed budget in lakh INR		
Sl no	**Component**	**Chatra South Div**	**Hazaribag Wildlife Div**	**Total**
1	Biodiversity Enhancement	1919.48	856.00	2775.48
2	Measures for forest protection, anti-depredation and wildlife protection	316.50	0.00	316.50
3	Capacity building and procurement of anti-depredation items	226.65	477.25	703.90
4	Fire prevention and protection of habitat	251.55	140.50	392.05
5	Capacity building to local people in fringe villages	291.00	122.00	413.00
6	Capacity building of forest department for implementing. monitoring and supervision of plan	386.00	334.80	720.80
7	GIS and remote sensing for implementation and monitoring.	121.00	0.00	121.00

11.12.23

SADALA SATYANARAYAN
PROJECT OFFICER
MAGADH OCP

8	Awareness promotion about Medicinal Plants and protection of endangered species.	318.10	30.00	348.10
9	Corpus Fund	100.00	0.00	100.00
10	Contingency amount	100.00	0.00	100.00
11	Cost Escalation @20%	806.06	392.11	1198.17
	Grand Total:-	**4836.34**	**2352.66**	**7189.00**

The Plan with a total financial outlay of Rs. 7189.00 Lakh extends over a period of 10 years from the first year of implementation (Year 2023-24 to 2032-33; tentatively) shall be utilized by the Forest Department through the DFO, Chatra South Forest Division and Hazaribagh Wildlife Division in accordance with the Plan prescriptions. Amount of Rs 7189.00 Lakhs of SSWMP shall be deposited by the User Agency.

Considering the proposals under the plan, sanction is hereby accorded to the instant Plan subject to the following conditions:

(i) That the User Agency shall ensure that its officials/contractors and the work force engaged into mining and allied operations under the Project shall not commit or abet any forest/wildlife offence in their area of operation. They will also promptly report any forest/wildlife offence in the area to the nearest forest office/official. Further, they will extend their full cooperation to the forest officials in control/mitigation of any incident, natural or man -made, detrimental to forest and wildlife in their area of operation.

(ii) ***That the total amount of Rs 7189.00 lakh shall be deposited by the User Agency into CAMPA account under the relevant head/sub-head and shall be utilized by the State Forest Department through the DFO,*** **Chatra South Forest Division/ DFO Hazaribagh Wildlife Division,** ***as delineated under the Plan, strictly in accordance with the prevailing norms under the Jharkhand Forest Department.***

(iii) That as regards, the funds earmarked against activities to be undertaken by the State Forest Department, DFO, Chatra South Forest Division/ DFO Hazaribagh Wildlife Division shall prepare a detailed Annual Plan of Operations (APO) in the beginning of every financial year in respect of the instant Plan following all the rules, regulations, Schedule of Rates etc. issued from time to time by the State Government/ Forest Department. Regional Chief Conservator of Forests, Hazaribagh/ Chief Conservator of Forests, Wildlife, Ranchi shall supervise & closely monitor the progress of the activities undertaken by Divisional Forest Officer, Chatra South Forest Division / Hazaribagh Wildlife Division as per the approved APO & funds released under CAMPA.

(iv) That the Conservator of Forests, Chatra Circle shall supervise all the activities as per directions issued by the Forest Department from time to time.

(v) That the DFO, Chatra South Forest Division / DFO Hazaribagh Wildlife Division shall carry out the activities under the Plan strictly as per the duly sanctioned APO.

(vi) That the DFO, Chatra South Division / DFO Hazaribagh Wildlife Division shall ensure that no violation of duly sanctioned Working Plan of Chatra South Forest Division/Management Plan of Wildlife Sanctuary takes place during implementation of any of the activities involved in this plan over notified and demarcated forest land.

SADALA SATYANARAYAN
PROJECT OFFICER
MAGADH OCP.

(vii) That at least one year before the expiry of the instant Plan the User Agency shall formulate and submit to the Forest Department another plan in continuation of the instant plan for next 10 years. The impact of implementation of this Plan shall be evaluated by the competent authority.

(viii) That the instant Plan is dynamic and may be revisited after every 2 years and a revised plan may be formulated as per need of the project impacted area and convenience of the implementing agencies. The revised plan, if any, shall be put up before the Principal Chief Conservator of Forests, Wildlife & Chief Wildlife Warden, Jharkhand for its due approval.

(ix) That though adequate provisions have been made towards cost escalation in the plan viz. increase in wage rate/ material cost etc., yet the User Agency shall submit an undertaking to the Divisional Forest Officer, Chatra South Forest Division to the effect that they will deposit extra cost of the plan beyond the cost escalation provision owing to increase in wage rate etc. in due course of time as well as consequent upon revision in the plan, if any, as and when given effect to by the competent authority.

Sd -
Principal Chief Conservator of Forests
Wildlife and Chief Wildlife Warden, Jharkhand

Memo No. **Dated:**

Copy forwarded to Deputy Director General of Forests (Central), Ministry of Environment, Forests and Climate Change, Integrated Regional Office, Harmu Housing Colony, Ranchi [E-mail: ro.ranchi-mef@gov.in] for information and necessary action.

Sd -
Principal Chief Conservator of Forests
Wildlife and Chief Wildlife Warden, Jharkhand

Memo No. **Dated:**

Copy forwarded to Additional Chief Secretary, Department of Forests, Environment and Climate Change, Govt. of Jharkhand Ranchi/ Principal Chief Conservator of Forests, Jharkhand, Ranchi/ Principal Chief Conservator of Forests-cum-Executive Director, Wasteland Development Board, Jharkhand, Ranchi for Information.

Sd -
Principal Chief Conservator of Forests
Wildlife and Chief Wildlife Warden, Jharkhand

Memo No. **Dated:**

Copy forwarded to Additional Principal Chief Conservator of Forests, CAMPA, Jharkhand, Ranchi with a copy of plan for Information and necessary action.

Sd -
Principal Chief Conservator of Forests
Wildlife and Chief Wildlife Warden, Jharkhand

D:\ganchi\Magadh OCP Phase II 29-11-2023

SADALA SATYANARAYAN
PROJECT OFFICER
MAGADH OCP

Memo No. **Dated:**

Copy forwarded to Regional Chief Conservator of Forests, Hazaribagh/ Chief Conservator of Forests, Wildlife, Jharkhand, Ranchi/ Conservator of Forests, Chatra Circle/ Divisional Forest Officer, Chatra South Forest Division/ Divisional Forest Officer, Hazaribagh Wildlife Division for information and necessary action.

Sd/-
Principal Chief Conservator of Forests
Wildlife and Chief Wildlife Warden, Jharkhand

Memo No. 1473 **Dated:** 29/11/2023

Copy forwarded to Sri Nirpendra Nath, General Manager, Magadh OCP, Magadh Sanghmitra Area, CCL [E-mail: gmmgsccl@gmail.com/ pomagadhms@gmail.com for information and necessary action.

Principal Chief Conservator of Forests
Wildlife and Chief Wildlife Warden, Jharkhand

29/11/23

SADALA SATYANARAYAN
PROJECT OFFICER
MAGADH OCP

Annexure 9

कार्यालय : वन प्रमण्डल पदाधिकारी, चतरा दक्षिणी वन प्रमण्डल, चतरा।
वन भवन, चतरा – 825401
E-mail : dfo-chatrasouth@gov.in Phone : 8987790213

पत्रांक - 2840 दिनांक : 06/12/2023

सेवा में,

श्री नृपेन्द्र नाथ,
परियोजना पदाधिकारी,
मगध ओ. सी. पी., डाक बंगला बिल्डिंग, टण्डवा,
जिला – चतरा।

विषय :– मगध ओ. सी. परियोजना हेतु भारत सरकार, पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय, नई दिल्ली द्वारा पत्रांक F. No. 8-38/2008 FC दिनांक 18.10.2010 द्वारा प्रदत्त अंतिम स्वीकृति के शर्त सं. 18 के अनुपालन हेतु राशि की मांग के संबंध में।

महाशय,

उपरोक्त विषयक के संबंध में सूचित करना है कि मगध ओ. सी. परियोजना हेतु कुल 96.72 हे. वनभूमि के अपयोजन हेतु अंतिम स्वीकृति भारत सरकार, पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय, नई दिल्ली द्वारा उनके पत्रांक F. No. 8-38/2008 FC दिनांक 18.10.2010 द्वारा कतिपय शर्तों के अधीन प्रदान की गई थी। जिसमें शर्त सं. 18 के अनुसार प्रयोक्ता अभिकरण को सी. सी. एल. खदान परियोजना क्षेत्र एवं इसक बफर क्षेत्र एवं हजारीबाग नेशनल पार्क क्षेत्र में Wildlife management Plan (Conservation Plan) के कियान्वयन हेतु राशि को उपलब्ध कराना था। चूँकि प्रयोक्ता अभिकरण द्वारा वर्तमान तिथि तक उपरोक्त शर्त का अनुपालन नहीं किया गया था, मगध ओ. सी. परियोजना के पूर्वी भाग हेतु कुल 192.36 हे. वनभूमि अपयोजन प्रस्ताव के प्रोसेसिंग के कम में पूर्व में अपयोजित 96.72 हे. वनभूमि हेतु तैयार की जाने वाली Wildlife management Plan (Conservation Plan) को भी ध्यान में रखते हुए सम्पूर्ण खदान क्षेत्र (96.72 हे. + 192.36 हे. = 289.08 हे.) का समेकित Wildlife management Plan (Conservation Plan) तैयार किया गया है, जिसकी स्वीकृति प्रधान मुख्य वन संरक्षक, वन्यप्राणी एवं मुख्य वन्यप्राणी प्रतिपालक, झारखण्ड, राँची द्वारा उनके ज्ञापांक 1473 दिनांक 29.11.2023 द्वारा इस कार्यालय को प्राप्त हुई है (प्रति संलग्न)।

उपरोक्त Wildlife management Plan (Conservation Plan) में mitigative measures के लिए चतरा दक्षिणी प्रमण्डल एवं हजारीबाग वन्यप्राणी प्रमण्डल हेतु कमशः 4836.34 लाख एवं 2352.66 लाख, कुल 7189.00 लाख की राशि का प्रावधान किया गया है। अनुरोध है कि दोनों वन प्रमण्डलों हेतु स्वीकृत कुल राशि 7189.00 लाख रूपये कैम्पा खाता में ऑन लाईन ई–पोर्टल (https://parivesh.nic.in) के माध्यम से जमा करते हुए पावती रसीद इस कार्यालय में समर्पित करने की कृपा करें।

आवश्यक कार्रवाई हेतु प्रेषित।

अनुलग्नक : यथोक्त।

विश्वासभाजन
06/12/2023
वन प्रमण्डल पदाधिकारी
चतरा दक्षिणी वन प्रमण्डल, चतरा।

SADALA SATYANARAYAN
PROJECT OFFICER
MAGADH OCP

ICICI Bank

Date – August 03, 2024

TO WHOMSOEVER IT MAY CONCERN

This is to certify that Central Coalfields Ltd has made the below mentioned payment from their Current Account maintained with Our Bank-

Sl No.	Beneficiary Name	Amount	Beneficiary A/c no	Bene IFSC	UTR	Date of Transaction
1	JHARKHAND CAMPA	71,89,00,000.00	150725887235525	UBIN0996335	ICICR42024080300000879	03-08-2024

It is clarified that this information is furnished in strict confidence and without any risk and responsibility on our part or on the part of any Bank's officials in any respect more particularly either as guarantor or otherwise.

This certificate is issued at the specific request of the said customer.

Regards,

Authorized Signatory
ICICI Bank Ltd
Ratu Road Ranchi – 834001

11.12.24

SADALA SATYANARAYAN
PROJECT OFFICER
MAGADH OCP

ICICI Bank Limited
Modi Heights, Shop # 05 & 06
Opp. All India Radio Station,
Ranchi- 834001,
Jharkhand, India

Website www.icicibank.com
CIN.: L65190GJ1994PLC021012

Regd. Office : ICICI Bank Tower,
Near Chakli Circle,
Old Padra Road,
Vadodara 390 007, India.

NEFT RTGS CHALLAN

AGENCY COPY

यूनियन बैंक Union Bank

NEFT / RTGS CHALLAN for CAMPA Funds

Date : 02-08-2024

Agency Name.	Central Coalfields Limited
Application No.	5887235525
MoEF/SG File No.	8-27/2022-FC
Location.	JHARKHAND
Address	DARBHANGA HOUSE, CCL, RANCHIRanchi
Amount(in Rs)	718900000/-

Amount in Words :Seventy-One Crore Eighty-Nine Lakh Rupees Only

NEFT/RTGS to be made as per following details;

Beneficiary Name:	JHARKHAND CAMPA
IFSC Code:	UBIN0996335
Pay to Account No.	150725887235525 Valid only for this challan amount.
Bank Name & Address:	Union Bank Of India FCS Centre,21/1, III Floor, Jelitta Towers, Mission Road, Bengaluru-560027

- This Challan is strictly to be used for making payment to CAMPA by NEFT/RTGS only

BANK COPY

यूनियन बैंक Union Bank

NEFT / RTGS CHALLAN for CAMPA Funds

Date : 02-08-2024

Agency Name.	Central Coalfields Limited
Application No.	5887235525
MoEF/SG File No.	8-27/2022-FC
Location.	JHARKHAND
Address:	DARBHANGA HOUSE, CCL, RANCHI Ranchi
Amount(in Rs)	718900000/-

Amount in Words Seventy-One Crore Eighty-Nine Lakh Rupees Only

NEFT/RTGS to be made as per following details;

Beneficiary Name:	JHARKHAND CAMPA
IFSC Code:	UBIN0996335
Pay to Account No.	150725887235525 Valid only for this challan amount.
Bank Name & Address:	Union Bank Of India FCS Centre, 21/1, III Floor, Jelitta Towers, Mission Road, Bengaluru-560027

- This Challan is strictly to be used for making payment to CAMPA by NEFT/RTGS only

Note:After making the required payment through challan, if the payment status has not been updated even after 7 working days, then kindly mail a copy of your challan with transaction date and reference id to Email: fcsbir@unionbankofindia.bank , epurse@unionbankofindia.bank, ubin0903710@unionbankofindia.bank

UTR No:- ICICR42024080300000879

Amount :- 71,89,00000.00

Date :- 03/8/2024

11-12-24

SADALA SATYANARAYAN
PROJECT OFFICER
MAGADH OCP

Annexure 10

PROFORMA FOR VERIFICATION OF DEPOSITS IN COMPENSATORY AFFORESTATION FUND/SUMMARY OF PAYMENT
Magadh East OCP (192.36 Ha)

S.N	Column 1	Column 2
1	Name of Regional Office	Integrated Regional office Ranchi
2	State/District/Forest Division to which the proposal relates	Jharkhand/Chatra/Chatra South
3	Name of User Agency, Name of Proposal	Central coalfields limited, Magadh East Opencast Mining Project
4	Nature of Category of Proposal	Mining
5	Proposal No.	FP/JH/MIN/87235/2020
6	Extent of Forest Area involved	192.36 Ha
7	Whether original or extension	Original (land acquired under CBA Act)
8	If the extension of lease, please clarify if proposal involves additional forest area and if so specify	NA
9	Dated of 1st Stage clearance	File No. 8-27 /2022-FC dated 27.05.2024
10	Extent of CAMPA Charges, headwise viz.	
	a) Compensatory afforestation	Rs 44,45,81,478.00
	b) Additional compensatory afforestation	NA
	c) Penal compensatory afforestation	NA
	d) Catchment area treatment	NA
	e) Wildlife management plan (combined WLMP of Magadh 96.72 Ha and 192.36 Ha Forest Diversion)	Rs 71,89,00,000.00
	f) Additional charges for diversion of area falling under notified/protected area	Nil
	g) Net present value	Rs. 23,63,31,572.00 (Rs17,85,55,080.00-Rs 5,77,76,492)
	h) any other charges/levies (please specify) Safety Zone+ Forest Produce + Cess + Tax- Penal NPV	
	i. Penal NPV	Rs 21,21,77,495.00
	ii. Soil and Moisture Conservation Plan (SMC) (@ 0.5% of Project Cost)	Rs 3,53,20,000.00
	Total =	Rs. 1,64,73,10,543.00
11	If the payment made through challan or otherwise in case of online payment, details of challan	Attached

17.01.25

SADASIVA NARAYAN
PROJECT OFFICER
MAGADH OCP

Sign of DFO

Sign. Of Nodal officer

12	Details of deposits						
Sl. No	**Type of Deposit (NPV/CA/WMP/Others)Specify**	**Whether (RTGS/DD /NEFT (Specify)**	**UTR/DD No.**	**Amount Deposit (Rs.)**	**Dated of Deposit**	**Name of Bank from which amount transferred to account of CAF**	**Bank Account of CAF managed by CAMPA in which fund deposited.**
1	Compensatory Afforestation Amount	RTGS	ICICR22025012207409611	44,45,81,478.00	22.01.2025	ICICI Bank Ratu Road Ranchi	CAF Account Jharkhand (A/C No150725887235413) Union Bank of India Branch Jelitta Towers, Mission Road, Bengaluru-560027
2	Site Specific Wildlife Management Plan Amount	RTGS	ICICR42024080300000879	71,89,00,000.00	03.08.2024	ICICI Bank Ratu Road Ranchi	CAF Account Jharkhand (A/C No150725887235525) Union Bank of India Branch Jelitta Towers, Mission Road, Bengaluru-560027
3	NPV	RTGS (NPV 1st Payment)	SBINR52017101800070615	17,85,55,080.00	18.10.2017	SBI CCL Campus Ranchi	CAF Account Jharkhand (A/C No 037100101025212) Corporation Bank, New Delhi Block-II CGO Complex Lodi Road, New Delhi)
		RTGS (NPV 2nd Payment)	ICICR22024121206706850	5,77,76,492.00 (Total payment of Rs 26,99,53,985.00, out of which Rs 5,77,76,492.00 is for NPV)	12.12.2024	ICICI Bank Ratu Road Ranchi	CAF Account Jharkhand (A/C No 150725887235221) Union Bank of India FCS Centre, 21/1, III Floor, Jelitta Towers, Mission Road, Bengaluru-560027
		Total NPV		23,63,31,572.00			

24.01.25

Sign of User Agency

SADALA SATYANARAYAN
PROJECT OFFICER

Sign of DFO

Sign. of Nodal officer

Sl. No	Type of Deposit (NPV/CA/WMP/Others)Specify	Whether (RTGS/DD /NEFT (Specify)	UTR/DD No.	Amount Deposit (Rs.)	Dated of Deposit	Name of Bank from which amount transferred to account of CAF	Bank Account of CAF managed by CAMPA in which fund deposited.
4	Penal NPV Amount	RTGS	ICICR22024121206706850	21,21,77,493.00 (Total payment of Rs 26,99,53,985.00, out of which Rs 21,21,77,493.00 as Penal NPV)	12.12.2024	ICICI Bank Ratu Road Ranchi	CAF Account Jharkhand (A/C No 150725887235221) Union Bank of India FCS Centre. 21-1, III Floor, Jelitta Towers, Mission Road, Bengaluru-560027
5	SMC (@ 0.5% of Project Cost)	RTGS	ICICR22024111106162260	3,53,20,000.00	11.11.2024	ICICI Bank Ratu Road Ranchi	CAF Account Jharkhand (A/C No 150725887235998) Union Bank of India Jelitta Towers, Mission Road, Bengaluru-560027
Grand Total				**1,64,73,10,543.00**			

SADHU CHARAN NARAYAN
PROJECT OFFICER
MAGADH OCP

Sign of DFO

Sign. Of Nodal officer

Demand Note and Payment Details of CA

Office of Divisional Forest Officer, Chatra South Forest Division, Chatra.

E-mail:- dfo-chatrasouth@gov.in Phone:-8987790213

Letter No.:- 38 **Date :-** 03/01/2025

To,

The Project Officer,
Magadh OCP, M-S Area CCL.

Subject:- Demand letter for depositing levy for Compensatory Afforestation against forest land diversion of 192.36 Ha of forest land for Magadh East OCP in favor of M/s Central Coalfield Limited (CCL).

Ref:- Office order संख्या–01/योउव0–30/2020–21 दिनांक 08.08.2024 of Additional Principal Chief Conservator of Forest Development, Jharkhand, Ranchi, and Letter no. -08 dated -02.01.2025 of PCCF-Cum-ED, Nodal, Jharkhand, Ranchi, and Your letter no.- Po(Magadh)/Demand Note/2024-25/3599 Dated- 18.12.2024.

Kindly refer the letter in the reference wherein In-Principle approval has been accorded to the captioned project subject to certain conditions.

A. As per condition No.2(i) of the said letter,

"The user agency shall provide suitable non-forest land equivalent to the forest land proposed to be diverted for the purpose of compensatory afforestation. The said land shall be transferred and mutated in the name of the forest department and notified as protected forest under the provisions of India forest act, 1927 or the state specifies laws"

With reference to the above conditions and as per latest guidelines issued vide letter no-FC-11/158/2024-FC dated-17-12-2024 of MoEF&CC, GOI, para 5(i) which states ;

"Proposals, which were submitted by the States/ UTs before notification of Van (Sanrakshan Evam Samvardhan) Amendment Rules, 2024, along with the proposal of raising CA over degraded forest land (DFL) and were granted 'in-principle' approval stipulating CA over non-forest land (NFL), shall be allowed to submit compliance of 'in-principle' approval along with CA proposal over DFL in lieu of NFL. The Central Government will consider and grant final approval in such cases stipulating CA over DFL".

B. In compliance of the above-mentioned condition of stage-I approval and in light of latest guideline issued by MoEF&CC, GoI, a demand note of **Rs. 44,45,81,478.00** (Forty-Four Crore Forty-Five Lakh Eighty-One Thousand Four Hundred and Seventy-Eight only) for Compensatory Afforestation over 385.00 Ha (Gross Area 491.32 Ha) of degraded forest land in lieu of diversion of 192.36 Ha of forest land in Chatra South Forest Division is being raised.

C. It is requested to deposit the above mentioned amount i.e. **Rs. 44,45,81,478.00** (Forty-Four Crore Forty-Five Lakh Eighty-One Thousand Four Hundred and Seventy-Eight Rupees only) in favor of Chatra South Forest Division in CAMPA Account. The amount should be deposited to CAMPA Fund only through e-portal (https://parivesh.nic.in) and copy of challan/receipt shall be sent to this office for records.

Sent for necessary action.

Enclosure:- Estimate Attached.

Your faithfully,

Divisional Forest Officer
Chatra South Forest Division, Chatra

03.01.25

SADALA SATYANARAYAN
PROJECT OFFICER
MAGADH OCP

ICICI Bank

Date-22-01-2025

TO WHOMSOEVER IT MAY CONCERN

This is to certify that CENTRAL COALFIELDS LIMITED has made the below mentioned payment from their current account 017505009227 with our bank:-

Sr.No.	Beneficiary Name	Amount	Beneficiary accout no	Bene IFSC	UTR	Date
1	JHARKHAND CAMPA	444581478.00	150725887235413	UBIN0996335	ICICR22025012207409611	22-01-2025

It is clarified that this information is furnished in strict confidence and without any risk and responsibility on our part or on the part of any Bank's officials in any respect more particularly either as guarantor or otherwise.

This certificate is issued at the specific request of the said customer.

Regards

ICICI Bank Limited 1150

Autrorised Signatory

ICICI Bank-Ltd

Ratu Road Ranchi -834001

ICICI Bank Limited
Tower,
Modi Heights, Shop # 05 & 06
Opp. All India Radio Station,
Ranchi- 834001,
Jharkhand, India

Website www.icicibank.com
CIN.: L65190GJ1994PLC021012

Regd. Office : ICICI Bank
Near Chakli Circle,
Old Padra Road,
Vadodara 390 007, India.

22.01.25
SADALA SATYANARAYAN
PROJECT OFFICER
MAGADH OCP

AGENCY COPY

यूनियन बैंक Union Bank of India

NEFT / RTGS CHALLAN for CAMPA Funds

Date : 21-01-2025

Agency Name.	Central Coalfields Limited
Application No.	5887235413
MoEF/SG File No.	8-27/2022-FC
Location.	JHARKHAND
Address.	DARBHANGA HOUSE, CCL, RANCHIRanchi
Amount(in Rs)	444581478/-

Amount in Words :Forty-Four Crore Forty-Five Lakh Eighty-One Thousand Four Hundred and Seventy-Eight Rupees Only

NEFT/RTGS to be made as per following details;

Beneficiary Name:	JHARKHAND CAMPA
IFSC Code:	UBIN0996335
Pay to Account No.	150725887235413 Valid only for this challan amount.
Bank Name & Address:	Union Bank Of India FCS Centre,21/1, III Floor, Jelitta Towers, Mission Road, Bengaluru-560027

- This Challan is strictly to be used for making payment to CAMPA by NEFT/RTGS only

BANK COPY

यूनियन बैंक Union Bank of India

NEFT / RTGS CHALLAN for CAMPA Funds

Date : 21-01-2025

Agency Name.	Central Coalfields Limited
Application No.	5887235413
MoEF/SG File No.	8-27/2022-FC
Location.	JHARKHAND
Address:	DARBHANGA HOUSE, CCL, RANCHI Ranchi
Amount(in Rs)	444581478/-

Amount in Words :Forty-Four Crore Forty-Five Lakh Eighty-One Thousand Four Hundred and Seventy-Eight Rupees Only

NEFT/RTGS to be made as per following details;

Beneficiary Name:	JHARKHAND CAMPA
IFSC Code:	UBIN0996335
Pay to Account No.	150725887235413 Valid only for this challan amount.
Bank Name & Address:	Union Bank Of India FCS Centre, 21/1, III Floor, Jelitta Towers, Mission Road, Bengaluru-560027

- This Challan is strictly to be used for making payment to CAMPA by NEFT/RTGS only

Note:**After making the required payment through challan, if the payment status has not been updated even after 7 working days, then kindly mail a copy of your challan with transaction date and reference id to Email: fcsblr@unionbankofindia.bank , epurse@unionbankofindia.bank, ubin0903710@unionbankofindia.bank**

UTR No.:- ICICR22025012207409611

Amount :- 44,45,81,478.00

Date :- 22.01.2025

22.01.25
GADALA SATYANARAYAN
PROJECT OFFICER
MAGADH OCP

कार्यालय : प्रधान मुख्य वन संरक्षक–सह–कार्यकारी निदेशक, बंजर भूमि विकास बोर्ड, झारखण्ड, राँची।

वन भवन, डोरण्डा, राँची, झारखंड, पिन–834002, Email : pccf-odnodal@gov.in

पत्रांक :– 868 दिनांक :– 23/9/24

सेवा में,

वन प्रमण्डल पदाधिकारी,
चतरा दक्षिणी वन प्रमण्डल, चतरा।

विषय :– **सी0सी0एल0 मगध परियोजना द्वारा पूर्व में जमा किए गए Advance Paid NPV राशि के सत्यापन के संबंध में।**

प्रसंग :– आपका पत्रांक 1759 दिनांक 27.08.2024

महाशय,

उपर्युक्त विषयक प्रासंगिक पत्र के संदर्भ में सूचित करना है कि भारत सरकार, पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय, नई दिल्ली के पत्रांक F.No.11-85/2016-FC दिनांक 31.03.2016 द्वारा निर्गत दिशा–निर्देश के आलोक में मेसर्स सी0सी0एल0 मगध परियोजना के द्वारा NPV मद में कुल रू० 17,85,55,080/– RTGS UTR No. SBINR52017101800070615 के माध्यम से दिनांक 18.10.2017 को जमा किया गया है, जिसे reconcile किया गया है। उक्त राशि यथा रू० 17,85,55,080/– Voucher No.- 40 dated – 18.10.2017 द्वारा कैम्पा खाता में जमा है।

अतः अनुरोध है कि मेसर्स सी0सी0एल0 मगध परियोजना में NPV मद में पूर्व की जमा राशि कुल रू० 17,85,55,080/– को घटाकर मांग पत्र निर्गत करने के क्रम में अग्रतर कार्रवाई की जाय।

विश्वासभाजन,

23/9/24

प्रधान मुख्य वन संरक्षक–सह–कार्यकारी निदेशक,
बंजर भूमि विकास बोर्ड, झारखण्ड, राँची।

20/09/2024

SADALA SATYANARAYAN
PROJECT OFFICER
MAGADH OCP

कार्यालयः– वन प्रमंडल पदाधिकारी, चतरा दक्षिणी वन प्रमंडल।
वन भवन, चतरा– 825401 (झारखण्ड)
Ph. & Fax (o) - 06541- 222303 E-mail:- dfochatrasouth@gmail.com

97

सेवा में

पत्रांकः– 1010 दिनांकः– 25/03/2017

श्री आलोक कुमार,
उप महाप्रबंधक,
सी0सी0एल0, दरभंगा हाउस,
रांची (झारखण्ड)।

विषयः– सी0सी0एल0 के मगध खुली खदान परियोजना के लीज क्षेत्र मे पड़ने वाली अप्रयोजित वन भूमि 96.72 हे0 के अलावे शेष वन भूमि की NPV दिनांक 31.03.2017 तक जमा करने के संबंध में।

प्रसंगः– भारत सरकार पर्यावरण वन एवं जलवायु परिवर्त्तन मंत्रालय नई दिल्ली का पत्र संख्या 11-599/2014 FC दिनांक 01.04.2015, इस कार्यालय का पत्रांक 206 दिनांक 25.01.2016, 1714 दिनांक 08.06.2016 एवं 2187 दिनांक 20.07.2016

महाशय,

उपर्युक्त विषयक प्रसंगाधीन पत्र के संदर्भ में सूचित करना है कि आपसे पूरे परियोजना के लीज क्षेत्र का Approved Mining Plan 1:4000, प्रभावित मौजों पर भिन्न–भिन्न भूमि को अलग–अलग रंगों से दर्शाते हुये एवं भूमि विवरणी सारांश के साथ संबंधित राजस्व पदाधिकारी/अपर समाहर्त्ता के हस्ताक्षर के साथ समर्पित करने हेतु अनुरोध किया गया था, परन्तु SO (P&P), मगध आम्रपाली क्षेत्र ने अपने पत्रांक 221 दिनांक 19.08.2016 द्वारा आधा अधूरा प्रतिवेदन समर्पित किया है जिसमें पूरी परियोजना में लीज हेतु अधिसूचित वनभूमि 80.23 हे0 एवं गैर मजरूआ जंगल–झाड़ी भूमि 238.85 कुल 319.08 हे0 का उल्लेख है।

ज्ञातव्य है कि उक्त परियोजना हेतु पूर्व में अधिसूचित वनभूमि 19.20 हे0 एवं गैर मजरूआ जंगल–झाड़ी भूमि 77.52 हे0 = 96.72 हे0 हस्तानांतरित किया जा चुका है जिसका NPV की राशि 8.03 लाख रू0 प्रति हे0 की दर से 7,76,66,160.00 रू0 कैम्पा खाता में जमा किये जाने की सूचना प्राप्त है।

प्राप्त सूचना के अनुसार इस परियोजना में बचे अवशेष अधिसूचित वनभूमि 61.03 हे0 एवं गैर मजरूआ जंगल–झाड़ी 161.33 हे0 कुल 222.36 हे0 का NPV की राशि 8.03 लाख रू0 प्रति हे0 की दर से 17,85,55,080.00 रू0 की मांग की जा रही है।

अतः अनुरोध है कि 17,85,55,080.00 (सतरह करोड़ पचासी लाख पचपन हजार अस्सी) रू0 कैम्पा खाता में जमा करते हुये पावती रसीद शीघ्र इस कार्यालय में समर्पित किया जाय ताकि सरकार को प्रतिवेदित किया जा सके। यह भी सूचित करना है कि Authentication Land schedule (प्रमाणीकरण भूमि अनुसूची) कैडस्ट्रल मैप पर भूमि को भिन्न–भिन्न रंगों से दर्शाते हुये संबंधित अवलाधिकारी/अपर समाहर्त्ता के हस्ताक्षर के साथ समर्पित करना अनिवार्य है। पूरे लीज क्षेत्र हेतु समर्पित भूमि विवरणी एवं Authentication Land schedule मे भिन्नता पाई जाएगी तो ऐसी स्थिति में जंगल–झाड़ी एवं वनभूमि हेतु NPV की अतिरिक्त राशि की मांग किये जाने पर शीघ्र कैम्पा खाता में जमा करने हेतु एक बाध्यता प्रमाण–पत्र (Undertaking) भी समर्पित करना अनिवार्य है।

विश्वासभाजन

वन प्रमंडल पदाधिकारी,
चतरा दक्षिणी वन प्रमंडल।
25/3/17

SADALA SATYANARAYAN
PROJECT OFFICER
MAGADH OCP

सेन्ट्रल कोलफील्ड्स लिमिटेड
(भारत सरकार का एक उपक्रम)
(दरभंगा हाउस, राँची-834029)
CENTRAL COALFIELDS LIMITED
(Govt. of India Undertaking)
Darbhanga House, Ranchi- 834 029
फोन/Phone: (0651) 2360184 फैक्स/Fax: (0651) 2360184,
वेबसाईट/Website:http://www.ccl.gov.in

Ref. No. CCL/DGM-HOD (E&F)/ 2017/1266-81

Date: 25.10.2017

To,
The Divisional Forest Officer
Chatra South

Sub: Payment of Rs. 17,85,55,080.00 for NPV in respect of Magadh OCP (222.36 Ha) vide RTGS UTR no. SBINR52017101800070615 dtd. 18.10.17

Ref : Your letter no. 1010 dtd. 25.03.17

Dear Sir,

This is to inform you that on 18.10.2017 an amount of Rs. 17,85,55,080.00 (Seventeen Crores Eighty Five lakhs Fifty five thousand and Eighty rupees only) has been deposited in CAMPA account, CAF Account, Jharkhand(037100101025212), Corporation Bank, New Delhi, Block II, CGO Complex Lodi Road, New Delhi vide RTGS UTR no. SBINR52017101800070615 from SBI, CCL Campus Ranchi (11048999027) as NPV in respect of Magadh OCP (222.36 Ha).

The payment is being made under protest.

Thanking you.

Yours faithfully,

25/10/17

DGM/HOD (E&F)
CCL, Ranchi

Encl : Copy of RTGS for Rs. 17,85,55,080.00 (Seventeen Crores Eighty Five lakhs Fifty five thousand and Eighty rupees only)as deposited in CAMPA A/C Jharkhand vide UTR no. SBINR52017101800070615 from SBI, CCL Campus Ranchi (11048999027)

25.10.17
SADALA SATYANARAYAN
PROJECT OFFICER
MAGADH OCP

Copy for kind information to:-

1) The PCCF, Department of Forest, Environment & Climate Change, GOJ, Van Bhawan Ranchi
2) The PCCF cum Nodal officer , GOJ, Van Bhawan Ranchi
3) The Dy Secy., Deptt of Forest, Environment & Climate Change, GOJ, Nepal House Ranchi
4) The RCCF, Hazaribagh
5) The CF, Chatra

Copy for Kind information to :

6) The DF, CCL
7) The Dir (T/P&P), CCL
8) Ts to CMD

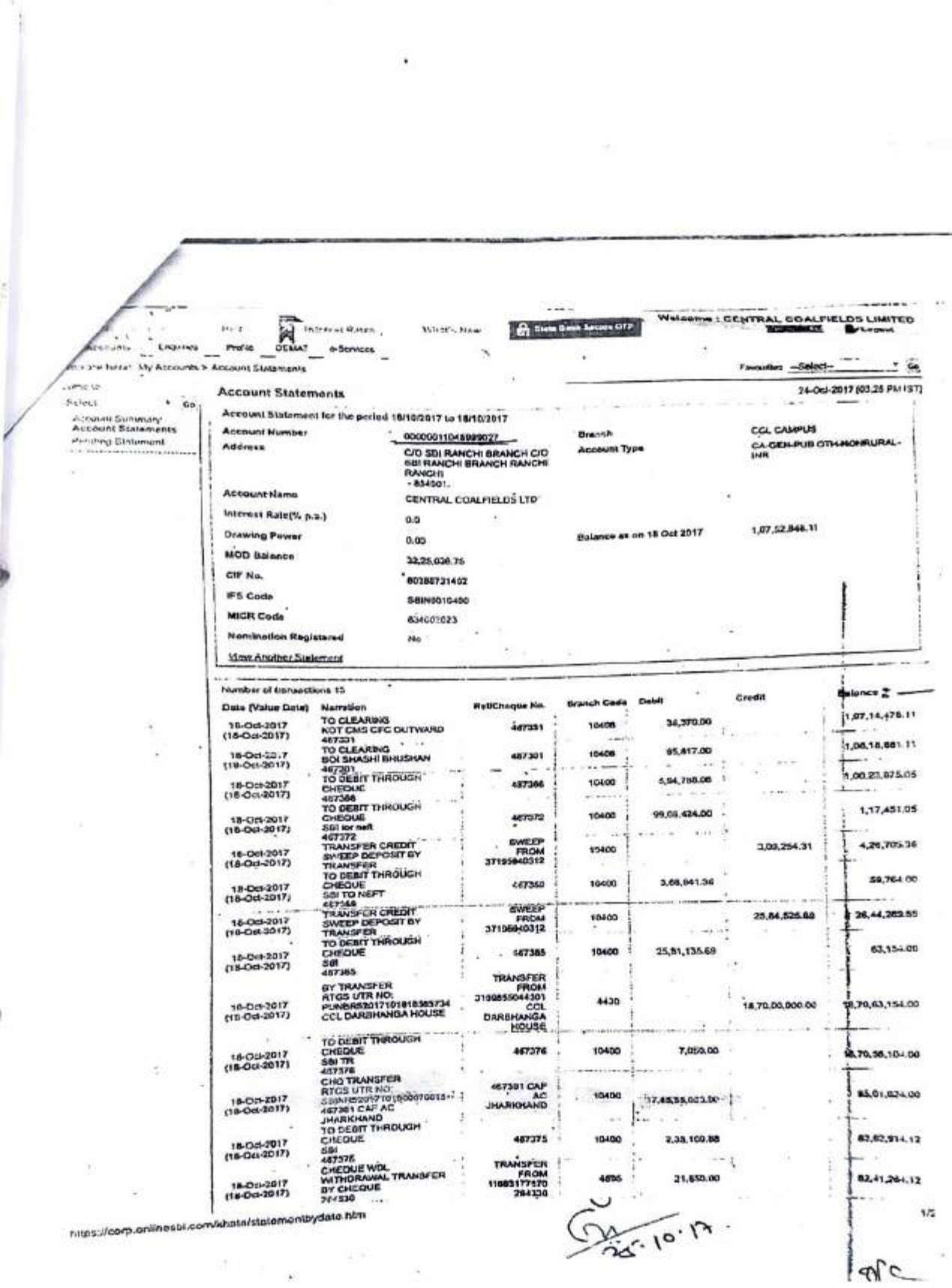
Copy to :

9) The GM (Magadh & Amrapali Area)
10) The Staff officer (P&P), Magadh & Amrapali Area
11) The Project Officer, Magadh Project

25.10.17

11.12.24

SADALA SATYANARAYAN
PROJECT OFFICER
MAGADH OCP



Welcome : CENTRAL COALFIELDS LIMITED

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- Account Summary
- Account Statements
- Pending Statement

Account Statements

24-Oct-2017 [03:25 PM IST]

Account Statement for the period 18/10/2017 to 18/10/2017

Account Number	00000011048999027	Branch	CCL CAMPUS
Address	C/O SBI RANCHI BRANCH C/O SBI RANCHI BRANCH RANCHI RANCHI - 834001.	Account Type	CA-GEN-PUB OTH-NONRURAL-INR
Account Name	CENTRAL COALFIELDS LTD		
Interest Rate(% p.a.)	0.0		
Drawing Power	0.00	Balance as on 18 Oct 2017	1,07,52,848.11
MOD Balance	32,25,036.75		
CIF No.	60288731402		
IFS Code	SBIN0010450		
MICR Code	834002023		
Nomination Registered	No		

View Another Statement

Number of transactions 15

Date (Value Date)	Narration	Ref/Cheque No.	Branch Code	Debit	Credit	Balance
18-Oct-2017 (18-Oct-2017)	TO CLEARING KOT CMS CFC OUTWARD 467331	467331	10400	36,370.00		1,07,14,478.11
18-Oct-2017 (18-Oct-2017)	TO CLEARING SOI SHASHI BHUSHAN 467301	467301	10400	95,617.00		1,06,18,861.11
18-Oct-2017 (18-Oct-2017)	TO DEBIT THROUGH CHEQUE 467366	467366	10400	5,94,786.06		1,00,23,875.05
18-Oct-2017 (18-Oct-2017)	TO DEBIT THROUGH CHEQUE SBI for neft 467372	467372	10400	99,06,424.00		1,17,451.05
18-Oct-2017 (18-Oct-2017)	TRANSFER CREDIT SWEEP DEPOSIT BY TRANSFER	SWEEP FROM 37195940312	10400		3,09,254.31	4,26,705.36
18-Oct-2017 (18-Oct-2017)	TO DEBIT THROUGH CHEQUE SBI TO NEFT 467368	467368	10400	3,66,941.36		59,764.00
18-Oct-2017 (18-Oct-2017)	TRANSFER CREDIT SWEEP DEPOSIT BY TRANSFER	SWEEP FROM 37195940312	10400		25,84,525.69	26,44,289.69
18-Oct-2017 (18-Oct-2017)	TO DEBIT THROUGH CHEQUE SBI 467365	467365	10400	25,81,135.69		63,154.00
18-Oct-2017 (18-Oct-2017)	BY TRANSFER RTGS UTR NO: PUNBR52017101818365734 CCL DARBHANGA HOUSE	TRANSFER FROM 3130855044301 CCL DARBHANGA HOUSE	4430		18,70,00,000.00	18,70,63,154.00
18-Oct-2017 (18-Oct-2017)	TO DEBIT THROUGH CHEQUE SBI TR 467376	467376	10400	7,050.00		18,70,56,104.00
18-Oct-2017 (18-Oct-2017)	CHQ TRANSFER RTGS UTR NO: SBINR52017101800010015 467361 CAF AC JHARKHAND	467361 CAF AC JHARKHAND	10400	17,45,55,080.00		85,01,024.00
18-Oct-2017 (18-Oct-2017)	TO DEBIT THROUGH CHEQUE SBI 467375	467375	10400	2,33,109.88		82,82,914.12
18-Oct-2017 (18-Oct-2017)	CHEQUE WDL WITHDRAWAL TRANSFER BY CHEQUE 264330	TRANSFER FROM 11883177170 264330	4895	21,650.00		82,61,264.12

https://corp.onlinesbi.com/shasta/statementbydate.htm

1/2

25.10.17

Scanned by CamScanner

SADALA SATYANARAYAN
PROJECT OFFICER
MAGADH OCP

SBI

State Bank of India
CCL Campus Branch(10400)
CCL Headquarter
Darbhanga House
Ranchi.
Pin Code : 834001

Phone: 9771450354 Email : sbi.10400@sbi.co.in

TO WHOM IT MAY CONCERN

Date 06/08/2024

SL NO	BENEFICIARY NAME	AMOUNT	BENEFICIARY A/C NO	BENEFICARY IFSC	UTR	DATE OF TXN
1	CAMPA ACCOUNT CAF JHARJHAND	178,55,5080/-	37100101025212	CORP0000371	SBINR5201710 1800070615	18/10/2017

This is to certify that RTGS of Rs. 17,85,55,080(Rs.Seventeen crore eighty five lakh fifty five thousand eighty only) made in favour of Ad Hoc Campa CAF account jharkhand (037100101025212), Corporation Bank , new Delhi block 2, CGO complex Lodi Road new delhi by debit account no Central Coalfield Limited Ltd Ranchi A/c no 11048999027 on 18/10/2017 vide RTGS no SBINR52017101800070615 , IFSC Code CORP 0000371.

BRANCH MANAGER
SBI CCL CAMPUS

SADALA SATYANARAYAN
PROJECT OFFICER
MAGADH OCP

Demand Note & Payment details of NPV 2nd Payment & Penal NPV

Office of Divisional Forest Officer,
Chatra South Forest Division, Chatra

E-mail : dfo-chatrnsouth@gov.in Phone : 8987790213

Letter No. 2384 **Date :** 09/12/2024

To,

The Project officer,
Magadh OCP, Tandwa, Chatra.

Subject :- In-Principle (Stage-I) approval of Central Government under Forest (Conservation) Act. 1980 for diversion of 192.36 of Forest land in favour of CCL for Magadh OCP in Chatra South Forest Division in Chatra District of Jharkhand state reg.

Ref. :- Your letter No. 1256 dated 01.07.2024 and Letter No No. 868 dated 23.09.2024 of PCCF, ED, Jharkhand, Letter No 2013 dated 07.10.2024 of this office.

Sir,

Please refer the letter captioned, wherein, a demand of Rs. **26,99,53,985.00 (Twenty-Six Crore Ninenty-Nine Lac Fifty-Three Thousand Nine Hundred Eighty-Five rupees only)** towards cost of NPV and Penal NPV was raised. However, a correction was sought by office of Nodal officer, ED Jharkhand regarding densiy of forest land to be diverted. A fresh demand, after making necessary corrections, is hereby, made.

It was reported that in compliance of circular no. 11-599/2024-FC dated 01.04.2015 Magadh OCP, CCL had already diposited an amount of Rs. 17,85,55,080.00 (Seventeen Crore Eighty-Five Lac Fifty-Five Thousand and Eighty rupee) vide RTGS transection no. SBINR52017101800070615 dated 18.10.2017 regarding advance payment of NPV demanded against diversion of 192.36 ha of forest land. The compensatory levies so deposited by CCL was verified by the office of PCCF-cum-ED, Nodal, Jharkhand vide his letter no 868 dated 23-09-2024. Accordingly, after adjusting the advance payment made by CCL, a fresh demand for payment of balance amount is being raised as per conditions imposed in In-Principle (Stage-I) approval of Central Government under Forest (Conservation) Act, 1980 for diversion of 192.36 of Forest land in favour of CCL for Magadh OCP:

A. <u>NPV Demand: As per Condition No 3 (i) of In-principle approval</u>

- Density of forest proposed for diversion :- 0.6
- Eco-class :-3

Hence, applicable rate of NPV per ha. as per prevailing rates: Rs. 12,28,590.00 (Twelve Lakhs Twenty-Eight Thousand Five Hundred Ninety Rupees).

Total for 192.36 Ha. (1228590.00 lakh/ ha x 192.36 ha) = Rs. 23,63,31,572.4 or 23,63,31,572.00 (Twenty-three Crore Sixty-three lac Thirty-one Thousant Five Hundred Seventy-Two only)

Also, it was requested to adjust the already paid amount for NPV Rs.17,85,55,080.00 (Seventeen Crore Eighty-Five Lac Fifty-Five Thousand and Eighty rupee).

Hence, after adjusting already paid NPV amount (23,63,31,572.00 - 17,85,55,080.00) = Rs. **5,77,76,492.00** (Five Crores Seventy-seven Lac Seventy-six thousand Four Hundred Ninty-two Rupees).

SADALA SATYANARAYAN
PROJECT OFFICER
MAGADH OCP

B. Penal NPV Demand: As per Condition No 4 & 28 of In-principle approval

As per Chapter 1 General Clarifications And Court Orders of Van (Sanrakshan Evam Samvardhan) Rules, 2023

"The penalty for violation shall be equal to NPV of forest land per hectare for each year of violation from the date of actual diversion as reported by the inspecting officer with maximum up to five (5) times the NPV plus 12 percent simple interest from the date of raising of such demand till the deposit is made.

Total violation has been reported over 34.54 Ha. of forest land. As per condition no. penal NPV is calculated below :-

i. Calculation for 5 times NPV of violation Area

Penal NPV demand as per IRO Site inspection Report						
Sl No (a)	**Year of Violation (b)**	**Time in Year (c)**	**Area in Ha (d)**	**Present NPV Rate (e)**	**Multiplication factor (f)**	**Amount in Rs (g=d*e*f)**
1	**up to 19.11.2016**	10	27.21	1228590	5	167149669.50
2	**19.11.2016 to 07.05.2019**	9	5.59			34339090.50
3	**After 07.05.2019**	6	1.74			10688733.00
Total			**34.54**			**212177493.00**

So, the total Penal NPV Amount is Rs 21,21,77,493.00 (Twenty-One Crore Twenty-One Lac Seventy-Seven Thousand Four Hundered Ninety-Three Rupees Only).

ii. Demand Note for 12 percent simple interest from the date of raising of this demand till the deposit is made will be issued after submission of Payment details by the user agency.

Total of A + B = 5,77,76,492.00 (NPV) + 21,21,77,493.00 (Penal NPV)
= **26,99,53,985.00**

Therefore, it is requested to deposit the the remaining amount i.e Rs. **26,99,53,985.00 (Twenty-Six Crore Ninenty-Nine Lac Fifty-Three Thousand Nine Hundred Eighty-Five rupees only)** in CAMPA Account. The amount should be deposited to CAMPA fund only through e-portal (https://parivesh.nic.in) against 192.36 ha of forest land in favor of Chatra South Forest Division along with and undertaking for depositing additional amount of NPV, if so determined, as per final approval of the Hon'ble Supreme Court of India, as mandated under Condition no 3 (ii) of In-principle approval.

Sent for necessary action.

Your Faithfully

09/12/24

Divisional Forest Officer,
Chatra South Forest Division, Chatra

11.12.24
SADALA SATYANARAYAN
PROJECT OFFICER
MAGADH OCP

ICICI Bank

Date-12-12-2024

TO WHOMSOEVER IT MAY CONCERN

This is to certify that CENTRAL COALFIELDS LIMITED has made the below mentioned payment from their current account 017505009227 with our bank:-

Sr. No.	Beneficiary Name	Amount	Beneficiary accout no	Bene IFSC	UTR	Date
1	JHARKHAND CAMPA	26,99,53,985.00	150725887235221	UBIN0996335	ICICR22024121206706850	12-12-2024

It is clarified that this information is furnished in strict confidence and without any risk and responsibility on our part or on the part of any Bank's officials in any respect more particularly either as guarantor or otherwise.

This certificate is issued at the specific request of the said customer.

Regards

ICICI Bank Limited ★ Ranchi ★ 1150

Autrorised Signatory

ICICI Bank-Ltd

Ratu Road Ranchi -834001

12.12.24

SADALA SATYANARAYAN
PROJECT OFFICER
MAGADH OCP

AGENCY COPY

यूनियन बैंक Union Bank of India

NEFT / RTGS CHALLAN for CAMPA Funds

Date : 10-12-2024

Agency Name.	Central Coalfields Limited
Application No.	5887235221
MoEF/SG File No.	8-27/2022-FC
Location.	JHARKHAND
Address.	DARBHANGA HOUSE, CCL, RANCHIRanchi
Amount(in Rs)	269953985/-

Amount in Words :Twenty-Six Crore Ninety-Nine Lakh Fifty-Three Thousand Nine Hundred and Eighty-Five Rupees Only

NEFT/RTGS to be made as per following details;

Beneficiary Name:	JHARKHAND CAMPA
IFSC Code:	UBIN0996335
Pay to Account No.	150725887235221 Valid only for this challan amount.
Bank Name & Address:	Union Bank Of India FCS Centre,21/1, III Floor, Jelitta Towers, Mission Road, Bengaluru-560027

- This Challan is strictly to be used for making payment to CAMPA by NEFT/RTGS only

BANK COPY

यूनियन बैंक Union Bank of India

NEFT / RTGS CHALLAN for CAMPA Funds

Date : 10-12-2024

Agency Name.	Central Coalfields Limited
Application No.	5887235221
MoEF/SG File No.	8-27/2022-FC
Location.	JHARKHAND
Address:	DARBHANGA HOUSE, CCL, RANCHI Ranchi
Amount(in Rs)	269953985/-

Amount in Words :Twenty-Six Crore Ninety-Nine Lakh Fifty-Three Thousand Nine Hundred and Eighty-Five Rupees Only

NEFT/RTGS to be made as per following details;

Beneficiary Name:	JHARKHAND CAMPA
IFSC Code:	UBIN0996335
Pay to Account No.	150725887235221 Valid only for this challan amount.
Bank Name & Address:	Union Bank Of India FCS Centre, 21/1, III Floor, Jelitta Towers, Mission Road, Bengaluru-560027

- This Chalian is strictly to be used for making payment to CAMPA by NEFT/RTGS only

Note:**After making the required payment through challan, if the payment status has not been updated even after 7 working days, then kindly mail a copy of your challan with transaction date and reference id to Email: fcsblr@unionbankofindia.bank , epurse@unionbankofindia.bank, ubin0903710@unionbankofindia.bank**

UTR No:- JCICR22024121206706850

Amount :- 26,99,53,985/-

Date :- 12/12/2024

12-12-24

SADALA SATYANARAYA
PROJECT OFFICER
MAGADH OCP

Demand Note & Payment details of WLMP

कार्यालय : वन प्रमण्डल पदाधिकारी, चतरा दक्षिणी वन प्रमण्डल, चतरा।
वन भवन, चतरा – 825401

E-mail : dfo-chatrasouth@gov.in Phone : 8987790213

पत्रांक - 2840 दिनांक : 06/12/2023

सेवा में,

श्री नृपेन्द्र नाथ,
परियोजना पदाधिकारी,
मगध ओ. सी. पी., डाक बंगला बिल्डिंग, टण्डवा,
जिला – चतरा।

विषय :– मगध ओ. सी. परियोजना हेतु भारत सरकार, पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय, नई दिल्ली द्वारा पत्रांक F. No. 8-38/2008 FC दिनांक 18.10.2010 द्वारा प्रदत्त अंतिम स्वीकृति के शर्त सं. 18 के अनुपालन हेतु राशि की मांग के संबंध में।

महाशय,

उपरोक्त विषयक के संबंध में सूचित करना है कि मगध ओ. सी. परियोजना हेतु कुल 96.72 हे. वनभूमि के अपयोजन हेतु अंतिम स्वीकृति भारत सरकार, पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय, नई दिल्ली द्वारा उनके पत्रांक F. No. 8-38/2008 FC दिनांक 18.10.2010 द्वारा कतिपय शर्तों के अधीन प्रदान की गई थी। जिसमें शर्त सं. 18 के अनुसार प्रयोक्ता अभिकरण को सी. सी. एल. खदान परियोजना क्षेत्र एवं इसक बफर क्षेत्र एवं हजारीबाग नेशनल पार्क क्षेत्र में Wildlife management Plan (Conservation Plan) के कियान्वयन हेतु राशि को उपलब्ध कराना था। चूँकि प्रयोक्ता अभिकरण द्वारा वर्तमान तिथि तक उपरोक्त शर्त का अनुपालन नहीं किया गया था, मगध ओ. सी. परियोजना के पूर्वी भाग हेतु कुल 192.36 हे. वनभूमि अपयोजन प्रस्ताव के प्रोसेसिंग के क्रम में पूर्व में अपयोजित 96.72 हे. वनभूमि हेतु तैयार की जाने वाली Wildlife management Plan (Conservation Plan) को भी ध्यान में रखते हुए सम्पूर्ण खदान क्षेत्र (96.72 हे. + 192.36 हे. = 289.08 हे.) का समेकित Wildlife management Plan (Conservation Plan) तैयार किया गया है, जिसकी स्वीकृति प्रधान मुख्य वन संरक्षक, वन्यप्राणी एवं मुख्य वन्यप्राणी प्रतिपालक, झारखण्ड, राँची द्वारा उनके ज्ञापांक 1473 दिनांक 29.11.2023 द्वारा इस कार्यालय को प्राप्त हुई है (प्रति संलग्न)।

उपरोक्त Wildlife management Plan (Conservation Plan) में mitigative measures के लिए चतरा दक्षिणी प्रमण्डल एवं हजारीबाग वन्यप्राणी प्रमण्डल हेतु कमशः 4836.34 लाख एवं 2352.66 लाख, कुल 7189.00 लाख की राशि का प्रावधान किया गया है। अनुरोध है कि दोनों वन प्रमण्डलों हेतु स्वीकृत कुल राशि 7189.00 लाख रूपये कैम्पा खाता में ऑन लाईन ई–पोर्टल (https://parivesh.nic.in) के माध्यम से जमा करते हुए पावती रसीद इस कार्यालय में समर्पित करने की कृपा करें।

आवश्यक कार्रवाई हेतु प्रेषित।

अनुलग्नक : यथोक्त।

विश्वासभाजन

06/12/2023

वन प्रमण्डल पदाधिकारी
चतरा दक्षिणी वन प्रमण्डल, चतरा।

SADALA SATYANARAYAN
PROJECT OFFICER
MAGADH OCP

ICICI Bank

Date – August 03, 2024

TO WHOMSOEVER IT MAY CONCERN

This is to certify that Central Coalfields Ltd has made the below mentioned payment from their Current Account maintained with Our Bank-

Sl No.	Beneficiary Name	Amount	Beneficiary A/c no	Bene IFSC	UTR	Date of Transaction
1	JHARKHAND CAMPA	71,89,00,000.00	150725887235525	UBIN0996335	ICICR42024080300000879	03-08-2024

It is clarified that this information is furnished in strict confidence and without any risk and responsibility on our part or on the part of any Bank's officials in any respect more particularly either as guarantor or otherwise.

This certificate is issued at the specific request of the said customer.

Regards,

Authorized Signatory
ICICI Bank Ltd
Ratu Road Ranchi – 834001

ICICI Bank Limited
Modi Heights, Shop # 05 & 06
Opp. All India Radio Station,
Ranchi- 834001,
Jharkhand, India

Website www.icicibank.com
CIN.: L65190GJ1994PLC021012

Regd. Office : ICICI Bank Tower,
Near Chakli Circle,
Old Padra Road,
Vadodara 390 007, India.

SADALA SATYANARAYAN
PROJECT OFFICER
MAGADH OCP

AGENCY COPY

यूनियन बैंक Union Bank

NEFT / RTGS CHALLAN for CAMPA Funds

Date : 02-08-2024

Agency Name.	Central Coalfields Limited
Application No.	5887235525
MoEF/SG File No.	8-27/2022-FC
Location.	JHARKHAND
Address	DARBHANGA HOUSE, CCL, RANCHIRanchi
Amount(in Rs)	718900000/-

Amount in Words : Seventy-One Crore Eighty-Nine Lakh Rupees Only

NEFT/RTGS to be made as per following details;

Beneficiary Name:	JHARKHAND CAMPA
IFSC Code:	UBIN0996335
Pay to Account No.	150725887235525 Valid only for this challan amount.
Bank Name & Address:	Union Bank Of India FCS Centre,21/1, III Floor, Jelitta Towers, Mission Road, Bengaluru-560027

- This Challan is strictly to be used for making payment to CAMPA by NEFT/RTGS only

BANK COPY

यूनियन बैंक Union Bank

NEFT / RTGS CHALLAN for CAMPA Funds

Date : 02-08-2024

Agency Name.	Central Coalfields Limited
Application No.	5887235525
MoEF/SG File No.	8-27/2022-FC
Location.	JHARKHAND
Address:	DARBHANGA HOUSE, CCL, RANCHI Ranchi
Amount(in Rs)	718900000/-

Amount in Words : Seventy-One Crore Eighty-Nine Lakh Rupees Only

NEFT/RTGS to be made as per following details;

Beneficiary Name:	JHARKHAND CAMPA
IFSC Code:	UBIN0996335
Pay to Account No.	150725887235525 Valid only for this challan amount.
Bank Name & Address:	Union Bank Of India FCS Centre, 21/1, III Floor, Jelitta Towers, Mission Road, Bengaluru-560027

- This Challan is strictly to be used for making payment to CAMPA by NEFT/RTGS only

Note:After making the required payment through challan, if the payment status has not been updated even after 7 working days, then kindly mail a copy of your challan with transaction date and reference id to Email: fcsblr@unionbankofindia.bank , epurse@unionbankofindia.bank, ubin0903710@unionbankofindia.bank

UTR NO.:- JCICR42024080300000879

Amount :- 71,89,00000.00

Date :- 03/8/2024

11-12-24

SADALA SATYANARAYAN
PROJECT OFFICER
MAGADH OCP

Demand Note & Payment details of SMC Plan

Office of Divisional Forest Officer,
Chatra South Forest Division, Chatra

E-mail : dfo-chatrasouth@gov.in Phone : 8987790213

Letter No. 2064 Date : 17/10/2024

To,

The Project Officer,
Magadh OCP, Tandwa, Chatra.

Subject :- Charging of an lump sum amount of the project cost towards the cost of implementation of the Soil and Moisture Conservation plan against diversion of 192.36 Ha of Forest Land in respect of Stage-I obtained Magadh OCP in Chatra South Forest Division, Chatra.

Ref. :- Your letter No. 3681 dated 15.10.2024.

Sir,

Through above-mentioned letter, a request has been made that, as par MoEF&CC, GoI guideline dated 7th June 2022, in cases where it is not possible for the State to submit the compliance due to delay in preparation of such plan, a lump sum quantum of project cost may be realized from the User Agency and submitted along with the Stage I compliance. Accordingy, it has been requested to raise a demand of indicative amount equal to 0.5% of the project cost for implementation of Soil & Moisture Conservation Plan as mandated under In-principle approval of the project.

As the total project cost of Magadh OCP as mentioned in Part I of FC diversion proposal is 706.40 Crores. Therefore, it is requested to deposit the indicative lump sum amount of Rs. 3.532 Crores (0.5% of the project cost) in CAMPA Account for Soil & Moisture Conservation Plan. The amount should be deposited to CAMPA fund only through e-portal (https://parivesh.nic.in) against 192.36 ha of forest land in favor of Chatra South Forest Division alongwith an undertaking for depositing additional amount, if so determined, as per final approval of the Soil and Moisture Conservation Plan.

Sent for necessary action.

Your Faithfully

17/10/24

Divisional Forest Officer,
Chatra South Forest Division, Chatra

17.10.24

SADALA SATYANARAYAN
PROJECT OFFICER
MAGADH OCP

ICICI Bank

Date – November 11, 2024

TO WHOMSOEVER IT MAY CONCERN

This is to certify that Central Coalfields Ltd has made the below mentioned payment from their Current Account maintained with Our Bank-

Sl No.	Beneficiary Name	Amount	Beneficiary A/c no	Bene IFSC	UTR	Date of Transaction
1	JHARKHAND CAMPA	3,53,20,000.00	150725887235998	UBIN0996335	ICICR22024111106162260	11-11-2024

It is clarified that this information is furnished in strict confidence and without any risk and responsibility on our part or on the part of any Bank's officials in any respect more particularly either as guarantor or otherwise.

This certificate is issued at the specific request of the said customer.

Regards,

Authorized Signatory
ICICI Bank Ltd
Ratu Road Ranchi – 834001

11.12.24
SADALA SATYANARAYAN
PROJECT OFFICER
MAGADH OCP

AGENCY COPY

यूनियन बैंक Union Bank

NEFT / RTGS CHALLAN for CAMPA Funds

Date : 05-11-2024

Agency Name.	Central Coalfields Limited
Application No.	5887235998
MoEF/SG File No.	8-27/2022-FC
Location.	JHARKHAND
Address.	DARBHANGA HOUSE, CCL, RANCHIRanchi
Amount(in Rs)	35320000/-

Amount in Words Three Crore Fifty-Three Lakh Twenty Thousand Rupees Only

NEFT/RTGS to be made as per following details:

Beneficiary Name:	JHARKHAND CAMPA
IFSC Code:	UBIN0996335
Pay to Account No.	150725887235998 Valid only for this challan amount
Bank Name & Address:	Union Bank Of India FCS Centre,21/1, III Floor, Jelitta Towers, Mission Road, Bengaluru-560027

- This Challan is strictly to be used for making payment to CAMPA by NEFT/RTGS only

BANK COPY

यूनियन बैंक Union Bank

NEFT / RTGS CHALLAN for CAMPA Funds

Date : 05-11-2024

Agency Name.	Central Coalfields Limited
Application No.	5887235998
MoEF/SG File No.	8-27/2022-FC
Location.	JHARKHAND
Address:	DARBHANGA HOUSE, CCL, RANCHI Ranchi
Amount(in Rs)	35320000/-

Amount in Words Three Crore Fifty-Three Lakh Twenty Thousand Rupees Only

NEFT/RTGS to be made as per following details;

Beneficiary Name:	JHARKHAND CAMPA
IFSC Code:	UBIN0996335
Pay to Account No.	150725887235998 Valid only for this challan amount.
Bank Name & Address:	Union Bank Of India FCS Centre, 21/1, III Floor, Jelitta Towers, Mission Road, Bengaluru-560027

- This Challan is strictly to be used for making payment to CAMPA by NEFT/RTGS only

Note:After making the required payment through challan, if the payment status has not been updated even after 7 working days, then kindly mail a copy of your challan with transaction date and reference id to Email: fcsblr@unionbankofindia.bank , epurse@unionbankofindia.bank, ubin0903710@unionbankofindia.bank

UTR No:- ICICR220241111061622 60

Amount :- 35320000/-

Date :- 11/11/2024

11-12-24

SADALA SATYANARAYAN
PROJECT OFFICER
MAGADH OCP

Annexure 11

SUMMARY OF THE PERFORMA FOR REMITTANCE OF FUND IN AD-HOC- CAMPA LEVIES FORM (Magadh East OCP-192.36 Ha).

SL No	Condition No	Name of Particulars	Chatra South Forest Division Demand Raised	Payment Made to CAMPA Account Total	Challan Application No
1	2	Compensatory Afforestation Amount	44,45,81,478.00	44,45,81,478.00	5887235413
2	3(i)	1st NPV Amount	17,85,55,080.00	17,85,55,080.00	PCCF Ltr No 868; dated 23.09.2024
		2nd NPV Amount	5,77,76,492.00	5,77,76,492.00	5887235221
		Total NPV Amount	23,63,31,572.00	23,63,31,572.00	
3	4	Penal NPV Amount	21,21,77,493.00	21,21,77,493.00	5887235221
4	5	Site Specific Wildlife Management Plan Amount	71,89,00,000.00	71,89,00,000.00	5887235525
5	10	Soil and Moisture Conservation Plan (SMC)- (@ 0.5% of Project Cost)	3,53,20,000.00	3,53,20,000.00	5887235998
		Total Demand Amount	**1,64,73,10,543.00**	**1,64,73,10,543.00**	

29.01.25

Sign of User Agency
SADALA SATYANARAYAN
PROJECT OFFICER
MAGADH OCP

Sign of DFO

Sign. Of Nodal officer

Annexure-12

REPORT ON
SOIL EROSION MITIGATIVE MEASURES AND TOP-SOIL MANAGMENT PLAN

In Compliance to
Stage-I Forest Clearance Granted Vide File No.8-27/2022-FC Dated 27.05.2024
Ministry of Environment, Forests & CC of Govt. of India, New Delhi.

For
Non-forestry use of 192.36 Ha (Forest land- 57.29 Ha and Jungle Jhari 135.07 Ha) of Forest land Under section 2 (1) (ii) of the Van (Sanrakshan Evam Samvardhan) Abhiniyam, 1980
In
495.92 Ha of Magadh East OCP (Chatra District) which is part of 1593.73 Ha of Revised Mining Plan Area

OF
MAGADH OPENCAST COAL MINING PROJECT

December 2024

Central Mine Planning & Design Institute Ltd.
Opencast Division, HQ
Environment Division, HQ & Regional Institute-III
Kanke Road, Ranchi - 834008 (Jharkhand), India

SADALA SATYANARAYAN
PROJECT OFFICER
MAGADH OCP

CONTENTS

SADALA SATYANARAYAN
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Chapter 1
Introduction

1.1 Introduction

Magadh OCP is a brownfield opencast coal mining project administratively under Magadh & Sanghmitra Area of CCL headed by General Manager, M&A Area. This project falls within two districts namely Chatra and Latehar Districts of Jharkhand.

This project presently operating at an EC capacity of 20 MTPA obtained vide letter no: J-11015/865/2007-IA.II (M) Dt. 27.10.2008.

The revised mine plan and mine closure plan of Magadh OCP (20 MTPA) was approved within the ML Area of 1593.73 Ha.

1.2 Purpose of the Report

CCL had submitted a proposal for the diversion of forest land of 192.36 ha (Forest land-57.29ha and Jungle Jhari 135.07 ha) falling within the mine lease of Magadh Opencast mining project to MoEF&CC, GoI through Department of forest, GoJ, Ranchi.

Stage – I approval under section 2 (1) (ii) of the van (Sanrakshan Evam Savardhan) Adhiniyam, 1980 for the non-forest use of 192.36 ha (Forest land 57.29 ha and jungle Jhari 13.07 ha) of forest land for Magadh East Opencast mining project in favour of CCL, Chatra south, Jharkhand has been accorded by MoEF&CC vide letter no. File.No.8 -27/2022 -FC- dated 27.05.24.

As per clause no. 9 Para i, ii, iii, iv& v of the said letter, the user agency has to comply with following conditions:

- Preparation of a scheme for the proper mitigation measures to minimize soil erosion and choking of stream and shall be implemented;
- Planting of adequate draught hardy plant species and sowing of seeds to arrest soil erosion;
- Construction of check dam, retention/toe wall to arrest down of the excavated material along the contour.
- The area shall be reclaimed keeping in view of the international practice or stabilising the dump grading/benching so that the angle of repose (normally less than 28° at any given point) are maintained;
- Top soil management plan should be strictly adhered.

Accordingly, CCL has entrusted CMPDI as a consultant to take up the above said job vide work order no: GM (P&P) /WO /Forest /SEP-TSMP /MSArea/Magadh/ 2024-25/615-20 Dt. 28.11.2024.

1.3 Objective and Scope of the Study

Key objectives of the study are as follows:

1. To carry out soil erosion study and mitigation plan with main focus on the forest land within the Mine lease area proposed for diversion.

SADALA SATYANARAYAN
PROJECT OFFICER
MAGADH OCP

2. Reclamation of Mining area including Dump Management plan, Topsoil Management Plan and biological reclamation plan.

1.4 Details of the Project Proponent

S. No	Particulars	Details
1	Name of Project	Magadh OCP
2	Name of the proponent	Central Coalfields Limited (CCL)
3	Registered Address	Office of the Director Technical (Project & Planning), Central Coalfields Limited, Darbhanga House, Kutchery Rd District - Ranchi, Jharkhand - 834029
4	Legal Status of the Company	A subsidiary of Coal India Ltd.- Public Sector Undertaking under Central Government (Ministry of Coal)-A Mini-Ratna Company
5	Joint Venture	No

1.5 Location, Topography and Communication

1.5.1	Location of coal deposit (District and State)	District-Chatra,LateharState-Jharkhand
1.5.2	Communication: PWD roads, railway lines, Air	The Magadh OCP is approachable by 12 Km long fare weather Kutcha road from Tandwa village which is connected to Khalari via Piparwar by a 20 Km long fare weather road in the south and to Hazaribagh by a 50 Km long Metalled road via Barkagaon. Another metalled road connects Tandwa village with Hazaribagh (80 Km) via Simaria. A fair weather kutcha road connecting Tandwa village with Balumath also runs close to this OCP, which in turn is connected to Khalari via Tori and Bijupara. The nearest railway station is the Ray, which is at a distance of about 35 Km from the block, on BarkakanaDehri-on-Sone loop line of the Eastern Railway. Tori Railway station is another nearby railhead, located south-west of the block, at a crowfly distance of about 45 Km.
1.5.3	Prominent physiographic	The Magadh OCP is characterized by more or less flat terrain with with gentle undulations

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MAGADH OCP

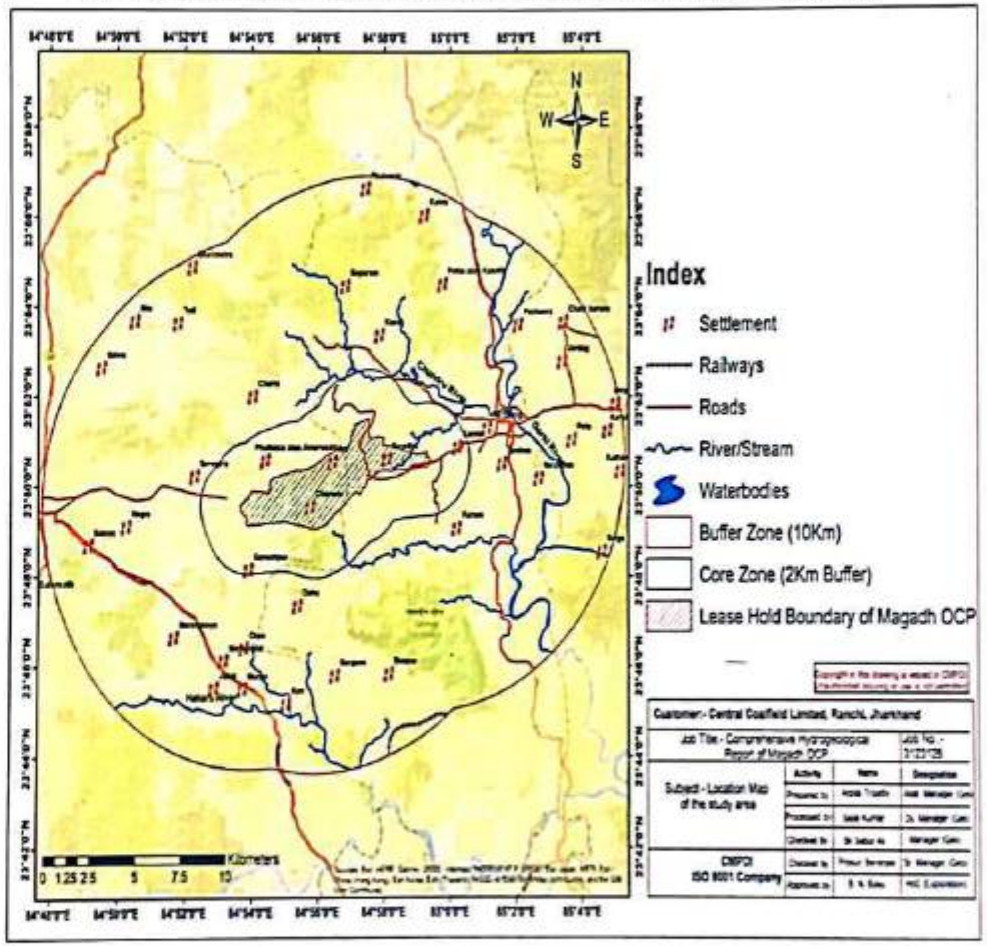

Figure 1.1: Location of the Project

SADALA SATYANARAYAN
PROJECT OFFICER
MAGADH OCP

1.6 General Information

1.6.1 Name and Address of the Project

(a)	Name & size of the project		:	Magadh Opencast Coal Mining Project (20.0 MTY)
(i)	Name of the project proponent		:	Project Officer, Magadh OCP, Magadh-Sanghmitra area Area, CCL.
(ii)	Mailing Address		:	Office of the Director Technical (P&P), Central Coalfields Limited, Darbhanga House, Kutchery Rd District - Ranchi, Jharkhand - 834029
(iii)	E-mail		:	gmmgsccl@gmail.com
(iv)	Legal Status		:	Central Public Sector Enterprise
(b)	Objective of the project		:	To bridge the over all deficit of coal availability over demand of CCL.
(c)	Nature of the project			Brown-field Opencast Coal mining Project
(d)	Location of the Project			
	(i)	Name of the Villages	:	Chatra Dist : Masilong, Saradu, Dewalgore and Kundi Latehar:Phulbasia, Ara, CHAMATU AND Ganeshpur.
	(ii)	Tehsil	:	Bariatu, Balumath & Tandwa
	(iii)	District	:	Latehar & Chatra
	(iv)	State	:	Jharkhand
	(v)	Pincode	:	825321
	(vi)	Latitude	:	23°47'40" to 23°51'30"N
	(vii)	Longitude	:	84°53'40" to 84059'30"E
	(viii)	Topo sheet No.	:	73A/13
	(ix)	Max. elevation above MSL	:	+499 m to +530 m

SADALA SATYANARAYAN
PROJECT OFFICER
MAGADH OCP

	(x)	Seismic Zone	:	Zone III
	(xi)	Nearest revenue town & Dist. HQ	:	Town – Tandwa Distance 4 km District HQ : Chatra- 50km Latehar- 60 km
	(xii)	Connection to the State Capital	:	Ranchi 80 kms by Road
	(xiii)	Nearest railhead	:	Ray Railway station (45 kms)
	(xiv)	Nearest Airport	:	Ranchi Airport (80 Kms)
	(xv)	Address	:	PO-Tandwa, Dist- Chatra, Jharkhand. PIN- 825321
(e)	Details of Coal Linkage		:	Basket Linkage
(f)	Co-ordinates of the project boundary (at each node)		:	Reference of nodes are given in figure 1. Co-ordinates of the project is given below:

Figure 1.2: Project Boundary on Google Earth

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Node	Latitude	Longitude
A	23°49'34.39"N	84°53'36.99"E
B	23°50'8.96"N	84°54'33.50"E
C	23°50'50.18"N	84°56'49.45"E
D	23°50'46.47"N	84°59'16.14"E
E	23°50'35.82"N	84°59'24.63"E
F	23°50'25.42"N	84°59'16.14"E
G	23°50'25.51"N	84°59'2.43"E
H	23°49'30.67"N	84°56'41.16"E
I	23°49'2.56"N	84°55'55.42"E
J	23°49'8.80"N	84°53'48.96"E
K	23°51'6.88"N	84°56'59.59"E
Note: Area Falling within C-D-E-F-G-H falls within the Chatra Dist Area Falling within A-B-C-H-I-J falls within the Latehar Dist		

Figure 1.3: Project Boundary on Google Earth

1.6.2 Ecological Sesintivity

<table>
<tr><th>Sl No.</th><th>Areas</th><th></th><th>Aerial distance (within 10 km.) Proposed project location boundary</th></tr>
<tr><td>1</td><td>Areas protected under international conventions, national or local legislation for their ecological, landscape, cultural or other related value</td><td>:</td><td>Nil</td></tr>
<tr><td>2</td><td>Areas which are important or sensitive for ecological reasons - Wetlands, watercourses or other water bodies, coastal zone, biospheres, mountains, forests</td><td>:</td><td>
<table>
<tr><th>A. Forest</th><th></th><th>Distance in km</th></tr>
<tr><td>Protected SAL Forest (NE)</td><td>:</td><td>0.00</td></tr>
<tr><td>Tandwa Forest (S)</td><td>:</td><td>2.50</td></tr>
<tr><td>Chatra Forest Range (SE)</td><td>:</td><td>8.00</td></tr>
<tr><th>B. Water Body</th><th></th><th>Distance in Km</th></tr>
<tr><td>Garhi River</td><td>:</td><td>5.5 km east of the Project</td></tr>
<tr><td>Chundru River</td><td>:</td><td>2.5 km N-E of the project</td></tr>
<tr><td>Stream within ML</td><td>:</td><td>One 2nd order stream flowing within ML</td></tr>
</table>
</td></tr>
</table>

SADALA SATYANARAYAN
PROJECT OFFICER
MAGADH OCP

Sl No.	Areas		Aerial distance (within 10 km.) Proposed project location boundary
3	Areas used by protected, important or sensitive species of flora or fauna for breeding, nesting, foraging, resting, over wintering, migration	:	This project involves notified forest Within the ML Area and involves few schedule-I Species.
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	:	Nil
7	Defence installations	:	Nil
8	Densely populated or built-up area	:	Tandwa Town, NTPC Tandwa Township (0.5 km via Road)
9	Areas occupied by sensitive man-made land uses (hospitals, schools, places of worship, community facilities)	:	Hospitals, Schools exist in Tandwa Town and place of worship (Chundru Temple) is located adjacent to the South western boundary of the project.
10	Areas containing important, high quality or scarce resources (ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals)	:	The area is having rich coal mineral reserve along with some good forest patches. Agriculture is dominant around the mining areas.
11	Areas already subjected to pollution or environmental damage. (Those where existing legal environmental standards are exceeded)	:	No this area doesn't fall under CPA or SPA
12	Areas susceptible to natural hazard which could cause the project to present environmental problems (earthquakes, subsidence, landslides, erosion, flooding or extreme or adverse climatic conditions)	:	Nil

1.7 Sources and Type of Data

This report has been formulated using the various data from the following sources:

Sl.	Type of Data	Source
1	Mining and economic parameters	Mining Plan & Mine Closure Plan of Magadh OCP (20.0 Mty) approved as on 10.03.2021
2	Baseline water & soil quality data	M/s Central Mine Planning & Design Institute Limited.

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3	Hydrogeology	Approved Comprehensive Hydro-geological report of Magadh OCP
4	Rainfall and other meteorological data	IMD, Climate of Jharkhand and PMP Atlas
5	Topography, LULC	DEM files prepared by Drone survey by CMPDI, USGS.

1.8 Geological Parameters

The North Karanpura Coalfield forms a prominent east-west trending valley between Hazaribagh plateau in the north and Ranchi plateau in the south, The Aswa Pahar in the south-east separates the North and South Karanpura Coalfields by east-west elongated metamorphic patch. However, they are interconnected near Bachra and Hindegir by a narrow tongue of Talchir outcrops. On the eastern side, North Karanpura Coalfield is separated from the West Bokaro Coalfield by a narrow stretch for metamorphic rocks having several outliers of Talchir Formation. In the west, it is separated by a stretch of about 20 kms wide metamorphic belt from Auranga Coalfield.

The major coal bearing formations in the buffer zone are Barakar and Raniganj formation. Karharbari Formation is completely missing in the core zone and the Barakars rests directly over the Chotanagpur Gneissic complex. The Barakar formation contains good number of coal horizons and contributes the major bulk of reserves. Metamorphics are exposed in the northern part of the buffer zone and generally occupy high ground. There are five main Coal seams in Magadh block which are designated as Seam-I to V in ascending order. All the Coal seams belong to the Barakar Formation. Alluvium and residual soils occur only as superficial deposit. Deposits of alluvium occur along the flood plains of Damodar and the local streams.

Table 1.1: Sequence of the Coal Seams and Parting in Magadh Block

Coal Seams/ Parting	Thickness Range (m)		Average Thickness (m)
	Min.	Max.	
Seam V Top	0.47	6.22	3.345
Parting	0.00	11.35	5.675
Seam V Bottom	0.40	2.00	1.2
Seam V Top & Bottom (Combined)	5.5	7.36	6.43
Parting	94.1	111.68	102.89
Seam IV	2.16	5.52	3.84
Parting	3.6	27.22	15.41

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Seam III	2.2	9.92	6.06
Parting	0	39.98	19.99
Seam II Top	0.37	6.7	3.535
Seam III & II Top (Combined)	10.46	14.65	12.555
Parting	1.22	21.58	11.4
Seam II Bottom	0.22	2.87	1.545
Parting	0.78	7.35	4.065
Seam I Top	1.98	8.32	5.15
Parting	1.15	10.75	5.95
Seam I Middle	1.54	10.29	5.915
Parting	0.5	17.41	8.955
Seam I Bottom	3.85	11.79	7.82

Table 1.2: Geological Succession of Magadh Block

Period	Group	Sub-Group	Formation	Lithology
Recent			Alluvium	Detrital & alluvial soil & sub-soil.
Post Gondwana			Igneous intrusives	Dolerite & Mica peridotite
----------Unconformity----------				
Triassic	Upper Gondwana		Mahadeva	Massive coarse to conglomeratic feldspathic ferruginous sandstone with shale intercalations
Upper Permian to Lower Triassic	Lower Gondwana		Panchet	Yellowish to white coarse grained sand stone, red, chocolate coloured plastic clays. In upper part, yellowish friable sandstone whereas greenish yellow sandy shale in the lower part with sand dune structure

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Upper Permian		Damuda	Raniganj	Fine to medium grained quartzo feldspathic & quartzitic sandstone often micaceous & matured, interbanded shale & sandstone, carbonaceous shale & thin coal seams.
Lower Permian			Barren measures	Dark shale, sandy micaceous shale with siderite interbanded shale &sandstones.
			Barakar	Conglomerates, shale, grey-wacke, sandstone inter-banded with shale carbonaceous shale fireclay and coal seams
			Karharbari	Grey-wackes, dark Mottled sandstone with occasional shale bands, fireclay, chocolate coloured clays & coal seams
Permo Carboniferous			Talchir	Rikba plant beds, Boulder conglomerates ferous varvites, sandstone, Tilloids & Tillites
----------Unconformity----------				
Pre-cambrian			Metamorphics	Granite gesisses, pegmatities, phylli-ties mica-schist, & lime stones, chromite bearing rocks amphibo-lites and quartzites.

The Magadh block is characterised by a simple structure. The eastern boundary of the block is along a major fault of about120m. throw towards north east. This fault is designated as F1and is responsible for bringing the Barren Measures in juxtaposition of Barakars in the down dipside of Magadh.

The strike of the strata is roughly NE-SW with southerly dip of 4°to 9°

1.9 Mining Parameters

The details of mine parameters as per the approved mine plan of Magadh OCP (1593.73 Ha./ 20 MTPA are as detailed below:

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Table 1.3: Mining Parameters of Magadh OCP

Particulars	Details
Block Area in "Ha"	3000
Project Area "Ha"	1593.73 (As per Approved Mining Plan)
Life of the Project "Yrs"	26
Minimum and Maximum Depth of working "m"	100 m-110 m
Production Target "MTPA"	20.0
Seams Available "As per GR"	Top to bottom 1. IV 2. III (comb) 3. III (B) 4. II + III (B) 5. III + II (T) 6. II (T) + II (B) 7. II (T) 8. II (B) 9. I (T) 10. I (M) 11. I (B+M+T) 12. I (B)
Gross Geological Reserve "Mt"	1069.53
Net Geological Reserve "Mt"	962.58
Blocked Reserve "Mt"	106.95
Minable Reserve "Mt"	351 Mt
Extractable Reserves "Mt"	351 Mt
% of Extraction/ recovery	As per Approved Mining Plan
Reserve Depleted (till the base date) Reserves " Mt" (As on Mining Plan Approval date)	13.75

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Balance Extractable reserve "Mt" (As on Mining Plan Approval date)	337.25
Average Grade	F
OB in MM3	501.41
SR MM3/te	1.49
Mining Technology	Shovel-dumper mining system has been envisaged for working this OC mine.

1.10 Landuse

As per the approved mine plan of Magadh OCP provided by the project proponent, the project area is 1593.73 Ha. falling with Chatra and Latehar Districts of Jharkhand. Out of which, 495.12 Ha falls within the Chatra district and the remaining area falls within the Latehar district.

The proposed land use during mining of the project is as given below.

Table 1.4: Landuse of Magadh OCP

Land Use of Magadh OCP (Chatra + Latehar)	
Particulars	**Area in Ha**
Querry Area	1146
External Dump	166.91
Safety Zone	159.68
Other use	14.8
Infrastructure Area	106.34
Total area in Ha	**1593.73**

Whereas, this report mainly focuses on the Chatra part of the mine lease area, accordingly the head wise break-up of the land falling within the Chatra region is as given below.

Table 1.5: Land use of Magadh OCP Falling within Chatra Dist. (495.92 Ha.)

	Land in Ha	NF	GM JJ	Non Forest
Quarry	345.89	55.57	150.52	139.8
OB Dump	27.8	0	4.99	22.81
Conveyor Corridor	3.56	0	0.58	2.98
Road	2.71	0	0.65	2.06
Safety	5.04	5.04	0	0
Green belt	110.92	9.14	49.55	52.23
Total	**495.92**	**69.75**	**206.29**	**219.88**

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Forest Stage-II obtained vide FC no: 8-38/2008-FC Dt. 18.10.2010	**83.68**	**12.46**	**71.22**	**0**
FC for Stage-I obtained File.No.8 -27/2022 -FC- dated 27.05.24	**192.36**	**57.29**	**135.07**	**0**

The key land use plan showing the revenue details of land falling within the Chatra region, and proposed land use changes during mine operation is as shown below.

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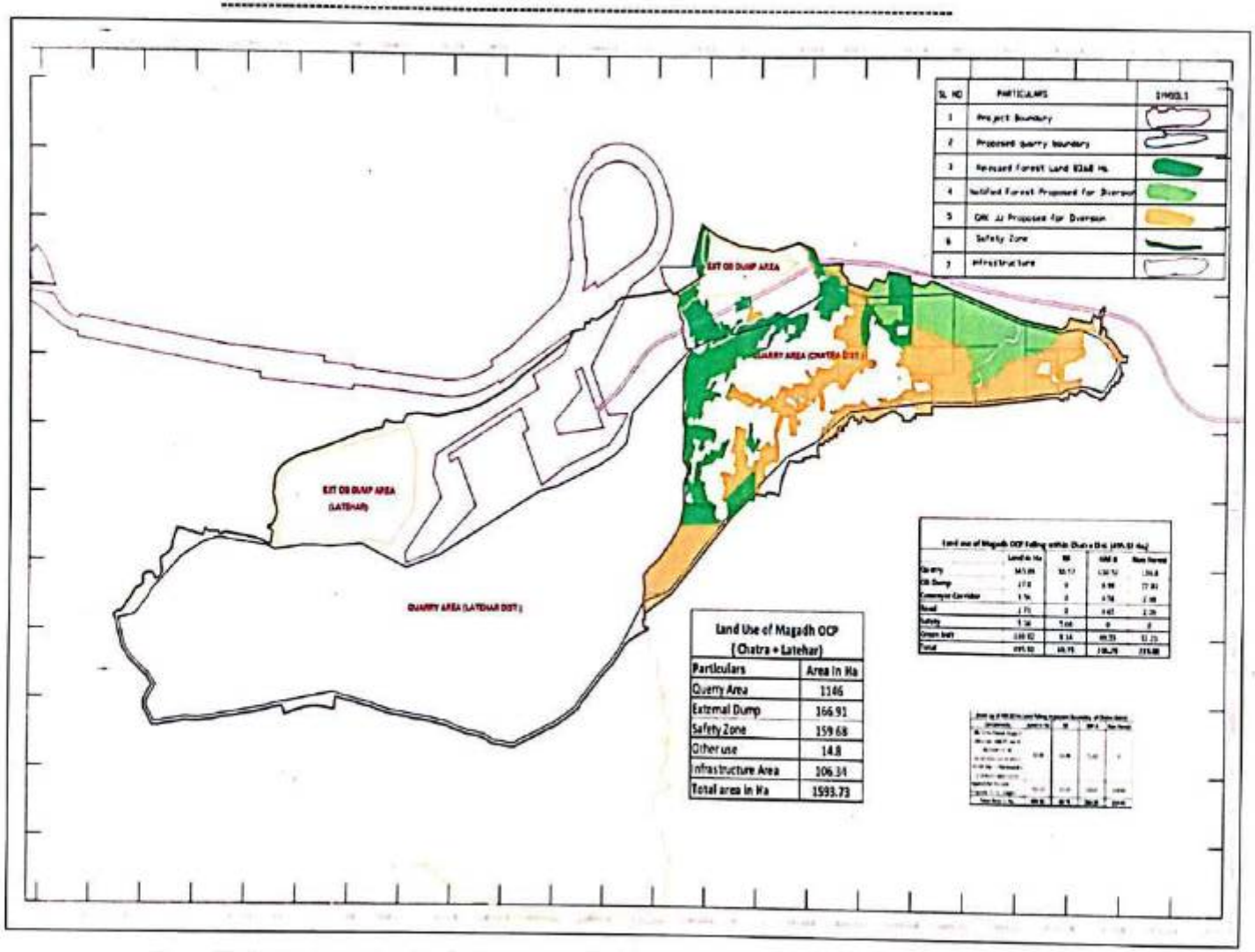

Figure 1.3 Key land use plan showing the revenue details and proposed landuse changes during mining

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Chapter 2
Soil Erosion and Mitigation: An Overview

2.1 Soil Erosion

Soil erosion is a global phenomenon impacting diverse landscapes, from small residential properties to vast forests and deserts. It occurs due to natural processes such as rainfall, wind, and ice melt, which dislodge and transport soil particles. Simultaneously, rock disintegration contributes to soil formation, creating a dynamic balance between erosion and soil generation. However, human activities often accelerate soil erosion, disrupting this natural equilibrium.

- **Mechanisms of Soil Erosion**

Soil erosion results from the action of natural agents such as:

- **Rainfall**
- **Wind**
- **Ice Melt**

Each agent contributes uniquely to the erosion process. Below, the major types of soil erosion and their mechanisms are detailed.

2.2 Rainfall-Induced Erosion

Studies indicate that water-induced soil erosion is primarily initiated by falling raindrops, with surface runoff acting as a secondary agent. The erosion process begins with the onset of rainfall and involves two key factors:

1. **Falling raindrops**
2. **Flowing runoff**

2.2.1 Falling Raindrops

When raindrops strike the soil surface, they break apart soil clods and aggregates, dislodging particles from the soil mass. The impact energy of falling water detaches the particles, while surface runoff transports them downslope. This phenomenon is referred to as the splash erosion process.

In hilly catchments, splash erosion is more pronounced than in flat catchments due to the downhill movement of soil particles. On flat surfaces, the splash impact is more evenly distributed, balancing the incoming and outgoing soil displacement.

2.2.2 Flowing Runoff

Runoff occurs when rainfall exceeds the soil's infiltration capacity, causing water to flow downslope due to gravity. As water depth and flow velocity increase, the runoff gains sufficient

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kinetic energy to detach and transport soil particles. Over time, this process lowers the soil surface and creates preferential flow paths, which further accelerate erosion in those areas.

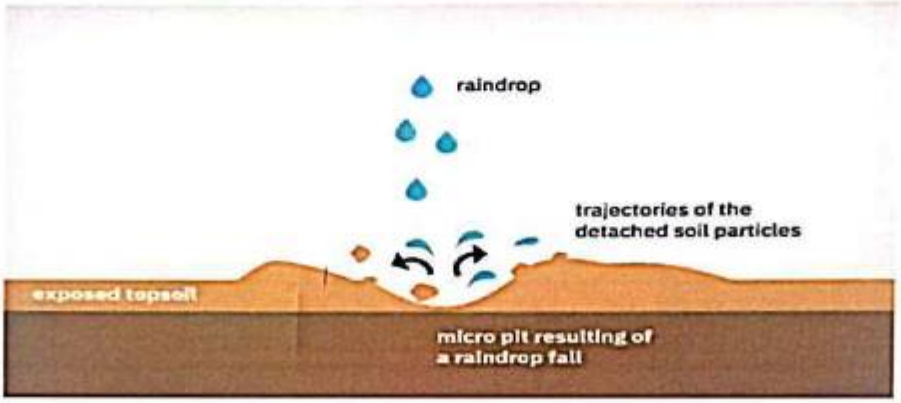

Figure. 2.1: Figure showing splash erosion

2.3 Wind-Induced Erosion

Wind erosion occurs on dry, sandy, or dusty surfaces that lack adequate vegetation cover. Strong winds pick up and transport loose fine-grained particles, leaving behind coarser materials. This sorting action alters soil texture, removing vital components such as silt, clay, and organic matter, which are essential for productivity and water retention. Wind erosion is influenced by storm intensity, wind speed, and duration.

2.4 Ice-Induced Erosion

Erosion caused by snow and glacier melt occurs in regions with sustained cold temperatures. Snowmelt peaks in spring, while glacier melt is most pronounced during summer. These processes create seasonal fluctuations in river flow, with peak activity driven by air temperature and sunlight duration. However, ice-induced erosion is not relevant in tropical regions like the present study area, where temperatures do not reach freezing levels.

2.5 Consequences of Soil Erosion

Soil erosion has far-reaching impacts on the environment, agriculture, and human settlements. The most critical consequences of soil erosion include:

- Water pollution
- Irregular water availability
- Choking of streams
- Alteration of soil texture

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2.5.1 Water Pollution

Water is the most essential requirement after air for the survival of any kind of life which needs more or less some quantity of water. It holds a pivotal position in the total environment so that if its availability is in optimum quantity, it can protect all aspects of the environment and if availability is less or more than the requirement then the quality of all aspects of the environment gets endangered. Water is made available by nature in good quantity and quality in the form of rainwater, underground water, and through the river, Nala, ponds etc. This water gets affected due to disturbance in nature using man's activities associated with construction, mining activities, etc.

Mainly two types of actions cause water pollution.

- Mixing foreign substances with natural water causes physical and chemical changes.
- Interception or diversion of full or part of any waterway.

The operation of mining and allied activities of this project would have an impact on water quality through the generation of wastewater in the surrounding area in many ways. The source of such a polluted liquid effluent has an impact on water quality and these are discussed elaborately in the EMP report.

2.5.2 Improper Water Availability

When soil lacks adequate cover from vegetation, mulches, or crop residues, it becomes more vulnerable to the impact of raindrops. When raindrops strike bare soil, their energy dislodges individual soil particles from larger clods. These particles can block surface pores, forming thin, nearly impermeable sediment layers called surface crusts, typically composed of sandy or silty particles. These crusts, which can range from a few millimeters to over a centimeter in thickness, hinder rainwater infiltration into the ground. As a result, the soil's water-holding capacity decreases, leading to increased surface runoff and heightened soil erosion. The displaced soil is often deposited in low-lying areas, ponds, streams, or water channels, reducing their water storage capacity. Furthermore, reduced infiltration rates limit groundwater recharge, significantly diminishing the overall water-holding capacity of the region. This leads to water shortages during dry periods.

Conversely, the increased speed and volume of surface runoff can lead to flooding in downstream areas, disrupting water availability and creating further imbalances in the region's water resources

2.5.3 Choking Of Streams

Rainfall water that does not infiltrate into the soil starts to flow downhill under the action of gravity. Initially, run-off moves down the slope as a thin diffused film of water that has lost virtually all the kinetic energy which it possessed as falling rain. Thus, it moves only slowly, has a low flow power, and is generally incapable of detaching or transporting soil particles.

If the rain continues, the increasing depth of water will eventually increase. Overland flow that is released in this way is likely to flow downhill more quickly and in greater quantities (i.e. possess more flow power as a result of its kinetic energy), and so it may be able to begin

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transporting and even detaching and picking up the soil particles. When the speed of runoff is decreased, the carrying capacity of the runoff gets reduced, subsequently, sedimentation takes place, causing the choking of the stream. Following are the main area where maximum soil erosion takes place.

2.5.4 Change in Soil Texture

The most serious and significant effect of soil erosion, by far, is the change in soil texture caused by wind/water erosion. Finer soil fractions (silt, clay, and organic matter) are removed and carried away by the wind, leaving the coarser fractions behind. This sorting action not only removes the most important material from the standpoint of productivity and water retention but leaves a more sandy soil and thus a more erodible soil than the original. Successive removals eventually create such a soil condition wherein plant growth is minimized and erodibility is greatly increased. Damage results both from water erosion and the consequent dust storms. Control becomes more and more difficult. In the extreme, the sand begins to drift and form unstable dunes which encroach on better surrounding lands. Throughout recorded history, huge agricultural areas have been ruined for further agricultural use in this manner

2.6 Estimation of Soil Erosion

Erosion is a natural geomorphic process occurring continually over the earth's surface and it largely depends on topography, vegetation, soil, and climatic variation and, therefore, exhibits pronounced spatial variability due to catchments heterogeneity and climatic variation.

Soil erosion is a three-stage process:

(1) Detachment,

(2) Transport, and

(3) Deposition of soil.

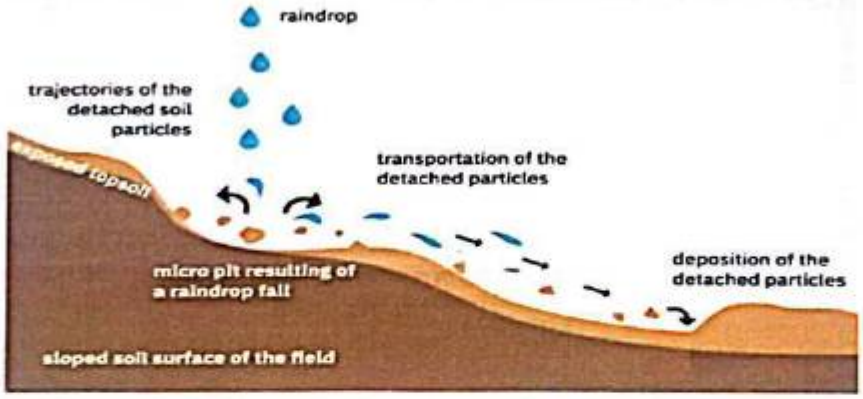

Figure. 2.2: Figure showing stages of soil erosion processes

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Different energy source agents determine different types of erosion. There are five principal sources of energy that affect erosion such as wind, water, gravity, chemical reactions, and anthropogenic, such as tillage. Soil erosion begins with detachment, which is caused by the breaking down of aggregates by raindrop impact, sheering, or drag force of water and wind. Detached soil particles are transported by flowing water (overland flow and inter-flow) and wind, and deposited when the velocity of water or wind decreases by the effect of slope or ground cover. Three processes viz. dispersion, compaction, and crusting accelerate the natural rate of soil erosion. These processes decrease structural stability, reduce soil strength, exacerbate erodibility and accentuate susceptibility to transport by overland flow, interflow, wind, or gravity. These processes are accentuated by soil disturbance (by tillage, vehicular traffic), lack of ground cover (bare fallow, residue removal or burning), and harsh climate (high rainfall intensity and wind velocity).

The above problems can be circumvented by describing the catchments into approximately homogeneous sub-areas using the Geographic Information System (GIS). In this study, the remote sensing and GIS techniques (through Satellites Imagine and interrelated software) were used for the derivation of spatial information, catchments description, data processing, etc.

2.9 Nature of Soil Erosion Works

Soil erosion works on the site are carried out as per the site-specific approved treatment plan. Emphasis is to be given to contour line treatment with small and medium erosion controll works. The soil erosion and area development works are concerned; the entire area is to be treated as a unit. In an area prone to Soil Erosion and degraded forest, following measures are suggested to increase moisture level:

Contour Trenches

Check Dams

Earthen Ponds

Grassing

Mulching

Various plantation models such as mangrove plantation, coastal border plantation, plantation as per the provision in different areas, soil and moisture conservation works of forest and plantation areas, maintenance & up-keep of plantation areas with different models are formulated for different areas.

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Chapter 3
Hydrogeological Studies

3.1 Introduction

Magadh OCP, located in the northwest part of the North Karanpura Coalfield, features a predominantly flat terrain with gentle undulations. The general slope of the land is towards the south across most of the block, while the northern section slopes towards the east. According to DEM data derived from SRTM30 for the buffer zone, the elevation ranges from a maximum of 685 meters to a minimum of 414 meters. The DEM analysis indicates that high-altitude areas are predominantly found in the northwestern part of the buffer zone and portions of the south-central region, whereas the central and eastern regions are characterized by low-lying areas.

3.2 Drainage Pattern of the Study area

The Garhi Nadi, which is the master drainage of the buffer zone, flows towards south of the project. The Barki nadi and Chundru nadi are the two major tributaries of Garhi nadi, which flows at a distance of 4 to 6 km from the project. The Chundru River flows from north to south in the east of the project. The other nala flowing in the buffer zone are Kuhubad nala, Bhuthu nala and Domuham nala. Besides, there are some small seasonal nalas like Dhordhara nala, which discharge their load into the Garhi river flowing south of the project. The drainage pattern of the buffer zone is mostly dendritic. Garhi nadi, the major river of the buffer zone ultimately joins master drainage Damodar river, outside the buffer zone of the project.

The drainage pattern of the area is mostly dendritic in nature. The drainage and the GW monitoring station has been shown below.

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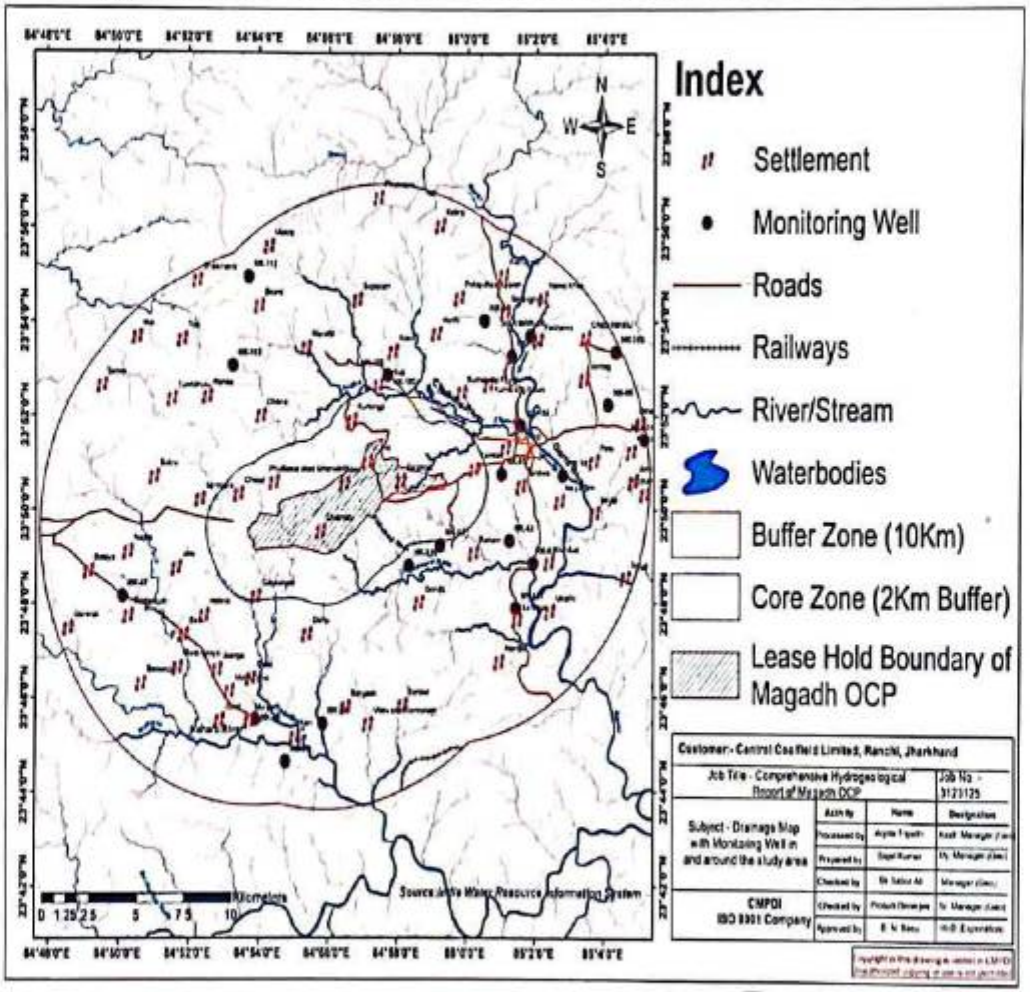

Figure 3.1: Drainage Plan of the Study area showing ML Area and 10 km Buffer Zone

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3.3 Aquifer Charecteristic

The thin alluvial formation comprising of soil, loose sand, weathered sandstone, poorly cemented thin shaly sandstone lies above the coal seam V in the Magadh block behaves as unconfined aquifer. The lower formations, consisting of compact fine to medium grained sandstone with lamination and intercalation with thin shale and carbonaceous shale bands with secondary porosity, behave as semi-confined in nature and are less potential. The deeper aquifers behave as an unconfined aquifer at the outcrop region. In the sandstone aquifer, groundwater moves laterally through the inter-granular pore spaces of the sandstone.

Table 3.1: Aquifer Characteristics

Aquifer Unit	Lithology	Avg. Thickness
Unconfined aquifer	Loose alluvium soil, weathered sandstone followed by sandstones and shale.	17.0
Aquiclude	**Seam V Top**	3.345
Semi confined aquifer	Carb. shale, grey shale, sandy shale and medium to coarse grained sandstone.	5.675
Aquiclude	**Seam V Bottom**	1.2
Semi confined aquifer	Carb. shale, Grey shale and Sandy shale	102.89
Aquiclude	**Seam IV**	3.84
Semi confined aquifer	Sandy shale, Intercalations of shale and Sandstones, Fine to medium grained Sandstone	15.41
Aquiclude	**Seam III**	6.06
Semi confined aquifer	Intercalation of shale and sandstone	19.99
Aquiclude	**Seam II Top**	3.535
	Generally grey shale and intercalation of shale and sandstone	11.4
Aquiclude	**Seam II Bottom**	1.545
Semi confined aquifer	Carb shale, grey shale and intercalation of shale and sandstone	4.065
Aquiclude	**Seam I Top**	5.15
Semi confined aquifer	Parting Medium grained sandstone and sandy shale, shale & grey shale	5.95
Aquiclude	**Seam I Middle**	5.915
Semi confined aquifer	Medium grained sandstone and sandy shale, shale & grey shale	8.955
Aquiclude	**Seam I Bottom**	7.82

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Detailed Aquifer Performance Test (APT) was carried out in the Magadh-Amrapali Block, where permeability of the unconfined aquifer is determined as 2.0 m/d. The permeability for lower aquifer (Formation like alternate bands of sandstone and shale and carb shale) lying above the working seam have been considered as 0.34 m/d (usually low permeable formation) as per APT done in Churi Block.

3.4 Ground water flow and aquifer interaction with surface water bodies

A groundwater table contour map for the study area has been developed for both the pre-monsoon and post-monsoon periods of the year. The analysis reveals that the overall groundwater flow direction in the buffer zone trends towards the southeastern and southern regions, ultimately draining into the master stream, the Damodar River, which lies to the south of the buffer zone. On a local scale, within the core and buffer areas of the project, the groundwater flow direction for both seasons is illustrated in the contour map provided below.

The groundwater flow pattern in the study area indicates that most rivers and streams are gaining, or effluent, in nature. Additionally, the majority of the rivers and streams in the buffer zone are rain-fed, responding directly to rainfall events and exhibiting a characteristic pattern.

- **Pre-monsoon**, low-flow conditions in the stream consist entirely of base flow at the end of a dry period.
- With monsoon rainfall, an increase in stream flow with input of quick flow dominated by runoff and interflow. The rapid rise of the stream level relative to surrounding groundwater levels reduces the hydraulic gradient towards the stream.
- **Post-monsoon**, with declining stream levels timed with the delayed response of a rising water table from infiltrating rainfall, the hydraulic gradient towards the stream increases. At this time, the base flow component starts to increase. Over time, base flow declines as natural storages gradually drained during the dry period up until the next significant rainfall event.

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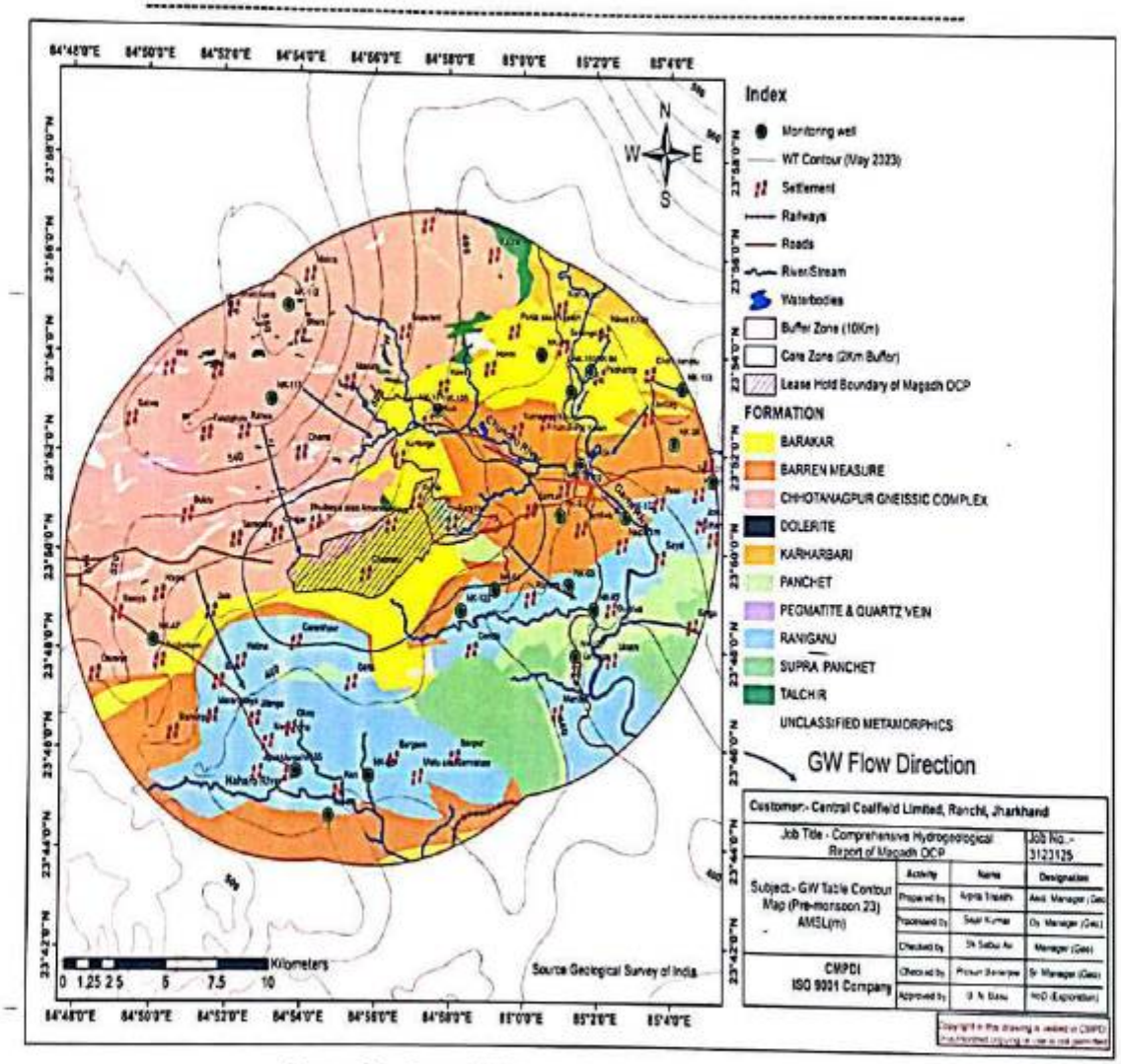

Figure 3.2: Ground Water Table Contour (Pre-Monsoon)

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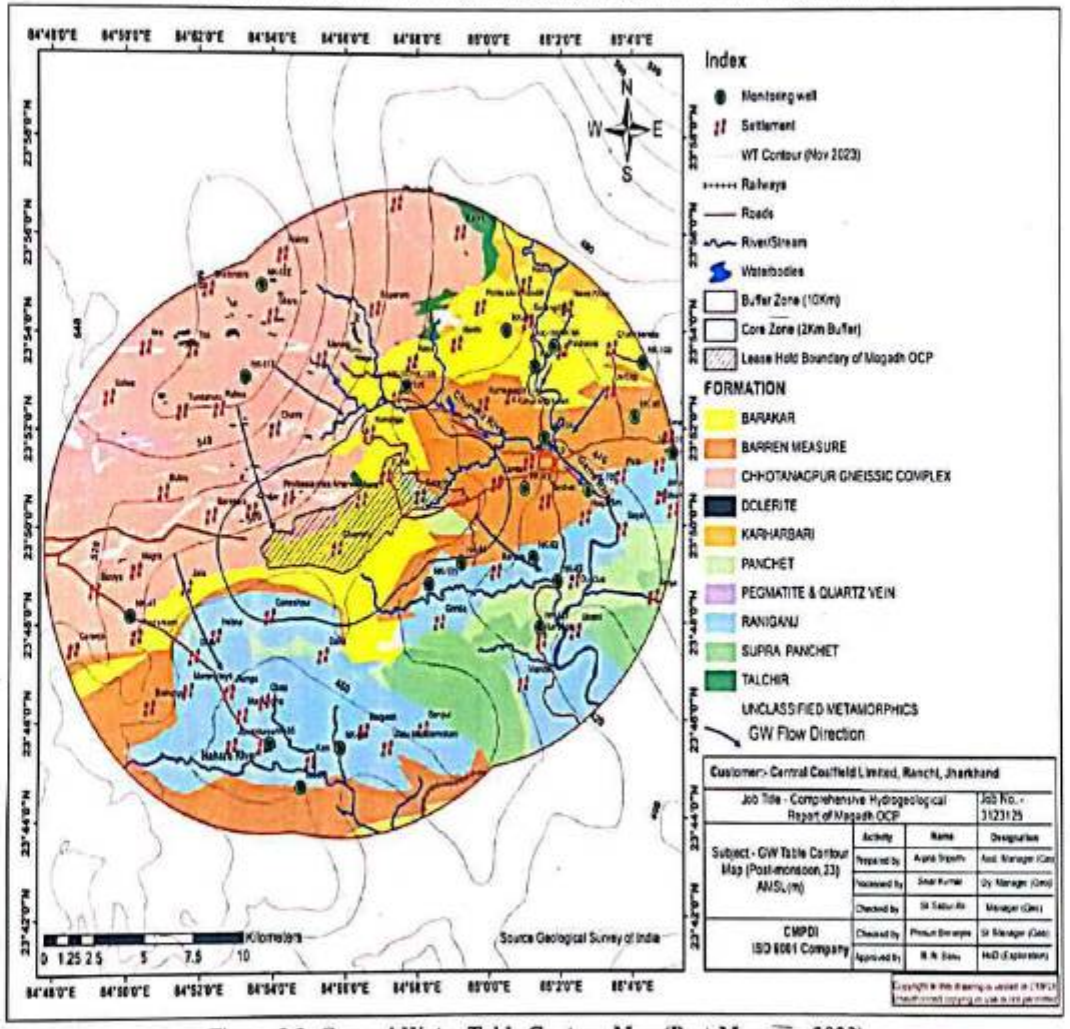

Figure 3.3: Ground Water Table Contour Map (Post-Monsoon 2023)

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3.5 Proposed Stream Diversion

A seasonal nallah, which originates in village Ara, Dist. Chatra passes through the coal block and joins a tributary of the Chundru river at (23°51'46.92"N, 85° 0'26.01"E). Since the seasonal nallah is passing through proposed excavation land for open cast mining operation, therefore, it is required to divert it in order to execute smooth mining operation without disturbing the flow of the nallah upstream and downstream of the mining block. The length of the diversion channel is about 4.1 km and proposed to divert the nallah near Ara village (23°50'33.76"N, 84°56'36.61"E) through a diversion channel which will meet again with the existing nallah near Masilaung (23°50'44.56"N, 84°58'47.18"E).

Figure 3.4 Google Map showing Existing course of Stream and Proposed Diversion Route

3.6 Water Environment

The water quality characterization has been conducted by collecting water samples from the surface water of the forest area. The various purposes of surface water monitoring are to assess the water quality characteristics for critical parameters; to facilitate predication of the impact on water quality by the area.

3.6.1 Methodology

The grab sampling method was adopted for the collection of the surface water samples from different sources of water bodies.

Surface water and mine water were collected as representative samples to assess the water quality of the area during the study period. The sampling locations were selected from the available water body in the area. These samples were analyzed as per the "Standard Method for the Examination of Water & Waste Water" published by the American Public Health Association (APHA: 23nd Edition).

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Samples for chemical analysis were collected in polyethylene containers. Samples collected for metal content were acidified with 1 ml. Conc. HNO3 per liter. Samples for bacteriological analysis were collected in sterilized glass bottles. Some of the parameters such as temperature, pH, DO, alkalinity, total hardness and chloride, etc., which were liable to change with time were analyzed at the site with the help of an analytical kit, and one set of "Preserved" samples were brought to CMPDI's laboratory at Ranchi for detailed analysis of the remaining parameters stated in the tables.

3.6.2 Major Instruments Used

- Double-Beam Spectrophotometer
- Nephelometer
- Atomic Absorption Spectro - Photometer
- Conductivity Meter
- pH Meter
- Analytical Balance (Mettler)
- BOD Incubator
- High Speed Centrifuge
- Oven
- Muffle Furnace
- Ion Chromatography etc.

3.6.3 Rationale Behind Sampling

Any adverse impact or pollution consequence of water will have a serious effect on the environment. Thus, to assess the surface water quality, samples from different water bodies were collected from 2 different locations and analyzed for physicochemical and heavy metal parameters.

3.6.4 Sampling Locations

Details of sampling location are given:

Table 3.2: Sampling Location for Surface Water

Sl. No	Name of Sampling Locations	Latitute	Longitude
01.	S-1	84.96	23.8424
02.	S-2	84.97	23.8452

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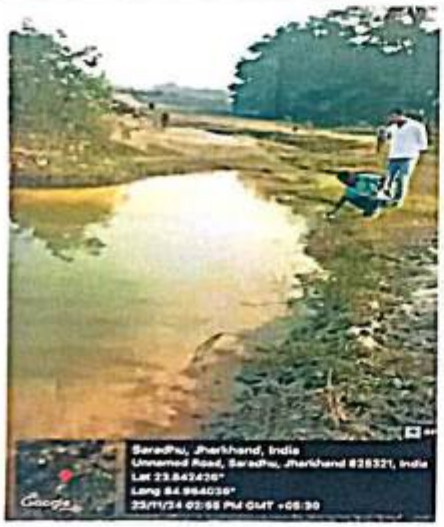
3.6.5 Characteristics of Surface Water Samples

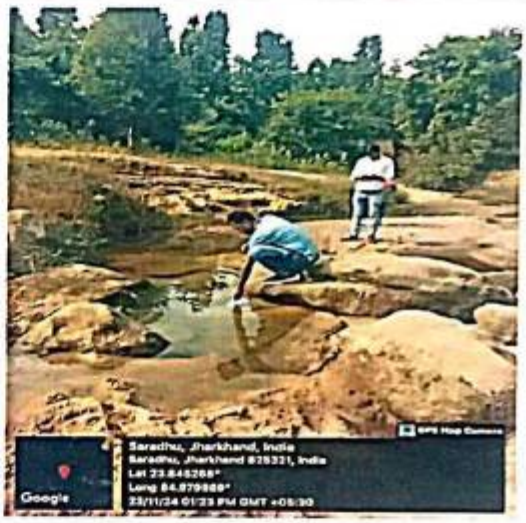
The Physicochemical characteristics of water samples collected and locations have been presented here under:

The sample has been tested with the following results: -

Area :	**Magadh**	**Project:**	**Magadh**
Stations:			**Date of Sampling:**
	1. Saradhu River U/S		23-11-2024
	2. Saradhu River D/S		23-11-2024



Saradhu (Up stream)



Saradhu Down stream

Figure 3.5: Water Sampling locations

3.6.6 Physico-Chemical Characteristics of Water Quality

Table 3.3: Analysis result of Mine Water and Surface water

Sl.No	Parameter	Sampling Stations		Detection Limit	BIS Standard & Method
		1	2		
1	Arsenic (as As), mg/l	<0.002	<0.002	0.002	IS 3025/37:1988 R : 2003, AAS-VGA, Method

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2	BOD (3 days 27°C), mg/l	<2.0	<2.0	2.00	IS 3025 /44: 1993, R: 2003 3 day incubation at 27°C
3	Cadmium(as Cd), mg/l	<0.0004	<0.0004	0.0004	APHA, 23rd Edition AAS-GTA Method, 2017
4	Chlorides (as Cl^-), mg/l	66	20	2.00	IS-3025/32:1988, R-2007, Argentometric Method
5	Copper (as Cu), mg/l	<0.02	<0.02	0.02	IS 3025/42: 1992, R : 2009, AAS (Air-Ac-Flame)
6	Disolved Oxygen	7.7	7.8	0.10	IS 3025/38: 1989, R:2003, Winkler Azide Method
7	Fluoride (as F^-) mg/l	1.52	0.93	0.02	APHA, 23rd Edition, SPADNS Method, 2017
8	Hexavalent Chromium, mg/l	<0.01	<0.01	0.01	APHA, 23rd Edition, Diphenylcarbohydrazide, 2017
9	Iron (as Fe), mg/l	0.77	<0.04	0.04	IS 3025 /53: 2003, R : 2009, AAS (Air-Ac-Flame)
10	Lead (as Pb), mg/l	0.003	0.001	0.001	APHA, 23rd Edition AAS-GTA Method, 2017
11	Nitrate (as NO_3^-), mg/l	19.99	6.07	0.50	APHA, 23rd Edition, UV - Spectrophotometric, 2017
12	pH value	4.21	6.96	1.0	IS-3025/11:1983, R-1996, Electrometric Method
13	Phenolic compounds (as C_6H_5OH), mg/l	<0.001	<0.001	0.001	APHA, 23rd Edition, 4-Amino Antipyrine Method, 2017
14	Selenium (as Se), mg/l	<0.0005	<0.0005	0.0005	IS 3025/56:2003 AAS-VGA Method
15	Sulphate (as SO_4^{-2}) mg/l	740	162	2.00	APHA, 23rd Edition Turbidity Method, 2017
16	Total Dissolved Solids, mg/l	1357	342	25.00	IS 3025 /16:1984 R : 2006, Gravimetric Method
17	Total Suspended Solids, mg/l	107	102	10.00	IS 3025 /17:1984, R :1996, Gravimetric Method
18	Zinc (as Zn), mg/l	7.847	0.402	0.005	IS 3025 /49: 1994, R : 2009, AAS (Air-Ac-Flame)

3.6.7 Results & Discussion

The physicochemical characteristics of the surface water samples collected from the 3 locations have shown great resemblance with respect to the characteristics like temperature, turbidity, pH, color, odor, chloride, sulphate, total alkalinity, total hardness, TDS and heavy metals, etc.

From the results presented above in, it may safely be concluded that the Physico-chemical characteristics of the surface water samples had a good resemblance with respect to almost all the parameters.

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Chapter 4
Soil Quality and Parameter Assessment

4.1 Soil Quality

Soil is one of the most significant ecological factors on which plants depend for their nutrients; water and mineral supply. Indiscriminate deforestation, digging for minerals, and destruction of grazing lands for human habitation have done irreparable damage to the environment and even led to harsh climatic change. Some of the dangers posed by soil pollution are due to the fact that while the number of the earth's inhabitants are increasing, the earth's natural resources are by and large fixed as well as limited. Thus, the soil gets heavily polluted day by day by rapid anthropogenic activities and population explosion in developing countries.

Further, major mining activities affect the soil regime of the surrounding areas directly or indirectly. Hence, it becomes important to study soil quality as knowledge of soil parameters is essential for the planning and implementation of afforestation. Keeping the above aspects in view, four locations were selected to represent the entire area study area, and samples were collected from three depths viz. 0-30, 30-60 cm and 60-90 cm during the study period.

4.2 Methodology

Soil samples were collected by digging a pit at the appropriate location from depths 0-30, 30-60 cm and 60-90 cm with the help of a spade/ AGAR and a ' Khurpi'. The samples were brought to the CMPDI's laboratory at Ranchi and air-dried for a few days. The air-dried samples were then ground in an agate mortar with the help of a wooden hammer and passed through a 2 mm (10 mesh) sieve. The coarser materials were rejected and the sieved material was sampled by the standard Coning & quartering method (Ref. Jackson, M.L., 'Soil chemical analysis', Prentice Hall, India 1958).

The processed samples were analyzed for the different parameters according to the standard methods as described under Jackson, M.L., 'Soil Chemical Analysis, Prentice Hall, India 1958; millar, CE, turk, L.M. Foth, H.D. Fundamentals of Soil Science, John Wiley & Sons, Inc., New York, 1962, Indian Council of Agricultural Research, New Delhi, ' Hand Book of Agriculture', IS:2720 (Part IV), 1975 and IS:2720, Part (V), 1970; Methods of Soil Analysis, Part I & II, Black, CA et.al. American society of Agronomy, Inc. USA, 1965.

4.3 Equipment and Instruments used

- Ion Chromatograph
- AAS
- pH Meter
- Conductivity Meter
- Double-Beam Spectrophotometer
- Standard Sieves

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- Oven
- Muffle Furnace, etc.

4.4 Rationale Behind Sampling

The main aim of the soil testing is to assess the soil quality of the area for assessment of the production potential, selection of suitable species of plants for the green belt and afforestation as an anti-pollution measures. Thus, to assess the soil quality, 15 nos. of samples were collected from 5 different locations at the rate of three samples per project from the depths of 0-30 ,30-60 cm and and 60-90 cm for the study period. These sampling locations were selected in consultation with CMPDIL officials.

4.5 Sampling Locations

Details of sampling location are given below:

Table-4.1 Sampling location for soil quality assessment

Sl. No.	Name of Sampling Locations	X	Y
01.	S-1	84.97	23.84
02.	S-2	84.98	23.84
03	S-3	84.97	23.83
04	S-4	84.98	23.84
05	S-5	84.96	23.84

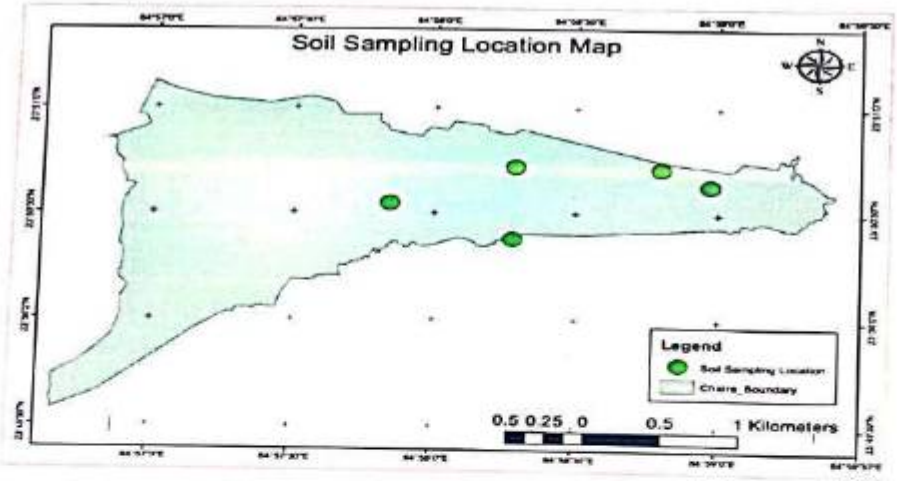

Figure 4.1: Soil Sampling Locations

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4.6 Observations

The observed characteristics of soil samples collected from four different locations are presented hereunder:

Table-4.2 Characteristics of soil: Sampling location: S-1

Area:MAGADH					
Location:MASILONG					
Date of Sampling: 23/11/24					
Sl. No.	**Parameters**	**Unit**	**Depth of sampling**		
			(0-30 cm)	**(30-60 cm)**	**(60-90 cm)**
1	pH	-	5.6	5.2	4.9
2	Organic Carbon	%	0.21	0.18	0.15
3	Available Phosphorus	kg/ha	26.12	23.90	19.80
4	Electrical Conductivity	ms /cm	0.18	0.16	0.12
5	Water Holding Capacity	%	33.1	32.7	30.4
6	SAR	-	0.32	0.28	0.23
7	Cation Exchange Capacity	Meq/100gm	25	20	18
8	Texture (Clay)	%	5.5	10	27.5
9	Texture (Sand)	%	62.1	59.8	39.6
10	Texture (Silt)	%	32.4	30.2	32.9
11	Soil Texture		Sandy Loam	Sandy Loam	Sandy Loam
12	Specific Gravity	-	2.67	2.48	2.36
13	Field Capacity	%	16.5	15.9	14.1
14	Wilting Coefficient	%	0.58	0.51	0.48
15	Available Potash	kg/ha	282.49	276.02	264.51
16	Available Nitrogen	kg/ha	265.34	258.17	250.31
17	Porosity	%	35.41	36.23	38.11

Table-4.3: Characteristics of soil: Sampling location: S-2

Area: MAGADH					
Location:SARADHU					
Date of Sampling: 23/11/24					
Sl. No.	**Parameters**	**Unit**	**Depth of sampling**		
			(0-30 cm)	**(30-60 cm)**	**(60-90 cm)**
1	pH	-	7.7	7.1	5.8
2	Organic Carbon	%	0.26	0.21	0.18

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3	Available Phosphorus	kg/ha	28.33	23.66	15.00
4	Electrical Conductivity	ms /cm	0.50	0.30	0.22
5	Water Holding Capacity	%	23.41	21.57	18.06
6	SAR	-	0.28	0.24	0.20
7	Cation Exchange Capacity	Meq/100gm	16	14	12
8	Texture (Clay)	%	10.7	20	17.6
9	Texture (Sand)	%	64.7	39.8	42.2
10	Texture (Silt)	%	24.6	40.2	40.2
11	Soil Texture		Sandy Loam	Loam	Loam
12	Specific Gravity	-	2.61	2.53	2.48
13	Field Capacity	%	17.2	14.6	11.5
14	Wilting Coefficient	%	0.53	0.48	0.42
15	Available Potash	kg/ha	101.61	95.34	91.47
16	Available Nitrogen	kg/ha	148.32	142.47	133.02
17	Porosity	%	34.72	35.47	38.11

Table-4.4: Characteristics of soil: Sampling location: S-3

Area :MAGADH					
Location: SARADHU2					
Date of Sampling: 23/11/24					
Sl. No.	**Parameters**	**Unit**	**Depth of sampling**		
			(0-30 cm)	**(30-60 cm)**	**(60-90 cm)**
1	pH	-	5.2	5.0	4.8
2	Organic Carbon	%	0.45	0.40	0.37
3	Available Phosphorus	kg/ha	20.97	19.68	13.71
4	Electrical Conductivity	ms /cm	0.21	0.17	0.13
5	Water Holding Capacity	%	25.25	21.30	16.28
6	SAR	-	0.24	0.21	0.18
7	Cation Exchange Capacity	Meq/100gm	24	21	18
8	Texture (Clay)	%	15.9	22.5	22.5
9	Texture (Sand)	%	52.1	42.2	47.0
10	Texture (Silt)	%	32.0	35.3	30.5
11	Soil Texture		Sandy Loam	Loam	Loam
12	Specific Gravity	-	2.54	2.35	2.31
13	Field Capacity	%	18.3	16.2	14.7
14	Wilting Coefficient	%	0.56	0.50	0.47
15	Available Potash	kg/ha	125.81	119.31	112.81
16	Available Nitrogen	kg/ha	151.02	147.69	142.47
17	Porosity	%	35.47	36.60	40.38

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Table-4.5 : Characteristics of soil: Sampling location: S-4

Area : MAGADH					
Location: SARADHU-3					
Date of Sampling: 23/11/24					
Sl. No.	Parameters	Unit	Depth of sampling		
			(0-30 cm)	(30-60 cm)	(60-90 cm)
1	pH	-	5.0	4.6	4.5
2	Organic Carbon	%	0.22	0.18	0.14
3	Available Phosphorus	kg/ha	22.02	20.62	17.81
4	Electrical Conductivity	ms /cm	0.17	0.11	0.09
5	Water Holding Capacity	%	21.37	19.58	16.07
6	SAR	-	0.24	0.21	0.18
7	Cation Exchange Capacity	Meq/100gm	20	17	15
8	Texture (Clay)	%	6.00	17.5	22.6
9	Texture (Sand)	%	71.5	49.7	39.7
10	Texture (Silt)	%	22.5	32.8	37.7
11	Soil Texture		Sandy Loam	Sandy Loam	Sandy Loam
12	Specific Gravity	-	2.67	2.59	2.51
13	Field Capacity	%	21.3	18.2	16.7
14	Wilting Coefficient	%	0.48	0.42	0.37
15	Available Potash	kg/ha	162.93	159.01	150.39
16	Available Nitrogen	kg/ha	168.02	160.48	155.46
17	Porosity	%	31.32	32.45	40.38

Table-4.6 :Characteristics of soil: Sampling location: S-5

Area : MAGADH					
Location: SARADHU-4					
Date of Sampling: 23/11/24					
Sl. No.	Parameters	Unit	Depth of sampling		
			(0-30 cm)	(30-60 cm)	(60-90 cm)
1	pH	-	5.9	5.7	5.4
2	Organic Carbon	%	0.21	0.18	0.16
3	Available Phosphorus	kg/ha	30.81	27.18	19.56

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4	Electrical Conductivity	ms /cm	0.20	0.18	0.16
5	Water Holding Capacity	%	22.56	20.31	17.96
6	SAR	-	0.24	0.21	0.18
7	Cation Exchange Capacity	Meq/100gm	19	17	14
8	Texture (Clay)	%	16	22.6	27.6
9	Texture (Sand)	%	61.2	54.4	44.5
10	Texture (Silt)	%	22.8	23.0	27.9
11	Soil Texture		Sandy Loam	Sandy Clay Loam	Clay Loam
12	Specific Gravity	-	2.59	2.47	2.41
13	Field Capacity	%	22.5	21.5	20.6
14	Wilting Coefficient	%	0.52	0.47	0.40
15	Available Potash	kg/ha	237.04	230.56	228.91
16	Available Nitrogen	kg/ha	251.48	247.31	244.15
17	Porosity	%	31.70	32.83	36.98

Table-4.7 : Soil Fertility Quality Standard w.r.t C:N:P: K

Sl. No.	PARAMETERS	QUALITY STATUS		
		Poor	Medium	Fertile
1	Organic Carbon %	<0.5	0.5 to 0.75	>0.75
2	Nitrogen as N, kg/ha	<280	280 to 560	>560
3	Phosphorus as P_2O_5, kg/ha	<23	23 to 57	>57
4	Potash as K_2O, kg/ha	<133	133 to 337	>337

4.7 Highlights of Analytical Results

The highlights of some of the parameters as depicted in analytical results presented in Tables – 3.2 to 3.6 are given hereunder:

(i) Texture

The texture of the soils was Sandy Loam.

(ii) pH

The pH of the soils ranged between 4.5 to 7.7.

(iii) Electrical Conductivity

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The electrical conductivity varied from 0.09 to 0.50 ms /cm at 20°C.

(iv) Organic Carbon

The organic carbon ranged between 0.14 to 0.45 %. Organic carbon is one of the important characteristics of the soil represents for fixation of nitrogen and survival of the various macro and microorganisms. It has been found in the range of poor quality the degraded forest land.

(v) Phosphorus as P_2O_5

The concentration of Phosphorous varied between 13.71 to 30.81 Kg/ha.

(vi) Potash as K_2O

The concentration of Potash ranged between 91.47 to 282.49 Kg/ha.

(vii) Nitrogen as N

The concentration of Nitrogen varied between 142.47 to 265.34 Kg/ha.

4.8 Soil Texture Diagram

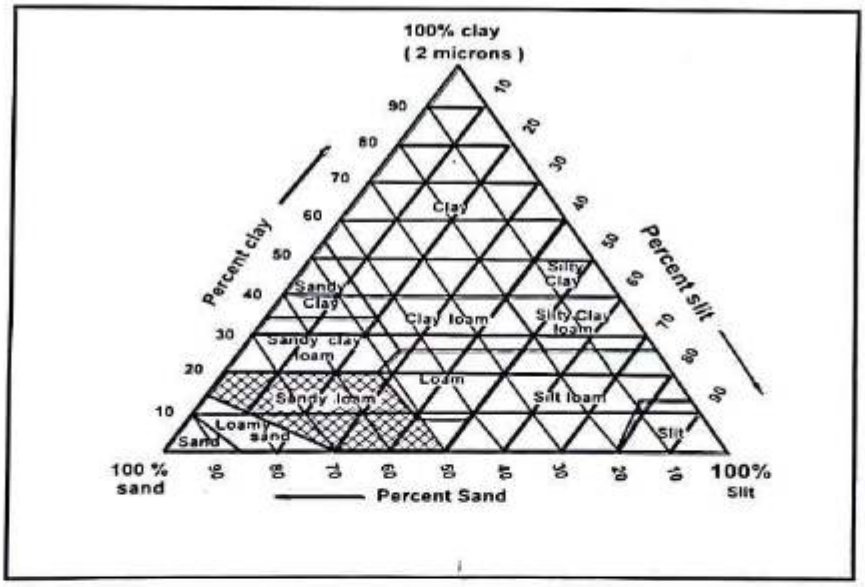

Fig 3.2 Soil Texture Diagram

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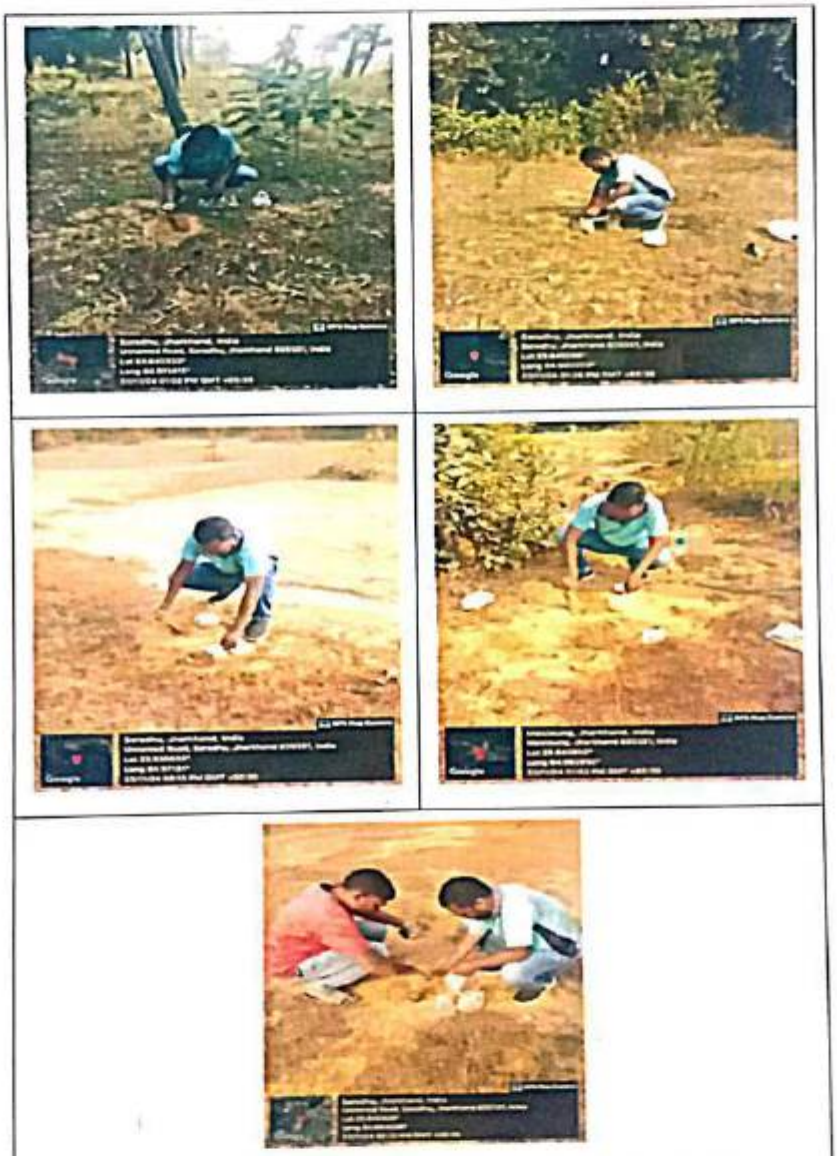

Figure 4.2: Soil Sample Collection from the Project Area

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Chapter 5
Soil Erosion Estimation

The soil erosion assessment conducted using the RUSLE method for estimation of soil loss rates under pre-mining and post-mining conditions. The results are presented in terms of the RUSLE factors, overall soil loss estimates, and their spatial distribution.

RUSLE Factors Analysis

The topographic factor (LS) derived from the SRTM Digital Elevation Model highlighted substantial variability in slope gradients across the study area, contributing to localized differences in erosion susceptibility. Soil erodibility (K) values from the Harmonized World Soil Database, validated with in-situ soil sampling, indicated moderate to high erodibility in specific zones, aligning with the region's soil texture and organic matter content. Rainfall erosivity (R), calculated from IMD rainfall data, exhibited significant annual variability, with localized intense rainfall events contributing disproportionately to soil erosion. The cover management (C) and support practice (P) factors, adapted from relevant literature, demonstrated the influence of vegetation cover and management practices in mitigating soil erosion.

5.1 Digital Elevation of the Study Area

DEM for the study area is obtained drone survey conducted by Geomatics divison, CMPDI and also from USGS SRTM.

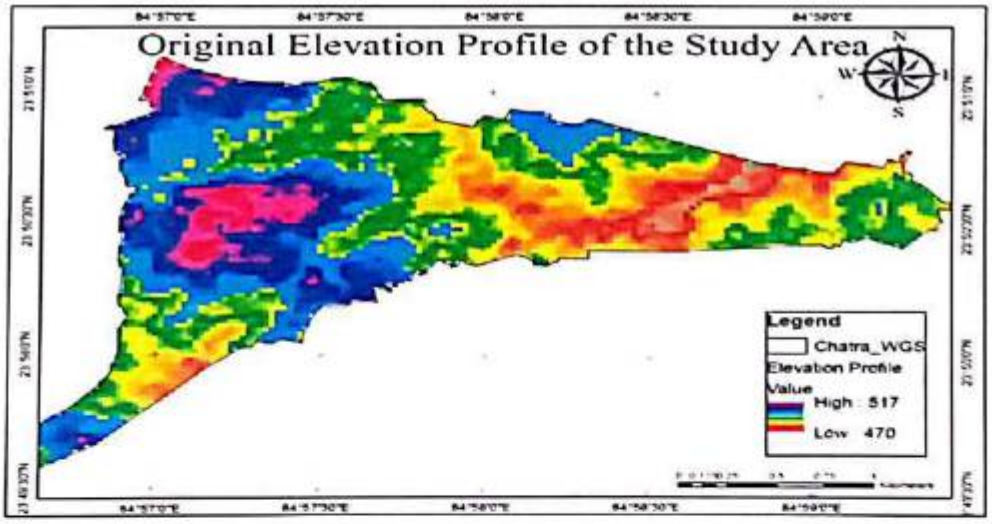

Figure 5.1: DEM Profile of the Study Area (Pre-mining/Oroginal Conditions)

The SRTM DEM (Shuttle Radar Topography Mission Digital Elevation Model) file provides high-resolution, global elevation data derived from radar measurements, commonly used for topographic and geospatial analysis. It offers a spatial resolution of 30m x 30m, ideal for detailed terrain mapping and various environmental studies.

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Furthermore, a modified DEM profile has been created by incorporating the proposed land use changes including OB dumps, mined out quarry, revised nala course and other infrastructure detailings. These parameters have been acquired from the approved mine plan of Magadh OCP (20 MTPA) provided by the Project proponent.

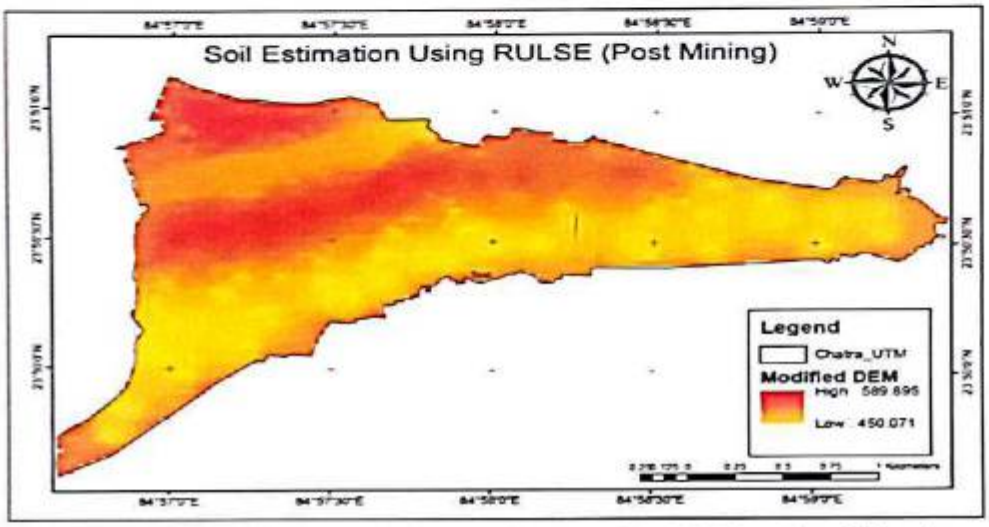

Figure 5.2: DEM Profile of the Study Area (Post Mining Conditions)

5.2 Land Use Land Cover of Study Area

The pre-mining land cover of the study area has been studied through Remote sensing data obtained from LISS-IV. LISS IV (Linear Imaging Self-Scanner IV) is a high-resolution multispectral sensor deployed on Indian Remote Sensing (IRS) satellites, capable of acquiring imagery across three spectral bands—red, green, and near-infrared—at a spatial resolution of 5.8 meters. This sensor is extensively utilized in applications such as urban planning, precision agriculture, forestry management, and environmental monitoring, owing to its fine spatial detail and spectral sensitivity. The maps were generated for pre-mining and present day conditions.

The pre-mining land use maps depicts that the majority of land within the study area falls udner Scrub/ forest category. Figure given below depicts the LULC pattern during pre-mining conditions.

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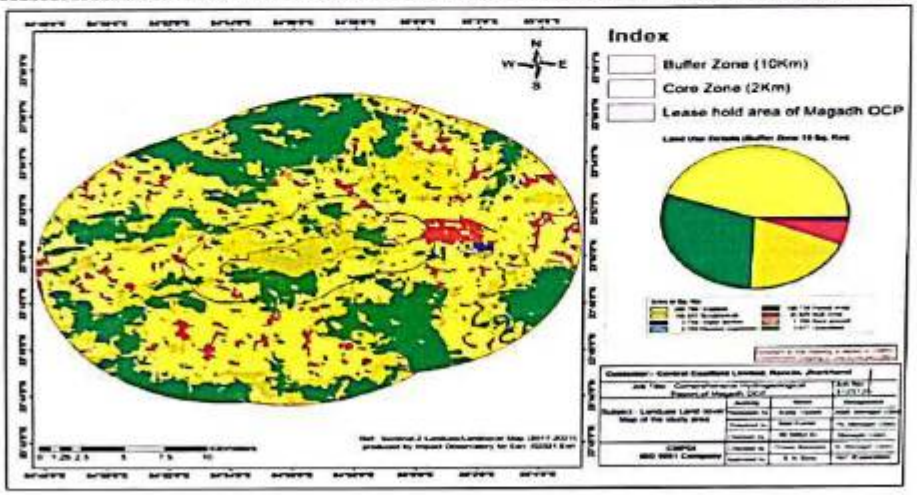

Figure 5.3: LULC map in and around the study area.

In addition, the present day LULC has been studied and presented in the figure given below. It can be observed that around 312 Ha. of the study area has been degraged and converted into different mining landforms. Furthermore, a part of this land has been successfully reclaimed and vegetation has been developed as part of progressive mine reclamation activity.

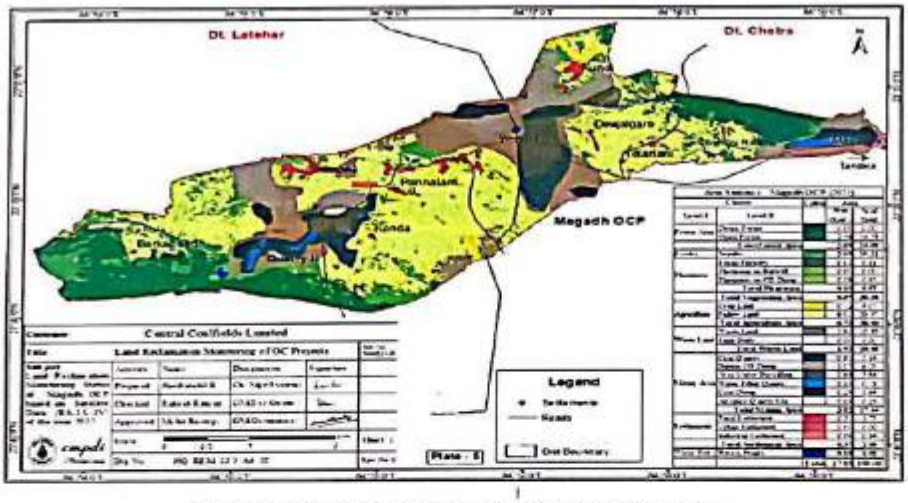

Figure 5.4: LULC map in the study area.

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5.3 Revised Universal Soil Loss

Soil erosion models make use of mathematical expressions so as to relate dominant parameters and processes that occur on land's surface. The parameters involved include terrain characteristics, soil properties, land use/land cover, and weather variables. Soil erosion models describe detachment, transport, and deposition phases, which comprise the soil erosion process. Soil erosion models serve as important tools for planning because they enable the prediction of soil loss. Above all, models create a clear understanding of the entire soil erosion phenomenon and the resulting impacts. However, the choice of appropriate models for a particular soil erosion study is based on the objectives, catchment characteristics, and data available on the model's efficiency. Consequently, models differ based on complexity, involved processes, and data required to calibrate and use the model. In this study empirical model Revised Universal Soil Loss Equation (RUSLE).

5.3.1 Revised Universal Soil Loss Equation (Rusle)

RUSLE model is a good example of an empirical model which is well recognized, widely accepted, and very much implemented in soil erosion studies. It is derived from the USLE model, and its application spans over 40 years. The model was designed and developed by a team of high-ranking scientists and some soil conservationists having vast experience in matters relating to soil erosion. It comprises mathematical equations that quantify the average soil loss on an annual basis at different geospatial scales. Many researchers had cited it as the best technology ever for estimation of soil loss in undisturbed areas characterized by overland flow, land surface experiencing disturbance, and recently or already reclaimed lands. Additionally, the model is very well applicable in ungauged catchments, its demand for data is quite moderate, and above all, it integrates well with GIS enabling upscaling of the soil erosion process. The results of the RUSLE model are a representation of the sediment amount lost from a user-defined landscape. The superiority of the model is brought about by its prowess in accounting for different control management actions with minimal data requirements. The basic assumption that forms the foundation of the RUSLE model is that detachability and deposition processes are a function of sediment content. It is argued that until sediment load attains threshold capacity, soil detachment cannot occur. Therefore, the process of soil erosion is influenced by the flow carrying capacity and not by its source. Recent breakthroughs in spatial information technologies have augmented the prevailing methods in monitoring, analyzing, and above all managing resources. The spatial variation of soil erosion risk is brought about by heterogeneity in topography, geomorphology, geology, land cover, soil types, and land use. Such spatial variability of soil erosion parameters is easily and efficiently handled by geographic information systems (GIS). The trend has improved the accuracy, costs, and scales of application. The state-of-the-art technology geographic information system provides essential mapping interpolation techniques for creating a database that comprises input datasets for modeling soil erosion. Management of large datasets is made easier with the use of GIS; therefore, such spatial techniques provide a basis for the management of land upon the estimation of soil loss rates. In RUSLE, soil loss is predicted by converting the input data (rainfall data, soil data, digital elevation model, and land use) into a geographical information system format, following which it is implemented in the geospatial framework.

Many researchers worldwide have adopted this methodology to carry out soil erosion studies at different spatial scales. For instance, the following researchers studied soil loss in catchment areas by applying the RUSLE model, GIS, and remote sensing. The studies revealed that, apart from estimating soil erosion, the methodology was found to be satisfactory in

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identifying areas that had higher soil erosion risks. Further, geospatial tools facilitated the extraction of important information, which was deemed critical in implementing plans for soil conservation.

5.3.2 RUSLE Model Parameterization.

The model quantifies average annual soil loss (A) using five important factors, notably rainfall erosivity (R), soil erodibility (K), slope length and slope steepness (LS), cover management (C), and support practice (P).

$$A = R \times K \times LS \times C \times P \qquad (5.9)$$

Where, A is the mean annual soil loss in t/ha/yr, R is the rainfall erosivity (MJ mm/ha/yr), K is the soil erodibility factor (t-ha-h/ MJ/mm), LS is the slope length and slope steepness factor (dimensionless), C is the cover management factor (dimensionless), and P is the support practice factor (dimensionless).

Rainfall is a precondition for any form of water erosion to materialize. The amount and even intensity of rainfall are the two important attributes of rainfall. Waterborne erosion is more pronounced when the two rainfall attributes are on the higher side. The rainfall erosivity factor (R) quantifies the erosive power possessed by rainfall, and it much depends on the rainfall's intensity and amount. The R factor is expressed as the sum of EI-values for each particular storm for a year and averaged over long periods of time (more than 20 years) so as to accommodate discernible recurring rainfall patterns. The abbreviation EI refers to the product of energy and maximum intensity of rainfall in 30 minutes. The amount of soil loss is proportional to the product of the total storm's energy, E (MJ/ha), and the storm's maximum intensity in a time of 30 min, I30 (mm/h). The resulting product is known as the EI30 index or commonly as the storm erosivity index expressed in MJmm/ha/h. The storm erosivity index reflects the amalgamated effect of soil particle dislodgement and runoff transportability to cause net erosion. The mean of the annual sums for the period under consideration gives the rainfall erosivity factor (R factor). Different researchers have developed equations from which the R factor has been derived and applied in different regions. For India following equation(5.10) can be used:

$$R = 50 + 0.389 \times P \qquad (5.10)$$

Where, P is annual rainfall in mm. In present study average annual rainfall has been obtained from nearby 7 raingauage statiosn of IMD (Huntergunj, Chatra, Itkori, Simaria, Tandwa, Balumath and Chandwa), based on which the average annual precipitation of the study area has been derived.

5.3.3 Soil Erodibility Factor (K).

Different soils show varying degrees of resistance to water-related erosion. Soil erodibility is an essential requirement when estimating soil loss and also when implementing soil conservation activities. The characteristics of soil and its properties have a pronounced influence on soil erosion. There is effect is well represented by the soil erodibility factor. Hence, the K factor is affected by a variety of the soil's physicochemical properties. The K factor is simply defined as the inherent susceptibility of soil-to-soil erosion. The RUSLE model identifies the distribution of particle size, permeability, organic matter content, and structure of the soil as the critical

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physicochemical properties which affect erodibility. The physico chemical properties of the soil have been obtained from in-situ soil sampling analysis as presented in the earlier sections, and correlated with the global Harmonized soil database of FAO. Based on the above soil classification study, the texture class of soil is found be sandy loam and the corresponding value of K factor for the study area is 0.14. The K-factor classification has been obtained from the literature as given in the table below.

Table 5.1: K-Factor for different soil type

Basic textural class	Organic matter content		
	Average K Factor	<2%	>2%
Sandy loam	0.13	0.14	0.12
Sandy clay loam	0.2	0.2	0.2
Clay loam	0.305	0.33	0.28
Loam	0.3	0.34	0.26
Clay	0.225	0.24	0.21

Source: Journal of Environmental Science, Agricultural and Food Sciences

5.3.4 Topographic (Ls) Factor

Slope length and slope steepness is the other main factor for estimating the soil loss which measures the sediment transport capacity of the flow. LS does not consider the 3D complexity of the topography but simply assumes soil loss increases with slope length and/or upslope contributing area. The LS- factor is calculated based on the following equation.

$$LS = \left(FlowAccumulation \times \frac{CellSize}{22.13}\right)^{0.4} \times \left(\frac{\sin(Slope)}{0.0896}\right)^{1.3}$$

The slope length (L) and slope steepness (S) define the landscape's topography, which mostly influences the extent of soil erosion. L and S are the two most important parameters with regard to soil erosion modeling and most importantly when calculating the transporting power of surface runoff. The LS factor, therefore, combines the effects of slope length and slope steepness, both of which account for the landscape's topographical effects on erosion. Hence, terrain effects on erosion processes are accounted for by the LS factor within the RUSLE model. Soil erosion is noted to increase when both the slope angle and length increase. The is explains the sensitivity of terrain effects on soil erosion, and therefore determination of the LS factor needs to be accurate.

The Ls factor maps for both pre-mining and post-mining conditions have been generated as shown in the figures given below.

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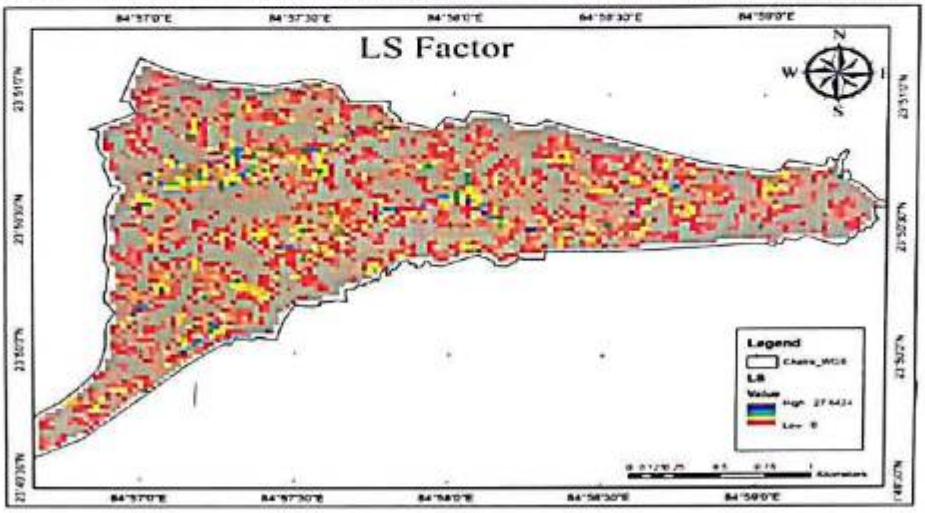

Figure 5.5: LS Factor Map for Pre-Mining Conditions

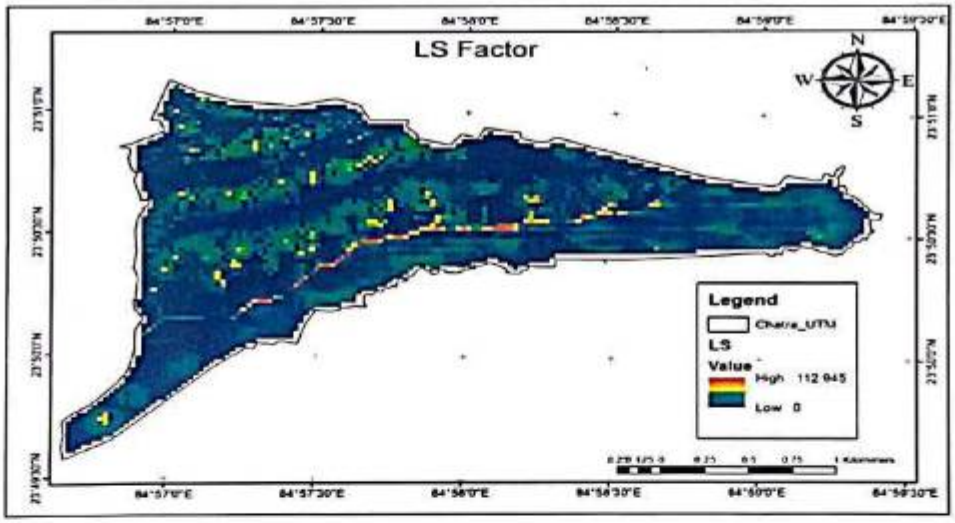

Figure 5.6: LS Factor Map for Post-Mining Conditions

Based on the above figures it can be observed that the LS values during pre-mining conditions found to be falling in the range of 0 to 27.64, whereas during post-mining stage the upper limit of the range increases to 112.945. This change is attributed to change in the topography of the study due to creation of Overburden dumps and mined out quarry.

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5.3.5 Cover Management Factor (C).

Vegetation cover ranks second behind terrain effects in influencing soil erosion rate. The parameters that define vegetation cover are mainly ground cover and plant canopy cover, respectively. Spatial distribution of vegetation cover fraction requires accurate estimation and is of utmost importance in soil erosion matters. Vegetation cover prevents the soil from the impact of raindrops by dissipating the amount of energy they possess before reaching the soil surface. Moreover, vegetation cover intercepts rainfall, thereby encouraging more infiltration. In the RUSLE model, vegetation cover effects are accounted for by the cover management factor (C). The C factor is defined as the ratio of soil lost from cropped land under specified conditions to that lost from bare soil. It is much influenced by vegetation type, growth stage, and percent cover. The crop management factor is indicative of the influence of vegetation cover and specified management practices on soil erosion. The values have a range of between 0 and 1 depending on land cover types. The C factor is derived based on prior land uses, canopy shading factor, percent soil cover by crop remains, soil surface roughness, and above all soil moisture. Satellite image information is an important input in the preparation of land cover maps, and as such, it has become an integral component in natural resources management. Traditionally, the C factor values have been spatially estimated by assigning values to land cover classes identified using remote sensing. C-Factors of maps of the both condition are presented below:

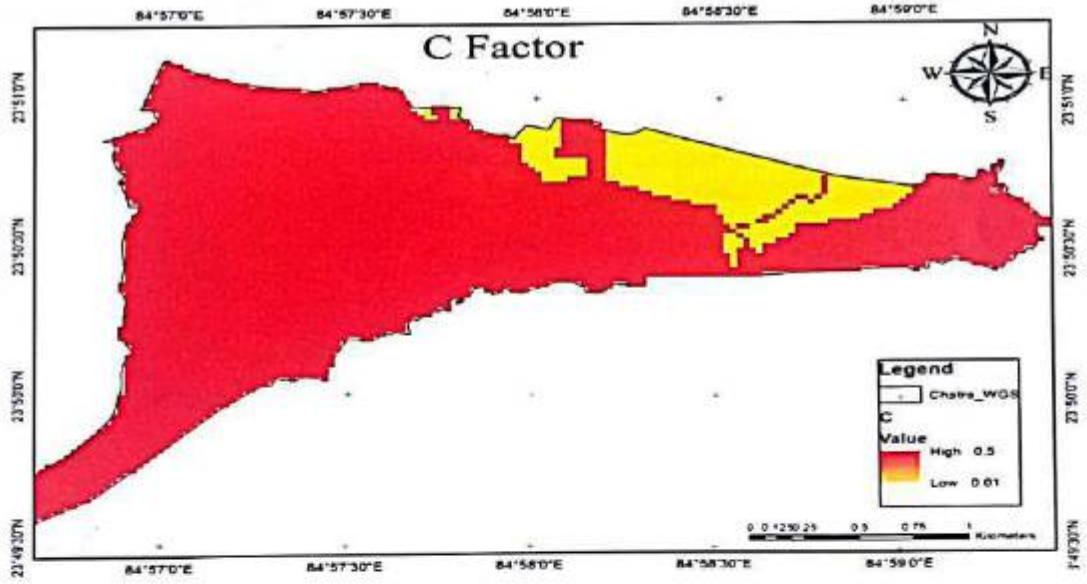

Figure 5.7: C Factor Map for Pre-Mining Conditions

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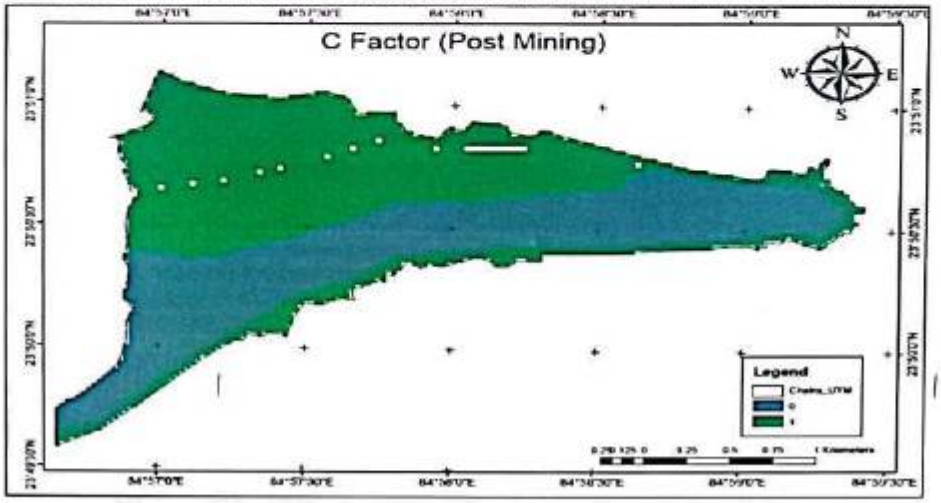

Figure 5.8: C Factor Map for Post-Mining Conditions

Table 5.2: C Factor range

Cover and management (*C*)	*C*-factor value
Forest and grasslands	0.01
Degraded forest/wasteland	0.14
Croplands	0.20–0.43
Degraded (waste) lands	0.50
Fallow lands	1.00

Source: Singh *et al.*[38].

5.3.6 Support Practice Factor (P).

The support practice (P) factor is regarded as one of the most uncertain factors of the RUSLE model. It relates strongly to the cover management factor because both reflect positive impacts resulting from management interventions in controlling soil erosion. The two factors differ in that the support practice factor quantifies the effects of some implementation that targets reducing the runoff and eventual soil loss. The most common support practices include the use of contours, terraces, crop strips, grassed waterways, and cross-slope cultivation. The P factor is expressed as the ratio between the rate and the amount of soil lost when a specific support practice is used and similar soil loss when row farming is executed in an up-and downslope manner. Typical P factor values range between 0 and 1. A value of 1 corresponds to lands without any support practice (especially grasslands and bare lands), while values which approach 0 are indicative of lands under specified support practices. Lower P factor values are indicative of effectiveness in conservation practices.

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Table:5.3 Values of Crop Management factor

Sn	Cover %	Factor
1.	10	0.7
2.	20	0.5
3.	30	0.36
4.	40	0.26
5.	50	0.20
6.	60	0.15
7.	70	0.12
8.	80	0.10
9.	90	0.085
10.	100	0.075
11.	Waffle wall/ countering	0.45
12.	Grass	0.17
13.	Terracing	0.9

5.3.7 Soil Erosion Estimation.

The Soil Erosion estimation has been carried out for the study area for two scenarios namely pre-mining condition and post mining condition. The parameter wise detailing of RULSE equation has been detailed in the previous section and the same has been used for soil loss estimation using ArcGIS software. The soil erosion severity map was generated by overlaying all the parameter layers of RUSLE and the results of the both conditions have been presented below.

Soil Erosion Estimation During Pre-Mining Conditions

The soil erosion severity map was generated by overlaying all the parameter layers of RUSLE. Results indicated that the proposed area has a soil loss with a range of 0 to 850 t/ha/yr. Based on the soil erosion classification used, the estimated soil erosion was classified into four classes, namely, very slight (<5 t/ha), slight (5–15 t/ha), moderate (15-30 t/ha), sever (30-50 t/ha) and very severe (50 to 100 t/ha) and extremely sever (> 100 t/ha) per annum. The soil erosion severity categorization is shown in the below table.

Table 5.4 Soil erosion Estimation (Pre-Mining)

Sn	% of Area	Category
1	50.98	Very Slight
2	10.72	Slight
3	11.82	Moderate
4	11.16	Severe
5	10.07	Very Severe
6	5.25	Extremely Severe

The same has been depicted on the soil erosion estimation plan as given below.

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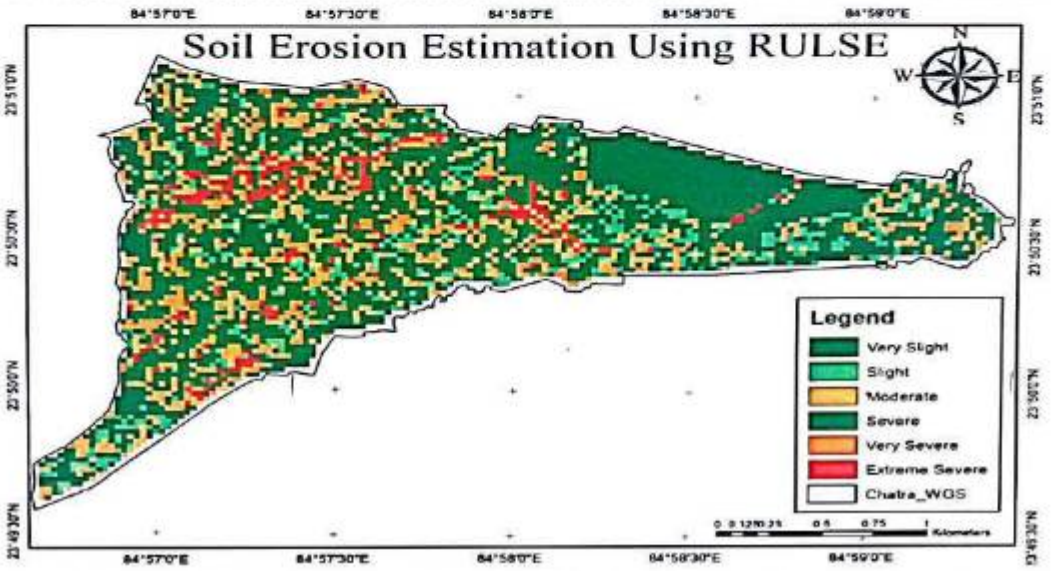

Figure 5.9: Soil erosion estimation for the study area (pre –mining)

Soil Erosion Estimation During Mining Conditions

The soil erosion severity map for post mining condition was generated by incorporating the proposed change in the land uses including OB dump, quarry, infrastructure and stream diversion. Accordingly the soil loss estimation was derived considering the worst case scenario i.e. no control measures practiced in the study area.

Results indicated that the proposed area has a soil loss with a range of 0 to 2316 t/ha/yr. Based on the soil erosion classification used, the estimated soil erosion was classified into four classes, namely, very slight (<5 t/ha), slight (5–15 t/ha), moderate (15-30 t/ha), sever (30-50 t/ha) and very severe (50 to 100 t/ha) and extremely sever (> 100 t/ha) per annum. The soil erosion severity categorization is shown in the below table.

Table 5.5 Soil erosion Estimation (Post-Mining)

Sn	% of Area	Category
1	62.80	Very Slight
2	0.37	Slight
3	0.57	Moderate
4	0.81	Severe
5	1.73	Very Severe
6	33.14	Extremely Severe

It can be observed that the dump and quarry slopes have shown extremely severe soil erosion condition. The same has been depicted on the soil erosion estimation plan as given below

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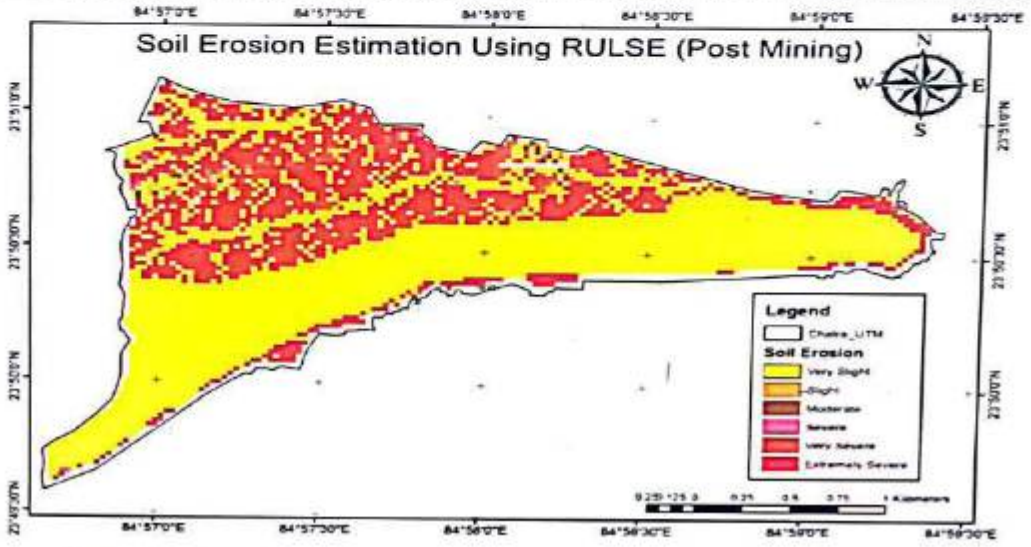

Figure 5.10: Soil erosion estimation for the study area (Post –mining)

Based on the soil erosion maps and severity conditions, suitable mitigation measures have been proposed, and the same has been discussed in the following sections.

5.3.8 Proposed Mitigation Measures

The material generated during mining will be systematically disposed of in designated dumping areas as per approved mining plan. The following measures are proposed to mitigate soil erosion through overburden (OB) dumps:

Dump Stability: The ultimate slope of the OB dump will be maintained at approximately 28 degrees to ensure stability and prevent slope failure as envisaged mine plan. The typical cross-section diagram of dump with soil erosion protection measures are provided below.

Slope Stabilization:

The methods to be adopted for stabilization of dumps and soil erosion conservation are as follows:

- **Structural measures:**
  a. Terracing of slopes, plugging of gullies by construction of catch drain (0.5m W X 0.75 H) and garland drain (1M width and 1 M height) around the dump area to manage runoff and prevent soil erosion. The garland drain around the dump shall be permanent type and around the quarry are temporary type. The catch drain is temporary in nature.
  b. Toe/gabion wall (1.5-meter height and 1-meter width) shall be constructed all along the dump toe to arrest the silt transport.

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c. Sequential Settling ponds/ sedimentation tank (30meterr X 20 metered with 2-meter depth) are proposed in continuation to garland / catch drain, to settle suspended solids from the runoff from OB dumps and other mining areas. The tentative locations of the sedimentation tanks are shown in the land use plan below.

- Bio-engineering Measures:
  a. Coir matting followed by grass plantation with species viz as indicated in top soil management plan in consultation with forest officials
  b. Dump surface area shall be reclaimed by spreading top soil and plantation by native species in consultation of forest department. Top soil management is discussed in the following section

Apart from the above, permanent storm water drains around the infrastructure and roads are proposed to be constructed once the location of the infrastructure is finalized.

Detail plan of the proposed control measures along with the location are marked on the surface plan and the same presented below.

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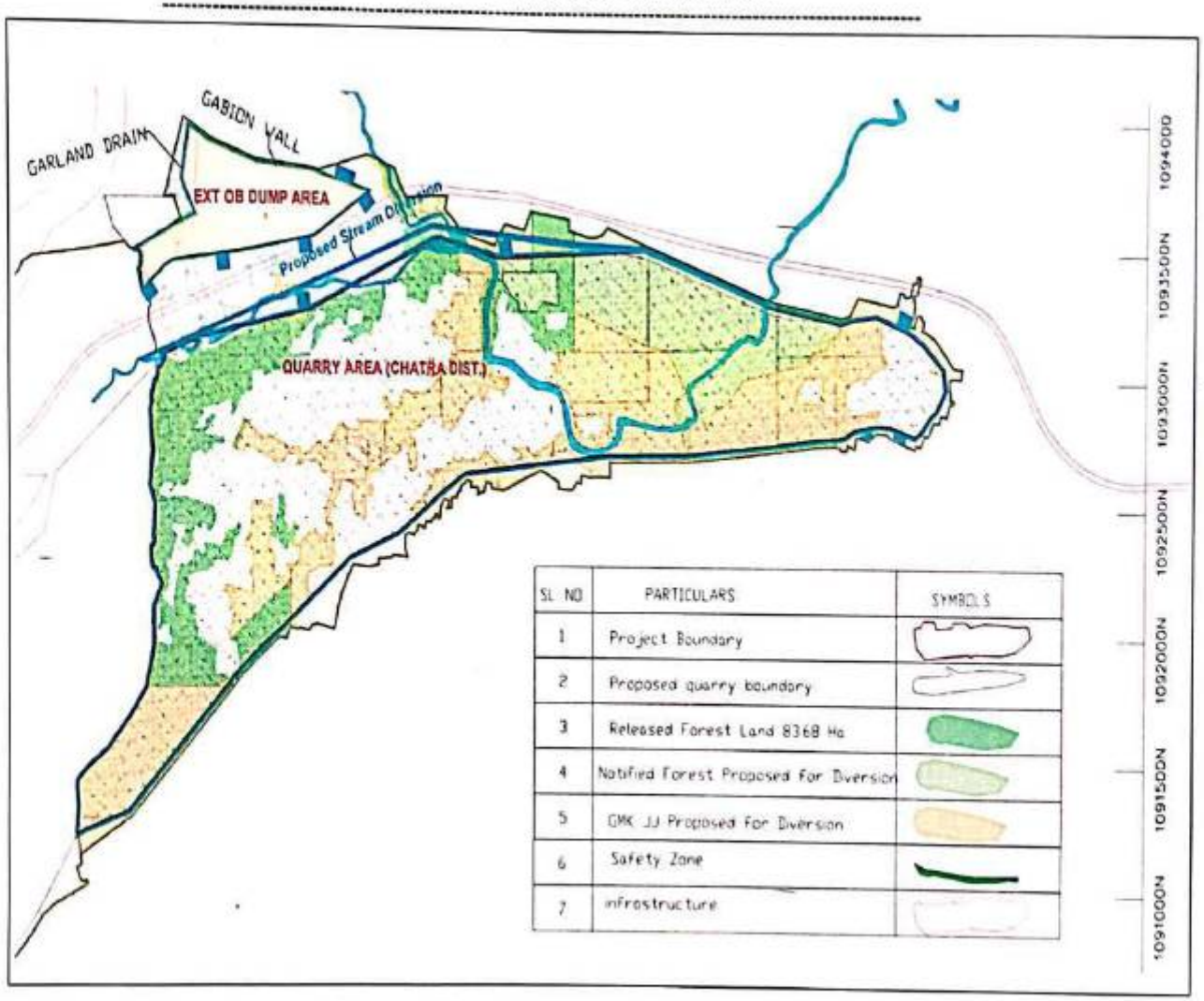

Figure 5.11: Land use Plan showing control measures and nala diversion

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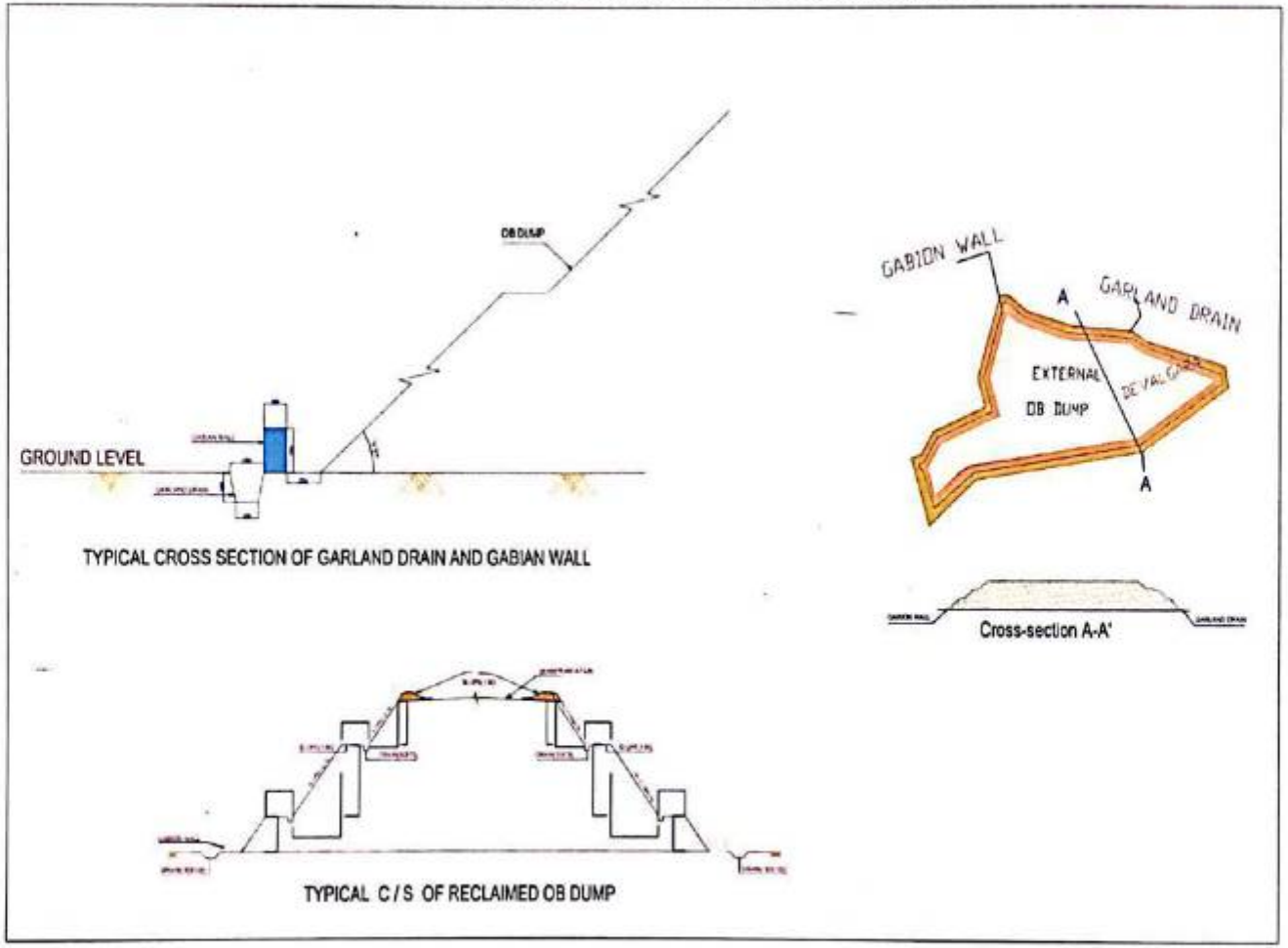

Figure 5.12: Typical Cross section of OB dump for slope protection and showing Gabion wall and Garland drain

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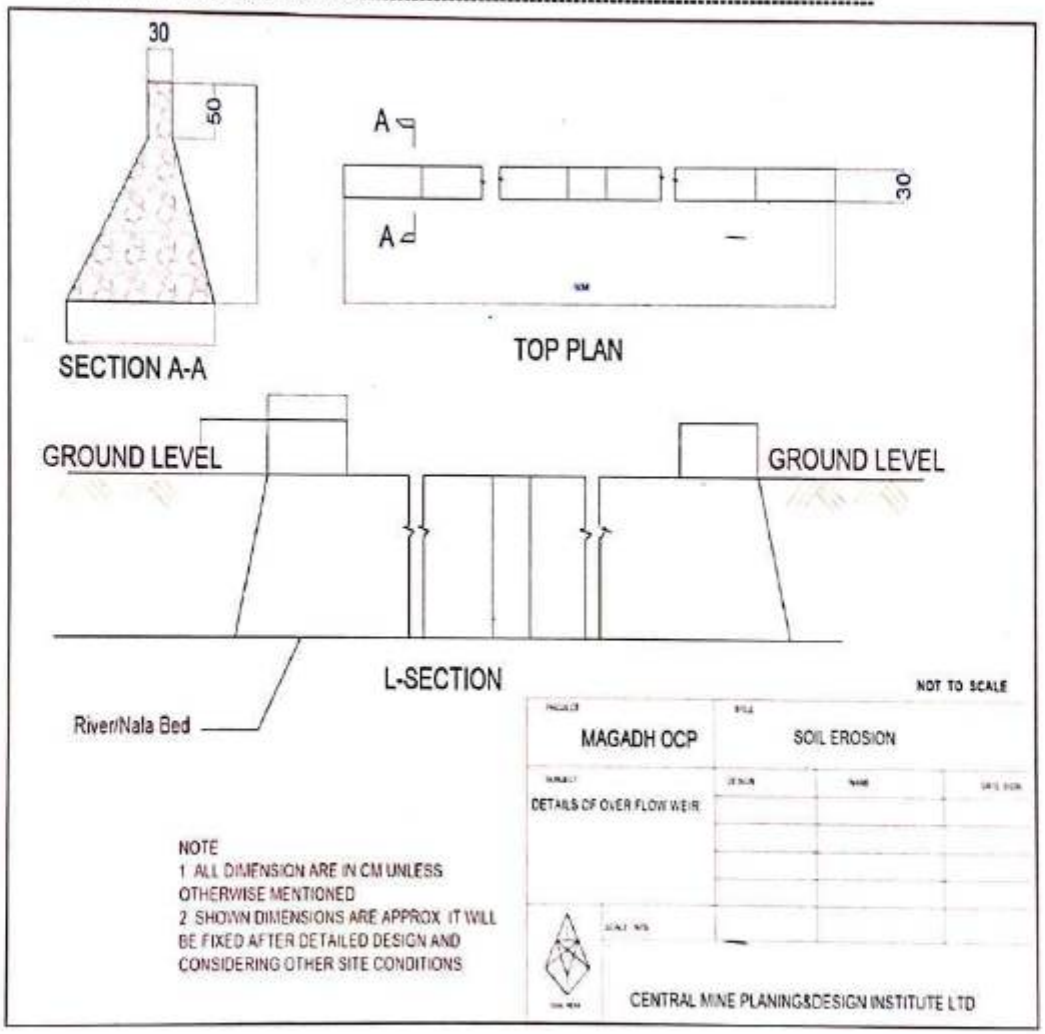

Figure 5.13: Details of overflow weir

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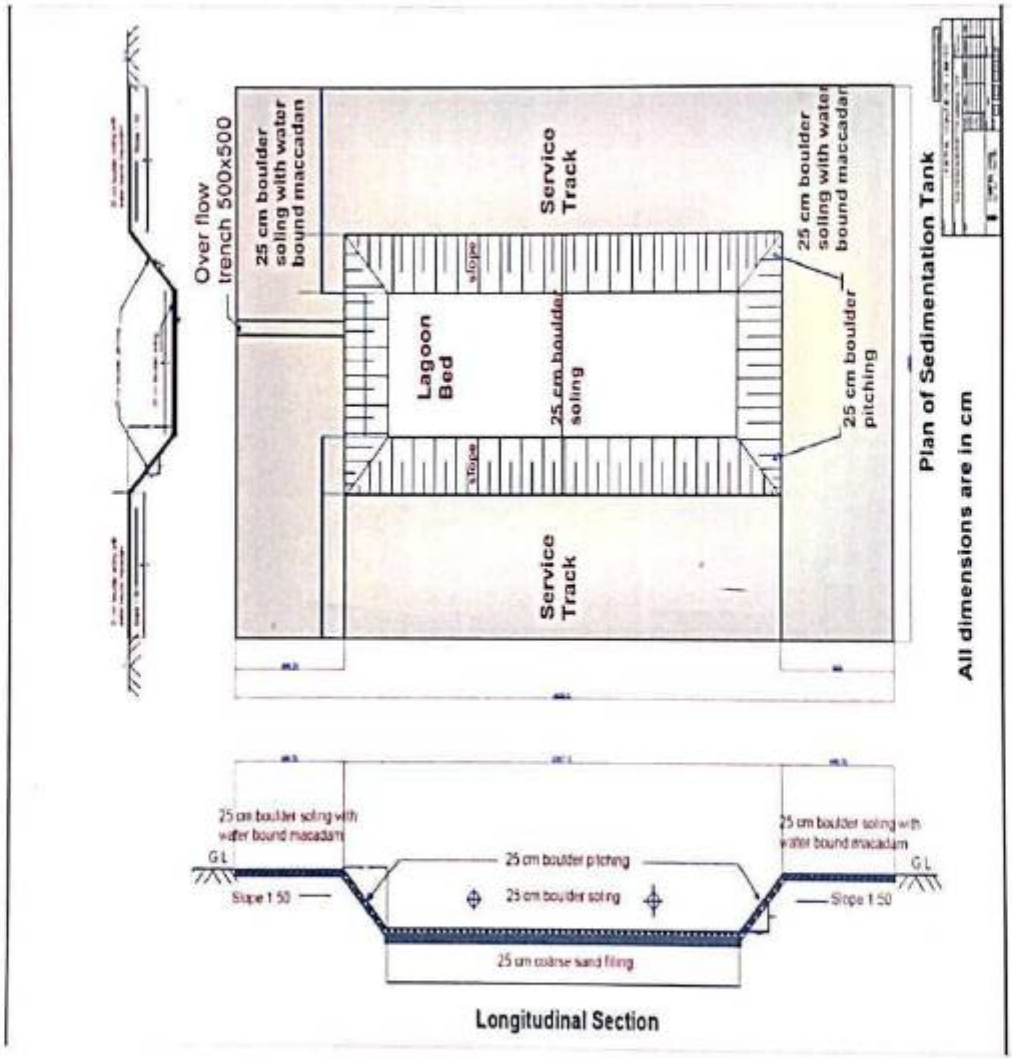

Figure 5.14: Details of Sedimentation Pond

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Chapter 6
Topsoil Management Plan

6.1 Introduction

Topsoil is that uppermost layer of soil capable of growing and supporting vegetation. Topsoil contains the essential microorganisms, nutrients, organic matter, and physical characteristics necessary to grow and sustain permanent vegetation.

The salvaging, stockpiling and re-application of topsoil to be used as growth medium in the reclamation of Internal & External overburden dumps within the mining area is a major environment protection programme. Soil management in opencast mine is necessary to re-establish the stability & productivity of land disturbed due to mining activity.

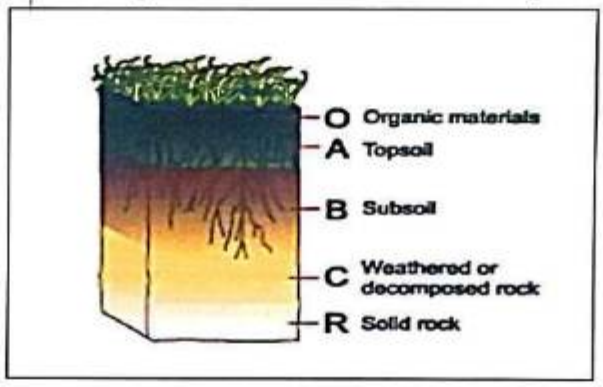

Figure 6.1: Typical Soil Profile

Two factors influence how topsoil performs as a growth medium. One is the quality of the topsoil and other is the depth of the topsoil. The higher the quality of the topsoil and the greater the depth in relation to the root zone, the better the soil will support healthy plant growth and encourage infiltration.

The factors influence the characteristics of topsoil are climate, vegetation and organic matter, topography and physiography, mineralogical constituents, surface processes, biological activity and human activity.

The separation and maintenance of topsoil on the site is imperative to ensure a successful rehabilitation program. Topsoil has essential nutrients and contains seed loads that will significantly aid in the rehabilitation of disturbed mine sites. Inappropriate management of this material may jeopardise the rehabilitation program.

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6.1.1 Objective of TopSoil Management Plan

This Topsoil Management Plan has been prepared to address the potential effects of long-term storage of topsoil in stockpiles and to segregate and re-spread the topsoil during mine site reclamation. Additionally, this plan presents to achieve a topsoil thickness and fertility commensurate with pre-construction activities.

The objectives of soil management are to:

- Provide sufficient stable topsoil material for rehabilitation;
- Optimise the recovery of topsoil for rehabilitation;
- Identify soil resources and stripping guidelines;
- Identify surface areas requiring stripping (to minimise over clearing);
- Manage topsoil reserves so as not to degrade the resource;
- Identify stockpile locations and dimensions; and
- Identify soil movements for rehabilitation use.

6.1.2 Stripping of Top Soil

Top soil should be stripped only from the area which will be disturbed by Excavation, filling, Infrastructure etc. Approx. 30 cm of top soil is stripped depending upon the soil profile at site. Depth of stripping is determined by taking soil core at several locations. The topsoil stripping and stockpiling will be completed using conventional earth-moving equipment such as bulldozers, scrapers, graders and off-road trucks. In areas where the topsoil is relatively thin, the contractor will remove the topsoil using smaller equipment to minimize mixing of topsoil and sub soil.

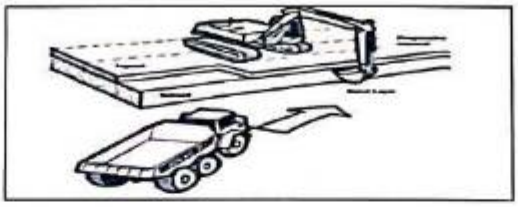

Figure 6.2: Typical Striping of Topso

6.2 Details of Topsoil generation from Magadh OCP

Within the Chatra region of the mine lease area, as per the details provided by the project and topographical maps obtained from the drone survey, approximately 230 Ha. has been broken and developed into quarry, dump, roads etc. An estimate of 0.759 Mm^3 of top soil has been generated till date. Out of which, 0.538 Mm^3 has been used in the concurrent biological reclamation of

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degraded land and the remaining top soil has been stacked separately for conservation. The details are as given below.

Table 6.1 : Details of Topsoil

Topsoil Generated till Date Mm³ (As on 01.11.2024)	Topsoil Utilized in Mm³	Topsoil Stacked in Mm³	Topsoil Dump Location
0.7591	0.538	0.0567	Masilong
		0.164	Chamatu

Further, it is estimated that approximately 0.80 Mm3 of additional top soil will be generated by the end of mine operation, It is proposed to reclaim and conserve the top soil and further be utilized for concurrent biological reclamation of internal dumps, Embankment and Green belt.

6.3 Topsoil Management

6.3.1 Site location

The site should be flat and established proper erosion and sediment control structure such as diversion, berms, dikes, waterways and sediment basin.

Immediately prior to spreading the top soil, loosen the subgrade by disking or scarifying to a depth of at least 100 millimeters to ensure bonding of the topsoil and subsoil.

If sufficient topsoil is available, a minimum compacted depth of a half meter on 3:1 slopes and one meter on flatter slopes is suggested.

Compact the topsoil enough to ensure good contact with the underlying soil, but avoid excessive compaction, as it increases runoff and inhibits seed germination. Light packing with a roller is recommended where turf is to be established.

6.3.2 Stockpiling

Top Soil will be stacked on the flat horizontal area and where there is no natural drainage. Sediment barrier is provided to retain sediment.

Temporary seeding - protect topsoil stockpiles by temporarily seeding as soon as possible, within 30 days after the formation of the stockpile.

Permanent vegetation - if stockpiles will not be used within 12 months they should be stabilized with permanent vegetation to control erosion and weeds.

As the mine pits expand, there will be more opportunity to strip top soil and apply it directly to area to be reclaimed, thus avoiding topsoil stockpiling. Freshly stripped and placed topsoil retains more viable seed, micro-organisms and nutrients than stockpiled soil. Vegetation establishment is generally improved by the direct return of topsoil and is considered 'best practice' topsoil management.

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6.3.3 Maintenance and Inspection

Periodic inspection and maintenance will be required. Make any repairs necessary to ensure the measure is operating properly. Repair and reseed if necessary to control erosion and loss of topsoil. This periodic maintenance procedure applies to either temporary soil stabilization or permanent seeding application

6.3.4 Topsoil Conservation with Grass and Shrub Species

The main objectives of topsoil conservation is to minimize soil erosion from wind and water runoff, enhance soil.

Grass Species Selection:

1. Choose a mix of native grass species suitable for climate, soil type, and rainfall. Here are some options based on their characteristics:
   - **Fast Establishment:** Doob Grass (Cynodon dactylon)
   - **Erosion Control on Slopes:** Vetiver Grass (Chrysopogon zizanioides)
   - **Drought Tolerance:** Dichanthium annulatum (Ditch Pal Grass)
2. A mix of these will be most suitable combination.
3. **Planting Techniques:**

- Sow the grass seeds directly onto the prepared seedbed following the recommended seeding rate for each species.
- Lightly rake the seeds into the soil to ensure good seed-to-soil contact.
- Apply a thin layer of mulch (straw, hay) to retain moisture and suppress weed growth.

Table 6.2: Name of species for planation

S.N.	Name of Species	Common Name	Family Name	Habitat	Purpose
1	*Cynodon dactylon*	Doob Grass	Poaceae	*Grass*	Doob grass is a fast-growing, low-growing perennial grass that forms a dense mat, which helps prevent soil erosion. It's well-adapted to various soil conditions and tolerates moderate foot traffic.
2	*Cyrtococcum patens*	Lemon Grass	Poaceae	*Grass*	Its root system can provide some limited stabilization, and it grows relatively quickly.
3	*Saccharum spontaneum*	Wild sugarcane	Poaceae	*Grass*	This tall grass grows in large clumps and is native and drought resilient.
4	*Cenchrus pedicellatus*	Deenanath Grass	Poaceae	*Grass*	This Grass is a many-branched leafy annual grass up to 1 m tall

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					which will help in wind erosion and control erosion of soil.
	Dichanthium annulatum	Ditch Pal grass	*Poaceae*	*Perennial grass*	This is a perennial grass, up to about 25 cm tall and will be suitable for soil erosion control.
	Chrysopogon zizanioides	Vetiver grass	*Poaceae*	perennial grass	Vetiver grass (Chrysopogon zizanioides) is an exception with its thin fibrous roots penetrating vertically up to 3–4 m (Hellin & Haigh, 2002), thus, this grass is an agent of both erosion reduction and ensuring slope stability against shallow landslides
	Axonopus compressus	Carpet Grass	*Poaceae*	*Grass*	As a covering mat, it can control erosion and provide some protection against infestation by more noxious weeds.
5	***Dodonaea viscosa***	Hop bush	Sapindaceae	*Shrub*	These are all shrubs species, which will offer wind protection to soil
6	***Clerodendrum infortunatum***	Hill glory bower	Lamiaceae	*Perrineal Shrub*	
7	***Woodfordia fruticosa***	Fire flame bush	Lythraceae	*Shrub*	
8	***Clerodendrum phlomoides***	Sage Glory Bower	Lamiaceae	*Shrub*	
9	***Vitex negundo***	Chaste tree	Lamiaceae	*Shrub*	

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Chapter 7
Conclusions and Cost Estimates

7.1 Conclusions

Soil Erosion Estimation Pre-Mining conditions

The results indicate a wide range of soil erosion potential in the pre-mining condition of the study area, demonstrating a variety of soil erosion severity across different zones.

Key Observations:

1. Very Slight Erosion: Dominates the study area, covering over 50%, indicating relatively stable soil in these regions under pre-mining conditions.
2. Slight to Moderate Erosion: Accounts for about 22.54% of the area, indicating zones with manageable soil loss that may require minimal intervention.
3. Severe to Extremely Severe Erosion: Comprising approximately 26.48% of the area, these zones highlight areas that require significant attention to prevent soil degradation and loss.

Soil Erosion Estimation During Mining Conditions

The results of the soil erosion estimation for post-mining conditions highlight a significant change in erosion patterns due to the proposed land use changes

Key Observations:

1. Very Slight Erosion: Covers the majority (62.80%) of the area, indicating that certain parts of the site remain relatively stable even under mining conditions.
2. Extremely Severe Erosion: A substantial 33.14% of the area exhibits extremely severe erosion, primarily in regions such as OB dump and quarry slopes. This is a critical issue requiring immediate and robust mitigation measures.
3. Other Categories: Together, slight, moderate, severe, and very severe zones account for only 3.48% of the area, but these also represent potential hotspots of concern.

Comparison with Pre-Mining Conditions:

Extremely Severe Erosion Zone Expansion: From 5.25% in pre-mining conditions to 33.14% during mining conditions, highlighting the impact of mining activities on soil stability

Critical Areas: Dump and quarry slopes are identified as the primary contributors to extremely severe erosion. This necessitates urgent mitigation measures to stabilize these areas and prevent downstream impacts such as sedimentation of water bodies.

Environmental Concerns: The worst-case scenario, with no control measures in place, demonstrates the high environmental cost of mining. These findings emphasize the need for robust soil conservation strategies.

Planning and Mitigation:

- Implementation of benching and terracing on dump slopes to reduce erosion rates.
- Use of geotextiles or vegetation cover for stabilization.
- Construction of check dams and settling ponds to manage sediment transport.

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PROJECT OFFICER
MAGADH OCP

- Effective topsoil management to enhance post-mining reclamation efforts.

Implications:

1. The results clearly indicate the necessity for implementing effective soil conservation measures, especially in areas with extremely severe erosion potential.
2. Targeted Interventions: The focus should be on stabilizing OB dumps and quarry slopes through techniques like terracing, vegetation cover, and geotextile applications.
3. Long-term Planning: Proper post-mining land reclamation, including stream restoration and vegetation regrowth, is essential to minimize long-term soil degradation.

Need for Mitigation Measures:

Effective erosion control strategies are imperative to minimize environmental degradation. These include:

- Engineering solutions such as terracing and slope grading.
- Biological interventions like revegetation and use of fast-growing plants.
- Structural measures, including check dams, toe walls, and geotextiles.

Sustainable Mining Practices:

The findings highlight the importance of integrating soil conservation measures into the mining life cycle, from planning to reclamation, to ensure long-term environmental sustainability.

Future Work:

Comprehensive post-mining land use planning and monitoring are recommended to mitigate residual erosion risks and restore ecological balance in the area.

This study underscores the critical role of proactive soil management in mitigating the environmental impacts of mining activities and maintaining soil health

7.2 Construction

It is proposed to construct a gabion wall using stone boulders and iron wire as a toe wall along the overburden (OB) dump. This method is cost-effective, flexible, and easy to repair, making it suitable for the purpose.

A permanent garland drain will be constructed with brick masonry around the OB dumps and coal stockyard, while temporary garland drains will be installed along the quarry to accommodate changes in the mine's shape during its operation.

All storm drains along roads and residential areas will be of permanent construction, ensuring durability. However, sedimentation lagoons near the OB dumps and in the "dirty zones" will be temporary due to the evolving shapes of the OB dump and quarry.

The sedimentation tank near the coal handling plant (CHP) and workshop can be made permanent if the locations are finalized. Baffle walls may be constructed using either earthen or masonry materials, depending on site conditions.

All gully plugs will be of permanent construction to provide long-term stability and effectiveness.

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7.3 Maintenance

- The sedimentation tank/lagoon should be cleaned annually before the onset of the monsoon season.
- Garland dams, storm drains, and baffle walls must be inspected, cleaned, and repaired as necessary.
- As the quarry's shape evolves, additional garland drains, storm drains, and baffle walls should be constructed wherever required.
- Fish farming should be initiated in sedimentation tanks or recharge pits to maintain water quality while providing an additional source of income.
- Water quality analysis of recharge pits and nearby wells should be conducted periodically to monitor and evaluate water quality.

7.4 Cost

No additional cost required for this scheme because more than sufficient amount is already provided in EMP. This amount may change at the time of construction time due to prevailing condition and situations. Quantity of surface drains, sedimentation tanks are approximately taken and quantity may vary on actual site conditions once the mine infrastructure locations are finalized.

Table 7.1: Cost estimates for the proposed Control measures

Sl no	Description of Items	Unit	Quantity	Rate	Amount	CPWD SOR Ref
1	Earth work in excavation by mechanical means (Hydraulic excavator)/manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including getting out and disposal of excavated earth lead upto 50 m and lift upto 1.5 m, as directed by Engineer-in-charge. All kinds of soil	Cum	43799.08	177.50	77,74,336.70	2.6.1
2	Extra for every additional lift of 1.5 m or part thereof in excavation / banking excavated or stacked materials. All kinds of soil	Cum	360.00	126.80	45,648.00	2.26.1

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Sl no	Description of Items	Unit	Quantity	Rate	Amount	CPWD SOR Ref
3	Supplying and filling in plinth with sand under floors, including watering, ramming, consolidating and dressing complete.	Cum	1392.30	2123.75	29,56,897.13	2.27
4	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level 1:3:6 (1 Cement : 3 coarse sand (zone-III) : 6 graded stone aggregate 20 mm nominal size derived from natural sources)	Cum	696.15	7294.70	50,78,205.41	4.1.5
5	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in foundation and plinth in: Cement mortar 1:6 (1 cement : 6 coarse sand)	Cum	2178.91	7132.25	1,55,40,530.85	6.1.2
6	12 mm cement plaster finished with a floating coat of neat cement of mix 1:4 (1 cement: 4 fine sand)	Sqm	14851.02	425.55	63,19,851.56	13.7.2
7	Cement concrete flooring 1:2:4 (1 cement: 2 coarse sand: 4 graded stone aggregate) finished with a floating coat of neat cement, including cement slurry, but excluding the cost of nosing of steps etc. complete. 40 mm thick with 20 mm nominal size stone aggregate	Sqm	3324.50	614.20	20,41,907.90	11.3
8	Dry stone pitching 22.5 cm thick including supply of stones and preparing surface complete.	Sqm	4480.00	883.15	39,56,512.00	16.11

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Sl no	Description of Items	Unit	Quantity	Rate	Amount	CPWD SOR Ref
9	Providing & making Gabion structure with Mechanically Woven Double Twisted Hexagonal Shaped Wire mesh Gabion Boxes as per IS 16014:2012,MORTH Clause 2500, of required size, Mesh Type 10x12 (D=100 mm with tolerance of ±2%), Zinic+10% Al alloy+PVC coated, Mesh wire diameter 2.7/3.7 mm (ID/OD), mechanically edged/selvedged with partitions at every 1m interval and shall have minimum 10 numbers of openings per meter of mesh perpendicular to twist, tying with lacing wire of diameter 2.2/3.2 mm(ID/OD), supplied @3% by weight of Gabion boxes, filled with boulders with least dimension of 200 mm, as per drawing, all complete as per directions of Engineer-in-charge	Cum	4518.00	4882.20	2,20,57,779.60	16.96
10	Survey/demarcation cost	LS			400000.00	
11	Total (Estimated)				6,61,71,669.15	

The details of proposed construction viz Garland drain, gabion wall, sedimentation pond, check dam are shown in section above (Fig 5.11 to Fig 5.14).

Technical cost estimate has been prepared as per the proposed soil erosion protection techniques envisaged in the report. Detailed estimate may be prepared as per the actual requirement at the time of execution.

SADALA SATYANARAYAN
PROJECT OFFICER
MAGADH OCP

Chapter 8
Disclosure of Consultants Engaged

8.1 About CMPDI

Central Mine Planning & Design Institute Limited, it is an ISO 9001:2008 certified company. Established in 1975 as a subsidiary of Coal India Ltd. as an in-house consultant. A Mini-Ratna Company providing consultancy services to various government & private organizations in exploration, mine planning andallied engineering services.

Its registered Corporate office is situated at Gondwana Place, Kanke Road, Ranchi-834 008, a capital city of Jharkhand state. It operates through sevenstrategically located Regional Institutes over six states territories of India.

8.1.1 Brief resume of the consultant

Establishment background

The company was formerly known as Coal Mines Authority Limited. And, the Central Mine Planning & Design Institute Limited (herein after called as CMPDI) is a planning & design division of Coal India Limited (hereinafter called as CIL) as per Memorandum of Association of the company. The CIL is a holding company since November 01, 1975, and the CMPDIL is one of its subsidiaries since then. It is under Ministry of Coal, Government of India.

Strength & Resources

Manpower

CMPDI has more than 900 multidisciplinary technical executive professionals who combine innovation and initiative to deliver faster and effective solutions in planning, implementation and management of projects.

Resources

CMPDI is equipped with modern laboratory facilities for undertaking various analytical works to supplement its services. It has well equipped network of six environmental laboratories located in various coalfields to regularly monitor air, water and noise parameters. **The Environment Laboratory at Ranchi is accredited with NABL (National Accreditation Board for Testing and Calibration Laboratories).** The environment lab ishaving recognition of CPCB since 1997 and also working under ISO-9001:2015 Certification.Besides its own strength, CMPDI has access to the vast resources with its principal, CIL, India's largest coal producer and a **Maharatna Company**.

Recognition

CMPDI is recognized as preferred consultant by Indian and overseas clients, United Nation agencies and international financial institutions, and the company is registered with

- World Bank
- Asian Development Bank

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- African Development Bank
- United Nations Development Programme

Main Functional Area

The main functional area of the CMPDI is to provide adequate and up-to-date planning, design and technological supports to the CIL and its coal producing subsidiaries to enable them to produce the planned quantity of coal efficiently and economically with due attention to safety, conservation, quality and environment. In addition to these, CMPDI also provides necessary consultancy for clients outside the CIL in India and abroad. The Quality management System of CMPDI, Ranchi is certified under international standard-ISO 9001:2015, Services covered under are as follows:

1. Consultancy in Mineral Exploration and Environmental Management.
2. Planning & Design in Mining, Civil & Architectural Engineering, Coal Preparation &c Utilization, Electrical & Mechanical Engineering, Mining Electronics, Geomatics and Mine Construction.
3. Laboratory testing facilities for the above.
4. Technical & Management Training in Mineral & Mining Sector.

Research & Development

The Research & Development activities in coal and lignite is being administered through the Scientific Advisory Committee (SSRC) with Secretary (Coal) as its Chairman. The committee is entrusted with the task of planning, budgeting and overseeing the implementation of R & D programme in coal & lignite sector and also for application of research findings. And, CMPDI is the Nodal Agency to coordinate S & T / R &D activities in coal and lignite Sector and assist SSRC in areas mentioned herein after.

CMPDI applied research and development in the field of mining, beneficiation, utilization, environment, exploration, etc. serving as nodal agency for all S & T schemes funded by Ministry of Coal and R & D schemes funded by R & D Board of the CIL(constituted in August 1995). Field oriented research projects including transfer and absorption of new technology concerning main areas of coal research have been as follows:

- Production, productivity and safety.
- Coal beneficiation and utilization.
- Environment and Ecology.

SADALA SATYANARAYAN
PROJECT OFFICER
MAGADH OCP

REGISTERED OFFICE

Gondwana Place, Kanke Road
Ranchi -834 031
(Jharkhand)

REGIONAL INSTITUTES

क्षेत्रीय संस्थान-I
वेस्ट एंड, जी.टी.रोड
आसनसोल 713 301
(पश्चिम बंगाल)

क्षेत्रीय संस्थान-II
कोयला भवन, कोयला नगर
धनबाद- 826 005
(झारखंड)

क्षेत्रीय संस्थान-III
गोंडवाना प्लेस,कांके रोड
राँची- 834 031
(झारखंड)

क्षेत्रीय संस्थान-IV
जरीपटका, कस्तूरबा नगर
नागपुर-440 014
(महाराष्ट्र)

क्षेत्रीय संस्थान-V
सीपत रोड
बिलासपुर-495 001
(छत्तीसगढ़)

क्षेत्रीय संस्थान-VI
पोस्ट :जयंत कॉलरी,
जिला : सिंगरौली
पिन कोड- 486 890
(मध्य प्रदेश)

क्षेत्रीय संस्थान-VII
गृह निर्माण भवन
सचिवालय मार्ग
भुवनेश्वर-751001
(उड़ीसा)

Regional Institute - I
West End, G.T Road
Asansol - 713 301
(West Bengal)

Regional Institute - II
Koyla Bhawan, Koyla Nagar
Dhanbad - 826 005
(Jharkhand)

Regional Institute - III
Gondwana Place, Kanke Road
Ranchi- 834 031
(Jharkhand)

Regional Institute - IV
Jaripathka, Kasturba Nagar
Nagpur - 440 014
(Maharashtra)

Regional Institute - V
Seepat Road
Bilaspur - 495 001
(Chattisgarh)

Regional Institute - VI
P.O Jayant Colliery
Dist. - Singrauli
PIN - 486 890
Madhya Pradesh

Regional Institute - VII
Grih Nirman Bhawan
Sachivalaya Marg
Bhubneswar - 751 001
(Orissa)

सेन्ट्रल माईन प्लानिंग एंड डिजाइन इन्स्टीच्यूट लिमिटेड

(कोल इंडिया की अनुषंगी कम्पनी)
एक मिनी रत्न कम्पनी

Central Mine Planning & Design Institute Limited

(A Subsidiary of Coal India Limited)
A Mini Ratna Company

गोंडवाना प्लेस, कांके रोड, राँची - 834 031, भारत
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फैक्स : (91 0651) 2231447
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Gondwana Place, Kanke Road, Ranchi - 834 031, INDIA
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SADALA SATYANARAYAN
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MAGADH OCP

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पंजीकृत कार्यालय : दरभंगा हाउस, राँची 834 001 (झारखण्ड)
CIN : U10200JH1956GOI000581
परियोजना पदाधिकारी कार्यालय, मगध -परियोजना मगध-संघमित्रा क्षेत्र
अवंतिका, गांव-कुंडी, पो.- सराधु, जिला:- चतरा, झारखण्ड-825321
e-mail: pomagadhms@gmail.com
Website: www.centralcoalfields.in

Annexure –13 (i)

Proposal No:- FP/JH/MIN/87235/2020 Dated:-19.03.2021
File No:- 8-27/2022-FC dated 27.05.2024
Project Name:- Magadh East OCP (192.36 Ha)

Subject: - Undertaking in respect of compliance of conditions no-9 (i) of in principal approval (Stage-I) obtained for proposal of non-forest use of 192.36 ha in favour of M/s Central Coalfields Limited for non-forestry use of 192.36 Ha of forest land for Magadh Opencast Project, Chatra South Forest Division in Chatra District of Jharkhand against the Magadh OCP.

UNDERTAKING TO CONDITION NO – 9 (i)

Magadh OCP, CCL undertakes that mitigative measures to minimize soil erosion and choking of stream shall be implemented within a period of three year with effect from the issue of Stage- II clearance in accordance with the approved Plan in consultation with the State Forest Department.

Project Officer
Magadh Opencast Project
SADALA SATYANARAYAN
PROJECT OFFICER
MAGADH OCP

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e-mail: pomagadhms@gmail.com
Website: www.centralcoalfields.in

Annexure –13 (ii)

Proposal No:- FP/JH/MIN/87235/2020 Dated:-19.03.2021
File No:- 8-27/2022-FC dated 27.05.2024
Project Name:- Magadh East OCP (192.36 Ha)

Subject: - Undertaking in respect of compliance of conditions no-9 (ii) of in principal approval (Stage-I) obtained for proposal of non-forest use of 192.36 ha in favour of M/s Central Coalfields Limited for non-forestry use of 192.36 Ha of forest land for Magadh Opencast Project, Chatra South Forest Division in Chatra District of Jharkhand against the Magadh OCP.

UNDERTAKING TO CONDITION NO – 9 (ii)

Magadh OCP, CCL undertakes to plant of adequate drought hardy plant species and sowing of seeds, in the appropriate area within the mining lease to arrest soil erosion in accordance with the approved scheme.

Project Officer
Magadh Opencast Project
SADALA SATYANARAYAN
PROJECT OFFICER
MAGADH OCP

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Annexure –13 (iii)

Proposal No:- FP/JH/MIN/87235/2020 Dated:-19.03.2021
File No:- 8-27/2022-FC dated 27.05.2024
Project Name:- Magadh East OCP (192.36 Ha)

Subject: - Undertaking in respect of compliance of conditions no-9 (iii) of in principal approval (Stage-I) obtained for proposal of non-forest use of 192.36 ha in favour of M/s Central Coalfields Limited for non-forestry use of 192.36 Ha of forest land for Magadh Opencast Project, Chatra South Forest Division in Chatra District of Jharkhand against the Magadh OCP.

UNDERTAKING TO CONDITION NO – 9 (iii)

Magadh OCP, CCL undertakes to construction of check dams, retention /toe walls to arrest sliding down of the excavated material along the contour in accordance with the approved scheme.

Project Officer
Magadh Opencast Project
SADALA SATYANARAYAN
PROJECT OFFICER
MAGADH OCP

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e-mail: pomagadhms@gmail.com
Website: www.centralcoalfields.in

Annexure –13 (iv)

Proposal No:- FP/JH/MIN/87235/2020 Dated:-19.03.2021
File No:- 8-27/2022-FC dated 27.05.2024
Project Name:- Magadh East OCP (192.36 Ha)

Subject: - Undertaking in respect of compliance of conditions no-9 (iv) of in principal approval (Stage-I) obtained for proposal of non-forest use of 192.36 ha in favour of M/s Central Coalfields Limited for non-forestry use of 192.36 Ha of forest land for Magadh Opencast Project, Chatra South Forest Division in Chatra District of Jharkhand against the Magadh OCP.

UNDERTAKING TO CONDITION NO – 9 (iv)

Magadh OCP, CCL undertakes to stabilize the overburden dumps by appropriate grading/benching, in accordance with the approved scheme, so as to ensure that angles of repose at any given place is less than 280.

Project Officer
Magadh Opencast Project

SADALA SATYANARAYAN
PROJECT OFFICER
MAGADH OCP

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Annexure –13 (v)

Proposal No:- FP/JH/MIN/87235/2020 Dated:-19.03.2021
File No:- 8-27/2022-FC dated 27.05.2024
Project Name:- Magadh East OCP (192.36 Ha)

Subject: - Undertaking in respect of compliance of conditions no-9 (v) of in principal approval (Stage-I) obtained for proposal of non-forest use of 192.36 ha in favour of M/s Central Coalfields Limited for non-forestry use of 192.36 Ha of forest land for Magadh Opencast Project, Chatra South Forest Division in Chatra District of Jharkhand against the Magadh OCP.

UNDERTAKING TO CONDITION NO – 9 (v)

Magadh OCP, CCL undertakes that no damage shall be caused to the top-soil and the user agency will follow the top soil management plan.

Project Officer
Magadh Opencast Project
SADALA SATYANARAYAN
PROJECT OFFICER
MAGADH OCP

Annexure 14

Office of Divisional Forest Officer, Chatra South Forest Division, Chatra

E-mail : dfo-chatrasouth@gov.in Phone : 8987790213

Letter No. 2064 Date : 17/10/2024

To,

The Project Officer,
Magadh OCP, Tandwa, Chatra.

Subject :- Charging of an lump sum amount of the project cost towards the cost of implementation of the Soil and Moisture Conservation plan against diversion of 192.36 Ha of Forest Land in respect of Stage-I obtained Magadh OCP in Chatra South Forest Division, Chatra.

Ref. :- Your letter No. 3681 dated 15.10.2024.

Sir,

Through above-mentioned letter, a request has been made that, as par MoEF&CC, GoI guideline dated 7th June 2022, in cases where it is not possible for the State to submit the compliance due to delay in preparation of such plan, a lump sum quantum of project cost may be realized from the User Agency and submitted along with the Stage I compliance. Accordingy, it has been requested to raise a demand of indicative amount equal to 0.5% of the project cost for implementation of Soil & Moisture Conservation Plan as mandated under In-principle approval of the project.

As the total project cost of Magadh OCP as mentioned in Part I of FC diversion proposal is 706.40 Crores. Therefore, it is requested to deposit the indicative lump sum amount of Rs. 3.532 Crores (0.5% of the project cost) in CAMPA Account for Soil & Moisture Conservation Plan. The amount should be deposited to CAMPA fund only through e-portal (https://parivesh.nic.in) against 192.36 ha of forest land in favor of Chatra South Forest Division alongwith an undertaking for depositing additional amount, if so determined, as per final approval of the Soil and Moisture Conservation Plan.

Sent for necessary action.

Your Faithfully

17/10/24

Divisional Forest Officer,
Chatra South Forest Division, Chatra

17.10.24
SADALA SATYANARAYAN
PROJECT OFFICER
MAGADH OCP

ICICI Bank

Date – November 11, 2024

TO WHOMSOEVER IT MAY CONCERN

This is to certify that Central Coalfields Ltd has made the below mentioned payment from their Current Account maintained with Our Bank-

Sl No.	Beneficiary Name	Amount	Beneficiary A/c no	Bene IFSC	UTR	Date of Transaction
1	JHARKHAND CAMPA	3,53,20,000.00	150725887235998	UBIN0996335	ICICR22024111106162260	11-11-2024

It is clarified that this information is furnished in strict confidence and without any risk and responsibility on our part or on the part of any Bank's officials in any respect more particularly either as guarantor or otherwise.

This certificate is issued at the specific request of the said customer.

Regards,

Authorized Signatory
ICICI Bank Ltd
Ratu Road Ranchi – 834001

11.11.24
GADALA SATYANARAYAN
PROJECT OFFICER
MAGADH OCP .

ICICI Bank Limited
Modi Heights, Shop # 05 & 06
Opp. All India Radio Station,
Ranchi- 834001,
Jharkhand, India

Website www.icicibank.com
CIN.: L65190GJ1994PLC021012

Regd. Office : ICICI Bank Tower,
Near Chakli Circle,
Old Padra Road,
Vadodara 390 007, India.

AGENCY COPY

यूनियन बैंक Union Bank

NEFT / RTGS CHALLAN for CAMPA Funds

Date : 05-11-2024

Agency Name	Central Coalfields Limited
Application No	5887235998
MoEF/SG File No	8-27/2022-FC
Location	JHARKHAND
Address	DARBHANGA HOUSE, CCL, RANCHIRanchi
Amount(in Rs)	35320000/-

Amount in Words Three Crore Fifty-Three Lakh Twenty Thousand Rupees Only

NEFT/RTGS to be made as per following details:

Beneficiary Name:	JHARKHAND CAMPA
IFSC Code:	UBIN0996335
Pay to Account No.	150725887235998 Valid only for this challan amount.
Bank Name & Address:	Union Bank Of India FCS Centre,21/1, III Floor, Jelitta Towers, Mission Road, Bengaluru-560027

- This Challan is strictly to be used for making payment to CAMPA by NEFT/RTGS only

BANK COPY

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NEFT / RTGS CHALLAN for CAMPA Funds

Date 05-11-2024

Agency Name	Central Coalfields Limited
Application No.	5887235998
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Note:After making the required payment through challan, if the payment status has not been updated even after 7 working days, then kindly mail a copy of your challan with transaction date and reference id to Email fcsblr@unionbankofindia.bank , epurse@unionbankofindia.bank, ubin0903710@unionbankofindia.bank

UTR No.:- ICICR22024111106162260

Amount :- 35320000/-

Date :- 11/11/2024

SADALA SAI YANARAYAN
PROJECT OFFICER
MAGADH OCP.

सेन्ट्रल कोलफील्ड्स लिमिटेड
(भारत सरकार का एक उपक्रम / कोल इंडिया लि. की एक अनुषंगी कंपनी)
पंजीकृत कार्यालय : दरभंगा हाउस, राँची 834 001 (झारखण्ड)
CIN : U10200JH1956GOI000581
CCL
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CENTRAL COALFIELDS LTD.
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e-mail: pomagadhms@gmail.com
Website: www.centralcoalfields.in

Annexure –15

Proposal No:- FP/JH/MIN/87235/2020 Dated:-19.03.2021
File No:- 8-27/2022-FC dated 27.05.2024
Project Name:- Magadh East OCP (192.36 Ha)

Subject: - Undertaking in respect of compliance of conditions no-10 of in principal approval (Stage-I) obtained for proposal of non-forest use of 192.36 ha in favour of M/s Central Coalfields Limited for non-forestry use of 192.36 Ha of forest land for Magadh Opencast Project, Chatra South Forest Division in Chatra District of Jharkhand against the Magadh OCP.

UNDERTAKING TO CONDITION NO – 10

Magadh OCP, CCL undertakes to pay the deficit amount, if any, in respect of Soil & moisture Conservation Plan from the money already realized i.e 0.5% of Project Cost (Rs. 3,53,20,000/-) in instant case- after obtaining final approval from competent authority in the State, Before hand over of Forest land.

11.12.24
Project Officer
Magadh Opencast Project

SADALA SATYANARAYAN
PROJECT OFFICER
MAGADH OCP

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e-mail: pomagadhms@gmail.com
Website: www.centralcoalfields.in

Annexure –16

Proposal No:- FP/JH/MIN/87235/2020 Dated:-19.03.2021
File No:- 8-27/2022-FC dated 27.05.2024
Project Name:- Magadh East OCP (192.36 Ha)

Subject: - Undertaking in respect of compliance of conditions no-11(i) of in principal approval (Stage-I) obtained for proposal of non-forest use of 192.36 ha in favour of M/s Central Coalfields Limited for non-forestry use of 192.36 Ha of forest land for Magadh Opencast Project, Chatra South Forest Division in Chatra District of Jharkhand against the Magadh OCP.

UNDERTAKING TO CONDITION NO – 11(i)

Magadh OCP, CCL undertakes that "demarcation of safety zone (7.5 meter strip all along the inner boundary of the mining lease area), and its fencing, protection and regeneration by erecting adequate number of 6 feet high RCC boundary pillars inscribed with DGPS coordinates with barbed wire fencing and deploying adequate number of watchers under the supervision of the State Forest Department" will be completed within three months of obtaining forest land handover.

11.12.24
Project Officer
Magadh Opencast Project

SADALA SATYANARAYAN
PROJECT OFFICER
MAGADH OCP

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Website: www.centralcoalfields.in

Annexure – 17

Proposal No:- FP/JH/MIN/87235/2020 Dated:-19.03.2021
File No:- 8-27/2022-FC dated 27.05.2024
Project Name:- Magadh East OCP (192.36 Ha)

Subject: - Undertaking in respect of compliance of conditions no-11(ii) of in principal approval (Stage-I) obtained for proposal of non-forest use of 192.36 ha in favour of M/s Central Coalfields Limited for non-forestry use of 192.36 Ha of forest land for Magadh Opencast Project, Chatra South Forest Division in Chatra District of Jharkhand against the Magadh OCP.

UNDERTAKING TO CONDITION NO – 11(ii)

Magadh OCP, CCL undertakes that "The boundary of the safety zone of the mining lease, adjacent to habitation/roads, will be properly fenced" within three months of obtaining forest land handover.

Project Officer
Magadh Opencast Project

SADALA SATYANARAYAN
PROJECT OFFICER
MAGADH OCP

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e-mail: pomagadhms@gmail.com
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Annexure –18

Proposal No:- FP/JH/MIN/87235/2020 Dated:-19.03.2021
File No:- 8-27/2022-FC dated 27.05.2024
Project Name:- Magadh East OCP (192.36 Ha)

Subject: - Undertaking in respect of compliance of conditions no-11(iii) of in principal approval (Stage-I) obtained for proposal of non-forest use of 192.36 ha in favour of M/s Central Coalfields Limited for non-forestry use of 192.36 Ha of forest land for Magadh Opencast Project, Chatra South Forest Division in Chatra District of Jharkhand against the Magadh OCP.

UNDERTAKING TO CONDITION NO – 11(iii)

Magadh OCP, CCL undertakes to maintain "safety zone as green belt around mining lease and to ensure dense canopy in the area, regeneration will be taken up in this area under the supervision of the State Forest Department at project cost. within three months of obtaining forest land handover.

Project Officer
Magadh Opencast Project

SADALA SATYANARAYAN
PROJECT OFFICER
MAGADH OCP

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Annexure – 19

Proposal No:- FP/JH/MIN/87235/2020 Dated:-19.03.2021
File No:- 8-27/2022-FC dated 27.05.2024
Project Name:- Magadh East OCP (192.36 Ha)

Subject: - Undertaking in respect of compliance of conditions no-11(iv) of in principal approval (Stage-I) obtained for proposal of non-forest use of 192.36 ha in favour of M/s Central Coalfields Limited for non-forestry use of 192.36 Ha of forest land for Magadh Opencast Project, Chatra South Forest Division in Chatra District of Jharkhand against the Magadh OCP.

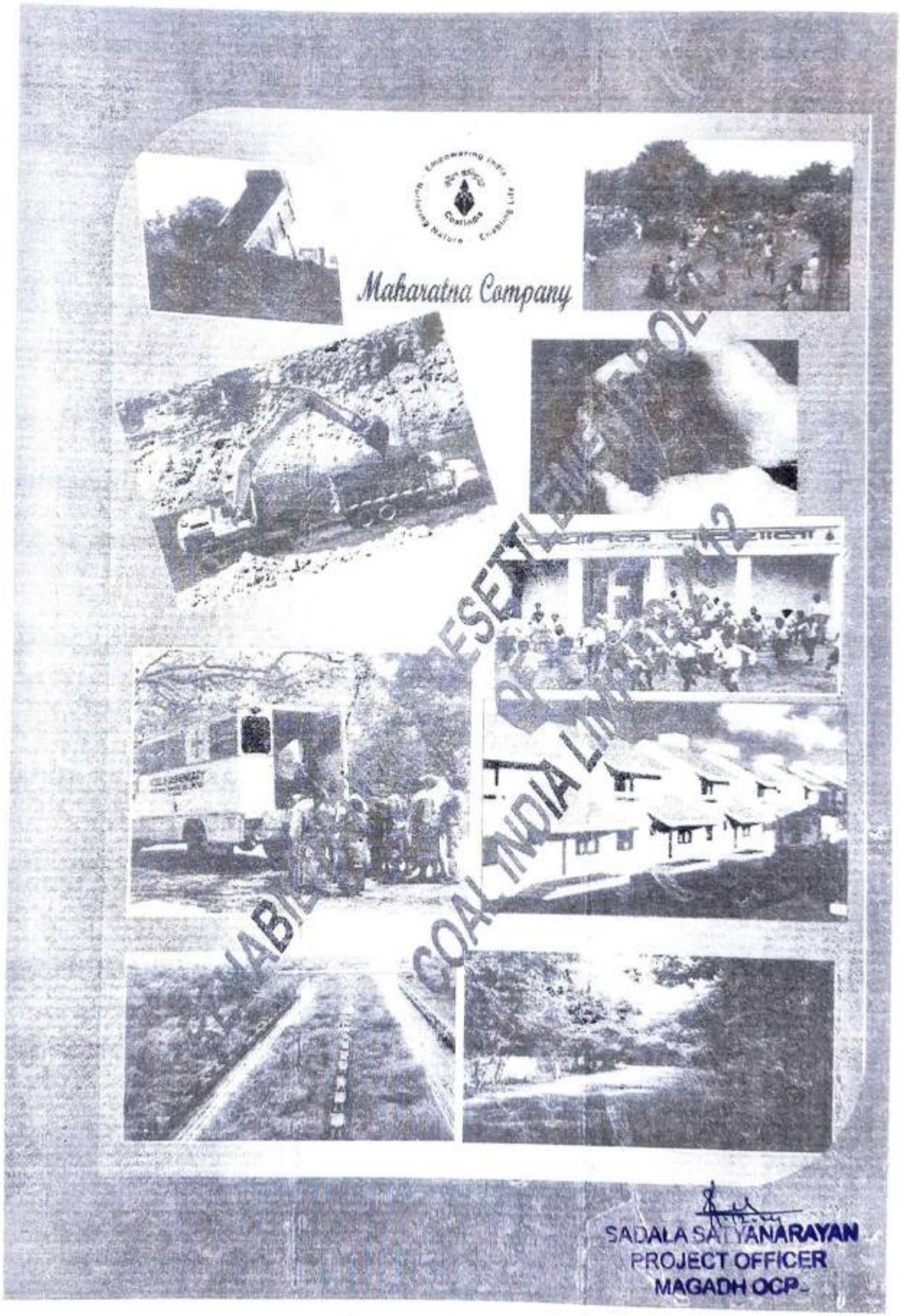
UNDERTAKING TO CONDITION NO – 11(iv)

Magadh OCP, CCL undertakes that safety zone will be maintained as per the prescribed norms within three months of obtaining forest land handover.

11.12.24
Project Officer
Magadh Opencast Project

SADALA SATYANARAYAN
PROJECT OFFICER
MAGADH OCP

Annexure – 20


Maharatna Company
SADALA SATYANARAYAN
PROJECT OFFICER
MAGADH OCP-

CONTENTS

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SADALA SATYANARAYAN
PROJECT OFFICER
MAGADH OCP

REHABILITATION AND RESETTLEMENT POLICY OF COAL INDIA LTD 2012.

Preamble

The location and quality of coal reserves, and their distance from major consumers determines to a great extent the selection of mine sites. For reserves that are close to the surface, opencast mining has proven to be the most efficient mining method. Opencast mines require relatively large areas of land. Population growth, particularly in India's eastern region, has made it increasingly difficult for the subsidiary coal companies to acquire the land they need for expanding their operations under the present Resettlement and Rehabilitation policy,2008 of Coal India.

The resettlement and rehabilitation policies followed by the subsidiary companies have evolved over time and undergone numerous changes in response to changing circumstances. As and when the Central or State Governments enact amendments to the Land Acquisition Act, issue new guidelines for resettlement and rehabilitation, as per its requirement Coal India reviews and modifies its resettlement and rehabilitation policy taking into account the changing conditions in coal producing areas.

In addition to compensation for land coal companies provide Rehabilitation and Resettlement (R&R) package for project affected persons to compensate for loss of livelihood. Apart from compensation for house site, house, trees, cow shed, cost of shifting etc., employment is also provided to land oustees. In addition to this, efforts are made to rehabilitate them by construction of houses, building roads, streets, schools, providing water etc. wherever feasible . However, demand for both more land compensation and better R&R package has been raised by project affected persons and has been highlighted in various Parliamentary Committees. Coal Companies often have to face representations and agitations by these land oustees who obstruct the smooth working of existing mines and come in the way of expansion of new projects.

In the past, subsidiaries found it relatively easy to acquire land, if they were able to offer employment. Partly because of this practice, subsidiaries have built up a largely unskilled labour force beyond their needs. This has contributed to the heavy losses and many mines are incurring and has also affected their efficiency and viability. The subsidiaries may still need to hire people in selected locations and continue to give preference to those whose livelihood will be affected by coal mining operations. However, increasingly subsidiaries will need to develop other ways and means to compensate land owners and others adversely affected by their projects and give them the option to choose which method of compensation best suits their needs. Greater emphasis will also need to be given to community requirements like schools, hospitals etc. Only proper resettlement and rehabilitation will elicit the required cooperation of project affected people, and make it possible for Coal India to acquire the land it needs to fulfill the ever increasing demand of coal for the economic development of the Country.

SADALA SATYANARAYAN
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The purpose of the Resettlement and Rehabilitation Policy 2012 is to revise and provide greater flexibility to the basic principles for the resettlement and rehabilitation of people affected by coal mining projects i.e. Project Affect People (PAPs). It attempts to consolidate the different resettlement and rehabilitation practices that are being followed by subsidiaries as per the different State land Acquisition Acts and various decisions of the Coal India Board and to modify the Policy of 2008 so as to give the Board of the subsidiary Companies greater flexibility to deal more effectively with resettlement and rehabilitation issues and determine the rehabilitation packages best suited to local needs in line with this policy. The provisions of the National Rehabilitation and Resettlement Policy, 2007 and the Land Acquisition, Rehabilitation & Resettlement Bill, 2011 have also been kept in mind while framing the policy.

While Coal India's basic philosophy for compensating land-losers and other project-affected people remains substantially unchanged, the revised policy emphasizes the need to cultivate and maintain good relationships with the people affected by Coal India's projects starting as early as possible; it also underscores that the subsidiaries have a responsibility towards the land oustees whose livelihood is often taken away. On the other hand, subsidiaries need to protect themselves more effectively against unjustified claims, redundant manpower and swelling Wage Bills. To this end, the statement proposes that subsidiaries prepare detailed resettlement and rehabilitation action plans (RAPs) that clearly identify, at an early stage, the entitlements of the people affected by coal projects and enables them to exercise a choice between various options. The concept of Annuity in lieu of compensation/employment is also being introduced to mitigate, if not eliminate the ever dependence of Project Affected Families (PAFs) on CIL for provision of employment.

(1) The revised Resettlement & Rehabilitation Policy, 2012 is based on the deliberations of the inter Ministerial Committee set up vide O.M. 49019/1/2011-PRIW-I dated 01-07-2011 of Ministry of Coal , deliberations of the CMDs meet held on 05/03/2012 at New Delhi and has been approved by the CIL Board in its 279th meeting held on 12th and 13th March, 2012.

(2) **Objectives and general principles of Coal India's Resettlement and Rehabilitation Policy- 2012**

A. To re-visit CIL's existing R&R policy 2008 and evolve a PAP friendly policy by incorporating such provisions of the National Policy and The Draft Land Acquisition, Rehabilitation and Resettlement Bill-2011 as considered suitable in light of the growing difficulties many subsidiaries face in land acquisition.

B. To accord the highest priority for avoiding or minimizing disturbance of the local population while taking decisions to open new mines or expand existing ones too (exploring alternative sites and project designs) and to ensure that wherever people are likely to be adversely affected by a project, the subsidiaries will prepare resettlement and rehabilitation action plans for the project.

C. To ensure a humane, participatory, informed consultative and transparent process for land acquisition for coal mining and allied activities with the least disturbance to the owners of the land and other affected families.

D. To provide just and fair compensation to the affected families whose land has been acquired or proposed to be acquired or are affected by such acquisition and make

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adequate provisions for loss of livelihood of such affected persons including their rehabilitation and resettlement.

E. To ensure that the cumulative outcome of compulsory acquisition should be that the affected persons become partners in development leading to an improvement in their post acquisition social and economic status and matters connected therewith or incidental thereto.

F. Through the preparation of resettlement and rehabilitation action plans, subsidiaries will safeguard that project-affected people improve or at least regain their former standard of living and earning capacity after a reasonable transition period. The transition period is to be kept to a minimum. However, the involvement of subsidiaries in resettlement and rehabilitation activities may continue until all the actions specified in the rehabilitation plan have been completed.

G. Involuntary resettlement is conceived and executed as a development programme with project-affected people being provided sufficient resources and opportunities to share in a project's benefits. The efforts of subsidiaries are complementary to the Government's schemes in rural development and the concurrence, approvals and support from concerned Government authorities will be sought.

H. In parallel, subsidiaries will work closely with non-governmental organizations of proven repute which are legally constituted and recognized and also have the confidence of the project-affected people, in the preparation and implementation of rehabilitation plans.

I. Corporate Social Responsibility (CSR) : Activities shall be intensified in and around the villages where land is being acquired in accordance with the CSR Policy of Coal India.

J. Actual implementation of R&R package must follow a detailed survey of the project-affected villages to formulate the list of persons/families affected by the project, nature of the affect, the likely loss of income, etc. For this purpose, if necessary, the services of a reputed NGO with an impressive record of integrity and performance may be engaged.

3. SCOPE:

This Policy may be called "Rehabilitation and Resettlement Policy of Coal India Limited-2012". It extends to the Coal India Limited and its subsidiary companies in India. It shall come into force from the date of its approval by the CIL Board and is applicable to all cases in which land is taken after the date of approval by the CIL Board. While implementing the policy it is to be ensured that the provisions of the concerned Acts applicable and Rules mentioned there under shall not be violated .

4. Definitions

(a) "affected family" means:

(i) a family whose primary place of residence or other property or source of livelihood is adversely affected by the acquisition of land (including direct negotiation) for a project or involuntary displacement for any other reason; or

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SADALA SATYANARAYAN
PROJECT OFFICER
MAGADH OCP

(ii) any tenure holder, tenant, lessee or owner of other property, who on account of acquisition of land (including plot in the *abadi* or other property) in the affected area or other wise, has been involuntarily displaced from such land or other property; or

(iii) any agricultural or non-agricultural labourer, landless person (not having homestead land, agricultural land, or either homestead or agricultural land), rural artisan, small trader or self-employed person, who has been residing or engaged in any trade, business, occupation or vocation continuously for a period of not less than three years preceding the date of declaration of the affected area, and who has been deprived of earning his livelihood or alienated wholly or substantially from the main source of his trade, business, occupation or vocation because of the acquisition of land in the affected area or being involuntarily displaced for any other reason.

(b) "***family***" includes a person, his/her spouse, son including minor sons, dependant daughters, minor brothers, unmarried sisters, father, mother residing with him or her and dependent on him/her for their livelihood; and includes "***nuclear family***" consisting of a person, his/her spouse and minor children. Provided that where there are no male dependants, the benefit due to a land loser may devolve on dependent daughter nominated by the land loser.

(c) "land owner" includes any person—

(i) whose name is recorded as the owner of the land or part thereof, in the records of the concerned authority; or

(ii) who is entitled to be granted Patta rights on the land under any law of the State including assigned lands; or

(iii) who has been declared as such by an order of the court or District Collector;

(d) **Displaced person** - means and includes any person who is deprived of his homestead on account of acquisition. Provided that the person/family who does not ordinarily reside in the homestead land acquired for the project can be termed "Displaced" but he will be eligible for compensation only for homestead and not for livelihood.

(e) **Ordinarily resides**" shall mean residing in the homestead / acquired land for a period more than 6 months every year for at least the preceding 5 years.

5. Socio-economic Survey and preparation of RAP.

A baseline socioeconomic survey will be carried out to identify the PAPs who are enlisted to receive benefits in line with Coal India's Resettlement and Rehabilitation Policy. This survey will be conducted within two months of notification under the relevant land acquisition Acts by the subsidiaries with the help of reputed independent institutional agencies, who are well versed with the social matrix of the area.

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PROJECT OFFICER
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The basic objective of the socio-economic study will be to generate baseline data on the social and economic status of the population who are likely to lose their means of livelihood or homestead due to the acquisition of the land for the project. The data base will be used to formulate a viable and practical Rehabilitation Action Plan (RAP) for the affected persons in line with their entitlements. Digital Satellite Maps would also be prepared of the project Area freezing the dwelling units and habitations existing at the time of negotiation for Land Acquisition wherever feasible. The RAP will also address the following-

(A) Implementation, Monitoring and Evaluation, Dispute Mechanism

The rehabilitation action plan will address the following:

i) The project design, including an analysis of alternative designs aimed at avoiding or minimizing resettlement;
ii) Socio-economic survey and activities to ensure restoration of incomes of PAPs in line with Coal India's Resettlement and Rehabilitation Policy;
iii) Description of the institutional and other mechanisms for provision of entitlements;
iv) Time table for the acquisition and preparation of the resettlement site(s);
v) The cost and budgets for the resettlement and rehabilitation of PAFs;
vi) Project-specific arrangements to deal with grievances of PAFs; and
vii) Time tables, benchmarks and arrangements for monitoring the resettlement and rehabilitation effort.

The RAP will be formulated in consultation with PAPs and State government.

(B). Environment Impact Assessment (EIA) will be conducted as per any law, rule and regulation of the locality in which the land has been acquired.

6. Eligibility Criteria -

(A) Eligibility Criteria for Economic Rehabilitation Benefits

This benefit shall accrue only to Entitled Project Affected Person. Entitled Project Affected Person shall be one from the following categories.

(i) Persons from whom land is acquired including tribals cultivating land under traditional rights.
(ii) Persons whose homestead is acquired.
(iii) ,Sharecroppers, land lessees , tenants & day labourers.
(iv) Tribal dependent on forest produce as certified by the District Forest Officer/Revenue Authorities.

(B) Eligibility Criteria for Resettlement Benefits

1 . Only a 'Displaced' family / person shall be eligible for resettlement benefits.

2. A family/person shall be termed 'displaced' and hence eligible for resettlement benefits if such family/person has been a permanent resident and ordinarily residing in the project area on the date of publication of notification U/S 9 of CBA(A&D) 1957 / U/S 11 of LA Act, 1894/ Or both/ on the date of the land vested with the State/ Central government as the case may be

and

(a) on account of acquisition of his/her homestead land / structure is displaced from such areas

or

(b) He/she is a homesteadless or landless family/person who has been/is required to be displaced.

SADALA SATYANARAYAN
PROJECT OFFICER
MAGADH OCP

7 .Census & Identification of displaced families:

1. Within two months of publication of notice U/S 4(1) of the Land Acquisition Act or U/S 7(1) of CBA (A.D) Act 1957 for acquisition of land for the project a census would be undertaken in the manner to be decided by the Collector / project authority for identification of displaced families and for preparing their socio-economic profile and list of eligible persons for the purpose of receiving Rehabilitation & Resettlement Benefits.

2. A photo identity card to each Entitled Project Affected Person shall be issued under the signature of the Collector / project authority concerned indicating the following particulars:

(a) Name of the village/GP/PS :
(b) Name, Father's name and address of the head of the family :
(c)Category of entitlement :
(d)Whether S.C./S.T./O.B.C./General :
(e)Age,Sex,educational qualification of the members of the family :

8. Types of Compensation and Rehabilitation Entitlement

Option to the land losers regarding Rehabilitation & Resettlement Benefit - The land losers shall have the option for Rehabilitation and Resettlement benefits in accordance with the awards for each affected family in terms of the entitlements passed by the Concerned Collector of the State or as per this Policy with the consent of the concerned Collector.

8.1 Eligibility and Compensation

The table below shows the compensation and rehabilitation benefits will be offered by the subsidiaries for each Project Affected Person or family, affected by one of their projects. Evidence to the effect that a person is a legitimate PAP will need to be provided in the form of a written legal document, or reference to a record, such as a revenue officer certificate, electoral roll, ration card or school record.

Category of Persons affected by the Project	*Compensation and Rehabilitation entitlement option*
	Provisions
(i) Persons (including tribals cultivating land under traditional rights) from whom land is acquired.	All land owners with titles will receive monetary compensation for the land acquired from them. The value of the land is determined on the basis of prevailing legal norms. *In respect of tribals cultivating land under traditional rights, authentication of land held under traditional rights by state authorities will be necessary.* In addition to above the following shall apply.

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MAGADH OCP

Category of Persons affected by the Project	Compensation and Rehabilitation entitlement option
	Provisions
	A). Land Compensation - Land compensation shall be paid as per the provisions of the concerned Act or State Govt. notification. Where no notification of the State Govt. is available the concerned subsidiary Board may decide on the rate of compensation keeping in view the compensation provided by the neighboring states. Authentication of land held under traditional rights by state authorities will be necessary. In addition to above Solatium will be paid as per provisions of the concerned Act / as imposed by the Concerned State Govt. Escalation of land compensation – Escalation will be paid as per provisions of the concerned Act / as imposed by the Concerned State Govt. or Escalation at the rate of 12% per anum for a maximum period of three years. **(B): Employment provision:** Apart from payment of the land compensation, employment may be given in the following manner – **1)** The maximum total number of employments that may by provided to the land losers would be limited to the total no. of acres of land acquired divided by two. However employments will be released in proportion to the land possessed . **2)** For every two acres of land one employment can be considered. 3) Subsidiaries of CIL may give an option to the Land losers having less than two acres of land to club together their land to the extent of two acres and nominate one of the land losers among the groups or their dependent for employment under package deal or employment under Descending order system by preparing the list of eligible land oustees in the descending order of land lost subject to the cut off equivalent to the total number of permissible employments or any other method with the approval of the respective Board of the subsidiary. **4)** The land loser must be a domiciled resident/Mool Niwasi and the certificate to this effect shall be issued by the concerned State Authority **5)** The modalities for offering employment shall be such as may be approved by the Board of the Subsidiary companies as per the unique conditions of the subsidiary provided that - **a)** The initial employment shall be given with pay of Category-I pay scale of NCWA, with training period of 6 months. b) In the seniority list, the seniority of the appointee should be reflected in appropriate manner in order to keep the senior most as senior. **c)** The land loser trainees shall be posted as per requirement, including underground duties.

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Category of Persons affected by the Project	Compensation and Rehabilitation entitlement option
	Provisions
	(C): **Lumpsum Monetary Compensation** – 1. All the land losers who are not eligible for employment as above shall be entitled to receive monetary compensation in lieu of employment at the rate of Rs.5,00,000/- (Five Lakhs) for each acre of land on pro-rata basis . 2. Land losers who are offered employment as per principle specified in point No (8.(i)B) above will have the option either to opt for employment or to forego employment and opt for monetary compensation at the rate of Rs.5,00,000/- (Five lakhs) for each acre of land on pro-rata basis with minimum of Rs. 50,000 (Fifty thousands) provided that the employment thus surrendered shall not be available for offer to any other person and will stand lapsed from the total sanctioned number of employments as specified in point No.(8.(i)B1). 3. The Land losers who have clubbed their land in Package Deal can claim employment for only one land loser of the clubbed two acres of land and remaining land losers of the package cannot claim either employment or lump sum monetary compensation in lieu of the land contributed by them. 4. Annuity – All land losers who are entitled to get lump sum monetary compensation may opt for payment of compensation amount in the form of annuity made payable to the land losers monthly, annually or at such intervals (not less than one year) as may be opted for by him. The annuity be paid for a maximum period extending to 60 years of age or the life of the project for which the land has been acquired, whichever is earlier. **Note:** *A person receiving a job forgoes all claims to above compensation and a person receiving above compensation forgoes all claims to employment.*
(ii) Person whose homestead is acquired	I. Compensation for homestead shall be paid as per the standard valuation method of the L.A Act. of the concerned State Govt. II. One time lump sum payment of Rs.3,00,000/- (three lakhs),shall be paid in lieu of alternate House site. Assistance in designing Shifting Allowance,compensation for construction of cattle shed . Monetary compensation for construction of work shed etc.The compensation shall be paid to displaced persons only after vacation and demolition of the homestead/ work shed etc. III Subsistence allowance :Each affected displaced family will get subsistence allowance at the rate of 25 days (Minimum Agricultural Wage) per month for one year.

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Category of Persons affected by the Project	Compensation and Rehabilitation entitlement option
	Provisions
(iii)Sharecroppers, land lessees, tenants and day labourers	The subsidiary will assist PAP to take-up non farm self employment through petty contracts or formation of cooperatives. If such co-operatives will not be entitled for awarding work as per Manual for lack of experience, the said co-operative will be facilitated by awarding small jobs to acquire experience after relaxation of the provisions of the Manual pertaining to experience with approval of the Subsidiary Boards. Subsequent jobs may be awarded after getting report of the timely completion / quality / of the awarded jobs from the concerned Department or contractors. Contractors will also be persuaded to give job to eligible PAPs on a preferential basis, where feasible as per terms of contract.
(iv)Landless tribals, Tribal dependent on forest produce	The subsidiary will assist PAP to establish non farm self employment through the provision of infrastructure, petty contracts or formation of cooperatives and encourage provisions of Jobs with contractors. Contractors will be persuaded to give jobs to eligible PAPs on preferential basis, where feasible. - In addition, the subsidiaries will shift the tribal community as a unit and provide facilities to meet the specific needs of the tribal community that will allow them to maintain their unique cultural identity. - Tribal affected family will be given one time financial assistance of 500 days of MAW for loss of customary right or usages of forest produce. Loss of customary rights needs to be authenticated by the district authority. - Tribal affected families resettled out of the district shall be given 25% higher rehabilitation and resettlement benefit.

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9. **Resettlement & Rehabilitation Committee** - A Committee will be constituted at project Level under the chairmanship of the Collector to be called the Rehabilitation and Resettlement Committee with the following objectives to monitor and review the progress of implementation of the Rehabilitation and Resettlement scheme and to carry out post-implementation social audits in consultation with the village panchayat in rural areas and municipality in urban areas in the manner will be decided by the concerned State Govt.

I. To approve the list of land losers and other PAPs;
II. To approve the list of persons eligible to be offered employment as per R&R Policy;
III. To approve the detailed Rehabilitation Plan for the project in consultation with the displaced persons and Gram Sabhas;
IV. To expedite issue of domicile certificates and other necessary documentation required for State Authorities;
V. To monitor and review the progress of the Rehabilitation Scheme, grant of benefits and handing over of possession of land in a smooth manner;
VI. To facilitate the land acquisition process in any other manner as may be required including resolution of disputes;
VII. To carry out post implementation social audit in consultation with the authorities.

10. Community facilities - The subsidiary will provide at the resettlement site a school, road with street light, pucca drain, pond, dugwell and/or tubewell for drinking water supply, community center, place of worship, dispensary, grazing land for cattle and play ground. Similar infrastructural facility, if necessary, will be extended to the host locality. The community facilities and services would be available to all residents of the area, including PAPs and the host population.

The approach for operation of community facilities would be flexible and all efforts will be made to involve the State and local self Government / Panchayat for operating the facilities. To achieve this, subsidiaries will pursue with these agencies to ensure the same. The planning of the community facilities and their construction should be undertaken in consultation with the affected community.

11. Corporate Social Responsibilities - This should be as per Company's Corporate Social Responsibility (CSR) Policy.

12. Monitoring and Evaluation Mechanism.

The RAP will be monitored and evaluated periodically after the completion of the land acquisition process.

I. The resettlement and rehabilitation activities are the responsibility of a separate group, both at the projects and corporate level, which will be constituted for planning, implementation, monitoring and evaluation of the Rehabilitation Action Plan. At the corporate level the group will be headed by a senior manager, whereas at the project, an executive of the rank of manager will head the group. The project group should have at least one member with social science qualification / experience and skills.

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II. The project group will closely interact with the state authorities during the implementation of the RAP. Although the subsidiaries will develop the plots and infrastructural facilities in the resettlement colony and actively implement the RAP, assistance of State authorities will be taken for administrative services such as allotment of land. Implementation will be planned, monitored and corrective measures will be incorporated in the RAP, if needed. In addition to the State Government, the PAPs, the village leaders including the Pradhans and NGOs will be consulted and associated with the implementation of the RAP.

III. The Resettlement and Rehabilitation Cell at the corporate level will evaluate the implementation of the RAP after its completion.

13. Flexibility to the Subsidiary Companies – The Subsidiary Companies Boards have been authorised to approve necessary modifications in the R&R Policy with reference to unique conditions prevailing at the concerned Subsidiaries as the policy is not exhaustive.

(The above list is only indicative and not exhaustive)

11.12.14
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CCL
Fuelling Sustainable Growth
CENTRAL COALFIELDS LTD.

सेन्ट्रल कोलफील्ड्स लिमिटेड
(भारत सरकार का एक उपक्रम / कोल इंडिया लि. की एक अनुषंगी कंपनी)
पंजीकृत कार्यालय : दरभंगा हाउस, राँची 834 001 (झारखण्ड)
CIN : U10200JH1956GOI000581
परियोजना पदाधिकारी कार्यालय, मगध -परियोजना मगध-संघमित्रा क्षेत्र
अवंतिका, गांव-कुंडी, पो.- सराधु, जिला:- चतरा, झारखण्ड-825321
e-mail: pomagadhms@gmail.com
Website: www.centralcoalfields.in

Annexure – 21

Proposal No:- FP/JH/MIN/87235/2020 Dated:-19.03.2021
File No:- 8-27/2022-FC dated 27.05.2024
Project Name:- Magadh East OCP (192.36 Ha)

Subject: - Undertaking in respect of compliance of conditions no-12 of in principal approval (Stage-I) obtained for proposal of non-forest use of 192.36 ha in favour of M/s Central Coalfields Limited for non-forestry use of 192.36 Ha of forest land for Magadh Opencast Project, Chatra South Forest Division in Chatra District of Jharkhand against the Magadh OCP.

UNDERTAKING TO CONDITION NO – 12

Magadh OCP, CCL undertakes that the activities under the R&R Plan shall be commenced and implemented as per the R&R Policy of State Government in consonance with National R&R Policy, Government of India. Magadh OCP, CCL further undertakes that activities under the R&R Plan shall be commenced within one year of obtaining forest land handover.

11.12.24

Project Officer
Magadh Opencast Project

SADALA SATYANARAYANA
PROJECT OFFICER
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Annexure - 22 (o/c)

Desiltation Plan for Magadh OCP

2024

Central Coalfields Limited

SIDHA

Prepared by-

Social Initiative through Development & Humanitarian Action (SIDHA)

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Index for the De-siltation plan

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Desiltation Plan in the catchment area of Magadh Mines

Waterbodies are an essential part of our ecosystem. These support a diverse range of aquatic life, play a crucial role in maintaining the water cycle, and provide an invaluable source of freshwater for communities in the command of the structure. Due to growing mining activities, population, urbanisation and industrialisation, these traditional water bodies have been subjected to various deteriorating factors and often have reduced to a dumping ground for waste materials.

The impact of decaying waterbodies is not only limited to the aquatic life that resides within them, but it also affects the surrounding environment and the communities that depend on them. Neglected waterbodies become breeding grounds for disease-carrying insects, reduce the water-holding capacity of the land, and affect the quality of air that we breathe. Moreover, they are also a threat to public safety, especially during monsoons, when water levels rise and often cause flooding in nearby areas.

Therefore, it is essential that mining companies take steps to restore these waterbodies and improve their health. The restoration of waterbodies has a significant impact on the ecology, aquatic life, and the community. It helps in maintaining the water cycle, improves air quality, and provides a habitat for diverse aquatic life.

Not only that but restoring waterbodies can help to mitigate the impact of climate change by reducing the risk of flooding and erosion, increasing the storage capacity of water bodies, and promoting the growth of vegetation. The restoration is a critical step in ensuring the sustainability and resilience of our environment.

The desiltation of water bodies have been initiated as a condition of forest compliance and waterbodies restoration discussed in this report is a significant step towards this goal. The project aims to restore the health of several waterbodies by removing silt, invasive weeds, and garbage, constructing strong bunds, and planting diverse plant species. Through these efforts, the project will not only improve the ecological health of the waterbodies but also create a positive impact on the surrounding communities.

This desiltation plan is being prepared in compliance with the –

13. The use agency shall prepare a list of existing village tanks and other water bodies with GPS coordinates located within 5 Kms from the mining lease boundary. This list is to be duly verified by concerned divisional forest officer. The user agency shall regularly undertake desilting of these village tanks and other water bodies so as to mitigate the impact of siltation such tanks/water bodies. A detailed approved plan for desilting of identified ponds and water bodies to be prepared in consultation with forest department and shall be submitted to MoEF&CC before stage-II approval.

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The objective of the restoration is to clean, purify, and restore waterbodies, adopting a holistic approach that addresses all elements of an ecosystem such as soil, hydrology, flora, and fauna.

Importance of desiltation plan

- Serves as a sink for carbon storage
- Reduces the risk of floods
- Reduces the levels of phosphorous and nitrogen in waterbodies
- Controls excessive growth of microphytes
- Prevents encroachment
- Prevents pollution and spread of diseases
- Preserves lakes to its original glory

The project has been successful in achieving its objectives, resulting in increased water capacity, improved water quality, and biodiversity, providing nesting sites for several birds that flock in and around the ponds. The project has also had a significant impact on the surrounding communities, replenishing the groundwater table, and positively impacting the lives of thousands of residents.

The restoration project aimed to address several Sustainable Development Goals, including 3, 6, 8, 14 and 15.

By restoring the waterbodies, the compliance will help strengthening of the bunds and constructing live fences by plantations to prevent encroachment and preserve the ecosystem, contributing to SDGs and helping promote sustainable development. Furthermore, the project will promote biodiversity by planting hundreds of different species of trees and plants, contributing to SDG 14 (Life Below Water) and SDG 15 (Life on Land).

The restoration of multiple ponds will also contribute to SDG 6 (Clean Water and Sanitation) by removing silt, garbage, and invasive weeds, and increasing the storage capacity of the waterbodies and also create employment opportunities, contributing to SDG 8 (Decent Work and Economic Growth).

The activity will directly and indirectly contribute to SDG 3 (Good Health and Well-Being) by replenishing the groundwater table, improving the water quality, and providing a healthier ecosystem for local flora and fauna.

Overall, the desiltation activity will successfully address multiple Sustainable Development Goals, contributing to a sustainable future for the local community and environment.

Mukesh Kumar I.F.S
Divisional Forest Officer
Chatra South Forest Division

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Chapter-1
Introduction and background

Introduction

Adequate availability of water of required quality is pre-requisite for survival and quality of human life. Surface water bodies like lakes, ponds, reservoirs, tanks and rivers were treated as community resource or asset over the centuries. In urban areas also such water bodies played an important role as a source of drinking water, absorption of flood water and a conduit for ground water recharge. They were being nurtured, protected, conserved and managed by the active participation of the local community without any code of conduct or rule. In turn, these water bodies have been catering the local human and livestock populations. The introduction of public water supply and ground water development through tube wells and hand pumps in the modern times, coupled with urbanization and industrialization induced pollution, a tectonic shift in the attitude of the people towards these water bodies has been witnessed. Both locals as well as the government have started neglecting this asset and have stopped caring, nurturing and conserving these community resources. Mushrooming urban, industrial and infrastructure development has further changed the status of these water bodies from community resources to a mere dumping ground or sink for solid wastes, construction debris, domestic sewage, industrial effluents, religious offering etc. resulting in severe degradation in the quality of such resources.

Background:

Central Coalfields Limited (CCL), a subsidiary of Coal India Limited, is a prime producer of coking & non-coking coal in the country. It operates coal mines in the state of Jharkhand. Its operation spread over 2600 km2 in the districts of Ramgarh, Hazaribagh, Bokaro, Giridih, Palamu, Chatra, Latehar and Ranchi. Mining operation spread over six coalfields i.e North Karanpura, South Karanpura, East Bokaro, West Bokaro, Ramgarh and Giridih Coalfields. CCL has been playing a pivotal role in fulfilling the energy needs of the country. This subsidiary of Coal India Limited has planned to produce 84.00 Mt. of coal during 2023-24 and to enhance the production to 135 MTPA by 2025-26 to meet the energy demands of the country.

Location of the project:

The Magadh OCP is located between longitude 840 57'40" and 840 59' 30" E and latitude 230 49' 15" and 230 51' 30" N and Tandwa Block is situated between longitude 840 55' 35" and 840 57' 40" E and Latitudes 230 47'40" and 230 50' 38"N. The Dumargarh block located between longitude 840 54'50' and 840 56' 09" E and latitude 230 48' 30" and 230 50' 56" N. The Karimati block is located between longitude 840 53'40" and 840 54' 54" E and latitude 230 48' 40" and 230 49' 40" N.

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The North Karanpura Coalfield forms a part of the east west trending valley between Hazaribagh plateau in the north and Ranchi plateau in the south. The Aswa Pahar in the south separates the North Karanpura Coalfield and the South Karanpura Coalfield by an east-west elongated metamorphic patch.

However, they are almost interconnected near Bachra and Hindgir village by a narrow tongue of Talchir outcrops. On the eastern side, the North Karanpura Coalfield is separated from the West Bokaro Coalfield by a narrow stretch of metamorphic rocks having several outliers of Talchir Formation. In the west, it is separated from the Auranga Coalfield by a stretch of about 20km wide metamorphic belt.

Connectivity:

The Magadh OCP is approachable by 12 Km long fare weather Kutcha Road from Tandwa village which is connected to Khalari via Piparwar by a 20 Km long fare weather road in the south and to Hazaribagh by a 50 Km long Metalled Road via Barkagaon. Another metalled road connects Tandwa village with Hazaribagh (80 Km) via Semariea. A fair-weather kutcha road connecting Tandwa village with Balumath also runs close to this OCP, which in turn is connected to Khalari via Tori and Bijupara. The nearest railway station is the Ray, which is at a distance of about 35 Km from the block, on Barkakana Dehri-on-Sone loop line of the Eastern Railway. Tori Railway station is another nearby railhead, located south-west of the block, at a distance of about 45 Km.

Topography:

The Magadh OCP is characterized by more or less flat terrain with gentle undulations. In general, the ground slopes towards south in major part of the block. In the northern part, it slopes towards the east. The maximum elevation of 509m is noticed in the northern part of the block, where lower seams are incroping. The minimum elevation of 464m is noticed near the southern block boundary.The drainage of Magadh OCP is controlled by Pindar Kalkalnala,. flowing west to east in the northern side of the property. and Kuhubadnala flowing north to south along the Western block boundary. The Kuhubad nala meets the Garhi river in the south at a distance of about 10 Km. There is no perennial water body within the block. The average monthly rainfall during the monsoon period (June to October) is 200mm and during the non-monsoon period (Nov. to May) is 20mm

Climate is tropical. Average monthly rainfall during monsoon is approximately 1200 mm while in summer season the climate is hot. The maximum and minimum temperature ranges from 40 degree to 5 degree.

Impact zone of the project:

For the purpose of formulating the Soil and moisture conservation Plan, the Impact Area (IA)/ Zone of Influence (Zol) has been considered as the geographical area within

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5 km radius around the proposed site of the mine's boundary to the limit of administrative jurisdiction of Magadh Area

Climate and Rainfall

The climate is tropical. The summer, which is between April and June, is very hot. The maximum temperature reaches upto 46°C during summer and the minimum temperature reaches 4°C during winter months of December and January. The average rainfall is usually about 50"-60" during monsoon. Uneven distribution of rainfall, Low water-holding capacity and Eroded soils & Poor soil fertility are the characteristics seen in the rainfall pattern in the impact area Also, the potential evapo-transpiration losses are high for the district given its severe summer. Hence, all surface water bodies are dried up during summer leaving out meagre perennial sources.

Temperature

The heat in summer months is intensified by radiation from the rocky hill slopes that become practically bare through leaf fall. The temperature rises upto 120'F (48oC). During this period a hot and desiccating westerly wind locally called "Loo" blows over the area and frequently causes sun strokes but in the forests the nights are pleasant. From the middle of April to the second week of June i.e., the break of monsoon the heat is most oppressive. The mean annual temperature remains about 25oC. Mean maximum of 38.6oC is observed in May and a mean minimum of 10.1oC is observed during December. Further, the peak temperature in summer sometimes reaches to 46oC and in winter, it comes down to as low as 2 - 3 oC. These facts point towards a rather high range of temperature.

Geology and Landscape

The Geological formation in Chatra and Hazaribagh district consists of archaean Granite and Dolerite; lower/middle Proterozoic unclassified metasediment, Phyllite, Micaschiste with Phyllite Quartezite, middle Proterozoic Granite Gneiss, Lower Proterozoic Quartezite, Upper Carboniferous Talchar Shale- Sandstone. Permean Raniganj, Barakar sandstone, shale and Coal\, Kulti sandstone; Panchet sandstone, Shale and Gondwana super group Mahadeva formations are met with in this district.

These regions have an undulating terrain with a mix of up, medium and low lands. The scarp landforms of the district gave rise to scenic waterfalls. Tamasin Waterfalls in Kanhachatti block is a famous tourist spot that has been formed due to scarp landform.

Natural Vegetation

The natural vegetation within the agricultural ecosystem appears to be secondary due to increasing need for fuel / grazing, etc. On the other hand, the forests within Hazaribag district has been under pressure of overgrazing, deforestation, biotic interferences, agricultural / industrial and expansions for urbanizations resulting in the loss of natural vegetation.

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Large chunk in western part adjoining Chatra district through which pass a highway connecting Barakagaon to Chatra is under forest. In extreme south, a railway line pass through the forest in which lie a Kole Railway station, almost adjoining the boundary of Ranchi district. This westward forest block extends eastward upto Bokaro district in which lie a Charhi Town located on NH 33. The important PF in them are Barakagaon, Kochap Pahar, Gati, and Jorakath, Chandwar, Chainpur, Haril PF etc.

Soil Profile

Soil qualities and characteristics exert a strong influence on land use and control the crop yield responses to fertilizers and irrigation, constructional ease of roads and other land based activities. The Soil studies in Chatra district reveal that major morphologic variations in soils are attributable to variations in geological parent material and topographic differences. In general, the hill slopes, representing rough broken terrains are characterized by shallow, skeletal stony, rocky soils influencing the dominance of erosion and favouring transportation of fine material in lower reaches. Foot slopes, hill side slopes have colluvial and alluvial materials transported from the higher reaches. The soil formation in such situations is characterized by shallow to moderately deep profiles with moderate to moderately fine textured soils depending upon the volume and velocity of runoff. Valley, basins and stream banks have developed deep to very deep soil profiles dominated by clayey, fine and fine silty textured classes. Extensive plains have been developed between the hills and river with strong influence of micro topography on soil formation. A topo sequence of red, yellow and dark gray soils is a common feature of this area

High rainfall and high temperature induced deeper chemical weathering, leaching of bases, resulting into acidic surface soils becoming neutral to mildly alkaline in the subsurface. Occasionally, in some soils moderately alkaline and calcareous subsoils are met with. The process has been active in the North Chhotanagpur plateau area resulting into red and yellow soils

Ecosystem and bio diversity status of the project area:

Jharkhand's economy is sustained by mining and heavy industry. Agriculture is less developed in this state. Drought is a periodic threat. Human life is basically dependent upon rainfed agriculture. Poor and landless people are solely dependent upon the forest. They have no option except some employment in mining activities. The forests of Jharkhand yield valuable commercial products besides the timber. Leaves of 'Kendu' trees are used in the manufacture of an indigenous product for smoking, i.e., the bidi. A resinous material secreted by the lac insect is valuable commercially. It is the source of shellac. Also, bangles made of lac are very popular among women of Bihar. Women play a great role in the economy by working in the forest and other commercial activities with the other male members.

Coal mining though provides a precious resource but is also a process that leads to degradation of the local environment to a large extent. Magadh coalfield holds unequivocal importance in the Jharkhand context as it is among the source of prime

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cooking coal in the country. Haphazard mining has led to environmental changes to a large extent such as degradation in quality of air, water, soil, changes in landform, land use/land cover, vegetation distribution.

As there are no industries in the area the work force of this village is mainly divided in two categories – Cultivators and Workers. As the area supports fertile agricultural land, agriculture is the sector which provides employment to both the categories. During lean period, good amount of employment is generated in forestry activities. Rice is the main crop of the area but due to irrigation facilities and good soil fertility the fields are never vacant. This belt is famous for vegetables and every crop right from wheat to pulses to oil seeds are grown. On an average the farmers are able to harvest three crops in one year. About 45% of the entire population are workers.

As coal is available abundantly for cooking purpose the dependency on forests for firewood is very limited which is one of the causes for less degradation of forests. Requirement of small timber and poles is met from the forests. The forests provide various Non-Timber Forest Produce, NTFP, which provide employment as well as additional income to the households. The most important NTFP is mahua flowers and fruits which plays a very important role in the village economy and every household is engaged in its collection during March – April. Next comes the Kendu – leaves or *Bidi Patta,* which are succulent leaves from the bushes of *Diospyros melanoxylon*. From April to mid-June, they provide huge employment opportunity to the marginal workers. In addition to these, Sal seeds, Kusum seeds, Amla, Harre, Bahera, Karanj seeds, Mahulan leaves, Sal leaves and various edible fungus in the rainy season are the main Non-Timber Forest Produce, NTFP, which have their fair share in the village economy.

Traditionally the villagers are in the habit of keeping large herds of cattle, though they are less productive. A household having 7-8 cows may be getting only 1 to 1.5 litres of milk from that many numbers. Similarly, bullocks are also kept in large numbers. These cattle are simply left to graze in the adjoining forests sometimes without any supervision. Practice of stall feeding is almost absent and sometimes fodder from the forest is brought for goats. For the upkeep of cattle population, the villagers are totally dependent on forests

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Chapter-2 – De-siltation scheme & method

Introduction:

Healthy pond ecosystems are critical for achieving several sustainable development goals (SDG) through numerous ecosystem services (e.g., food control, nutrient retention, and carbon sequestration). However, the socio-economic and ecological value of ponds is often underestimated compared to the larger water bodies. Ponds are highly vulnerable to mounting land-use pressures and environmental changes, leading to degradation and loss of the pond ecosystem. The narrow utilitarian use-based conservation fails to recognize the multiple anthropogenic pressures and provides narrow solutions which are inefficient to regenerate the degraded pond ecosystem. The Chandragupta project is strongly dedicated to attaining SDG and circular economy (CE) through aquatic ecosystem conservation and restoration. Considerable efforts have been made by the project to recognize the contribution of pond ecosystem services in attaining environmental goals and targets. Restoration strategies have been reviewed, and a framework for pond restoration and conservation has been proposed. Nature-based solutions (NBS) offer a sustainable and cost-effective approach to restoring the pond's natural processes. Furthermore, linkage between the pond ecosystem and the CE was assessed to encourage a regenerative system for biodiversity conservation.

Need for desiltation:

The pond ecosystem faces challenges due to the physical, chemical and biological pressure, which leads to reduction in impounding capacities and resultant provisioning and eco system services from these storage structures.

- **Physical Pressures**

Temperature: Temperature has a pronounced influence on the biogeochemical cycle of ponds. However, the impact of temperature on the pond ecosystem has rarely been reported. Due to uncontrolled urbanization and impervious surface the urban ponds receive warm water inflow leading to thermal pollution. Warm effluents from the urban heat islands (UHI) largely contribute to the thermal variability in the ponds. Chemical toxicity in freshwater bodies increases with an increase in temperature. Studies suggest that the increased toxicity in freshwater fish species due to an increase in temperature. Warm water favors the eurythermic species excluding the species intolerant to high temperatures affecting the species diversity. Elevated temperature increases the primary productivity in the shallow water bodies causing nuisance algal bloom and reducing the pond hydroperiod. High temperature lowers the dissolved oxygen in surface water through increased respiration rate and reduced solubility of atmospheric oxygen. A temperature change of 7°C reduces the biological processes by 50% in an aquatic environment.

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Hydroperiod and Climate Change: Ponds are more susceptible to drying due to changes in hydroperiod than lakes. Hydroperiod indicates the duration of pond inundation in a year is a crucial factor linked directly with pond area. Permanent ponds support far more biotic species than temporary ponds. Ponds with larger surface areas tend to have a longer hydroperiod. Climate extremes such as increased temperature and droughts can lead to abnormal hydroperiod and negatively affects the biodiversity of the ponds. Increased dry spells and increased water vapor demand in the warmer atmosphere adversely affect the hydroperiod of the particularly shallow and small water bodies like ponds. Aquifer exploitation changes the hydrologic regime of the ponds and results in shorter hydroperiod in ponds.

Sedimentation and Soil Erosion: For small ponds, sediment deposition is a serious problem as the rate of siltation is much higher compared to large water bodies and this reduces the useful life of the pond. Apart from geomorphological processes, soil erosion is largely governed by anthropogenic modifications in the catchment such as concrete drainage networks, deforestation, agriculture intensification, road construction, and uncontrolled grazing. High rate of topsoil erosion in project area threatens the ecological dynamics of the receiving water bodies including ponds.

Chemical Pressures:

Nutrient loading and Eutrophication: Nutrient (i.e., nitrogen and phosphorus) availability governs the net primary productivity and influences the biogeochemical processes in the aquatic ecosystem. The primary productivity of ponds is often characterized between mesotrophic and hypereutrophic due to their low dilution capacity and naturally high nutrient concentration. Eutrophicated pond most likely supports species tolerant to anoxic conditions, limiting the species diversity at the local scale, while negatively impacting the regional biodiversity at the pondscape scale.

Emerging Contaminants and Heavy Metals: Road runoff and wastewater, often remains the localized source of emerging contaminants in the aquatic ecosystem. These trace compounds are broadly categorized as Pharmaceuticals and Personal Care Products, agricultural pesticides, heavy metals, surfactants, and polyaromatic hydrocarbons.

Pond Acidification: Freshwater acidification is harmful to various aquatic organisms. Climate warming and changes in water chemistry profoundly affect the pond's pH. The rise in atmospheric carbon dioxide lowers the pH in ponds. Human-induced acidification can be due to atmospheric deposition of carbon dioxide and other inorganic acids or by natural processes and organic acids. The emission of gaseous pollutants such as nitrogen dioxide and Sulphur leads to acid precipitation and subsequent acidification of the ponds. The biodiversity of ponds decreases with an increase in acidification, as the species sensitive to low pH could not survive in the acidifying ponds. Acidity in ponds alters the solubility of metals in water and increases their toxicity as the metals in dissolved state are more toxic in soft water.

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Biological Pressure:

Non-Native Invasive Species (Bioinvasion): Bioinvasion is a major ecological disturbance that threatens native biodiversity and ecological processes. Invasive vegetation species with relatively fast growth rates dominate the native species, increase siltation, alter the nutrient cycle, impacts fishery, and lead to serious biodiversity loss. Nutrient-rich shallow ponds are highly vulnerable to aquatic vegetation invasion. Studies suggest the dominance of anchored floating plants (72%) in the pond, affected its water quality, and biodiversity.

Land Use Change and Encroachment: Economic growth associated primarily with an increase in population (200 million to 1,380 million between 1880 and 2020) has led to land use alterations in India (United Nations 2019). Flow regime change due to the construction of large dams and weirs reduces the inflow and shrinks the water spread area of ponds, and other wetland ecosystems. Land use change, urbanization paved the way for pond encroachment. Consequently, in India, 15% of the water bodies (mainly ponds and tanks) under minor irrigation scheme-2015 remain unused and non-functional (MoJS, -http://mowr.gov.in/).

Impact of coal mining on water bodies: Coal mining can have various impacts on ponds, check dams, and water bodies in the vicinity. Some of the effects include:

- **Sedimentation and pollution:** Mining operations can lead to the release of sediments, chemicals, and pollutants into nearby water bodies. This sedimentation can decrease the water quality, affect aquatic life, and disrupt the ecological balance of these ecosystems.

- **Water quality degradation:** The discharge of mine water containing heavy metals, acids, and other pollutants can contaminate ponds and water bodies. This contamination alters the pH levels and chemical composition of the water, making it unsuitable for aquatic organisms and potentially harmful for human consumption.

- **Altered hydrology:** Coal mining may alter the natural hydrological cycle by changing the flow patterns of surface and groundwater. This alteration can impact the water levels in ponds and other water bodies, leading to fluctuations that affect their overall health and sustainability.

- **Loss of biodiversity:** Contamination and changes in water quality can harm aquatic flora and fauna, leading to a decline in biodiversity. Some species may not survive or thrive in polluted or altered water conditions, disrupting the entire ecosystem.

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- **Physical disruption:** The physical disruption caused by mining activities, such as excavation, land clearing, and the creation of mine pits, can alter the landscape. This alteration may change the natural drainage patterns, leading to the redirection of water flows and potential damage to ponds, check dams, and other nearby water bodies.

- **Erosion and siltation:** Mining activities often result in soil disturbance and erosion, leading to increased sedimentation in water bodies. The deposition of silt and debris can reduce the water-holding capacity of ponds, check dams, and other water reservoirs, affecting their functionality

- **Risk of accidents and spills:** Accidental spills of chemicals used in mining operations or improper disposal of waste materials can lead to sudden pollution events in nearby water bodies, causing immediate harm to aquatic life and water quality.

To mitigate these impacts, it's essential for Magadh OCP authorities to implement proper environmental management practices, including sediment control measures, water treatment facilities, reclamation efforts, and regular monitoring to minimize the adverse effects of coal mining on ponds, check dams, and surrounding water bodies. Regulatory compliance and responsible mining practices are crucial in mitigating and preventing long-term harm to these ecosystems

Principal of De-Siltation

As mentioned above the reasons which have been identified ranges from physical to biological pressure mainly due to land use change, population growth, urbanization and bio invasion. Though it requires various measures to control the sedimentation and siltation of ponds, the most effective way is the mechanical desiltation of the ponds.

The proposed desiltation plan should not be seen as an isolated approach to the rejuvenation of the existing water bodies but it also has supporting Soil & moisture conservation plan along with the catchment area treatment plan and wildlife management plan which also has components of area treatment and drainage line treatment. All these plans will contribute in reduction of the soil erosion and enhancing longevity of the existing ponds in the area.

A life cycle analysis matrix compared the number of employment generated by the manual silt removal and against the number of days of employment generated by mechanized silt extraction. The aim of this exercise was to assess the most efficient use of the rural labor pool. Though at first glance it may seem that the use of manual labor will no doubt result in the generation of more employment, in the long term this is not the case. The use mechanical diggers results in more downstream, long-term

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employment generation rather than seasonal labor. This is attributed to a vastly increased amount of silt which could be dug, creating spreading jobs and covering barren lands for farm land creation.

2.2 Factors Responsible for Siltation: Though many factors govern siltation of ponds but some of them area

1. Normally, the ponds do suffer from siltation due to sedimentation of soil/clay carried into the water bodies due to the inflow of water during rains.

2. Soil erosion may also be attributed as a primary factor responsible for siltation in ponds.

3. Rainfall with high intensity at higher altitudes is the most common reason for soil erosion and hence causes siltation in nearby ponds.

4. Soil erosion also occurs from waste dumps, excavated areas and naturally denuded ground surfaces.

5. Siltation of ponds also takes place due to airborne sand and dust with other vegetative materials falling into the ponds. This adds to the process of siltation. Hence, by this phenomenon, with the passage of time, a new layer of silt accumulates over the older layer of silt and becomes thicker ultimately the depth of the water source decreases and the capacity of water storage reduces. De-silting become inevitable to ensure the availability of more water in the ponds/ for the day-to-day requirements of the villagers.

6. Due to mining activities, dust particles settle on water bodies due to the pluming effect, also adds to sediments in water bodies.

Total 25 villages are falling within 5 kilometers radius of Magadh OCP. 6 out of 25 village are falling under Chandragupt Project, for which a separate plan has been prepared and currently we are taking only 19 villages under consideration for this plan.

As per FC Stage – I condition no. 13 of Magadh OCP mines, Magadh OCP authorities have also to prepare and implement de-siltation plan of ponds and other water bodies falling within 5-kilometer radius of coal block.

Mitigation measures: Opencast mining operations involve the removal of huge quantities of overburden, dumping, and backfilling of the excavated area. These overburden deposits of waste material containing huge quantities of silt. Desilting ponds, water bodies, and check dams near opencast coal mines, such as those within 5-kilometer radius of the Magadh Opencast Coal Mines in Chatra district, is crucial for several reasons:

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- **Preventing sedimentation:** Mining activities often result in the deposition of sediment, silt, and debris into nearby water bodies. Desilting helps in removing these sediments, preventing water bodies from becoming shallow, reducing their storage capacity, and maintaining their ecological balance

- **Preserving water quality:** Siltation can degrade water quality by increasing turbidity, reducing oxygen levels, and altering the chemical composition of the water. Desilting helps in maintaining better water quality, benefiting aquatic life and ensuring a sustainable water supply for surrounding communities.

- **Mitigating flooding:** Accumulation of silt and debris in ponds, check dams, and water bodies can lead to increased flood risks during heavy rainfall or storms. Regular desilting helps in maintaining the original capacity of these water bodies to hold water, reducing the likelihood of flooding in nearby areas.

- **Supporting biodiversity:** Many aquatic species depend on clean and healthy water bodies for their survival. Desilting helps in maintaining the natural habitat and ecological balance, supporting diverse flora and fauna in these ecosystems.

- **Community welfare:** Clean and well-maintained water bodies are essential for the local community's water needs, including irrigation, drinking water, and other daily uses. Desilting ensures a sustainable and reliable water supply for nearby communities.

- **Compliance with regulations:** Environmental regulations often mandate the maintenance and preservation of natural water bodies affected by industrial activities like mining. Desilting activities help companies remain compliant with these regulations and demonstrate their commitment to environmental stewardship.

In summary, de-silting ponds and water bodies near opencast coal mines is essential to maintain ecological balance, support biodiversity, prevent flooding, ensure water quality, and fulfil regulatory requirements, thereby contributing to the well-being of both the environment and local communities.

List of Ponds

A joint field inspection along with officials of Magadh Coal Mine officials and SIDHA officials has been carried out in the month of July'2024 during which 57 ponds were identified. Further, one more field visit was made to identified the ponds in the buffer zone in the month of August'2024 during which 08 ponds were identified. A total of 65 ponds were identified out of which 10 ponds are within the mine lease boundary and rest 55 ponds are in the buffer zone. Ponds lying in the buffer zone will be desilted for all practical purposes.

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Out of the 55 ponds planned for desiltation 25 ponds are being desilted under various desiltation plan submitted for mines like Amrapli, Chandrgupta and KDH. Hence for all practical purposes only 30 ponds are planned to de desilted under the current proposed plan.

All of the ponds within the mine lease hold of Magadh OCP have been identified and recorded for the restoration & rejuvenation purpose. Since the impact zones are overlapping and hence some of the ponds have taken under other mining desiltation plans.

Hence effectively 17 villages have taken for desiltation and 13 villages are in Chatra and 4 villages are in Latehar district and these are under jurisdiction of two forest divisions namely Chatra South and Latehar.

Method of De-siltation

1. Regular de-siltation is being done every two years during the dry season to achieve optimal results, ensuring that the required depth is maintained.
2. The dried silt to be removed manually or mechanically basing on the site condition/ quantity of silt accumulated.
3. Silt accumulation is mainly found in basal area of the pond.
4. De-siltation is scheduled for a pond with an estimated silt thickness ranging from 0.50 to 1.00 feet.
6. The silt so excavated will be placed around the pond in an embankment design at about a width of 3.00 meters at base and height of 1.2 m simultaneously and compacting the soil.
7. On the embankment, plants with gabion facilities shall be planted or grass shall be developed.

35 ponds are slated for rejuvenation, while the 8 ponds within the active mining area will be excluded from the process.

2.5 Thickness of De-silting

A de-siltation thickness of 30 cm has been adopted for the most of the identified ponds, while some of them need more desilting.

2.6 Volume of Desilting

Based on rate analysis, 2024 the estimated volume of desilting of each pond is given below.

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S.No	Pond	Village	Length / Breath	Feet	Latitude	Longitude
1	Near by forest	Bansariya	100 x 100	3 feet	23808897	85021795
2	Forest	Bansariya	100 X 100	2 feet	23794566	8502261
3	Suman oraon	Karanga	100 X 100	2 feet	23792511	8501989
4	Babita devi talab	Karanga	100 X 100	3 feet	23788577	85025686
5	Ram das oraon	Karanga	100 X 100	2 feet	23797249	8501495
6	Bisram oraon	Karanga	100 X 100	3 feet	23778777	849346
7	Mandur road pull kai pass	Karanga	100 x 100	3 feet	23798584	8493431
8	Riskaish oraon	Samidih	100 X 100	3 feet	2387264	85050163
9	Samidih road	Chirwa	100 X 100	2 feet	23785004	85017608
10	Bargad talab (social)	Chirwa	100 X 100	2 feet	23825244	85031969
11	Ramsandhya oraon	Mandor	100 X 100	2 feet	23816699	85002748
12	Raju oraon	Mandor	100 X 100	3 feet	23813397	84974464
13	Rajkumar tirkey	Mandor	100 X 100	2 feet	23793994	84763587
14	Forest talab	Bargaon	100 X 100	3 feet	23787635	84944113
15	Forest talab	Bargaon	100 X 50	2 feet	237876	84927209
16	Near by transformer	Dahu	100 X 75	2 feet	2378132	85018797
17	Behind government pond (social)	Dahu	100 X 75	2 feet	23825924	85028674
18	Road side talab	Bukru	150 X 100	2 feet	23775798	8522976
19	Road side talab	Bukru	150 x 150	3 feet	23806739	85021467
20	Bhagrega talab	Bukru	150 X 150	2 feet	23821584	85621506
21	Chotta talab	Jordag	150 X 150	2 feet	23824892	8500499
22	Near by school (social)	Bharaekhap	150 X 150	2 feet	23821117	85003814
23	School chotta talab	Bharaekhap	50 x 50	3 feet	23798009	85027088
24	Near b y pandey more	Raham	50 X 50	2 feet	23784661	84929326
25	Viseshwar yadav	Raham	50 X 50	2 feet	23878631	85054817
26	Viseshwar singh	Raham	50 x 50	2 feet	23861414	85061642
27	Forest talab	Godda	50 X 50	2 feet	23784467	85018813

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28	Forest talab	Godda	50 X 50	3 feet	23792543	84952922
29	Lalu ganju talab	Godda	50 X 75	3 feet	23800777	84958935
30	Barka road talab	Sirpa	50 X 75	3 feet	23798261	84956027
31	Sarna talab	Sirpa	70 X 70	2 feet	23868029	85046806
32	Forest talab	Barnao	75 X 75	2 feet	23811215	85985502
33	Community ponds	Ara	75 X 50	3 feet	23792434	85020843
34	Community ponds	Ara	75 x 75	2 feet	237992836	85028198
35	Community ponds	Ara	75 x 75	2 feet	23799751	85027627
36	Community ponds	Bamwar	75 X 75	2 feet	23795871	85019165
37	Community ponds	Bamwar	75 X 75	2 feet	23797084	85016477
38	Community ponds	Chamatu	75 X 75	3 feet	23792347	85016606
39	Community ponds	Chamatu	75 X 75	3 feet	23793486	85014846
40	Community ponds	Chamatu	75 X 75	2 feet	23779937	85020479
41	Community ponds	Charra	75 X 75	3 feet	2386767	85045107
42	Community ponds	Charra	75 X 75	2 feet	23865744	85062949
43	Community ponds	Phulbasia alias amarwadih	75 X 75	2 feet	2381176	85985502
44	Community ponds	Phulbasia alias amarwadih	75 X 75	3 feet	23796495	84953653
45	Community ponds	Phulbasia alias amarwadih	75 X75	3 feet	23780627	85018621

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Chapter - 3 – Execution of scheme

The Plan period of the scheme is 10 years. Ponds identified under active mining area in the starting years of mine operations have been excluded from the list. Therefore, rejuvenation and restoration of pond shall not be practical. De-siltation will be carried out in 35 ponds as shown in the scheme below-

3.1 List of ponds for rejuvenation in the impact zone of the mines

Though these ponds are of various sizes for ease of operation and execution these have been grouped in the five different groups based on the approximate dimension. Accordingly, the estimates have been prepared and budgetary provision have been made.

List of ponds in Magadh Mining Impact area				
S.No	Programme name	Village	Latitude	Longitude
1	Near by forest	Bansariya	23806739	85021467
2	Forest	Bansariya	23808897	85021795
3	Suman oraon	Karanga	23798009	85027088
4	Babita devi talab	Karanga	23799751	85027627
5	Ram das oraon	Karanga	23794566	8502261
6	Bisram oraon	Karanga	23797084	85016477
7	Mandur road pull kai pass	Karanga	23788577	85025686
8	Riskaish oraon	Samidih	23797249	8501495
9	Samidih road	Chirwa	23792347	85016606
10	Bargad talab (social)	Chirwa	23793486	85014846
11	Ramsandhya oraon	Mandor	23775798	8522976
12	Raju oraon	Mandor	23779937	85020479
13	Rajkumar tirkey	Mandor	2378132	85018797
14	Forest talab	Bargaon	23778777	849346
15	Forest talab	Bargaon	23798584	84934317
16	Near by transformer	Dahu	23784661	84929326
17	Behind government pond (social)	Dahu	237876	84927209
18	Road side talab	Bukru	2386767	8504507
19	Road side talab	Bukru	23868029	85046806
20	Bhagrega talab	Bukru	2387264	85050163
21	Chotta talab	Jordag	2,3878631	85054817
22	Near by school (social)	Bharaekhap	2386574	85062949
23	School chotta talab	Bharaekhap	23861414	85061642
24	Near b y pandey more	Raham	23825244	85031969
25	Viseshwar yadav	Raham	23825924	85028674
26	Viseshwar singh	Raham	23821584	85621506
27	Forest talab	Godda	2381176	85985502

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28	Forest talab	Godda	23811215	85985502
29	Lalu ganju talab	Godda	23813397	84974464
30	Barka road talab	Sirpa	23793994	84763587
31	Sarna talab	Sirpa	23792543	84952922
32	Forest talab	Barnao	23787635	84944113
33	Community ponds	Ara	84.932652	23.85047
34	Community ponds	Ara	84.930455	23.85543
35	Community ponds	Ara	84.933532	23.8595
36	Community ponds	Bamwar	84.920379	23.87498
37	Community ponds	Bamwar	84.92885	23.8787
38	Community ponds	Chamatu	84.947877	23.80888
39	Community ponds	Chamatu	84.948414	23.81238
40	Community ponds	Chamatu	84.931912	23.82035
41	Community ponds	Charra	84.921415	23.86345
42	Community ponds	Charra	84.933625	23.86365
43	Community ponds	Phulbasia alias amarwadih	84.909262	23.82808
44	Community ponds	Phulbasia alias amarwadih	84.908573	23.82843
45	Community ponds	Phulbasia alias amarwadih	84.904559	23.8348

3.2 Planting of Saplings

1. It is suggested to select saplings of 2-year-old promising seedlings (mainly local species like mango tree, jack fruit etc.).
2. Pits of 45cm x 45cm x 45cm to be dug out for tree planting.
3. Bamboo Gabion to be provided to prevent damage by cattle's.
4. The required fertilizers/insecticides to be provided.

3.3 Grass pitching

Grass pitching on the embankment has been proposed to prevent the soil erosion. It will be done with the ***Stylo thamata*** variety which creates a mat like sheet and is also a very good animal fodder.

3.4 Execution of the Work

The scheme will be executed by the user agency as per this approved scheme. For successful implementation the user agency is to execute and review the work periodically. Its effectiveness to be reported to forest department of CCL annually. With the above provision the local villagers will be benefitted in shape of wage. The water percolation to recharge groundwater will also be enhanced in due course. The local animals/birds will also be getting water in the hard summer.

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The Project Proponent will update this plan for the remaining lifespan of the mine, taking into account the ground conditions at that time, before the completion of 10 years.

Proposed Plan for De-siltation of Ponds / Water Bodies:

Sl No	Dimension of water body/pond	Cost of desiltation per pond	No. of water bodies/ponds
1	100 X 100 X 12	140000.00	14
2	100X50X15	87200.00	2
3	100X75X15	169500.00	2
4	150X150X13	381500.00	4
5	50X50X10	57000.00	6
6	50X75X10	85000.00	3
7	70X70X10	110500.00	1
8	75 X 75 X 13	127300.00	13
	TOTAL:		**45**

Method of de-siltation:

- De-siltation of Ponds and water bodies will be taken up at regular interval during dry season best result and required deepening is achieved.
- The silt will be removed manually or mechanically, as the case may be, and depending up on site conditions.
- Silt deposition has been mainly found at basal area of ponds / water bodies.
- During the field survey total 35 ponds / water bodies were found within 5 – kilometre radius of Magadh Coal Block.
- De-siltation is proposed to be carried out in four cycles. 1st cycle in first year, 2nd cycle in 4th year, 3rd cycle in 7th year and 4th cycle in 10th year.
- The total depth of de-siltation has been considered is 30% of the total depth of pond / water bodies
- The scheme will be implemented by the Tandwa Forest Range in respective JFMC jurisdiction under the supervision of DFO Chatra South

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Forest Division and Latehar Forest Division at the cost of User Agency. The User Agency shall also have one representative from Project Area who will coordinate annual works with RFO Tandwa and RFO-.

- Work of 1st cycle will be executed as per the estimate attached with this plan. 20% cost escalation every year will be added on current estimated cost. (For 2nd cycle – 20% over1st cycle, 3rd cycle – 20% over 2nd cycle and 4th cycle – 20% over 3rd cycle)

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Chapter – 4 – financial provision

4.1 Total Estimated Volume of Work (1st Cycle):

The total estimated quantity of silt is 493672.66 Cum that will be removed over a period of 10 years.

4.2 Activities taken into consideration for De-Siltation Work:

Sl. No.	Activities for De-Siltation
1	Survey and Layout
2	Jungle Clearance including weeding out shrubs their removal as per specification and direction of Engineer In charge.
3	E/W in excavation of foundation trenches as per designed section in all kinds of soil, including moorum soil, soil mixed with kankar, pebbles and boulders up to 300mm size and disposal of the same (beyond 50m away from the toe of dam in the country side) within initial lead of 150M and initial lift of 1.5M all lifts as per specification and direction of E/I.
3 (i)	Extra for earth work in hard soil (vide classification of soil item-B) all complete as per specification and direction of E/I.
4	Earth work in filling Pond embankment / Filling in flood embankment, canal banks (canal discharge above 28 cumecs) as well as special repair of embankment and canal banks in ordinary soil in proper profile (vide classification of soil item-A) obtained from borrow area or any other sources free from logs, roots, or any other ingredients etc. with initial lead of 30M and initial lift of 1.5m including breaking clods to maximum 50mm cube placing the earth in layers not exceeding 225mm thick complete as per specification and direction of E/I.(Mode of measurement sectional measurement shall be of compacted earth). (Approx 66.7% of total volume.).
5	Watering and consolidation of earth laid in 150mm to 225mm layers by manual labor with C.I hammer to achieve minimum 85% of maximum dry density including supply of water and necessary tools and plants with all leads and lifts all complete as per specification and direction of E/I.
6	Fine dressing of the canal banks or embankment and turfing with 75mm thick grass sods, obtained within lead of 150M, including the cost of watering the grass surface till it acquires greenness as per specification and direction of E/I.
7	Extra for each lead of 150M over initial lead of 150M.

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4.3 Cost estimate for De-Siltation Work

Sl No	Dimension of water body/pond	Cost of desiltation per pond	No. of water bodies/ponds	Amount for 1st cycle	Amount for 2nd cycle	Amount for 3rd cycle	Amount for 4th cycle	Total
1	100 X 100 X 12	140000.00	14	1960000.00	2352000.00	2822400.00	3386880.00	10521280.00
2	100X50X15	87200.00	2	174400.00	209280.00	251136.00	301363.20	936179.20
3	100X75X15	169500.00	2	339000.00	406800.00	488160.00	585792.00	1819752.00
4	150X150X13	381500.00	4	1526000.00	1831200.00	2197440.00	2636928.00	8191568.00
5	50X50X10	57000.00	6	342000.00	410400.00	492480.00	590976.00	1835856.00
6	50X75X10	85000.00	3	255000.00	306000.00	367200.00	440640.00	1368840.00
7	70X70X10	110500.00	1	110500.00	132600.00	159120.00	190944.00	593164.00
8	75 X 75 X 13	127300.00	13	1654900.00	1985880.00	2383056.00	2859667.20	8883503.20
	TOTAL:		**45**	**6361800.00**	**7634160.00**	**9160992.00**	**10993190.40**	**34150142.40**

4.4 Cost for complete treatment with income generation activities

Sl. No.	Activity	Timeline	Cost in (Rs Lakh)
1	De-siltation	1st, 3rd, 5th, 7th and 9th year	341.51
2	Plantation	Within 2 years	68.30
3	Embankment	Within 2 years	68.30
4	Aerator for pisciculture	Within 2 years	12.50
Total in Rs Lakh			**490.61**

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29/1/25
Mukesh Kumar I.F.S
Divisional Forest Officer
Chatra South Forest Division

1/04/25
MAMTA PRIYADARSHI
I.F.S.
CONSERVATOR OF FORESTS
TERRITORIAL CIRCLE CHATRA

Regional Chief Conservator of Forest
Hazaribag

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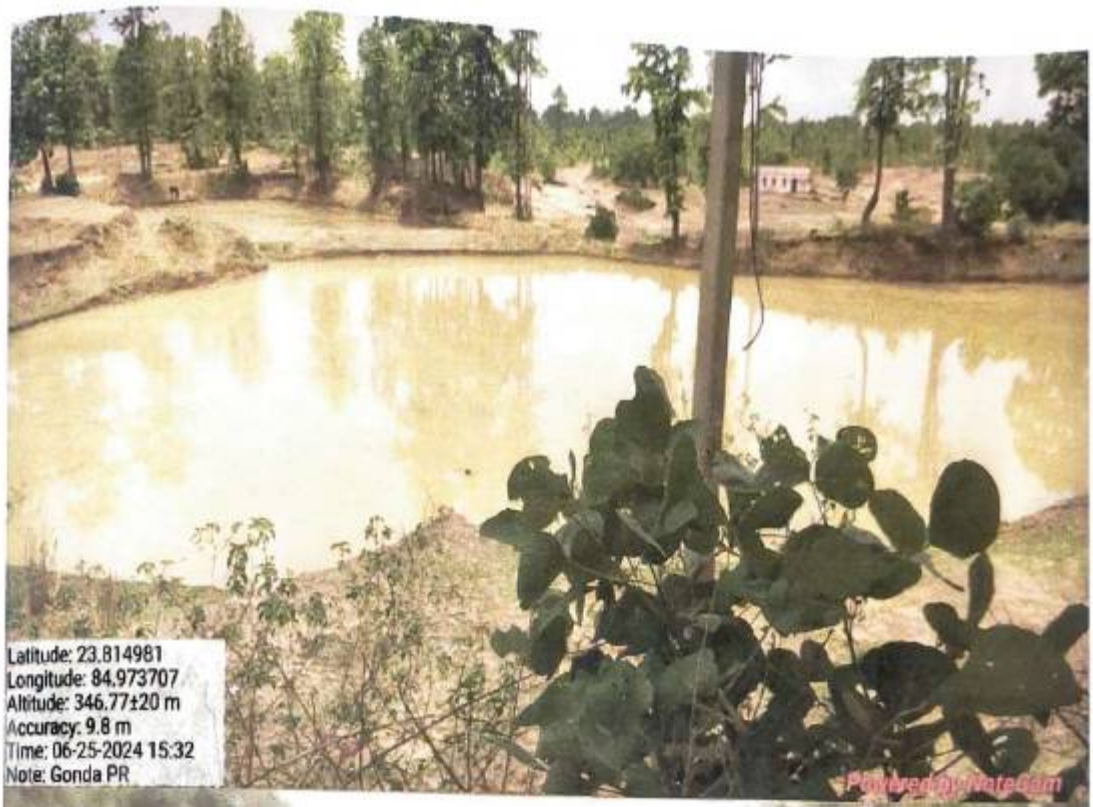

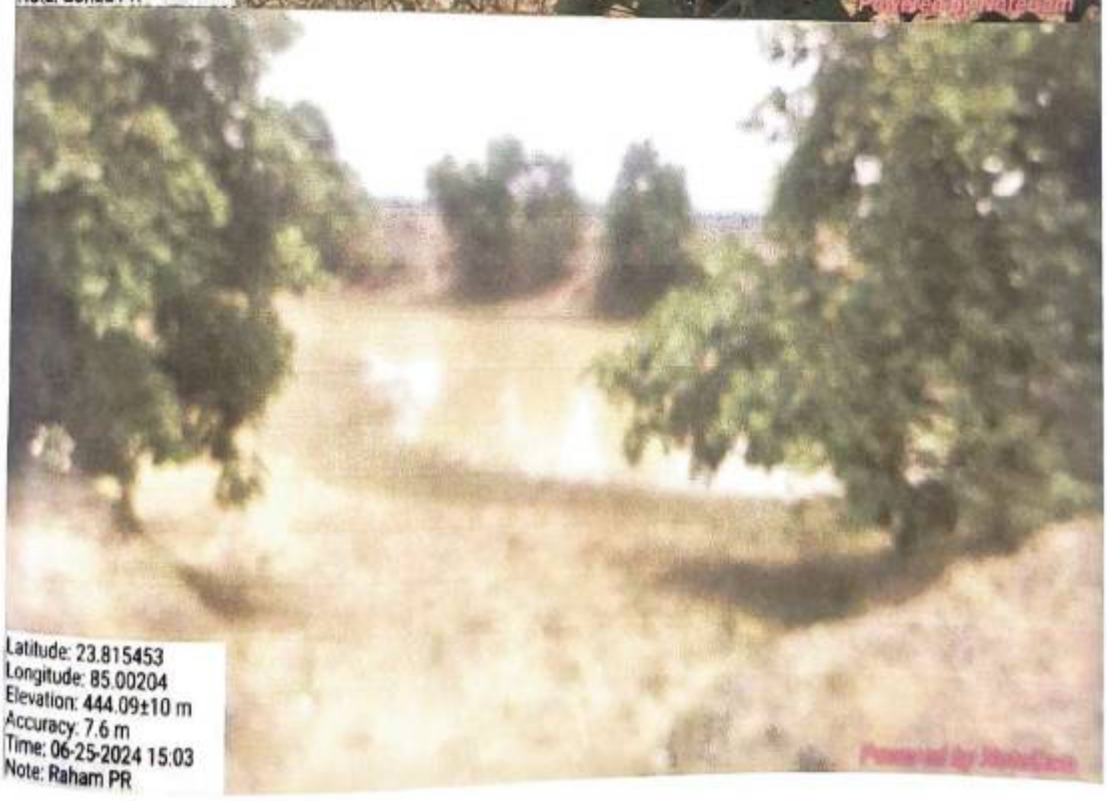

SADALA SATYANARAYAN
PROJECT OFFICER
MAGADH OCP

SADALA SATYANARAYAN
PROJECT OFFICER
MAGADH OCP

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SADALA SATYANARAYAN
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SADALA SAI YANARAYAN
PROJECT OFFICER
MAGADH OCP

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SADALA SAI YANARAYAN
PROJECT OFFICER
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S.O.R.	Item of works	Length	Breadth	Depth	Area	Conversion factor	Quantity	Working Quantity	Rate	Amount in INR
1	Survey and lay out							2	405	810.00
2 / 5.1.3.2	Site clearance approx 50% of total area	100	100	12	10000	0.092903	929.03	464.515	8.85	4110.96
3/5.1.8	E/W in excavation in all kinds of soil mixed with soil, kanker,pebbles and disposal of same beyond 50 m away from the toe of the pond / water bodies as per direction of E/I	100	100	2.5	25000	0.028316847	707.92	707.92	203.58	144118.35
4/7.1.42.1	Fine dressing of embankment and turfing with grass within a lead of 150m including cost of watering as per direction of E/I	200	2	10	4000	0.028316847	113.27	113.27	15.03	1702.45
									Sub Total	150741.76
	Less C.P. (9.09%)								(-)	137175.00
	Add 2% contingency									2743.50
	Grand Total									**139918.50**
	Or Say									**140000.00**

11.12.24

SADALA SATYANARAYAN
PROJECT OFFICER
MAGADH OCP

S.O.R.	Item of works	Length	Breadth	Depth	Area	Conversion factor	Quantity	Working Quantity	Rate	Amount in INR
1	Survey and lay out							2	405	810.00
2 / 5.1.3.2	Site clearance approx 50% of total area	100	50	15	5000	0.092903	464.52	464.515	8.85	4110.96
3/5.1.8	E/W in excavation in all kinds of soil mixed with soil, kanker,pebbles and disposal of same beyond 50 m away from the toe of the pond / water bodies as per direction of E/I	100	50	3	15000	0.028316847	424.75	424.75	203.58	86470.61
4/7.1.42.1	Fine dressing of embankment and turfing with grass within a lead of 150m including cost of watering as per direction of E/I	200	2	15	6000	0.028316847	169.90	169.9	15.03	2553.60
									Sub Total	93945.16
	Less C.P. (9.09%)								(-)	85490.10
	Add 2% contingency									1709.80
	Grand Total									**87199.90**
	Or Say									**87200.00**

11.12.17
SADALA SATYANARAYAN
PROJECT OFFICER
MAGADH OCP

S.O.R.	Item of works	Length	Breadth	Depth	Area	Conversion factor	Quantity	Working Quantity	Rate	Amount in INR
1	Survey and lay out							2	405	810.00
2 / 5.1.3.2	Site clearance approx 50% of total area	100	75	15	7500	0.092903	696.77	696.77	8.85	6166.41
3/5.1.8	E/W in excavation in all kinds of soil mixed with soil, kanker,pebbles and disposal of same beyond 50 m away from the toe of the pond / water bodies as per direction of E/I	100	75	4	30000	0.028316847	849.51	849.51	203.58	172943.25
4/7.1.42.1	Fine dressing of embankment and turfing with grass within a lead of 150m including cost of watering as per direction of E/I	200	2	15	6000	0.028316847	169.90	169.9	15.03	2553.60
									Sub Total	182473.26
	Less C.P. (9.09%)								(-)	166050.66
	Add 2% contingency									3321.01
	Grand Total									**169371.68**
	Or Say									**169500.00**

11.12.24

SADALA SATYANARAYAN
PROJECT OFFICER
MAGADH OCP

S.O.R.	Item of works	Length	Breadth	Depth	Area	Conversion factor	Quantity	Working Quantity	Rate	Amount in INR
1	Survey and lay out							2	405	810.00
2 / 5.1.3.2	Site clearance approx 50% of total area	150	150	13	22500	0.092903	2090.32	2090.32	8.85	18499.33
3/5.1.8	E/W in excavation in all kinds of soil mixed with soil, kanker,pebbles and disposal of same beyond 50 m away from the toe of the pond / water bodies as per direction of E/I	150	150	3	67500	0.028316847	1911.39	1911.39	203.58	389120.78
4/7.1.42.1	Fine dressing of embankment and turfing with grass within a lead of 150m including cost of watering as per direction of E/I	300	2	10	6000	0.028316847	169.90	169.9	15.03	2553.60
									Sub Total	410983.71
	Less C.P. (9.09%)								(-)	373995.17
	Add 2% contingency									7479.90
	Grand Total									**381475.08**
	Or Say									**381500.00**

11.12.'17
SADALA SATYANARAYAN
PROJECT OFFICER
MAGADH OCP

S.O.R.	Item of works	Length	Breadth	Depth	Area	Conversion factor	Quantity	Working Quantity	Rate	Amount in INR
1	Survey and lay out							2	405	810.00
2 / 5.1.3.2	Site clearance approx 50% of total area	50	50	10	2500	0.092903	232.26	232.26	8.85	2055.50
3/5.1.8	E/W in excavation in all kinds of soil mixed with soil, kanker,pebbles and disposal of same beyond 50 m away from the toe of the pond / water bodies as per direction of E/I	50	50	4	10000	0.028316847	283.17	283.17	203.58	57647.75
4/7.1.42.1	Fine dressing of embankment and turfing with grass within a lead of 150m including cost of watering as per direction of E/I	100	2	10	2000	0.028316847	56.63	56.63	15.03	851.15
									Sub Total	61364.40
	Less C.P. (9.09%)								(-)	55841.60
	Add 2% contingency									1116.83
	Grand Total									**56958.43**
	Or Say									**57000.00**

11.12.24
SADALA SATYANARAYAN
PROJECT OFFICER
MAGADH OCP

S.O.R.	Item of works	Length	Breadth	Depth	Area	Conversion factor	Quantity	Working Quantity	Rate	Amount in INR
1	Survey and lay out							2	405	810.00
2 / 5.1.3.2	Site clearance approx 50% of total area	50	75	10	3750	0.092903	348.39	348.39	8.85	3083.25
3/5.1.8	E/W in excavation in all kinds of soil mixed with soil, kanker,pebbles and disposal of same beyond 50 m away from the toe of the pond / water bodies as per direction of E/I	50	75	4	15000	0.028316847	424.75	424.75	203.58	86470.61
4/7.1.42.1	Fine dressing of embankment and turfing with grass within a lead of 150m including cost of watering as per direction of E/I	100	2	10	2000	0.028316847	56.63	56.63	15.03	851.15
									Sub Total	91215.01
	Less C.P. (9.09%)								(-)	83005.65
	Add 2% contingency									1660.11
	Grand Total									**84665.77**
	Or Say									**85000.00**

11.12.24
SADALA SATYANARAYAN
PROJECT OFFICER
MAGADH OCP

S.O.R.	Item of works	Length	Breadth	Depth	Area	Conversion factor	Quantity	Working Quantity	Rate	Amount in INR
1	Survey and lay out							2	405	810.00
2 / 5.1.3.2	Site clearance approx 50% of total area	70	70	10	4900	0.092903	455.22	455.22	8.85	4028.70
3/5.1.8	E/W in excavation in all kinds of soil mixed with soil, kanker,pebbles and disposal of same beyond 50 m away from the toe of the pond / water bodies as per direction of E/I	70	70	4	19600	0.028316847	555.01	555.01	203.58	112988.94
4/7.1.42.1	Fine dressing of embankment and turfing with grass within a lead of 150m including cost of watering as per direction of E/I	140	2	10	2800	0.028316847	79.29	79.29	15.03	1191.73
									Sub Total	119019.36
	Less C.P. (9.09%)								(-)	108307.62
	Add 2% contingency									2166.15
	Grand Total									**110473.77**
	Or Say									**110500.00**

SADALA SATYANARAYAN
PROJECT OFFICER
MAGADH OCP

S.O.R.	Item of works	Length	Breadth	Depth	Area	Conversion factor	Quantity	Working Quantity	Rate	Amount in INR
1	Survey and lay out							2	405	810.00
2 / 5.1.3.2	Site clearance approx 50% of total area	75	75	15	5625	0.092903	522.58	522.58	8.85	4624.83
3/5.1.8	E/W in excavation in all kinds of soil mixed with soil, kanker,pebbles and disposal of same beyond 50 m away from the toe of the pond / water bodies as per direction of E/I	75	75	4	22500	0.028316847	637.13	637.13	203.58	129706.93
4/7.1.42.1	Fine dressing of embankment and turfing with grass within a lead of 150m including cost of watering as per direction of E/I	150	2	15	4500	0.028316847	127.43	127.43	15.03	1915.27
									Sub Total	137057.03
	Less C.P. (9.09%)								(-)	124721.90
	Add 2% contingency									2494.44
	Grand Total									**127216.34**
	Or Say									**127300.00**

11.12.24
SADALA SATYANARAYAN
PROJECT OFFICER
MAGADH OCP

सेन्ट्रल कोलफील्ड्स लिमिटेड
(भारत सरकार का एक उपक्रम / कोल इंडिया लि. की एक अनुषंगी कंपनी)
पंजीकृत कार्यालय : दरभंगा हाउस, राँची 834 001 (झारखण्ड)
CIN : U10200JH1956GOI000581
परियोजना पदाधिकारी कार्यालय, मगध -परियोजना मगध-संघमित्रा क्षेत्र
अवंतिका, गांव-कुंडी, पो.- सराधु, जिला:- चतरा, झारखण्ड-825321
e-mail: pomagadhms@gmail.com
Website: www.centralcoalfields.in

Fuelling Sustainable Growth
CENTRAL COALFIELDS LTD.

Annexure –23

Proposal No:- FP/JH/MIN/87235/2020 Dated:-19.03.2021
File No:- 8-27/2022-FC dated 27.05.2024
Project Name:- Magadh East OCP (192.36 Ha)

Subject: - Undertaking in respect of compliance of conditions no-13 of in principal approval (Stage-I) obtained for proposal of non-forest use of 192.36 ha in favour of M/s Central Coalfields Limited for non-forestry use of 192.36 Ha of forest land for Magadh Opencast Project, Chatra South Forest Division in Chatra District of Jharkhand against the Magadh OCP.

UNDERTAKING TO CONDITION NO – 13

Magadh OCP, CCL undertakes to regularly de-siltation of village tanks and other water bodies so as to mitigate the impact of siltation of such tanks/water bodies located within five km from the mine lease boundary.

Project Officer
Magadh Opencast Project

SADALA SATYANARAYAN
PROJECT OFFICER
MAGADH OCP

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CIN : U10200JH1956GOI000581
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अवंतिका, गांव-कुंडी, पो.- सराधु, जिला:- चतरा, झारखण्ड-825321
e-mail: pomagadhms@gmail.com
Website: www.centralcoalfields.in

Annexure – 24

Proposal No:- FP/JH/MIN/87235/2020 Dated:-19.03.2021
File No:- 8-27/2022-FC dated 27.05.2024
Project Name:- Magadh East OCP (192.36 Ha)

Subject: - Undertaking in respect of compliance of conditions no-14 of in principal approval (Stage-I) obtained for proposal of non-forest use of 192.36 ha in favour of M/s Central Coalfields Limited for non-forestry use of 192.36 Ha of forest land for Magadh Opencast Project, Chatra South Forest Division in Chatra District of Jharkhand against the Magadh OCP.

UNDERTAKING TO CONDITION NO – 14

Magadh OCP, CCL undertakes to explore the possibility of translocation of maximum number of trees identified to be felled and also ensure that any tree felling shall be done only when it is unavoidable and that too under strict supervision of the State Forest Department. Also, the trees will be felled in phased manner as per requirement in the approved mining plan with prior permission of State Forest Department.

Project Officer
Magadh Opencast Project
SADALA SATYANARAYAN
PROJECT OFFICER
MAGADH OCP

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पंजीकृत कार्यालय : दरभंगा हाउस, राँची 834 001 (झारखण्ड)
CIN : U10200JH1956GOI000581
परियोजना पदाधिकारी कार्यालय, मगध -परियोजना मगध-संघमित्रा क्षेत्र
अवंतिका, गांव-कुंडी, पो.- सराधु, जिला:- चतरा, झारखण्ड-825321
e-mail: pomagadhms@gmail.com
Website: www.centralcoalfields.in

Annexure -25

Proposal No:- FP/JH/MIN/87235/2020 Dated:-19.03.2021
File No:- 8-27/2022-FC dated 27.05.2024
Project Name:- Magadh East OCP (192.36 Ha)

Subject: - Undertaking in respect of compliance of conditions no-15 of in principal approval (Stage-I) obtained for proposal of non-forest use of 192.36 ha in favour of M/s Central Coalfields Limited for non-forestry use of 192.36 Ha of forest land for Magadh Opencast Project, Chatra South Forest Division in Chatra District of Jharkhand against the Magadh OCP.

UNDERTAKING TO CONDITION NO – 15

Magadh OCP, CCL undertakes to deposit the cost associated with tree felling as required by the state forest department.

Project Officer
Magadh Opencast Project
SADALA SATYANARAYAN
PROJECT OFFICER
MAGADH OCP

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CIN : U10200JH1956GOI000581
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e-mail: pomagadhms@gmail.com
Website: www.centralcoalfields.in

Annexure -26

Proposal No:- FP/JH/MIN/87235/2020 Dated:-19.03.2021
File No:- 8-27/2022-FC dated 27.05.2024
Project Name:- Magadh East OCP (192.36 Ha)

Subject: - Undertaking in respect of compliance of conditions no-16 of in principal approval (Stage-I) obtained for proposal of non-forest use of 192.36 ha in favour of M/s Central Coalfields Limited for non-forestry use of 192.36 Ha of forest land for Magadh Opencast Project, Chatra South Forest Division in Chatra District of Jharkhand against the Magadh OCP.

UNDERTAKING TO CONDITION NO – 16

Magadh OCP, CCL undertakes that "Mining will be carried out in phased manner after taking due care for reclamation of the mined over area. The concurrent reclamation plan as per the approved mining plan shall be executed by the user agency from the very first year, and an annual report on implementation thereof shall be submitted to the Nodal Officer, Forest (Conservation) Act, 1980, in the concerned State Government and the concerned Regional Office of the Ministry. If it is found from the annual report that the activities indicated in the concurrent reclamation plan are not being executed by the User Agency, the Nodal Officer or the concern Addl. Principle Chief Conservator of Forests (Central) may direct that the mining activities shall remain suspended till such time, such reclamation activities area satisfactorily executed;

Project Officer
Magadh Opencast Project
SADALA SATYANARAYAN
PROJECT OFFICER
MAGADH OCP

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पंजीकृत कार्यालय : दरभंगा हाउस, राँची 834 001 (झारखण्ड)
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e-mail: pomagadhms@gmail.com
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Annexure – 27

Proposal No:- FP/JH/MIN/87235/2020 Dated:-19.03.2021
File No:- 8-27/2022-FC dated 27.05.2024
Project Name:- Magadh East OCP (192.36 Ha)

Subject: - Undertaking in respect of compliance of conditions no-17 of in principal approval (Stage-I) obtained for proposal of non-forest use of 192.36 ha in favour of M/s Central Coalfields Limited for non-forestry use of 192.36 Ha of forest land for Magadh Opencast Project, Chatra South Forest Division in Chatra District of Jharkhand against the Magadh OCP.

UNDERTAKING TO CONDITION NO – 17

Magadh OCP, CCL undertakes that "The CCL shall comply with the Hon'ble Supreme Court order on regrassing, and re-grass the mining area and any other areas which may have been disturbed due to mining to restore them to a condition which is fit for growth of fodder, flora, fauna, etc. in a timely manner".

Project Officer
Magadh Opencast Project
GADALA SAI YANARAYAN
PROJECT OFFICER
MAGADH OCP

सेन्ट्रल कोलफील्ड्स लिमिटेड
(भारत सरकार का एक उपक्रम / कोल इंडिया लि. की एक अनुषंगी कंपनी)
पंजीकृत कार्यालय : दरभंगा हाउस, राँची 834 001 (झारखण्ड)
CIN : U10200JH1956GOI000581
CENTRAL COALFIELDS LTD.
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परियोजना पदाधिकारी कार्यालय, मगध -परियोजना मगध-संघमित्रा क्षेत्र
अवंतिका, गांव-कुंडी, पो.- सराधु, जिला:- चतरा, झारखण्ड-825321
e-mail: pomagadhms@gmail.com
Website: www.centralcoalfields.in

Annexure –28

Proposal No:- FP/JH/MIN/87235/2020 Dated:-19.03.2021
File No:- 8-27/2022-FC dated 27.05.2024
Project Name:- Magadh East OCP (192.36 Ha)

Subject: - Undertaking in respect of compliance of conditions no-18 of in principal approval (Stage-I) obtained for proposal of non-forest use of 192.36 ha in favour of M/s Central Coalfields Limited for non-forestry use of 192.36 Ha of forest land for Magadh Opencast Project, Chatra South Forest Division in Chatra District of Jharkhand against the Magadh OCP.

UNDERTAKING TO CONDITION NO – 18

Magadh OCP, CCL undertakes that period of diversion of the said forest land under this approval shall be for a period co-terminus with the period of the mining lease proposed to be granted under the Mines and Minerals (Development and Regulation) Act, 1957, as amended and the Rules framed there-under.

Project Officer
Magadh Opencast Project
SADALA SATYANARAYAN
PROJECT OFFICER
MAGADH OCP

Annexure-29

No.J-11015/865/2007-IA.II(M)
Government of India
Ministry of Environment & Forests

Paryavaran Bhawan,
C.G.O.Complex,
New Delhi -110510.

Dated: 27th October 2008

To
General Manger (Env. & Forests),
M/s Central Coalfields Ltd.,
Ranchi, Jharkand.

Sub: Magadh Opencast Expansion Coal Mine Project (12 MTPA to 20 MTPA) of M/s Central Coalfields Ltd. located in villages Saradhu, Delgorah Ara Chamatil, Ganeshpur Phulbasia, Tehsil Tandwa in District Chatra, Jharkand - environmental clearance - reg.

Sir,

This has reference to letter No. 43011/90/2007-CPAM dated 27.06.2007 of Ministry of Coal forwarding the application and letters dated 07.03.2008, 09.05.2008, 31.07.2008 and 18.08.2008 on the above-mentioned subject. The Ministry of Environment & Forests has considered your application. It has been noted that the project is for **expansion in production of the existing Magadh Opencast Coalmine Project from 12 MTPA to 20 MTPA.** Environmental clearance was obtained for 12 MTPA project on 19.07.2006. The total lease area is **1769** ha of which 900 ha is agricultural land, 244 ha is forestland, 280 ha is wasteland, 111 ha is surface water bodies and 234 ha includes settlements. Forestry clearance has been applied for. There are no National Parks, Wildlife Sanctuary, Biosphere Reserves found in the 10 km buffer zone. Nallah flows within 60m of the ML boundary. It is proposed to modify the natural drainage of the area diversion of the nallah of 1.5 km length flowing thorough the lease and construction of an embankment along side the lease boundary adjoining the nallah. The project involves R&R involving 953 PAFs from 5 villages - Dereo large (32), Ara (216), Chamatu (168), Ganeshpur (360), Phulbesia (220). Of the total mining lease area, 1146 ha is quarry area. 194.71 ha is for OB dumps, 11.09 ha is for infrastructure including buildings, 34 ha is for roads, 140 ha is for green belt, 17.25 ha is for CHP, 44 ha is for township and 321.95 ha is for safety zone and nallah diversion. Mining will be opencast by mechanised method and involves drilling and blasting. **Rated capacity of the mine is 20 million tonnes per annum (MTPA).** Mineral transportation of 54,800 TPD of coal from the mine in the expansion project would be by MGR (27,400 TPD) and by rail (27,400 TPD). Water table in the study area is in the range of 3-12m bgl during pre-monsoon and 1-6m during post monsoon. Ultimate working depth of the mine is 110m below ground level (bgl). Peak water requirement is 2132 m3/d of which will be met from ground water (250 m3/d), mine pit water (3000 m3/d) and from recycled water. Peak mine water discharge form the mine during monsoon is 20,794 m3/d. An estimated 529 Mm3 of OB will be generated over the life of mine, of which 75% would be backfilled and the balance stored in 2 external OB dumps of a max. of 90m height consisting of 3 benches of 30m each. Life of mine at the rated capacity of 20 MTPA is 26 years. Public Hearing was held on 17.08.2007. The project has been approved by M/s CCL on 23.08.2008. Capital cost of the project is **Rs. 63.146 cores.**

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SADALA SATYANARAYAN
PROJECT OFFICER
MAGADH OCP

2. The Ministry of Environment & Forests hereby accords environmental clearance for the above-mentioned **Magadh Opencast Expansion Coal Project** of **M/s Central Coalfields Limited for production of coal from at 20 MTPA rated capacity in a total lease area of 1769 ha** under the provisions of Section 12 of the Environmental Impact Assessment Notification, 2006 and subsequent amendments thereto and under Para 2.1.1 of MOEF Circular dated 13.10.2006 subject to the compliance of the terms and conditions mentioned below:

A. Specific Conditions

(i) No mining operations shall be undertaken in the forestland until clearance has been obtained under the provisions of FC Act, 1980.

(ii) Mining shall be carried out as per statuette from the streams/nallahs flowing within the lease and the along the diverted nallah along the lease boundary. The embankment being constructed adjoining the nallh shall be

(iii) Topsoil shall be stacked properly with proper slope at earmarked site(s) and shall not be kept active and shall be used for reclamation and development of green belt.

(iv) OB shall be stacked at earmarked two external OB dumpsites of 86.04 ha and 108.87 ha within ML area and shall be a maximum height of 90m only and consist of three benches of 30m each. The ultimate slope of the dump shall not exceed 28°. Monitoring and management of reclaimed dumpsite shall continue until the vegetation becomes self-sustaining. Compliance status shall be submitted to the Ministry of Environment & Forests and its Regional office located at Bhubaneshwar on yearly basis.

(v) Catch drains and siltation ponds of appropriate size shall be constructed to arrest silt and sediment flows from soil, OB and mineral dumps. The water so collected shall be utilised for watering the mine area, roads, green belt development, etc. The drains shall be regularly desilted and maintained properly.

Garland drains (size, gradient and length) and sump capacity shall be designed keeping 50% safety margin over and above the peak sudden rainfall and maximum discharge in the area adjoining the mine site. Sump capacity shall also provided adequate retention period to allow proper settling of silt material..

(vi) Dimension of the retaining wall at the toe of the dumps and OB benches within the mine to check run-off and siltation shall be based on the rainfall data.

(vii) Mineral transpiration for the entire 20 MTPA capacity from mine to CHP and from CHP to railway siding (10 MTPA) and to MGR (10 MTPA) shall be by conveyor which shall be commissioned by the year 2010. MGR shall be provided with Silo loading facility.

(viii) Conveyor system for mineral transportation shall be closed with high efficiency water sprinkling system provided to check fugitive emissions at the transfer points, haulage roads, etc. Dry fogging shall be provided for crushing/loading operations for dust control at the CHP with Rapid Loading System.

(ix) Drills shall be wet operated only.

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PROJECT OFFICER
MAGADH OCP

(x) Controlled blasting shall be practiced with use of delay detonators. The mitigative measures for control of ground vibrations and to arrest the fly rocks and boulders shall be implemented.

(xi) The total area that shall be brought under afforestation at the time of mine closure shall not be less than 1223 ha which includes reclaimed external OB dump (195 ha), and backfilled area (558 ha), 268 ha of steep quarry which is not being backfilled, along ML boundary, safety zone and vacant/undisturbed area, along roads and infrastructure, green belt (202 ha) and in township outside the lease by planting native species in consultation with the local DFO/Agriculture Department. The density of the trees shall be around 2500 plants per ha.

(xii) A Progressive Mine Closure Plan shall be implemented by reclamation of 558 ha of quarry area by backfilling and afforestation by planting native plant species in consultation with the local DFO/Agriculture Department. The density of the trees shall be around 2500 plants per ha. Quarry area of 268 ha which is too steep for backfilling shall be bio-reclaimed by plantation using geotextile material in critical patches. About 320 ha of decolaed area/void which is being converted into a water reservoir shall be gently sloped and the upper benches of the reservoir shall be terraced and stabilised with plantation.

(xiii) Prior approval of the CGWB/CGWA shall be obtained in cases of use of groundwater for mining operations.

(xiv) Regular monitoring of groundwater level and quality shall be carried out by establishing a network of exiting wells and construction of new peizometers. The monitoring for quantity shall be done four times a year in pre-monsoon (May), monsoon (August), post-monsoon (November) and winter (January) seasons and for quality in May. Data thus collected shall be submitted to the Ministry of Environment & Forests and tot eh Central Pollution Control Board quarterly within one month of monitoring.

(xv) The project authorities shall meet water requirement of nearby village(s) in case the village wells go dry due to dewatering of mine.

(xvi) Sewage treatment plant of adequate capacity shall be installed in the colony. ETP shall also be provided for workshop and CHP wastewater. Treated wastewater meeting prescribed norms only shall be permitted to be discharged in to the natural water courses.

(xvii) Besides carrying out regular periodic health check up of their workers, 10% of the workers identified from workforce engaged in active mining operations shall be subjected to health check up for occupational diseases and hearing impairment, if any, through an agency such as NIOH, Ahmedabad within a period of one year and the results reported to this Ministry and to DGMS.

(xviii) A detailed R&R Plan including for all the PAFs including tribals to be displaced from the project area shall be prepared and implemented in a stipulated time - frame. The compensation shall be not less than that specified in the National R&R Policy. A detailed Socio-economic survey shall be carried out and based on the same an effective R&R package shall be given to ensure restoration of income of

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SADALA SATYANARAYAN
PROJECT OFFICER
MAGADH OCP

project affected persons (PAP). Provision shall also be made in the R&R Plan to take care of the land less labourers and the tribals.

(xix) For monitoring land use pattern and for post mining land use, a time series of landuse maps, based on satellite imagery (on a scale of 1: 5000) of the core zone and buffer zone, from the start of the project until end of mine life shall be prepared once in 3 years (for any one particular season which is consistent in the time series), and the report submitted to MOEF and its Regional office at Bhubaneshwar.

(xx) A Final Mine Closure Plan along with details of Corpus Fund shall be submitted to the Ministry of Environment & Forests 5 years in advance of final mine closure for approval.

B. General Conditions

(i) No change in mining technology and scope of working shall be made without prior approval of the Ministry of Environment and Forests.

(ii) No change in the calendar plan including excavation, quantum of mineral coal and waste shall be made.

(iii) Four ambient air quality monitoring stations shall be established in the core zone as well as in the buffer zone for monitoring SPM, RSPM, SO2, Nox, Hg and other heavy metals such as Pb, Cr, As, etc. Location of the stations shall be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets in consultation with the State Pollution Control Board.

(iv) Data on ambient air quality (SPM, RSPM, SO_2, NO_x, Hg and other heavy metals) shall be regularly submitted to the Ministry including its Regional Office at Bhubaneshwar and to the State Pollution Control Board and the Central Pollution Control Board once in six months.

(v) Fugitive dust emissions (SPM, RSPM, Hg and other heavy metals) from all the sources shall be controlled regularly monitored and data recorded properly. Water spraying arrangement on haul roads, wagon loading, dump trucks (loading and unloading) points shall be provided and properly maintained.

(vi) Adequate measures shall be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in blasting and drilling operations, operation of HEMM, etc shall be provided with ear plugs/muffs.

(vii) Industrial wastewater (workshop and wastewater from the mine) shall be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19th May 1993 and 31st December 1993 or as amended from time to time before discharge. Oil and grease trap shall be installed before discharge of workshop effluents.

(viii) Vehicular emissions shall be kept under control and regularly monitored. Vehicles used for transporting the mineral shall be covered with tarpaulins and optimally loaded.

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SADALA SATYANARAYAN
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MAGADH OCP

(ix) Environmental laboratory shall be established with adequate number and type of pollution monitoring and analysis equipment in consultation with the State Pollution Control Board.

(x) Personnel working in dusty areas shall wear protective respiratory devices and they shall also be provided with adequate training and information on safety and health aspects.

Occupational health surveillance programme of the workers shall be undertaken periodically to observe any contractions due to exposure to dust and to take corrective measures, if needed.

(xi) A separate environmental management cell with suitable qualified personnel shall be set up under the control of a Senior Executive, who will report directly to the Head of the company.

(xii) The funds earmarked for environmental protection measures shall e kept in separate account and shall not be diverted for other purpose. Year-wise expenditure shall be reported to this Ministry and its Regional Office at Bhubaneshwar.

(xiii) A copy of the environmental clearance letter shall be marked to concerned Panchayat/ local NGO, if any, from whom any suggestion/representation has been received while processing the proposal.

(xiv) State Pollution Control Board shall display a copy of the clearance letter at the Regional Office, District Industry Centre and Collector's Office/Tehsildar's Office for 30 days.

(xv) The Project authorities shall advertise at least in two local newspapers widely circulated around the project, one of which shall be in the vernacular language of the locality concerned within seven days of the clearance letter informing that the project has been accorded environmental clearance and a copy of the clearance letter is available with the State Pollution control Board and may also be seen at the website of the ministry of Environment & Forests at http://envfor.nic.in.

3. The Ministry or any other competent authority may stipulate any further condition for environmental protection.

4. Failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract the provisions of the Environment (Protection) Act, 1986.

5. The above conditions will be enforced *inter-alia*, under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 and the Public Liability Insurance Act, 1991 along with their amendments and Rules.

(Dr.T.Chandini)
Director

11.12.04
SADALA SATYANARAYAN
PROJECT OFFICER
MAGADH OCP

Copy to:

1. Secretary, Ministry of Coal, New Delhi.
2. Secretary, Department of Environment & Forests, Government of Jharkand, Secretariat, Ranchi.
3. Chief Conservator of Forests, Regional office (EZ), Ministry of Environment & Forests, A-31, Chandrashekarpur, Bhubaneshwar - 751023.
4. Chairman, Jharkand State Pollution Control Board, T.A. Division Building (Ground Floor), H.E.C., Dhurwa, Ranchi - 834004.
5. Chairman, Central Pollution Control Board, CBD-cum-Office Complex, East Arjun Nagar, New Delhi -110032.
6. Member-Secretary, Central Ground Water Authority, Ministry of Water Resources, Curzon Road Barracks, A-2, W-3 Kasturba Gandhi Marg, New Delhi.
7. Shri M.K. Shukla, CGM, Coal India Limited, SCOPE Minar, Core-I, 4t Floor, Vikas Marg, Laxminagar, New Delhi.
8. District Collector, Chatra, Government of Jharkand.
9. Monitoring File 11. Guard File 12. Record File

SADALA SATYANARAYAN
PROJECT OFFICER
MAGADH OCP

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e-mail: pomagadhms@gmail.com
Website: www.centralcoalfields.in

Annexure –30

Proposal No:- FP/JH/MIN/87235/2020 Dated:-19.03.2021
File No:- 8-27/2022-FC dated 27.05.2024
Project Name:- Magadh East OCP (192.36 Ha)

Subject: - Undertaking in respect of compliance of conditions no-20 of in principal approval (Stage-I) obtained for proposal of non-forest use of 192.36 ha in favour of M/s Central Coalfields Limited for non-forestry use of 192.36 Ha of forest land for Magadh Opencast Project, Chatra South Forest Division in Chatra District of Jharkhand against the Magadh OCP.

UNDERTAKING TO CONDITION NO – 20

Magadh OCP, CCL undertakes that No labour camp shall be established on the forest land and the User Agency shall provide fuels preferably alternate fuels to the labourers and the staff working at the site so as to avoid any damage and pressure on the nearby forest areas.

Project Officer
Magadh Opencast Project
SADALA SATYANARAYAN
PROJECT OFFICER
MAGADH OCP

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Annexure –31

Proposal No:- FP/JH/MIN/87235/2020 Dated:-19.03.2021
File No:- 8-27/2022-FC dated 27.05.2024
Project Name:- Magadh East OCP (192.36 Ha)

Subject: - Undertaking in respect of compliance of conditions no-21 of in principal approval (Stage-I) obtained for proposal of non-forest use of 192.36 ha in favour of M/s Central Coalfields Limited for non-forestry use of 192.36 Ha of forest land for Magadh Opencast Project, Chatra South Forest Division in Chatra District of Jharkhand against the Magadh OCP.

UNDERTAKING TO CONDITION NO – 21

Magadh OCP, CCL undertakes that the boundary of the diverted forest land, mining lease and safety zone, as applicable, shall be demarcated on ground at the project cost, by erecting four feet high reinforced cement concrete pillars, each inscribed with its serial number, distance from pillar to pillar and GPS coordinates within three months of obtaining forest land handover.

11.12.24
Project Officer
Magadh Opencast Project

SADALA SATYANARAYAN
PROJECT OFFICER
MAGADH OCP

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Annexure – 32

Proposal No:- FP/JH/MIN/87235/2020 Dated:-19.03.2021
File No:- 8-27/2022-FC dated 27.05.2024
Project Name:- Magadh East OCP (192.36 Ha)

Subject: - Undertaking in respect of compliance of conditions no-22 of in principal approval (Stage-I) obtained for proposal of non-forest use of 192.36 ha in favour of M/s Central Coalfields Limited for non-forestry use of 192.36 Ha of forest land for Magadh Opencast Project, Chatra South Forest Division in Chatra District of Jharkhand against the Magadh OCP.

UNDERTAKING TO CONDITION NO – 22

Magadh OCP, CCL undertakes that the layout plan of the mining plan/ proposal shall not be changed without the prior approval of the Central Government and the forest land shall not be used for any purpose other than that specified in the proposal.

Project Officer
Magadh Opencast Project
SADALA SATYANARAYAN
PROJECT OFFICER
MAGADH OCP

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Annexure –33

Proposal No:- FP/JH/MIN/87235/2020 Dated:-19.03.2021
File No:- 8-27/2022-FC dated 27.05.2024
Project Name:- Magadh East OCP (192.36 Ha)

Subject: - Undertaking in respect of compliance of conditions no-23 of in principal approval (Stage-I) obtained for proposal of non-forest use of 192.36 ha in favour of M/s Central Coalfields Limited for non-forestry use of 192.36 Ha of forest land for Magadh Opencast Project, Chatra South Forest Division in Chatra District of Jharkhand against the Magadh OCP.

UNDERTAKING TO CONDITION NO – 23

Magadh OCP, CCL undertakes that the forest land proposed to be diverted shall under no circumstances be transferred to any other agency, department or person without prior approval of the Central Government.

Project Officer
Magadh Opencast Project
SADALA SATYANARAYAN
PROJECT OFFICER
MAGADH OCP

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Annexure –34

Proposal No:- FP/JH/MIN/87235/2020 Dated:-19.03.2021
File No:- 8-27/2022-FC dated 27.05.2024
Project Name:- Magadh East OCP (192.36 Ha)

Subject: - Undertaking in respect of compliance of conditions no-24 of in principal approval (Stage-I) obtained for proposal of non-forest use of 192.36 ha in favour of M/s Central Coalfields Limited for non-forestry use of 192.36 Ha of forest land for Magadh Opencast Project, Chatra South Forest Division in Chatra District of Jharkhand against the Magadh OCP.

UNDERTAKING TO CONDITION NO – 24

Magadh OCP, CCL undertakes that No damage to the flora and fauna of the adjoining area shall be caused.

1.12.24
Project Officer
Magadh Opencast Project
SADALA SATYANARAYAN
PROJECT OFFICER
MAGADH OCP

सेन्ट्रल कोलफील्ड्स लिमिटेड
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Annexure –35

Proposal No:- FP/JH/MIN/87235/2020 Dated:-19.03.2021
File No:- 8-27/2022-FC dated 27.05.2024
Project Name:- Magadh East OCP (192.36 Ha)

Subject: - Undertaking in respect of compliance of conditions no-25 of in principal approval (Stage-I) obtained for proposal of non-forest use of 192.36 ha in favour of M/s Central Coalfields Limited for non-forestry use of 192.36 Ha of forest land for Magadh Opencast Project, Chatra South Forest Division in Chatra District of Jharkhand against the Magadh OCP.

UNDERTAKING TO CONDITION NO – 25

Magadh OCP, CCL undertakes to comply all the provisions of the all Acts, Rules, Regulations, Guidelines, Hon'ble Court Order (s) and NGT Order (s) pertaining to this project, if any, for the time being in force, as applicable to the project.

Project Officer
Magadh Opencast Project
SADALA SATYANARAYAN
PROJECT OFFICER
MAGADH OCP

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Website: www.centralcoalfields.in

Annexure –36

Proposal No:- FP/JH/MIN/87235/2020 Dated:-19.03.2021
File No:- 8-27/2022-FC dated 27.05.2024
Project Name:- Magadh East OCP (192.36 Ha)

Subject: - Undertaking in respect of compliance of conditions no-26 of in principal approval (Stage-I) obtained for proposal of non-forest use of 192.36 ha in favour of M/s Central Coalfields Limited for non-forestry use of 192.36 Ha of forest land for Magadh Opencast Project, Chatra South Forest Division in Chatra District of Jharkhand against the Magadh OCP.

UNDERTAKING TO CONDITION NO – 26

Magadh OCP, CCL undertakes to submit the annual self -compliance report in respect of the above stated conditions to the State Government, concerned Regional Office and to this Ministry by the end of March every year regularly.

Project Officer
Magadh Opencast Project
SADALA SATYANARAYAN
PROJECT OFFICER
MAGADH OCP

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परियोजना पदाधिकारी कार्यालय, मगध -परियोजना मगध-संघमित्रा क्षेत्र
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Fuelling Sustainable Growth
CENTRAL COALFIELDS LTD.

Annexure –37

Proposal No:- FP/JH/MIN/87235/2020 Dated:-19.03.2021
File No:- 8-27/2022-FC dated 27.05.2024
Project Name:- Magadh East OCP (192.36 Ha)

Subject: - Undertaking in respect of compliance of conditions no-27 of in principal approval (Stage-I) obtained for proposal of non-forest use of 192.36 ha in favour of M/s Central Coalfields Limited for non-forestry use of 192.36 Ha of forest land for Magadh Opencast Project, Chatra South Forest Division in Chatra District of Jharkhand against the Magadh OCP.

UNDERTAKING TO CONDITION NO – 27

Magadh OCP, CCL undertakes that any other condition that the Ministry of Environment, Forests & Climate Change may stipulate from time to time in the interest of conservation, protection and development of forests & wildlife shall be carried with by the State Government and user agency.

Project Officer
Magadh Opencast Project

SADALA SATYANARAYAN
PROJECT OFFICER
MAGADH OCP

CCL
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सेन्ट्रल कोलफील्ड्स लिमिटेड
(भारत सरकार का एक उपक्रम / कोल इंडिया लि. की एक अनुषंगी कंपनी)
पंजीकृत कार्यालय : दरभंगा हाउस, राँची 834 001 (झारखण्ड)
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e-mail: pomagadhms@gmail.com
Website: www.centralcoalfields.in

Annexure –38

Proposal No:- FP/JH/MIN/87235/2020 Dated:-19.03.2021
File No:- 8-27/2022-FC dated 27.05.2024
Project Name:- Magadh East OCP (192.36 Ha)

Subject: - Undertaking in respect of compliance of conditions no-28 of in principal approval (Stage-I) obtained for proposal of non-forest use of 192.36 ha in favour of M/s Central Coalfields Limited for non-forestry use of 192.36 Ha of forest land for Magadh Opencast Project, Chatra South Forest Division in Chatra District of Jharkhand against the Magadh OCP.

UNDERTAKING TO CONDITION NO – 28

Magadh OCP, CCL undertakes that Violation of any of these conditions will amount to violation of Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980 and action would be taken as prescribed in para 1.16 of consolidated guidelines and clarifications issued under Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980 as issued by this Ministry on dated 29.12.2023.

Project Officer
Magadh Opencast Project