

Final Compliance of Stage I Conditions

Proposal No: FP/JH/MIN/29167/2017



DAMODAR VALLEY CORPORATION
D.V.C. TOWERS, V.I.P. ROAD
KOLKATA - 700 054
Phone: (033) 6607-2338 email: sudhir_mukherjee@dvc.gov.in

No. Tubed/FC/2022/21

Dated: 01/02/2022

To
Divisional Forest Officer
Latehar Forest Division
Government of Jharkhand,

Sub: Diversion of 162.394 Ha. of Forest Land for Tubed Coal Mine of Damodar Valley Corporation -
Compliance to your letter vide No:2052 Dated 4.12.2019
(Proposal No. FP/JH/MIN/29167/2017)

Dear Sir,

Kindly refer to above.

Further to the compliances submitted vide our letter no. HQ/Mining/Tubed/FC/193 dated 13/02/2020 and HQ/Mining/Tubed/FC/19 dated 17/02/2021, updated compliances are submitted herewith for your kind perusal and needful.

SL	CONDITION	COMPLIANCE
i)	<i>Legal status of the diverted forest land shall remain unchanged</i>	DVC agrees to comply with the condition and an undertaking in this regard is submitted as [Annexure-I]
ii)	<i>Compensatory Afforestation: (a) Compensatory Afforestation shall be raised over degraded forest land, double in extent to the forest area being diverted, by the State Forest Department at the cost of user Agency; (b) The area proposed for diversion includes 12 ha of CA plantation done in Dihl. Protected forest' area. In addition to stipulated CA required for diversion, user agency shall pay additional cost for raising CA over degraded forest land. The additional 12 ha degraded land shall be identified and shape files shall be submitted.</i>	a) Double of the forest area to be diverted comes to $162.394 \times 2 = 324.788$ Ha. DVC had complied with the condition by depositing Rs. 4,15,04,229.00 in CAMPA Fund for Compensatory Afforestation of 324.788 Ha. This amount is included in fund transfer of Rs. 4,42,59,108.00 in CAMPA Fund vide UTR no. UTBIR92019122000060030 dated 20.12.2019. Copy enclosed [Annexure-II] b) DVC had complied with the condition and 12 Ha degraded forest land for afforestation has been identified in Sikni Mouza. KML file has been submitted by State Government vide letter dated 16/08/2021. DVC deposited Rs. 27,54,879.00 in CAMPA Fund for compensatory Afforestation over 22 Ha. This 22 Ha includes 12 Ha of CA plantation as mentioned in this point. This amount is included in fund transfer of Rs. 4,42,59,108.00 in CAMPA Fund vide UTR no. UTBIR92019122000060030 dated 20.12.2019. Copy enclosed [Annexure-II]
iii)	<i>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 project authority. The CA will be maintained for 10 years. The</i>	DVC had complied the condition and Rs. 4,42,59,108.00 has been deposited in CAMPA Fund vide UTR no. UTBIR92019122000060030 dated 20.12.2019. Copy enclosed [Annexure-II] which includes the cost of activities

Sl.	CONDITION	COMPLIANCE
	<i>scheme may include appropriate provision for anticipated cost increase for works scheduled for subsequent years.</i>	as mentioned in this point.
iv)	<p><i>Net Present Value (NPV):</i></p> <p><i>(a) The State Government shall charge the Net Present Value(NPV) for the 162.394 ha forest area to be diverted under this proposal from the User Agency as per the orders of the Hon'ble Supreme Court of India dated 30/10/2002, 01/08/2003, 28/03/2008, 24/04/2008 and 09/05/2008 in LA No. 366 in WP (C) No. 202/1995 and as per the guidelines issued by the Ministry vide letters No. 5-1/1998-FC (PLII) dated 18/09/2003, as well as letter No. 5-2/2006-FC dated 03/10/2006 and 5-3/2007-FC dated 05/02/2009 in this regard.</i></p> <p><i>(b) Additional amount of the NPV of the diverted forest land, if any, becoming due after finalization of the same by the Hon'ble Supreme Court of India on receipt of the report from the Expert Committee, shall be charged by the State Government from the User Agency. The User Agency shall furnish an undertaking to this effect.</i></p>	<p>a) DVC had complied the condition and amount of Rs. 10,16,58,644.00 is deposited as a cost of Net Present Value (NPV) in CAMPA Fund vide. UTR no. UTBR92019122000060030 dated 20.12.2019.</p> <p>Copy enclosed [Annexure-II]</p> <p>b) DVC agrees to comply with the condition and an undertaking in this regard is submitted as [Annexure-III].</p>
v)	<i>The cost of felling of trees shall be deposited by the User Agency with the State Forest Department.</i>	DVC Agrees to the condition. In this regard the letter of Jharkhand State Forest Development Corporation Ltd., Daltonganj vide no: 151 dt: 05.02.2020, is enclosed [Annexure-IV]. An undertaking in this regard is submitted as [Annexure-V].
vi)	<i>All the funds received from the user agency under the project shall be transferred/ deposited to CAMPA fund only through e-portal (https://parivesh.nic.in/).</i>	DVC agrees to comply with the condition and an undertaking in this regard is submitted as [Annexure-VI].
vii)	<i>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 co-ordinates:</i>	This is being complied and intimation to DFO, Latchar has been given vide letter no. Tubed/Forest/Boundary Pillar/2021/120 Dated 23.12.2021 enclosed [Annexure-VII]
viii)	<i>The 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 & Regulating) Act, 1957, as amended or Rules framed there under, subject to a maximum period of 30 years;</i>	DVC agrees to comply with the condition and an undertaking in this regard is submitted as [Annexure-VIII].
ix)	<i>The user agency shall undertake mining in a 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 Chief Conservator of Forests (Central) may direct that the mining activities shall remain suspended till such time, such reclamation activities are satisfactorily executed.</i>	DVC agrees to comply with the condition and an undertaking in this regard is submitted as [Annexure-IX].

Sl.	CONDITION	COMPLIANCE
x)	<p><i>Following activities shall be undertaken by the user agency for the management of safety zone:</i></p> <p><i>(a) User agency shall ensure demarcation of boundary of safety zone (7.5-meter strip all along the inner boundary of the mining lease area), and its protection by erecting adequate number of 4 feet high RCC boundary pillars inscribed with DGPS coordinates and deploying adequate number of watchers under the supervision of the State Forest Department.</i></p> <p><i>(b) In case of the mining leases adjoining the habitation stretch of the boundary of the safety zone of the lease adjacent to the habitation/roads should be properly fenced by the user agency at the project cost to protect the vegetation /regeneration activities in the safety zone.</i></p> <p><i>(c) Safety zone shall be maintained as green belt around the mining lease and to ensure dense canopy cover in the area, regeneration shall be taken in this area by the user agency at the project cost under the supervision of the State Forest Department.</i></p> <p><i>(d) Afforestation on degraded forest land, to be selected elsewhere, measuring one and a half times the forest area under safety zone shall also be done by the user agency at the project cost under the supervision of the State Forest Department.</i></p>	<p>a) This is being complied and intimation to DFO, Latchar has been given vide letter no. Tubed/Forest/Boundary/Pillar/2021/120 Dated 23.12.2021 enclosed [Annexure-VII]</p> <p>b) DVC agrees to comply with the condition.</p> <p>c) DVC agrees to comply with the condition.</p> <p>d) The safety zone of Tubed Coal Mines is 6.6 Ha, one and half times of this area comes to 9.9 Ha. DVC deposited Rs. 27,54,879.00 for additional 22 Ha (12 + 9.9). This is included in Rs. 4,42,59,108.00 deposited as a cost of compensatory afforestation in CAMPA Fund vide UTR no. UTBIR92019122000060030 dated 20.12.2019. Copy enclosed [Annexure-II]. In regard to the clause under (a), (b) and (c) of this point, an undertaking is submitted [Annexure-X].</p>
xi)	<p><i>Following activities shall be undertaken by the User Agency at the project cost:</i></p> <p><i>(a) Preparation and implementation of a plan containing appropriate mitigative measures to minimize soil erosion and choking of streams.</i></p> <p><i>(b) Planting of adequate drought hardy plant species and sowing of seeds in the appropriate area within the mining lease to arrest soil erosion.</i></p> <p><i>(c) Construction of check dams, retention /toe walls along the contour to arrest sliding down of the excavated material.</i></p> <p><i>(d) Stabilize the overburden dumps by appropriate grading/benching so as to ensure that that angles of repose at any given place is less than 28°; and</i></p> <p><i>(e) Strict adherence to the prescribed topsoil management.</i></p>	<p>DVC agrees to comply and implement the conditions as, the schemes are already covered under the Mine Closure Plan (MCP) which has been approved by Ministry of Coal, Government of India. DVC has also opened an Escrow Account and executed Escrow Agreement with Ministry of Coal towards commitment of DVC to implement the activities and to bear the cost thereof as mentioned in approved MCP. An undertaking regarding this clause and a letter to DFO dated 10.01.22 is enclosed [Annexure- XI]</p>
xii)	<p><i>The User Agency shall obtain the Environment Clearance as per the provisions of the Environmental (Protection) Act, 1986, if required;</i></p>	<p>Environment Clearance has been issued on 28/04/2020. Copy enclosed [Annexure- XII]</p>
xiii)	<p><i>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</i></p>	<p>DVC agrees to comply with the condition and an undertaking in this regard is submitted as [Annexure-XIII]</p>

Sl.	CONDITION	COMPLIANCE
	<i>damage and pressure on the nearby forest areas:</i>	
xiv)	<i>The layout plan of the proposal shall not be changed without the prior approval of the Central Government;</i>	DVC agrees to comply with the condition and an undertaking in this regard is submitted as [Annexure-XIV].
xv)	<i>The forest land shall not be used for any purpose other than that specified in the proposal;</i>	DVC agrees to comply with the condition and an undertaking in this regard is submitted as [Annexure-XV].
xvi)	<i>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;</i>	DVC agrees to comply with the condition and an undertaking in this regard is submitted as [Annexure-XVI].
xvii)	<i>No damage to the flora and fauna of the adjoining area shall be caused;</i>	DVC agrees to comply with the condition and an undertaking in this regard is submitted as [Annexure-XVII].
xviii)	<i>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;</i>	DVC agrees to comply with the condition and an undertaking in this regard is submitted as [Annexure-XVIII].
xix)	<i>User agency shall submit CAT plan for the catchment of Sukri River. The plan shall be finalised and approved by competent authority prior to Final approval</i>	CAT Plan has been approved by PCCF & Hoff, Govt. of Jharkhand, Vide letter no. 2743 dated 31.12.2021. Copy of approval letter enclosed [Annexure-XIX] An amount of Rs. 85,58,14,464/- for CAT Plan & Rs.25,00,000/- for Silt Observation Unit has been deposited in CAMPA Fund vide UTR No. PUNBR52022011918570180 dated 19/01/2022 & vide UTR No. PUNBR52022012718833854 dated 27/01/2022 respectively. Total amount of Rs. 85,83,14,464.00 has been deposited to CAMPA Fund for compliance of the said condition.
xx)	<i>State Government shall prepare a surveillance and monitoring plan to ensure that the large-scale translocation of families from the area shall not get shifted to the adjoining forest land after their reallocation. Surveillance and Monitoring system for the forest hinterlands of the project area to be planned and executed at the project cost with provisions of patrolling manpower, building infrastructure (watch tower, check post etc.), forest road access and vehicular resources as necessary.</i>	The Surveillance and Monitoring Plan have been prepared by the Forest Department. An amount of Rs.14,35,41,000/- has been deposited in CAMPA Fund vide UTR No. PUNBR5202102158601510 dated 15/02/2021. [Annexure-XX]
xxi)	<i>User agency shall explore the possibility of translocation of existing native trees from the project site work in consultation with State Forest department.</i>	DVC agrees to comply with the condition and an undertaking in this regard is submitted as [Annexure-XXI].
xxii)	<i>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; and</i>	DVC agrees to comply with the condition and an undertaking in this regard is submitted as [Annexure-XXII].
xxiii)	<i>The user agency shall comply all the provisions of 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</i>	DVC agrees to comply with the condition and an undertaking in this regard is submitted as [Annexure-XXIII].

SL	CONDITION	COMPLIANCE
	<i>applicable to the project.</i>	
xxiv)	<i>The complete compliance of the FRA, 2006 shall be ensured by way of prescribed certificate from the concerned District Collector.</i>	Certificate in Form II has been issued by Deputy Commissioner, Latchar on 22/12/2018. Copy enclosed [Annexure-XXIV].
xxv)	<i>Any other condition that the concerned Regional Office of this Ministry may stipulate, from time to time, in the interest of conservation, protection and development of forests & wildlife;</i>	DVC agrees to comply with the condition and an undertaking in this regard is submitted as [Annexure-XXV].
xxvi)	<i>The compliance report shall be uploaded on e-portal (https://parivesh.nic.in/).</i>	DVC agrees to comply with the condition and an undertaking in this regard is submitted as [Annexure-XXVI].
xxvii)	<i>Violation of any of these conditions will amount to violation of Forest (Conservation) Act, 1980 and action would be taken as prescribed in para 1.21 of Chapter 1 of the Handbook of comprehensive guidelines of Forest (Conservation) Act, 1980 as issued by this Ministry's letter No. 5-2/2017-FC dated 28.03.2019</i>	DVC agrees to comply with the condition and an undertaking in this regard is submitted as [Annexure-XXVII].

Your kind consideration of the proposal is solicited.

Enclosed: As stated.

Yours faithfully,

(Sudhir Mukherjee)

Executive Director (Mining)

सुधीर मुखर्जी / Sudhir Mukherjee
कार्यकारी निदेशक (खनन)
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दामोदर घाटी निगम, कोलकाता-54
Damodar Valley Corpn., Kolkata-54



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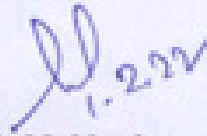
No. Tubed/FC/2022/20-(I)

Date: 01.02.2022

Annexure- I


UNDERTAKING
TUBED COAL MINE


This is to certify that, Damodar Valley Corporation (DVC), a corporation constituted under DVC Act, 1948 (Act. No. XIV of 1948), undertake to ensure that 'the legal status of the diverted forest land shall remain unchanged' during implementation of the project. This is in connection of the fulfilment of the Condition No. (i) of the Stage-I Clearance, for diversion of 162.394 ha forest land in Latchar Forest Division, Dist. Latchar, Jharkhand.



Sudhir Mukherjee
Executive Director (Mining)
Damodar Valley Corporation,
Latchar - 829206.

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कार्यकारी निदेशक (खनन)
EXECUTIVE DIRECTOR (Mining)
लखर घाटी निगम, कोलकाता-54
Damodar Valley Corpn., Kolkata-54

3	FY/34/MIN/2016/72017 [../viewreport.aspx? pid=FY/34/MIN/2016/72017]	MIN/2016/72017/556	MIN/2016/7556/3	Nov-2021	CA: 0- PCA: 0- Safety Zone: 0- NPI: 0- Other Charges: 0- Other Charges: 0- Other Charges: 0- Total: 147510000-	Add CA: 0- CAT: 0- Add PA: 0- SURVEILLANCE AND MONITORING PLAN: 147510000-	Fund Demand Verified by: 13 Feb 2021 Nodal Officer: On	Bank Name: Corporation Bank Mode of Payment: NEFT/RTGS (Challan) Challan Generated: 13 Feb 2021 On Transaction Date: 13 Feb 2021	Demand Letter [../writeasdata/Fundpid/211121201620000000Demand.pdf] Generated Challan [../UserAccount/Nett_ChallanCorp.aspx?pid=MIN/2016/72017/556]
4	FY/34/MIN/2016/72017 [../viewreport.aspx? pid=FY/34/MIN/2016/72017]	MIN/2016/72017/556	MIN/2016/7556/3	Nov-2021	CA: 4000000- PCA: 0- Safety Zone: 0- NPI: 10000000- Other Charges: 0- Other Charges: 0- Other Charges: 0- Total: 24000000-	Add CA: 0- CAT: 0- Add PA: 0- Waste Conservation Plan: 10000000-	Fund Demand Verified by: 19 Dec 2019 Nodal Officer: On	Bank Name: Corporation Bank Mode of Payment: NEFT/RTGS (Challan) Challan Generated: 19 Dec 2019 On Transaction Date: 20 Dec 2019	Demand Letter [../writeasdata/Fundpid/12012019210121012101702000000000letterdate09-12-2019.pdf] Generated Challan [../UserAccount/Nett_ChallanCorp.aspx?pid=MIN/2016/72017/556]

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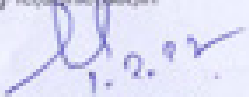
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For any Technical support, Please Contact EFCCD, NIC, New Delhi, monitoring-fc@nic.net.in


सुधीर मुकुर्जी | Sudhir Mukherjee
कार्यकारी निदेशक (उत्खन)
EXECUTIVE DIRECTOR (Mining)
उत्खन खादी निगम, कोलकाता-54
Domodar Valley Corpn., Kolkata-54



18 February, 2020 | User: PADMEB01 | SOL ID: 6082 | Menu Shortcut:

Real Time Gross Settlement System

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Tran ID	8487899339	Tran Date	20-12-2018		

Sender's Correspondent Details

Bank/Branch Code	ISY	KMTT47	ISO Code	UTS08M7747
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Receiver Institution Details

Bank/Branch Code*	IC0496	PO0371	ISO Code	IC0496000371
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Ordering Institution Details

Bank/Branch Code		ISO Code	
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Institution ID		Address 1	
Name		Address 2	
Address 2		Address 3	

Ordering Customer Details

Cust Name*	DAMODAR VALLEY CORPORATION	Address 1*	DVC CENTRAL A/Cs OFFICE
Address 2	DVC POWER BLDG HOOR W/ROAD	Address 2	

Account with Institution Details

Bank/Branch Code		ISO Code	
Institution ID		Address 1	
Name		Address 2	
Address 2		Address 3	

Beneficiary Customer Details

Ac ID*	150725809187608	Address 1*	CORPORATION BANK
Cust Name*	SHARADHANI CAMPA	Address 2	
Address 2		Address 3	

Payment Details

Line 1	Line 2
Line 3	Line 4
Charge Details	

Sender to Receiver Information

Line 1	Line 2
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Sudhir

सुधीर मुखाजी / Sudhir Mukherjee
एग्जीक्यूटिव डायरेक्टर (आरटी), डामोदर
वॉली वैली कॉर्पोरेशन (एन), पूना



18/2/2020
Sudhir

सुधीर मुखाजी / Sudhir Mukherjee
एग्जीक्यूटिव डायरेक्टर (आरटी)
EXECUTIVE DIRECTOR (M-RTGS)
डामोदर वॉली वैली कॉर्पोरेशन-54
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18 February, 2020 | User: PADMIS01 | SOL ID: 0082 | Menu: Showout

Real Time Gross Settlement System

Function	INQUIRY	Message Type	TRF	UTR	UTR0121004000000
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Tran. ID	548789120	Tran. Date	20-02-2020		

General Details

Message Status
 Reject Reason Code
 Rejection Reason
 Message Priority (1-99)
 Value Date
 Dr. Ac. ID
 Cr. Ac. ID
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 Mobile No
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Acknowledgement (amt: 008.001.04)

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18-02-2020

सुधीर मुकुर्जी / Sudhir Mukherjee
 एम एस एफ एम (एफ), डीएन
 एम एस एम १११, फुल

सुधीर मुकुर्जी / Sudhir Mukherjee
 एग्जीक्यूटिव डायरेक्टर (माइनिंग)
 एग्जीक्यूटिव डायरेक्टर (माइनिंग)
 डामोदर घाटी निगम, कोकटा-५४
 Damodar Valley Corpn., Kolkata-54



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No. Tubed/FC/2022/20 -III

Date: 01.02.2022

Annexure- III

UNDERTAKING
TUBED COAL MINE

This is to certify that, Damodar Valley Corporation (DVC), a corporation constituted under DVC Act, 1948 (Act. No. XIV of 1948), undertake to deposit 'the additional amount of the NPV of the diverted forest land, if any, becoming due after finalization of the same by the Hon'ble Supreme Court of India on receipt of the report from the expert committee shall be charged by the state Government from DVC'. This is in connection of the fulfilment of Condition No. iv (b) of the Stage-I Clearance, for diversion of 162.394 ha forest land in Latchar Forest Division, Dist. Latchar, Jharkhand.

Sudhir Mukherjee
Executive Director (Mining)
Damodar Valley Corporation,
Latchar – 829206.

सुधीर मुखाजी / Sudhir Mukherjee
कार्यकारी निदेशक (खनन)
EXECUTIVE DIRECTOR (Mining)
दामोदर घाटी निगम, कोलकाता-54
Damodar Valley Corpn., Kolkata-54




झारखण्ड स्टेट फॉरेस्ट डेवलपमेंट कॉर्पोरेशन लिमिटेड
Jharkhand State Forest Development Corporation Ltd.


(A Corp. of Jharkhand Government)
 (A State Forest Development Corporation, Kolkata)

क्रमांक: 157 दिनांक: 15.02.2020


प्रतिष्ठित: सुधीर मुखर्जी एच नुव्वा अभियन्ता (धातुक) दामोदर घाटी निगम को सूचनाार्थ एवं आवश्यक कार्रवाई हेतु प्रेषित ।


 प्रमोदकुमार दिग्दर्शन,
 लघु वन पदाब्धि परियोजना प्रमोदर,
 दामोदरनिगम।

31


 सुधीर मुखर्जी / Sudhir Mukherjee
 एच नुव्वा अभियन्ता (धातुक) दामोदर
 Dy. Chief Engineer (M), Fuel
 दामोदर घाटी निगम, कोलकाता-54
 Damodar Valley Corpn., Kolkata-54

Account Section


 सुधीर मुखर्जी / Sudhir Mukherjee
 कार्यकारी निदेशक (धातुक)
 EXECUTIVE DIRECTOR (Mining)
 दामोदर घाटी निगम, कोलकाता-54
 Damodar Valley Corpn., Kolkata-54

Final 2019

कार्यालय- प्रमण्डलीय प्रबंधक, लघु वन पथार्थ परियोजना प्रमण्डल, झारखण्ड।

क्रमांक- कोनवार, जिला: दमोडर में 400/220 केलमी पीठ पर स्टेसन निर्माण हेतु अर्जित भूमि में पड़ने वाले पुराने के पातन हेतु सुपरविजन एवं इंजिनियरिंग, डीयू टेन्ट, अग्नि सुरक्षा, प्रकाशक का बीमा आदि राशि का प्रायोजन/नयाधार विवरणी।

क्र.सं.	कार्य विवरणी.	निश्चित दर	अनुमानित मात्रा	कुल	कार्य दर	कुल राशि
		प्रति दिन/घण्टा	घण्टा में		(समकाल में) प्रति ईकाई	
1	डिग्जर कार्यों आदि का इंजिनियरिंग कार्यों।	1.00	15 घण्टा		240.99	3613.00
2	सुपरविजन डिग्जर कार्यों आदि राशि प्रत्येक 0.71 घण्टा।	2.93	15 घण्टा		240.99	10592.00
3	जलसंधारण चट्टा अथवा (22 घण्टा प्रत्येक चट्टा के लिए)	3.92	15 घण्टा		240.99	14170.00
4	पिसली के लिए लॉट निर्माण।	0.9	15 घण्टा		240.99	3253.00
5	सुपरविजन कार्यों का प्रत्येक वर्ष 2018 से विस्तार 2019 तक के लिए।					
	(म) पतन स्थल पर दो दिग्जर के लिए पतन कार्यों के लिए, डीयू में सहायक डीयू को भी पतन कार्यों के लिए, अंततः सहायक में पतन कार्यों के लिए प्रत्येक दिग्जर के लिए पतन कार्यों के लिए (कुल पतन कार्यों)			2x25x3= 104days	104x240.99	25063.00
	(न) पतन कार्यों के लिए राशि @5000/Month					1000.00
	(प) पतन कार्यों के लिए राशि @1000/Month					2000.00
	(क) डीयू कार्यों के लिए राशि @2000/Month					2000.00
	(ख) डीयू कार्यों के लिए राशि @1000/Month					1000.00
6	डीयू टेन्ट @5000/Month					5000.00
7	अग्नि सुरक्षा					1000.00
8	प्रकाशक का बीमा					5000.00
	कुल विवरण प्रत्येक कार्यों के लिए राशि का प्रत्येक					73693.00

[Handwritten Signature]

प्रमण्डलीय प्रबंधक,
लघु वन पथार्थ परियोजना प्रमण्डल,
झारखण्ड।

पुष्पि मुखर्जी / Sudhir Mukherjee
ज्य. प्रमुख इंजीनियर (मै.), डैम
Dy. Chief Engineer (M), Dam
दमोडर घाटी निगम, कोलकाता-54
Damodar Valley Corp., Kolkata-54

[Handwritten Signature]
1.2.24

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पुष्पि मुखर्जी / Sudhir Mukherjee
कार्यकारी निदेशक (खन)।
EXECUTIVE DIRECTOR (Mining)
दमोडर घाटी निगम, कोलकाता-54
Damodar Valley Corp., Kolkata-54



DAMODAR VALLEY CORPORATION
D.V.C. TOWERS, V.I.P. ROAD
KOLKATA - 700 054

Phone: (033) 6607-2338 email: sudhir.mukherjee@dvc.gov.in



No. Tubed/FC/2023/20-(V)

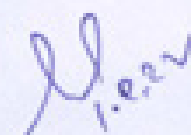
Date: 01.02.2022

Annexure- V

UNDERTAKING

TUBED COAL MINE

This is to certify that, Damodar Valley Corporation (DVC), a corporation constituted under DVC Act, 1948 (Act. No. XIV of 1948), undertake to execute 'the felling of trees within the diverted land, logging and transportation to the depot at its own cost. Depot rent, supervision and handling, fire safety charges, depot insurance etc. will be deposited after receiving the demand from the state government'. This is in connection of the fulfilment of Condition No. V of the Stage-I Clearance, for diversion of 162.394 ha forest land in Latchar Forest Division, Dist. Latchar, Jharkhand.


Sudhir Mukherjee
Executive Director (Mining)
Damodar Valley Corporation,
Latchar - 829206.

सुधीर मुखर्जी / Sudhir Mukherjee
कार्यकारी निदेशक (खनन)
EXECUTIVE DIRECTOR (Mining)
दामोदर घाटी निगम, कोलकाता-54
Damodar Valley Corpn., Kolkata-54



DAMODAR VALLEY CORPORATION
D.V.C. TOWERS, V.I.P. ROAD
KOLKATA - 700 054
Phone: (033) 6607-2338 email: sudhir.mukherjee@dvc.gov.in



No. Tubed/FC/2022/20-(VI)

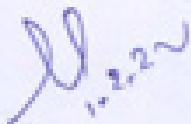
Date: 01.02.2022

Annexure- VI

UNDERTAKING

TUBED COAL MINE

This is to certify that, Damodar Valley Corporation (DVC), a corporation constituted under DVC Act, 1948 (Act. No. XIV of 1948), undertake and ensure that 'all funds shall be transferred / deposited to CAMPA Fund only through e-portal (<https://parivesh.nic.in/>). This is in connection of the fulfilment of Condition No. vi of the Stage-I Clearance, for diversion of 162.394 ha forest land in Latehar Forest Division, Dist. Latehar, Jharkhand.


Sudhir Mukherjee
Executive Director (Mining)
Damodar Valley Corporation,
Latehar - 829206.

सुधीर मुखर्जी / Sudhir Mukherjee
कार्यकारी निदेशक (खनन)
EXECUTIVE DIRECTOR (Mining)
दामोदर घाटी निगम, कोलकाता-54
Damodar Valley Corpn., Kolkata-54



DAMODAR VALLEY CORPORATION
D.V.C. TOWERS, V.I.P. ROAD
KOLKATA - 700 054
Phone: (033) 6607-2338 email: sudhir.mukherjee@dvc.gov.in



No. Tubed/FC/2022/20-(V11)

Date: 01.02.2022
Annexure- VII

UNDERTAKING

TUBED COAL MINE

This is to certify that, Damodar Valley Corporation (DVC), a corporation constituted under DVC Act, 1948 (Act No. XIV of 1948), undertake that 'the boundary of the diverted Forest land, Mining Lease and Safety zone has been demarcated by erecting 4(four) feet high reinforced cement concrete pillars, each inscribed with its serial number, distance from pillar to pillar and GPS coordinates as per the specification laid down in Stage-I Clearance at its own cost and each pillar is clearly visible from adjacent pillars'. If required, additional pillar will be erected as per direction of DFO, Latehar. This is in connection of the fulfilment of Condition No. vii of the Stage-I Clearance, for diversion of 162.394 ha forest land in Latehar Forest Division, Dist. Latehar, Jharkhand.

Sudhir Mukherjee
Executive Director (Mining)
Damodar Valley Corporation,
Latehar - 829206.

सुधीर मुकुर्जी / Sudhir Mukherjee
कार्यकारी निदेशक (खनन)
EXECUTIVE DIRECTOR (Mining)
दामोदर घाटी निगम, कोलकाता-54
Damodar Valley Corpn., Kolkata-54



DAMODAR VALLEY CORPORATION
TUBED COAL MINES
LATEHAR, JHARKHAND
E-mail: sudhir.mukherjee@dvc.gov.in

Annexure - VII

No: Tubed/Forest/Boundary Pillar/2021/120

Date: 23.12.2021

From,

Chief Engineer - I (M)
DVC Tubed Coal Mines,
Latehar, Jharkhand

To,

The Divisional Forest Officer,
Latehar Forest Division,
Govt. Of Jharkhand

Sub.: Diversion of 162.394 Ha of forest land (54.365 Ha Protected Forest Land and 108.029 Ha Jungle -Jhari Land) in favour of Damodar Valley Corporation for Tubed Coal Mining Project in Latehar district in the State of Jharkhand.

Ref.: 1. Letter no.8-23/2019-FC dated 13.11.2019 issued by MoF&CC, Govt.
2. Our Letter no. Tubed/Forest Clearance/2021/86, dated 04.10.2021.

Dear Sir,


This in reference to subject mentioned above.

As intimated earlier out of 18 boundary points (list of co-ordinates enclosed) as per Clause no. VII of Stage I FC, the pillars at 16 points (16 boundary pillars and 16 safety zone pillars) were erected. The pillars at remaining 2 points, i.e., point no 4 & 5 (2 boundary pillars and 2 safety zone pillars) have been erected. Thus condition no. VII of Stage I FC has been complied.

This is for your information and needful please.


Enclosed: as above

Yours sincerely,


Sudhir Mukherjee
Chief Engineer - I (M)
DVC, Tubed Coal Mines.

Copy to: (N.O.O)

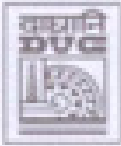
1. The Executive Director (Fuel) DVC Towers, Kolkata - 54.
2. Director Develcto Mining Ltd. Chennai - 600001.


सुधीर मुखर्जी / Sudhir Mukherjee
कार्यकारी निदेशक (खनन)
EXECUTIVE DIRECTOR (Mining)
दामोदर घाटी निगम, कोलकाता-54
Damodar Valley Corps., Kolkata-54

Geo-Referenced Boundary Pillar Co-ordinates of Tubed Coal Block

Pillar no	Easting	Northing	Degree, Minute, Second	
			Latitude	Longitude
1	252215.6608	2637544.694	23° 49' 48.434"N	84° 34' 3.0715"E
2	252667.4451	2637874.831	23° 49' 59.4111"N	84° 34' 18.827"E
3	253089.3124	2638194.842	23° 50' 10.0422"N	84° 34' 33.5329"E
4	253466.5721	2637804.048	23° 49' 57.5556"N	84° 34' 47.0927"E
5	253760.6555	2637499.415	23° 49' 47.8218"N	84° 34' 57.6624"E
6	254410.814	2636773.162	23° 49' 24.5871"N	84° 35' 21.06"E
7	254811.6702	2636325.39	23° 49' 10.2611"N	84° 35' 35.4846"E
8	254859.5866	2636283.255	23° 49' 8.9186"N	84° 35' 37.202"E
9	254514.8039	2636091.833	23° 49' 2.5094"N	84° 35' 25.1413"E
10	253942.5523	2635762.764	23° 48' 51.5023"N	84° 35' 5.1312"E
11	253373.5584	2635338.16	23° 48' 37.3926"N	84° 34' 45.2947"E
12	253141.5756	2635104.336	23° 48' 29.6675"N	84° 34' 37.2442"E
13	253038.3377	2635023.895	23° 48' 26.9969"N	84° 34' 33.6473"E
14	252894.3089	2634958.941	23° 48' 24.8067"N	84° 34' 28.6009"E
15	252645.4415	2635576.655	23° 48' 44.7365"N	84° 34' 19.44"E
16	252436.7816	2636086.72	23° 49' 1.1912"N	84° 34' 11.7633"E
17	252250.1534	2636528.451	23° 49' 15.438"N	84° 34' 4.9054"E
18	252284.0395	2636629.101	23° 49' 18.7268"N	84° 34' 6.0411"E

सुधीर मुखर्जी / Sudhir Mukherjee
 कार्यकारी निदेश (खनन)
 EXECUTIVE DIRECTOR (Mining)
 डामोदर घाटी निगम, कोकता-54
 Damodar Valley Corpn., Kolkata-54



DAMODAR VALLEY CORPORATION
D.V.C. TOWERS, V.I.P. ROAD
KOLKATA - 700 054
Phone: (033) 6607-2338 email: sudhir.mukherjee@dvc.gov.in



No. Tubed/FC/2022/20-(VIII)

Date: 01.02.2022

Annexure- VIII

UNDERTAKING
TUBED COAL MINE

This is to certify that, Damodar Valley Corporation (DVC), a corporation constituted under DVC Act, 1948 (Act. No. XIV of 1948), undertake that 'the period of diversion of 162.394 ha forest land under the approval (F. No. 8-23/2019-FC, Dt. 13.11.2019) shall be for a period co-terminus with the period of mining lease proposed to be granted under the Mines and Minerals (Development & Regulating) Act, 1957, as amended or Rules framed there under, subject to a maximum period of 30 years'. This is in connection of the fulfilment of Condition No. (viii) of the Stage-I Clearance, for diversion of 162.394 ha forest land in Latchar Forest Division, Dist. Latchar, Jharkhand.

Sudhir Mukherjee
Executive Director (Mining)
Damodar Valley Corporation,
Latchar - 829206.

सुधीर मुकुर्जी / Sudhir Mukherjee
कार्यकारी निदेशक (खनन)
EXECUTIVE DIRECTOR (Mining)
दामोदर मणी कॉर्पोरेशन - 54
Damodar Valley Corpn., Kolkata-54



DAMODAR VALLEY CORPORATION
D.V.C. TOWERS, V.I.P. ROAD
KOLKATA - 700 054
Phone: (033) 6607-2338 email: sudhir.mukherjee@dvc.gov.in



No. Tubed/FC/2022/20-(IX)

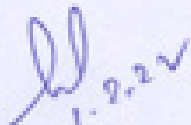
Date: 01.02.2022

Annexure- IX

UNDERTAKING

TUBED COAL MINE

This is to certify that, Damodar Valley Corporation (DVC), a corporation constituted under DVC Act, 1948 (Act No. XIV of 1948), undertake to ensure that the mining operation shall be done in a phased manner as per Approved Mine Plan after taking due care for reclamation of mined over area. The concurrent reclamation Plan as per the approved mining Plan shall be executed by DVC 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 DVC, the Nodal Officer or Chief Conservator of Forest (Central) may direct the mining activities shall remain suspend till such time, such reclamation activities are satisfactorily executed. This is in connection of the fulfilment of Condition No. ix of the Stage-I Clearance, for diversion of 162.394 ha forest land in Latehar Forest Division, Dist. Latehar, Jharkhand.


Sudhir Mukherjee
Executive Director (Mining)
Damodar Valley Corporation,
Latehar - 829206.

सुधीर मुखर्जी / Sudhir Mukherjee
कार्यकारी निदेशक (खनन)
EXECUTIVE DIRECTOR (Mining)
दामोदर घाटी निगम, कोलकाता-54
Damodar Valley Corpn., Kolkata-54



DAMODAR VALLEY CORPORATION
D.V.C. TOWERS, V.I.P. ROAD
KOLKATA - 700 054
Phone: (033) 6607-2338 email: sudhir.mukherjee@dvc.gov.in



No. Tubed/FC/2022/20-(X)

Date: 01.02.2022

Annexure- X

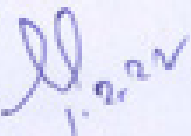
UNDERTAKING

TUBED COAL MINE

This is to certify that, Damodar Valley Corporation (DVC), a corporation constituted under DVC Act, 1948 (Act. No. XIV of 1948), undertake to complete the following activities for the management of Safety Zone. This is in connection of the fulfilment of Condition No. X (a,b,c) of the Stage-I Clearance, for diversion of 162.394 ha forest land in Latehar Forest Division, Dist. Latehar, Jharkhand

- (a) 'DVC shall ensure demarcation of boundary of safety zone (7.5- meter strip all along the inner boundary of the mining lease area), and its protection by erecting adequate number of 4 Feet High RCC boundary pillars inscribed with DGPS coordinates and deploying adequate number of watchers under the supervision of the State Forest Department'.
- (b) 'Proper fencing of the boundary of the safety zone of the lease adjacent to the habitation/roads to protect the vegetation /regeneration activities.
- (c) 'Safety zone shall maintain green belt around the mining lease and ensure dense canopy cover in the area under the supervision of the State Forest Department'.

In this regard, it is to state that Demarcation of boundary of safety zone (7.5-meter strip all along the inner boundary of the mining lease area), and its protection by erecting adequate number of 4 feet high RCC boundary pillars inscribed with DGPS coordinates has been done. If required, additional pillar will be erected as per direction of DFO, Latehar.


Sudhir Mukherjee
Executive Director (Mining)
Damodar Valley Corporation,
Latehar - 829206.

सुधीर मुखर्जी / Sudhir Mukherjee
कार्यकारी निदेशक (खनन)
EXECUTIVE DIRECTOR (Mining)
दामोदर घाटी निगम, कोलकाता-54
Damodar Valley Corpn., Kolkata-54



DAMODAR VALLEY CORPORATION
D.V.C. TOWERS, V.I.P. ROAD
KOLKATA - 700 054
Phone: (033) 6607-2338 email: sudhir.mukherjee@dvc.gov.in



No. Tubed/FC/2022/20

Date: 01.02.2022

Annexure- XI

UNDERTAKING TUBED COAL MINE

This is to certify that, Damodar Valley Corporation (DVC), a corporation constituted under DVC Act, 1948 (Act. No. XIV of 1948), undertake that the following activities will be undertaken at the project cost:

- 'Preparation and implementation of a plan containing appropriate mitigative measures to minimize soil erosion and choking of streams'.
- 'Planting of adequate drought hardy plant species and sowing of seeds in the appropriate area within the mining lease to arrest soil erosion'.
- 'Construction of check dams, retention /sac walls along the contour to arrest sliding down of the excavated material'.
- 'Stabilize the overburden dumps by appropriate grading/benching so as to ensure that that angles of repose at any given place are less than 28°'.
- Strict adherence to the prescribed topsoil management.

This is in connection of the fulfilment of Condition No. xi (a,b,c,d & e) of the Stage-I Clearance, for diversion of 162.394 ha forest land in Latchar Forest Division, Dist. Latchar, Jharkhand.

Sudhir Mukherjee
Executive Director (Mining)
Damodar Valley Corporation,
Latchar - 829206.

सुधीर मुखर्जी / Sudhir Mukherjee
कार्यकारी निदेशक (खनन)
EXECUTIVE DIRECTOR (Mining)
दामोदर घाटी निगम, कोलकाता-54
Damodar Valley Corpn., Kolkata-54



No: Tubed/Forest/2022-1

Dated: 10.01.2022

To
The Divisional Forest officer,
Latehar Forest Division,
Government of Jharkhand.

Sub: Diversion of 162.394 Ha. of Forest Land (54.365 Ha Protected Forest Land and 108.029 Ha Jungle-Jhari Land) in favour of Damodar Valley Corporation for Tubed Coal Mining Project in Latehar District in the State of Jharkhand.
[Proposal No. FP/JH/MIN/29167/2017]

Ref: i) Letter no. 8-23/2019-FC dated 13.11.2019 issued by MoEF&CC, Gol
ii) Our Letter No. HQ/Mining/Tubed/FC/193 dated: 13.02.2020.
iii) Letter No: File No. 8-23/2019-FC dated.10.09.2021 by MoEF&CC, Gol
iv) PCCF Letter no. 27 dated.06.01.2022

Dear Sir,

This is reference to the above subject.

The "in-principle" approval (Stage-I) was accorded by MoEF&CC,Gol for diversion of 162.394 Ha. of forest land in favour of DVC for Tubed Coal Mining subject to fulfilment of conditions as detailed in the approval letter dated 13.11.2019 (Ref (i) above). DVC submitted compliances to these conditions vide letter dated 13.02.2020 (Ref (ii) above).

Regarding the letter under reference (iii) this is to state that for the condition no. (xi) (a) to (e) of FC Stage-I, DVC had already submitted the Schemes for these activities and-an Undertaking for its execution. It is to submit that the Schemes as submitted have been approved by the competent authority of DVC.

In this respect, it is to mention here that the schemes are already covered under the Mine Closure Plan(MCP) (including cost thereagainst), which has been approved by Ministry of Coal, Government of India in August 2011 in favour of M/s Tubed Coal Mines Limited (Annexure-I). The approved MCP was transferred to DVC from M/s TCML along with the Allotment Order for Tubed Coal Mine on 07.10.2016(Annexure-II). DVC has also opened an Escrow Account and executed Escrow Account Agreement with the Coal Controller Organisation, Ministry of Coal, Gol. The agreement is towards commitment of DVC to implement the activities & to bear the cost thereof as mentioned in approved MCP (Annexure-III).

As per the letter under reference (iv) the CAT Plan has been approval by Competent Authority, Forest Department, Govt. of Jharkhand

In view of above, it is kindly requested to forward the compliance of the condition no. (xi) (a) to (e) & (xix) for issuance of Forest Clearance Stage-II in respect of Tubed Coal Mine.

Enclosures: Annexure-I to III

Yours Faithfully,

सुधीर मुखर्जी / Sudhir Mukherjee
कार्यकारी निदेशक (खनन)
EXECUTIVE DIRECTOR (Mining)
डामोदर घाटी लिमिटेड, कोलकाता-54
Damodar Valley Corpn., Kolkata-54

(Sudhir Mukherjee)
Chief Engineer (M), Mining
Camp Latehar.

सुधीर मुखर्जी / Sudhir Mukherjee
मुख्य अभियंता (M) खनन
Chief Engineer (M) (M)
डामोदर घाटी लिमिटेड, कोलकाता-54
Damodar Valley Corpn., Kolkata-54

Shastri Bhavan
New Delhi, the 10th August, 2011

To

✓
Shri Lakshmi Narayana, CEO,
M/s Tubed Coal Mines Limited,
Century Bhavan, 3rd Floor Worli,
Mumbai 400025.
(Fax : 91-022-24227596)


Subject : Approval of Mine Closure Plan (March 2011) for Tubed Coal Block of
Auranga Coalfields, District Lohardaga, Jharkhand, of M/s Tubed Coal Mines
Limited.

Sir,

I am directed to refer to your letter No.TCML/Frog.letter/PMCP/266 dated 16-03-2011
on the subject mentioned above and to say that the Mine Closure Plan (March 2011) to be
read along with the party's letter dated 16-03-2011 and 31-05-2011 has been considered by
the Standing Committee and the approval of the Central Government is hereby conveyed
under Section 5(2)(b) of the Mines & Minerals (Development & Regulation) Act, 1957 subject
to the following conditions:

- (i) The mining company shall take all necessary precautions regarding safety of
mine workings, persons deployed therein during the implementation of the Mine
Closure Plan;
- (ii) The approval of the mine closure plan is without prejudice to the requirement of
approvals from competent/prescribed authority under the relevant
rules/regulations, etc.


Two copies of the approved Mine Closure Plan duly signed by the competent
authority are returned herewith with request that a copy of the approved Mine Closure Plan
may be submitted to concerned State Government for necessary action and also a
photocopy of the approved Mine Closure plan may be sent to the Coal Controller for the
purpose of monitoring.



(Sandeep Gupta)
Under Secretary (CPAM)
Tele : 011 23073834
Fax : 011 23387736

Encls : as above

Copy to : (i) The Under Secretary (CA-I), As directed by Chairman, Standing Committee,
approval of the Central Govt. in respect of the aforesaid Mine Closure Plan has
been conveyed to M/s Tubed Coal Mines Limited. The relevant File
No.13016/19/2009/CA-I [C-12035] along with one copy of the approved Mine
Closure Plan (March 2011) and company's letters dated 16-03-2011 and 31-05-
2011 is forwarded herewith.

(ii) The Director, Coal Controller, 1-Council House Street, Kolkata.


सुधीर मुकुर्जी / Sudhir Mukherjee
कार्यकारी निदेशक (खन) /
EXECUTIVE DIRECTOR (Mining)
दामोदर घाटी निगम, कोलकाता-54
Damodar Valley Corpn., Kolkata-54


Chief Engineer
Kolkata-54

Government of India
Ministry of Coal
O/o the Nominated Authority

World Trade Centre, New Delhi

Office of the Nominated Authority constituted under section 6 of the Coal Mines (Special Provisions) Act, 2015.

Allotment order under clause (c) of sub-rule (2) of rule 7 and sub-rule (1) of rule 13

In re: Tubed Coal Mine (the "mine") particulars of which is specified in Annexure I

Order no.: 103/04/2016/NA

Date: October 07, 2016

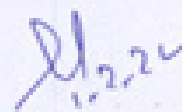
In favour of: Damodar Valley Corporation incorporated in India under the DVC Act, 1948, whose head office is at Damodar Valley Corporation, DVC Towers, VIP Road, Kolkata - 700054, India (the "Allottee")

For utilisation in: End Use Plant situated at (i) Durlavpur, PO: MTPS, Bankura, West Bengal-722183 and (ii) Chandrapura, Bokaro, Jharkhand-825303, India as more particularly described below (the "End Use Plant")

S. No.	Name of Specified End Use Plant	Address	Configuration (MW*)	Capacity * (MW*)
1	Mejia Thermal Power Station (MTPS) Unit-7&8	Mejia Thermal Power Station, Durlavpur, PO: MTPS, District: Bankura West Bengal-722183	2x500 MW	1000MW
2	Chandrapura Thermal Power Station (CTPS) Unit-8	Chandrapura Thermal Power Station, Chandrapura, District: Bokaro Jharkhand-825303	1x250MW	250MW

*MW: Mega Watt

WHEREAS, the Central Government vide order dated June 08, 2016 has directed the Nominated Authority to issue the Allotment Order for allotment of the mine, in accordance with the provisions the Coal Mines (Special Provisions) Act, 2015 (the "Act") and sub-clause (ii) of clause (a) of sub-rule (2) of rule 8 read with sub-rule (1) and sub-rule (10) of rule 11 of the Coal Mines (Special Provisions) Rules 2014 (the "rules");


सुधीर मुखर्जी / Sudhir Mukherjee
कार्यकारी निदेशक (खनन)
EXECUTIVE DIRECTOR (Mining)
डामोदर घाटी निगम, कोलकाता-54
Damodar Valley Corpn., Kolkata-54

AND WHEREAS the allottee is eligible to receive this allotment order with respect to the mine, including, inter-alia -

- (a) the coal bearing land acquired by the prior allottee and the lands, in or adjacent to the coal mines used for coal mining operations acquired by the prior allottee; and
- (b) any existing mine infrastructure as defined in clause (j) of sub-section (1) of section 3 of the Act;

AND WHEREAS the allottee has furnished a performance bank guarantee dated September 21, 2016 for an amount equal to INR 123,84,00,000.00 (Indian Rupees One Hundred Twenty Three Crore and Eighty Four Lakh) issued by Punjab National Bank in accordance with the provisions of sub-section (6) and sub-section (12) of section 8 of the Act;

AND WHEREAS the allottee has entered into an Allotment Agreement dated September 08, 2016 (as amended) with the Nominated Authority in accordance with the provisions of sub-rule (5) of rule 13.

NOW, THE NOMINATED AUTHORITY DOES ORDER:

1. On and from October 07, 2016 ("allotment date") and in accordance with sub-section (4) of section 8 read with sub-section (12) section 8 of the Act, with respect to the mine, the following shall stand fully and absolutely transferred and vested in the allottee, namely: -
 - (a) all the rights, title and interest of the prior allottee in and over the land and mine infrastructure free from all encumbrances;
 - (b) entitlement to a mining lease to be granted by the State Government with the terms and conditions of the Allotment Agreement forming a part of it on making an application;
 - (c) all statutory licences, permits, permissions, approvals or consents as per rules, required to undertake coal mining operations in the mine, if already issued by the Central Government, to the prior allottee on the same terms and conditions as were applicable to the prior allottee, as listed in the Annexure 2;
 - (d) entitlement to any statutory licence, permit, permission, approval or consent required to undertake coal mining operations in the mine, if already issued by the Central Government, to the prior allottee on making an application on the same terms and conditions as were applicable to the prior allottee, as listed in the Annexure 3;
 - (e) entitlement to any statutory licence, permit, permission, approval or consent required to undertake coal mining operations in the mine, if already issued by the State Government, to the prior allottee on making an application on the same terms and conditions as were applicable to the prior allottee, as listed in the Annexure 4;
 - (f) rights appurtenant to the approved mining plan of the prior allottee;

शुद्धी / सुधरी
कार्यकारी निदेशक (खनन)
दामोदर घाटी कोयला निदेशक
कोयला विभाग
कोलकाता-54

शुद्धी / सुधरी / Sudhir Mukherjee
कार्यकारी निदेशक (खनन)
EXECUTIVE DIRECTOR (Mining)
दामोदर घाटी कोयला, कोलकाता-54
Damodar Valley Corpn., Kolkata-54

Annexure 2: Particulars of statutory licences, permits, permissions, approvals or consents issued by the Central Government which are being transferred along with this Allotment Order.

S. No	Statutory Clearance	Ministry/ Agency	Letter No.	Date
1.	Approval of Mining Plan	Ministry of Coal	No.13016/19/2009- CA-I	12.10.2009
	Mine Closure Plan		No. 34011-03- 2011-CPAM	10.08.2011
2.	Mining Lease – Administrative Approval of the Central Government under Section 5 (1) and/ or Section 6 (1) of MMDR Act, 1957	Ministry of Coal	No. 13016/19/2009- CA-I	28.03.2012

- (g) any subsisting contract in relation to coal mining operations, to which the prior allottee was a party and which is assumed, adopted and continued by the Allottee and listed in the Annexure 5 shall stand novated (by virtue of a deemed consent from the relevant party(ies)), in accordance with the provisions of sub-section (1) of section 11 of the Act in favour of the allottee for the residual term or residual performance of such contract;
2. The Allottee may seek any change in the terms and conditions attached to such licence, permit, permission, approval or consent by making an application in accordance with applicable laws;
 3. Hereinafter, the Allottee shall be entitled to take possession of the mine as specified in Annexure-1 without let or hindrance;
 4. This allotment order is liable to be cancelled in accordance with the provisions of sub-rule (6) of rule 13.

Vivek Bhattacharya
.....
(By the Nominated Authority)



[Handwritten signature]
.....
State Coal Mine Directorate
West Bengal, India

[Handwritten signature]
.....
सुधीर मुखर्जी / Sudhir Mukherjee
कार्यकारी निदेशक (खन) /
EXECUTIVE DIRECTOR (Mining)
दामोदर घाटी निगम, कोलकाता-54
Damodar Valley Corpn., Kolkata-54



पश्चिम बंगाल पश्चिम बंगाल WEST BENGAL

AG 362038

ESCROW ACCOUNT AGREEMENT FOR COAL/LIGNITE MINE VESTED/ALLOTTED AS PER THE COAL MINES (SPECIAL PROVISIONS) ACT, 2015 / MINES AND MINERALS (DEVELOPMENT AND REGULATION) ACT, 1957 / ANY OTHER ACT.

This agreement is being executed amongst Damodar Valley Corporation (Coal/Lignite Mining Company) vested/allotted vide letter no. 103/04/2016/NA dated October 07, 2016 of Nominated Authority, for its Tubed Coal Mine (Name of Coal/Lignite Block/Mine) with Coal Controller's Organization & Bank.

This Escrow Account Agreement is made on 11th day of August 2024 at Kolkata.

I) Damodar Valley Corporation, a corporation constituted under the Damodar Valley Corporation Act, 1948, having its Head office at DVC Towers, V.I.P. Road, Ultadanga, Kolkata - 700054 and site office at Tubed Coal Mine, At & P.O. Latchar, District-Latchar, Jharkhand, hereinafter called a mining company or lease or mine owner which expression shall unless repugnant to the subject or context thereof includes, its successors and permitted assigns. Duly authorized person is Sri Jagdish Kumar Mondal Designation Chief Engineer (Mining) Board Resolution No. Authorization No. is AS/RC/Proc/E-17/432 dated 05/09/2021

Mondal
11.8.24
श्री जगदीश कुमार (एम) डी. चीफ इंजीनियर (मिनिंग) एलएच एंड फ्लो डामोदर वैली कॉर्पोरेशन कलकत्ता-54

श्री जगदीश कुमार (एम) डी. चीफ इंजीनियर (मिनिंग) एलएच एंड फ्लो डामोदर वैली कॉर्पोरेशन कलकत्ता-54

Sandhu
श्री जगदीश कुमार (एम) डी. चीफ इंजीनियर (मिनिंग) एलएच एंड फ्लो डामोदर वैली कॉर्पोरेशन कलकत्ता-54

Mukherjee
11.8.24
सुधीर मुखर्जी / Sudhir Mukherjee
कार्यकारी निदेशक (मिनिंग)
EXECUTIVE DIRECTOR (Mining)
डामोदर वैली कॉर्पोरेशन, कलकत्ता-54
Damodar Valley Corpn., Kolkata-54

AND

2) The President of India acting through Coal Controller's Organisation, Government of India, Ministry of Coal having its office at 1, Council House Street, Kolkata, hereinafter called the Coal Controller's Organisation which expression shall unless repugnant to the subject or context thereof include its successors and permitted assigns.

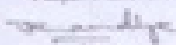
AND

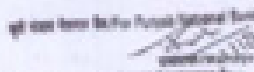
3) Punjab National Bank, a Scheduled bank having its H.O. at Dwarka Sector 10, New Delhi - 110075 & Branch Office at Large Corporate Branch, United Towers, 11 Hermata Bose Sarani, 1st floor, Kolkata 700001, hereinafter called the "Escrow Agent" which expression shall, unless repugnant to the subject or context thereof include its successors and assigns. Duty authorized person is Sri Pawan Kumar Mishra, Designation Manager and authorization No. is 2147/2001-02, Dated 11.08.2004

Each of the parties mentioned hereinabove, hereinafter collectively referred to as parties and individually as party.

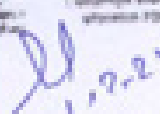
1. Whereas

- a) As per Office Memorandum No. 34011/28/2019-CP&M dated 29th May, 2020, the guidelines for formulation of Mining Plan and Mine Closure Plan has been amended. It has been decided by the Government that all coal (including lignite) mining operations in India shall henceforth be governed as per modified guidelines.
- b) The Mining Company/ Mine Owner as a part of Financial Assurance will open a Fixed Deposit Escrow Account with any Scheduled Bank and Coal Controller's Organisation (on behalf of the Central Government) as exclusive beneficiary, prior to commencement of any activity on the land/project area of the mine and shall submit the same to Coal Controller's Organisation (CCO) before the permission is given for opening the mine. The mining companies/owners including all public sector undertakings shall deposit the yearly amount in a scheduled bank. If the mine owners fail to deposit the required annual amount in accordance with years 2.6, 2.7 and 2.8 of the Old dated 29.05.2020, the Government can withdraw the mining permission.
- c) Up to 50% of the total deposited amount including interest accrued in the Escrow Account may be released after every 3 years in the line with the periodic examination of the closure plan as per clause 2.2 of the guidelines. The amount released should be equal to the expenditure incurred in the Progressive Mine Closure in the past 3 years or 50% whichever is less. The balance amount shall be released to mine owner/lease holder at the end of the final mine closure on compliance of all provisions of closure plan. This compliance report should be duly signed by the lessee and certify that said closure of mine complied all statutory rules, regulations, orders made by the Central or State Government, statutory organizations, court etc. and certified by the Coal Controller.
- d) If the Coal Controller has reasonable grounds for believing that the protective, reclamation and rehabilitation measures as envisaged in the approved mine closure plan in respect of which financial assurance was given has not been or will not be carried out in accordance with mine closure plan, either fully or partially, the Coal controller shall give the mine owner a written notice of his intention to issue the orders for withdrawing the sum accrued at least thirty days prior to the date of the order to be issued after giving an opportunity to be heard.
- e) Parties now have agreed to establish an Escrow Account/Arrangements and engage an Escrow Agent to act in connection with the said deposits and withdrawal in the said Escrow account on the terms and conditions contained herein. Whereas Damodar Valley Corporation (the Mining Company) has approached Punjab National Bank, a scheduled Bank under Schedule B of the RBI Act, 1934 for opening such Escrow Accounts and Punjab National Bank has agreed for the same.


S. S. 1
As per order (copy)
of the Coal Controller (Mining)
withd. with file
Damodar Valley Corporation
W/O/MS/2020-21


Punjab National Bank
Large Corporate B.
Operating 24/7hrs. 11, Beant Park, Sector-10,
Dwarka (N. E. 2), New Delhi - 110075


Asstt. Secy (Coal Controller)
with order (Government of India)
withd. with file of C
withd. with file of C, Controller, 11, Council
House Street Kolkata - 700001


सुधीर मुखर्जी / Sudhir Mukherjee
कार्यकारी निदेशक (खन) /
EXECUTIVE DIRECTOR (Mining)
दामोदर घाटी निगम, कोलकाता-54
Damodar Valley Corp., Kolkata-54

NOW, IT IS HEREBY AGREED BY AND AMONGST THE PARTIES AS FOLLOWS:

II. Appointment of Escrow Agent:

- a) The parties (Other than the Escrow Agent) hereby appoint Punjab National Bank, as Escrow Agent to act subject to and in accordance with the terms and conditions set out in this agreement.
- b) In its performance of its duties under this agreement, the Escrow Agent shall be entitled to rely upon any documents, instruments, or signatures believed by it in good faith to be genuine & signed by an authorized signatory of any parties hereto and shall not be required to investigate the truth or accuracy of any statement contained in such document or instrument. The Escrow Agent may assume that any person purporting to give any notice in accordance with the provision hereof has been duly authorized to do so.
- c) The party shall jointly and severally indemnify & hold harmless the Escrow Agent from and against all claims, actions, demands, liabilities, proceedings or judgments which the Escrow Agent may incur or suffer or may be brought against Escrow Agent and from and against all losses, costs, charges, liabilities, and expenses reasonably incurred in connection with the performance by the Escrow Agent of its duties under or in connection with this agreement save where there is gross negligence or willful misconduct or willful disregard of the terms of this agreement and the part of the Escrow Agent.
- d) The Escrow Agent will act in terms of the agreement, only if sufficient funds are available in the escrow account for discharging its obligation as Escrow Agent.

Establishment of Escrow Account

- a) The Mining Company shall open an Escrow Account (Fixed Deposit) with Punjab National Bank under the title "Mine-Closure Escrow A/c No. 1721202100000015", the Coal Controller's Organization being the exclusive beneficiary. The Coal Controller will have the authority to write to the Bank to freeze operation in the said Escrow A/c without the concurrence of the mining company & the said decision of the Coal Controller will be binding on the mining company and mining company cannot have any objection on the same.
- b) The opening, operation of Escrow Account, deposit and withdrawal of money from the said account shall be in accordance with this agreement.
- c) The parties agree (other than the Escrow Agent) that all rights, title and interest in and to the Escrow Account shall be vested in the Escrow Agent and shall be in trust for the parties.
- d) The Escrow Account will be operated as per direction of Coal Controller by the authorized signatories of the Company.
- e) For any avoidance of the doubts, it is made clear that all money held by the Escrow Agent/Designated Bank shall not be considered as part of the personal assets of the Escrow Agent/Designated Bank.
- f) In the event of any deviation in the withdrawals, the parties shall communicate the same in writing to the Escrow Agent.
- g) Up to 50% of the total deposited amount including interest accrued in the Escrow Account may be released after every 3 years in the line with the periodic examination of the closure plan as per clause 2.2 of the Office Memorandum dated 29.05.2020. The amount released should be equal to the expenditure incurred in the Progressive Mine Closure in the past 3 years or 50% whichever is less. The balance amount at the end of the Final Mine Closure shall be released to the Mine Owners/Leaseholder on compliance of all provisions of closure plan duly signed by the Lessee to the effect

Sudhir
 Jointed Coal Controller
 Office: Coal Controller's Organization
 1st Floor, 1st Cross, 1st Main Road, 1st Stage
 K. R. Puram, Bangalore - 560075
 Telephone: 080-26114000-008 (08)

[Signature]
 Jointed Coal Controller
 Office: Coal Controller's Organization
 1st Floor, 1st Cross, 1st Main Road, 1st Stage
 K. R. Puram, Bangalore - 560075
 Telephone: 080-26114000-008 (08)

[Signature]
 Jointed Coal Controller
 Office: Coal Controller's Organization
 1st Floor, 1st Cross, 1st Main Road, 1st Stage
 K. R. Puram, Bangalore - 560075
 Telephone: 080-26114000-008 (08)

[Signature]
 12.24

सुधीर मुखर्जी / Sudhir Mukherjee
 कार्यकारी निदेशक (खन) /
 EXECUTIVE DIRECTOR (Mining)
 दामोदर घाटी निगम, कोकटा-54
 Damodar Valley Corpn., Kolkata-54

that said closure of mine complied all statutory rules, regulations, orders made by the Central or State Government, statutory organizations, court etc. and certified by the Coal Controller.

- h) Interest will be paid as per the terms and conditions of the scheduled bank.
- i) Income Tax: Tax will be deducted at source as per Income Tax Act. The Mining Company shall not charge the funds kept in the term deposits in escrow accounts by way of assignment / lien / hypothecation to secure any loan/advance/credit facilities taken / to be taken by the mining Company.

IV. Operation of Escrow Account.

A. Deposit

- a) The Escrow Account shall continue as a fixed deposit account subject to withdrawal of 50% of total deposited amount including interest accrued in the Escrow Account after 2 years of every deposit in line with the periodic examination of the closure plan. The balance amount shall be released to the mine owner/leaseholder at the end of the final Mine Closure on compliance of all provision of closure Plan.
- b) The Damodar Valley Corporation (Mining Company) shall cause deposit in such "Escrow Account" in the following manner on yearly basis as per approved Mining Plan/Mine Closure Plan or would be communicated by the Coal Controller from time to time to it.
- c) The payment shall be made by RTGS/NEFT/DEMAND DRAFT/PAY ORDER.
- d) Rs. Nine lakh per hectare of the total project area in case of OC mines at current price level (01.04.2019) subject to modification based on the wholesale price index (WPI) as notified by the Government of India from time to time. However, in no case the rate shall be less than Rs. Nine lakh per Hectare.
- e) Rs. One lakh fifty thousand per hectare for UG project area, at current price level of (01.04.2019) subject to modification based on the wholesale price index as notified by the Government of India from time to time. However, in no case the rate shall be less than Rs. One lakh fifty thousand per Hectare.
- f) Annual Closure Cost is to be computed on the total Project Area over and above the aforesaid rate per hectare and dividing the same by the entire life of the mine in years for new projects and balance life of mine in years for operating /existing mines is to be deposited each year by the said company (Damodar Valley Corporation, the mining company) throughout the life of the mine compounded at the rate of 3% annually.
- g) An amount equal to the annual cost is to be deposited each year throughout the life of the mine compounded at the rate of 3% annually.
- h) The Closure Cost may change subject to Government of India's Notification from time to time.
- i) If the Mine owners fail to deposit the annual amount required to be deposited, the Government can withdraw the mining permission.
- j) It is to be clearly understood that the fund so generated are towards the security to cover the cost of closure in case the mine owner fails to complete the relevant closure activities. The prime responsibility of mine closure shall always lie with the mine owner, and in case the funds so generated are found to be insufficient to cover the cost of final mine closure, the mine owner shall undertake to provide the additional fund equivalent to the gap in funding before five years of Mine Closure falling which it may be recovered by such other methods as the competent authority may deem fit in this regard.

Sanku
 Mining Company / Coal Controller
 only subject to Government of India
 approval. Ministry of Coal
 (Coalfield Development & Mining)
 (Minister's office) (Coal) House No. 1
 (Sector 10B 05) Kolkata-700 061

अपने बैंक खाते में प्रत्येक वर्ष निम्नलिखित राशि जमा कराना है।
 (अनुसूचित दर पर) (अनुसूचित दर पर)
 (अनुसूचित दर पर) (अनुसूचित दर पर)
 (अनुसूचित दर पर) (अनुसूचित दर पर)

Sanku
 in the office of
 Coal Controller
 Damodar Valley Corporation
 Kolkata-700 061

Sudhir Mukherjee

सुधीर मुखर्जी / Sudhir Mukherjee
 कार्यकारी निदेशक (खन)
 EXECUTIVE DIRECTOR (Mining)
 दामोदर घाटी निगम, कोलकाता-54
 Damodar Valley Corpn., Kolkata-54

identify a successor Escrow Agent within the above-mentioned 30 days, the Escrow Agent, Punjab National Bank, shall by itself appoint a successor as Escrow Agent.

- d) If the Escrow Agent resigns in accordance with the agreement, then Coal Controller's Organisation shall appoint a successor as Escrow Agent in consultation with the Coal Mining Company.
- e) If the Escrow Agent resigns or is replaced pursuant to this agreement, such Escrow Agent shall do all necessary acts for the transfer of the Escrow account to the successor Escrow Agent.
- f) The fees for the service rendered if any by the Escrow Agent shall be in accordance with the letter to be exchanged between the Escrow Agent, the Coal Controller's Organisation and Coal Mining Company.

VII. Amendment of the Agreement

This agreement may be altered, amended, modified or revoked with the compliance of Section 62 of the Indian Contract Act, 1872

Notices

All notices or other communications to be given under this agreement shall be made in writing to:

Damodar Valley Corporation (Mining Company),
 Address: DVC Towers, VIP Road, Udhanga, Kolkata - 700034
 Tel: 033-66072338
 Fax:

B. Coal Controller's Organisation,
 Address: 1, Council House Street, Kolkata - 700001.
 Tel: 033 2248 9613-16.
 Fax: 033 2248 2459.

C. Escrow Agent,
 Address: Punjab National Bank, Large Corporate Branch, United Tower,
 11 Hemanta Bose Sarani, Kolkata 700001
 Tel: 033-22624189
 Fax:

VIII. Governing Law & Jurisdiction

- a. Any dispute connected with this agreement shall be governed in accordance with Section 27 (4) of the Coal Mines (Special Provisions) Act, 2015, and other relevant Acts/Rules and OMs applicable. Supreme Court of India and High Court of Kolkata shall have the jurisdiction, power or authority in relation to matters connected with the Act.

IX. Whole Agreement & Variation

- a. This agreement together with the schedules hereto contains the whole agreement between the parties relating to the rights and obligations in relation to the subject matter of the agreement.

Invalidity

- a. If any term or provision in this agreement is held to be illegal or unenforceable in whole or in part, under any enactment or rule of law, such term or provision or part to that extent will be deemed not to form part of this agreement, but the enforceability of the remainder of the agreement will not be affected.

Sudhir Mukherjee
 Director (Mining) (Coal Controller's Organisation)
 Coal Controller's Organisation
 1, Council House Street, Kolkata - 700001

Sudhir Mukherjee
 Director (Mining) (Coal Controller's Organisation)
 Coal Controller's Organisation
 1, Council House Street, Kolkata - 700001

Sudhir Mukherjee
 Director (Mining) (Coal Controller's Organisation)
 Coal Controller's Organisation
 1, Council House Street, Kolkata - 700001

Sudhir Mukherjee

सुधीर मुखर्जी : Sudhir Mukherjee
 कार्यकारी निदेशक (खन) /
 EXECUTIVE DIRECTOR (Mining)
 दामोदर घाटी निगम, कोलकाता-54
 Damodar Valley Corpn., Kolkata-54

XII. Counterparts

a. This agreement may be entered into in any number of counterparts and the parties of it on separate counterpart each of which when so executed and delivered will be in original, but all the counterparts will together constitute one and the same instrument.

XIII. No Waiver

a. No failure to exercise or delay in exercising any right or remedy under this agreement by any party will operate as a waiver of any other right or remedy hereunder, nor will any single or partial exercise of such right or remedy preclude any further exercise thereof or of any other right or remedy which such party may have in this agreement.

XIV. Rights Cumulative

a. The rights and remedies provided herein are cumulative and not exclusive of any rights and remedies provided by law in equity or otherwise.

XV. Rights of Third Parties

a. For the avoidance of doubts, this agreement does not and shall not confer rights upon a person which is not a party to this agreement.

In witness of which the parties have executed the agreement on 11th day of August 2021 as mentioned above for Tubed Coal mine/block bearing "Mine-Closure Entry A/c No. 1721202100000015".

SIGNED AND DELIVERED BY

WITNESSES

[Signature]
(Damodar Valley Corporation)

By
Name: **JAGESH KUNAR MANDYE**
Designation: **By. Chief Engineer (Mining)**
Dr. Chief Engineer (Mining)
SP-11 (M)
Damodar Valley Corporation
Kolkata - 700 054

[Signature]
11.08.21
Bhupen Das
Executive Engineer (Mining)
Executive Engineer (Mining)
Kolkata - 700 054, Damodar
Damodar Valley Corporation, Kolkata

(Coal Controller Organization)

By
Name: **MR. SANTOSH**
Designation: **COAL CONTROLLER**

[Signature]
Joint State Coal Committee
170, 171 & 172 (Government of India
Block - 170) Ministry of Coal
1, Dalhousie Street, Kolkata - 700 001
Telephone: 700 001 / 700 002 / 700 003

[Signature]
11/08/21

SIGNED AND DELIVERED BY

[Signature]
(Punjab National Bank)

By
Name: **Pawan Kumar**
Designation: **Manager**

[Signature]
11/08/21

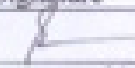


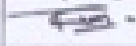

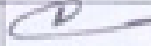
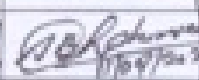
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सुधीर मुखर्जी / Sudhir Mukherjee
कार्यकारी निदेशक (खन)
EXECUTIVE DIRECTOR (Mining)
दामोदर घाटी निगम, कोलकाता-54
Damodar Valley Corpn., Kolkata-54

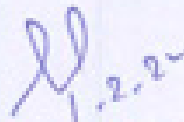
Attendance Sheet

Date:- 11.08.2021

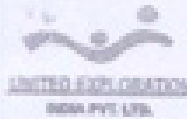
List of Participants who attended signing of Escrow Account Agreement on 11.08.2021 in respect of T&BFD.....Coal mine of ...DVC.....

Sl. No.	Name	Designation	Mobile No/Email	Signature
1.	Mr. SANTOSH	Coal Controller		
2.	SAGUN KUMAR MAUNDIYE	Chief Engineer (Mining)	9910400893 3-9822000000	
3.	Bitapan Das	Executive Engg. (Mining)	9475171908 bitapan.das@dvc.co.in	
4.	Pooja K. Mishra	Manager (HR)	702476000	
5.	Rita Gupta	Officer (HR)	921544088	
6.	NITESH K.R.	AH(F)	9522871751	
7.	Surya Chakravarti	Assistant Director	9312693655 Abalokchoudhary	

* LCB8143@DVC.co.in


2.2

सुधीर मुखर्जी / Sudhir Mukherjee
कार्यकारी निदेशक (खन) /
EXECUTIVE DIRECTOR (Mining)
दामोदर घाटी निगम, कोलकाता-54
Damodar Valley Corpn., Kolkata-54



UNITED EXPLORATION INDIA PVT. LTD.

Annexure - I

Letter No. UEIPL/MCP-ESCROW/DVC-Tubed/02-2021 (Rev.)
Date: 19-07-2021

To,
Mr. Sudhir Mukherjee
Chief Engineer (M), Mining
Damodar Valley Corporation
DVC Tower, VIP Road,
Kolkata - 700 054.

Subject: Revised Mine Closure Cost with respect to WPI-July, 2021 for Tubed Coal Project, Damodar Valley Corporation.

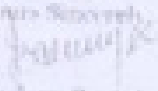
Reference: Your Letter No. HQ/Mining/Tubed/ Escrow Account/49 dt. 22nd of April, 2021 and Letter issued by the Office of Coal Controller Vide No. CC/MCPS/DVC /Tubed/2021-22/463, dt. 1st April, 2021.

Dear Sir,


With reference to the above subject, for revision in closure cost estimation with respect to Latest WPI (July, 2021 - Final for the Month of April, 2021) for Tubed Coal Project, we are hereby enclosing the same for your reference and onward submission at office of the Coal Controller after duly signed by the Nominated Owner/Agent.

This revised closure cost estimation and certification has been done in a capacity of the Project Coordinator of United Exploration India Private Limited (Nabet Certificate no. NABET/APA-MPPA/1A/006).

Kindly acknowledge the receipt of this correspondence.

Thanking you,
Yours Sincerely,

Anoop Basu






19-07-2021
10:20 AM
19-07-2021

Enclosures:

1. Revised Mine Closure Cost and Schedule of Deposit - Enclosure-I.
2. MHL-Press Release- EA, dt. 14th July, 2021. Enclosure-II.
3. Approved Mine Closure Cost & Schedule. Enclosure-III.
4. NABET Certificate - United Exploration India Pvt. Ltd. Enclosure-IV.
5. UCI- NABET - List of Experts - Annexure II. Enclosure-V.

Tower 2A, 5th Floor, Action Area 2, Ecospace Business Park, Rajarhat, New Town, Kolkata - 700 156
E-mail: info@unitedexploration.co.in, Phone : 033 4800 1315
GIN : U14220WB2014PTC204104.


Sudhir Mukherjee
Chief Engineer (M), Mining
Damodar Valley Corporation
DVC Tower, VIP Road,
Kolkata - 700 054.


सुधीर मुखाजी / Sudhir Mukherjee
कार्यकारी निदेशक (खनन)
EXECUTIVE DIRECTOR (Mining)
दामोदर घाटी निगम, कोलकाता-54
Damodar Valley Corpn., Kolkata-54.

Revised Mine Closure Cost
Tubed Coal Mines.
DVC, Latehar.

Enclosure-I

**Revised Mine Closure Cost Estimation
Project - Tubed Coal Mining Project
DVC, Latehar, Jharkhand.**

The revised estimation of the Closure Cost has been carried out with respect to WPI for the Month of April, 2021 (Press Release: EA: dt. 14.07.2021). The rate of Mine Closure cost comes to Rs. 9.80 Lakhs/ha against the base rate of Rs. 9.0 Lakhs published in the Ministry of Coal's guideline Dt. 29th May, 2020 vide No. 34011/28/2019-CPAM. The mine closure cost as per the approved Mine Closure Plan of Tubed coal Mining Project was based on Rs. 6.656 Lakhs/ha. The revised total closure cost with compounding @5% on annual basis comes to Rs. 86.15 crores against the total closure cost of Rs. 58.45 Crores as per approved Mine Closure Plan.

The detail calculation of revised Closure Cost is furnished in Table No. 1.

Table No. 1
Estimation of Closure Cost - to be deposited in Escrow Account.

Amount to Be deposited in ESCROW Account as a Financial Assurance against the Mine Closure activities of Tubed Coal Mine, Latehar, Jharkhand. As per MOC's OM 34011/28/2019-CPAM; dt. 29th May, 2020		
WPI As on	April 2019	121.1
Final WPI as on	April 2021	132
Escalation rate of closure cost		1.09
	* 1%	0%
Base rate of closure cost "Rs. Crs./Ha"		9.000
Closure Cost "Rs. Crs./ Ha"		9.098
Project Area		400
Amount to be deposited in ESCROW account "Rs. In Crs"		45.125
Amount already deposited into ESCROW account "Rs. In Crs"		0.000
Net amount to be deposited into ESCROW account "Rs. In Crs."		45.125
Rate of compounding of Annual Closure Cost		5.00%
Estimated life of the project "in yrs"		25
Annual Closure Cost		1.51
Amount to be deposited into Escrow Account after compounding @ 5% "Rs. In Crs"		86.15

Prepared by: United Exploration India Pvt. Ltd.
Nabet Certificate no. NABEI/A/P/MBPA/IA/0061



Page 1 of 2

सुधीर मुखर्जी / Sudhir Mukherjee
कार्यकारी निदेशक (खनन)
EXECUTIVE DIRECTOR (Mining)
- दामोदर घाटी निगम, कोलकाता-54
Damodar Valley Corpn., Kolkata-54

Revised Mine Closure Cost
Tubed Coal Mines,
DVC, Latebar.

The year wise schedule for deposit in Escrow account is furnished below in table No. 2.

Table 2
Year wise Schedule of Deposit in Escrow Account.

	Year	OC	Year	UG	Total
Year-1	2021-22	1.81	2022-23	-	1.81
Year-2	2022-23	1.90	2023-24	-	1.90
Year-3	2023-24	1.99	2024-25	-	1.99
Year-4	2024-25	2.09	2025-26	-	2.09
Year-5	2025-26	2.19	2026-27	-	2.19
Year-6	2026-27	2.30	2027-28	-	2.30
Year-7	2027-28	2.42	2028-29	-	2.42
Year-8	2028-29	2.54	2029-30	-	2.54
Year-9	2029-30	2.67	2030-31	-	2.67
Year-10	2030-31	2.80	2031-32	-	2.80
Year-11	2031-32	2.94	2032-33	-	2.94
Year-12	2032-33	3.09	2033-34	-	3.09
Year-13	2033-34	3.24	2034-35	-	3.24
Year-14	2034-35	3.40	2035-36	-	3.40
Year-15	2035-36	3.57	2036-37	-	3.57
Year-16	2036-37	3.75	2037-38	-	3.75
Year-17	2037-38	3.94	2038-39	-	3.94
Year-18	2038-39	4.14	2039-40	-	4.14
Year-19	2039-40	4.34	2040-41	-	4.34
Year-20	2040-41	4.56	2041-42	-	4.56
Year-21	2041-42	4.79	2042-43	-	4.79
Year-22	2042-43	5.03	2043-44	-	5.03
Year-23	2043-44	5.28	2044-45	-	5.28
Year-24	2044-45	5.54	2045-46	-	5.54
Year-25	2045-46	5.82			5.82
	Total =	86.15			86.15

Prepared by: United Exploration India Pvt. Ltd.

Nabet Certificate no. NABET/APA-MPPA/TA/1006.

Prepared by: United Exploration India Pvt. Ltd.

Nabet Certificate no. NABET/APA-MPPA/TA/1006.

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Nabet Certificate no. NABET/APA-MPPA/TA/1006.

Prepared by: United Exploration India Pvt. Ltd.
Nabet Certificate no. NABET/APA-MPPA/TA/1006.

Page 2 of 2

[Handwritten signature]
Sudhir Mukherjee
Executive Director (Mining)
Damodar Valley Corp., Kolkata-54



[Handwritten signature]
Sudhir Mukherjee
कार्पोरेट निदेशक (खनन)
EXECUTIVE DIRECTOR (Mining)
डामोदर घाटी निगम, कोलकाता-54
Damodar Valley Corpn., Kolkata-54



J-11015/54/2017-IA.II (M)
Government of India
Ministry of Environment, Forest and Climate Change
Impact Assessment Division

Indira Paryavaran Bhavan,
Jor Bagh Road, New Delhi-110 003

Dated: 28th April, 2020

To


Shri Anil Kumar Kashyap, Chief Engineer (Mining),
M/s Damodar Valley Corporation (DVC), DVC Towers, VIP Road,
Kolkata - 700054 ((West Bengal)
Email: anil.kashyap@dvc.gov.in . tubedcoal460@gmail.com

Sub: Tubed Coal Mine Project of 6 MTPA of M/s Damodar Valley Corporation located in near Villages Tubed, mangra, dihi, ambajharan, dhobiajharan, nawari, Tehsil Latehar, District Latehar (Jharkhand) – Environment Clearance - reg.

Sir,

This refers to your online proposal No. IA/JH/CMIN/65302/2017 dated 28th Nov 2019 on the above mentioned subject.

2. The Ministry of Environment, Forest and Climate Change has considered the proposal for grant of Environment Clearance to Tubed Coal Mine Project of 6 MTPA of M/s Damodar Valley Corporation located in near Villages Tubed, mangra, dihi, ambajharan, dhobiajharan, nawari, Tehsil Latehar, District Latehar (Jharkhand).
3. The proposal was considered by the EAC in its 51st meeting held on 5th December, 2019. The details of the project, as per the documents submitted by the project proponent, and also as informed during the meeting, are reported to be as under:-
 - (i) The project area is covered under Survey of India Topo Sheet No F45/A9 and is bounded by the geographical coordinates ranging from 23°48'20" to 23°50'09" N and longitudes 84°34'09" and 84°35'45" E.
 - (ii) Coal linkage of the project is proposed for MTPS Unit # 7 & 8 and CTPS Unit #8
 - (iii) Joint venture cartel has been formed – Not Applicable
 - (iv) Project does not fall in the Critically Polluted Area (CPA), where the MoEF&CC's vide its OM dated 13th January, 2010 has imposed moratorium on grant of environment clearance.
 - (v) Employment generation, employment to 1200 persons will be provided from the project.


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अधीनकारी निदेशक (खनन)
EXECUTIVE DIRECTOR (Mining)
एम्पेयर वैली कॉर्पोरेशन, कोलकाता-54
Damodar Valley Corpn., Kolkata-54

- (vi) The project is reported to be beneficial in terms of Socio-economic development of the local population.
- (vii) Total mining lease area as per block allotment is 460 ha. Mining Plan (Including Progressive Mine Closure Plan) has been approved by the MoC, GoI on 12.10.2009 for Mining Plan and 10.08.2011 for Progressive Mine Closure Plan.
- (viii) The land usage pattern of the project is as follows:

Pre-mining land use details

(Area in Ha)

S.No.	Land Use	Within ML Area	Outside ML Area	Total
1	Agricultural Land	230	-	230
2	Forest Land	162.4	-	162.4
3	Wasteland	39	-	39
4	Grazing Land	-	-	-
5	Surface Water Bodies	22	-	22
6	Settlements	1	-	1
7	Others (Specify)	-	-	-
	Old Excavation Area (East Quarry)	-	-	-
	Old Excavation Area (West Quarry)	-	-	-
	Old OB Dumps	-	-	-
	Roads & Mine Infrastructure	5.6	-	5.6
	U & R Colony	-	-	-
	Staff Colony	-	-	-
	Green Belt	-	-	-
	Balance Area	-	-	-
	Total Project Area =	460	Nil	460

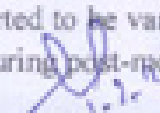
Post Mining

S. No.	Land use	Land use (ha)				Total
		Plantation	Water Body	Public Use/	Undisturbed	
1	External OB Dump	63	-	-	-	63
2	Top Soil Dump	-	-	-	-	-
3	Excavation	330	12	8	-	350
4	Roads	3	-	4	-	7
5	Built-up Area	7	-	3	-	10
6	Green Belt	-	-	-	-	-
7	Undisturbed Area	-	-	-	-	-
8	Safety Zone / Rationalization Area	16	-	-	-	16
9	Diversion Below River / Nala	4	-	-	-	14

सुधीर मुखर्जी / Sudhir Mukherjee
 कार्यकारी निदेशक (खनन)
 EXECUTIVE DIRECTOR (Mining)
 दामोदर घाटी निगम, बंगलूर-54
 Damodar Valley Corpn., Kolkata-54

	Canal					
10	Water Body	-	-	-	-	-
11	Staff Colony	-	-	-	-	-
	Total Area =	423	22	15	-	460

- (ix) Total geological reserve reported in the mine lease area is 189.82 MT with 170.83 MT mineable reserve. Out of total mineable reserve of 170.83 MT, 139 MT are available for extraction. Percent of extraction is 81.3%.
- (x) 12 seams with thickness ranging from 0.10 m to 15 m are workable. Grade of coal is mostly F Grade, stripping ratio 2.15, while gradient is 3° to 15°.
- (xi) Method of mining operations envisages by Open Cast (Shovel Dumper & Surface Miner) method.
- (xii) Life of mine is 30 years.
- (xiii) The project has 1 external OB dumps in an area of 63 ha with +110 m height over ground RL of 390 m to 410 mt and 55 Mm³ of OB. Existing OB Dumps shall be re-handled and backfilled in 12th, 13th and 14th year. The OB from the current mining operations shall be backfilled from 1st year onwards. 2 internal OB in an area of 350 ha with 215.Mm³ of OB is envisaged in the project.
- (xiv) Total quarry area is 350 ha out of which backfilling will be done in 350 ha while final mine void will be created in an area of 4 Ha with a depth of 30 to 40 m. Backfilled quarry area of 330 ha shall be reclaimed with plantation. Final mine void will be converted Water Body.
- (xv) Transportation of coal has been proposed by Dumpers in mine pit head, from surface to siding by Road and at sidings by Rail. Dedicated railway siding is proposed for evacuation of coal. As an interim measure coal will be transported to nearby Railway Siding by Road till the commissioning of the siding.
- (xvi) Reclamation Plan in an area of 460.ha, comprising of 63 ha of external dump, 350 ha of internal dump and 8.7 ha of green belt. In addition to this, an area of 6.7 ha, included in the safety zone/rationalization area, has also been proposed for green belt development.
- (xvii) 162.394 ha of forest land has been reported to be involved in the project. Stage I Approval under the Forest (Conservation) Act, 1980 for diversion of 162.394 ha of forest land for non-forestry purposes has been obtained vide MoEF&CC letter No. F No 8-23/2019-FC dated 13.11.2019
- (xviii) No National Parks, Wildlife Sanctuaries and Eco-Sensitive Zones have been reported with 10 km boundary of the project.
- (xix) The ground water level has been reported to be varying between 12m to 15 m during pre-monsoon and between 10m to 12 m during post-monsoon. Total water requirement for the project is 750 KLD.


 सुधीर मुकुर्जी / Sudhir Mukherjee
 एग्जीक्यूटिव डायरेक्टर (माइनिंग)
 EXECUTIVE DIRECTOR (Mining)
 दामोदर घाटी निगम, कोकटम-54
 Damodar Valley Corpn., Kolkata-54

- (xx) Approval of the Central Ground Water Authority for 810m³/Day has been obtained on 05.09.2019 vide NOC No. CGWA/NOC/MIN/ORIG/2019/5876.
- (xxi) Public hearing for the project of 6 MTPA capacity in an area of 460 ha was conducted on 10.01.2019 at Latchar. Major issues raised in the public hearing include Land Compensation, R&R, Socio-economic Development and Environment protection. Appropriate action to address the issues raised in the Public Hearing have already been taken/proposed to be taken are as under:
- Land Compensation will be payable as per LA Act, 2013
 - R&R will be done as per schedule II of the LA Act, 2013
 - R&R Colony will be constructed as per schedule III of the LA Act, 2013
 - Suitable person will be given employment in unskilled category.
- (xxii) Sukri River/nallah is flowing through boundary of lease. The nallah will be diverted in consultation with the Water Resource Department of the State Government. In principle approval is accorded by the WRD Government of Jharkhand.
- (xxiii) No court cases/violation cases are pending against the project of the PP.
- (xxiv) The project involves 418 project affected families. R&R of the PAPs will be done as per LA Act 2013.
- (xxv) Total cost of the project is Rs. 130000 lakhs. Cost of production is Rs. 700/- per tonne., CSR cost is Rs. 6.75per tonne. R&R cost is Rs. 78.18 crores. Environment Management cost is Rs. 42.8 crores.
- (xxvi) Tubed Coal block (460 ha.) of Auranga Coal Field is allotted in favour of "Damodar Valley Corporation" incorporated in India under the Damodar Valley Corporation Act, 1948, by Government of India. Ministry of Coal. Office of the Nominated Authority constituted under section 6 of the Coal Mines (Special Provision) Act, 2015. Allotment Order no. 10/04/2016/NA on dated 07.10.2016 under clause (c) of sub-rule (2) of rule 7 and sub-rule (1) of rule 13. DVC is deemed lessee as per section 11 of CBA act.
- (xxvii) Mining Plan and Mine Closure Plan for Tubed Coal Mine have been approved by Ministry of Coal vide letter No. 13016/19/2009-CA-1 dated 12.10.2009 and vide Letter No. 34011-05/2011-CPAM on dated 10.08.2011 respectively. Same has been transferred along with allotment Order on dated 07.10.2016 in the name of Damodar Valley Corporation.
- (xxviii) ToR for the proposal was granted by this Ministry vide letter dated 16th March, 2018.
- (xxix) The diversion plan has been accepted 'In principal' by Office of the Chief Engineer Design, Master Planning & Hydrology (Water Resource Department), Jal Bhawan, Ranchi vide letter no. SI/canal/304 plan/2019/1045 on dated 13.11.2019.
- (xxx) NOC for ground water abstraction has been issued by Ministry of Jal Shakti, Department

of Water Resources, River Development & Ganga Rejuvenation, Central Ground water Authority vide NOC no. CGWA/NOC/MIN/ORIG/2019/5876 valid from 14.08.2019 to 13/08/2021.

4. The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, have examined the proposal submitted by the Project Proponent. The EAC has deliberated the proposal and has made due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC have found the proposal in order and have recommended for grant of Environmental Clearance (EC).

5. The Expert Appraisal Committee in its 51st meeting held on 5th December, 2019 has recommended the proposal for grant of Environment Clearance (EC). Based on the recommendations of the EAC, the Ministry of Environment, Forest and Climate Change hereby accords approval for grant of Environment Clearance (EC) to Tubed Coal Mine Project of 6 MTPA of M/s Damodar Valley Corporation located in near Villages Tubed, mangra, dihi, ambajharan, dhobiajharan, nawari, Tehsil Latehar, District Latehar (Jharkhand), under the provision of EIA Notification, 2006 and under the provisions of the Environment Impact Assessment Notification, 2006 and subsequent amendments/circulars thereto subject to the compliance of the following terms & conditions / specific conditions in addition to the standard environmental conditions notified by the ministry and specific conditions mentioned below:

A. Specific conditions:

- (i) The project proponent shall obtain Consent to Establish/Operate from the State Pollution Control Boards for the proposed peak capacity of 6 MTPA prior to commencement of the increased production.
- (ii) Transportation of coal from Coal Handling Plant shall be through covered trucks.
- (iii) To control the production of dust at source, the crusher and in-pit belt conveyors shall be provided with mist type sprinklers.
- (iv) Mitigating measures shall be undertaken to control dust and other fugitive emissions all along the roads by providing sufficient water sprinklers. Adequate corrective measures shall be undertaken to control dust emissions, which would include mechanized sweeping, water sprinkling/mist spraying on haul roads and loading sites, long range misting/fogging arrangement, wind barrier wall and vertical greenery system, green belt, dust suppression arrangement at loading and unloading points, etc. 2-3 tier of native tree with broad leaves of plantation shall be carried out all along the road transportation till Ritchughuta Railway Station (as proposed).
- (v) The company shall obtain approval of CGWA for use of groundwater for mining operations at its enhanced capacity of 6 MTPA. All the stipulated in the NOC vide no.

CGWA/NOC/MIN/ORIG/2019/5876 valid from 14.08.2019 to 13/08/2021 shall be complied.

- (vi) Continuous monitoring of occupational safety and other health hazards, and the corrective actions need to be ensured.
- (vii) Persons of nearby villages shall be given training on livelihood and skill development to make them employable.
- (viii) To ensure health and welfare of nearby villages, regular medical camps shall be organized at least once in six months.
- (ix) Thick green belt of adequate width at the final boundary in the down wind direction of the project site shall be developed to mitigate/check the dust pollution. No shrubs/bushes shall be planted and only trees of native species shall be planted.
- (x) Efforts shall be made for utilizing alternate sources of surface water, abandoned mines or else whatsoever and thus minimizing the dependability on a single source.
- (xi) The activities and fund provisions for CER shall be made as per the guidelines issued by the ministry regarding CER on 1st May, 2018.
- (xii) Project Proponent shall obtain blasting permission from DGMS for conducting mining operation near villages and also explore deployment of rock breakers of suitable capacity in the project to avoid blasting very near to villages. There shall be no damages caused to habitation/structures due to blasting activity.
- (xiii) Distance of 100 meters shall be maintained from the bank of Surkhi river (both side) during mining operation till the permission for diversion of river is obtained from concerned statutory authority.
- (xiv) All the recommendation of approved Wild Life Conservation Plan shall be complied.
- (xv) No transportation of coal shall be carried by road after commission of proposed railway siding near the coal mine i.e. after 36 months from the date of issue of EC.
- (xvi) The Project Proponent shall comply with all the statutory requirements and judgment of Hon'ble Supreme Court dated the 2nd August 2017 in Writ Petition (Civil) No. 114 of 2014 in the matter of Common Cause versus Union of India and Ors. State Government shall ensure that the entire compensation levied, if any, for illegal mining paid by the Project Proponent through their respective Department in strict compliance of judgment of Hon'ble Supreme Court dated the 2nd August 2017 in Writ Petition (Civil) No. 114 of 2014 in the matter of Common Cause versus Union of India and Ors.
- (xvii) Project Proponent shall obtain the necessary prior permission from the Central Ground Water Authority (CGWA) in case of intersecting the Ground water table. The intersecting ground water table can only be commenced after conducting detailed hydrogeological

study and necessary permission from the CGWA. The Report on six monthly basis on changes in Ground water level and quality shall be submitted to the Regional Office of the Ministry, CGWA and State Pollution Control Board.

- (xviii) Proponent shall appoint an Occupational Health Specialist for Regular and Periodical medical examination of the workers engaged in the Project and maintain records accordingly; also, Occupational health check-ups for workers having some ailments like BP, diabetes, habitual smoking, etc. shall be undertaken once in six months and necessary remedial/preventive measures taken accordingly. The Recommendations of National Institute for ensuring good occupational environment for mine workers shall be implemented; The prevention measure for burns, malaria and provision of antsnake venom including all other paramedical safeguards may be ensured before initiating the mining activities.
- (xix) Project Proponent shall follow the mitigation measures provided in Office Memorandum No. Z-11013/57/2014-IA.II (M), dated 29th October, 2014, titled "Impact of mining activities on Habitations-Issues related to the mining Projects wherein Habitations and villages are the part of mine lease areas or Habitations and villages are surrounded by the mine lease area".
- (xx) The illumination and sound at night at project sites disturb the villages in respect of both human and animal population. Consequent sleeping disorders and stress may affect the health in the villages located close to mining operations. Habitations have a right for darkness and minimal noise levels at night. PPs must ensure that the biological clock of the villages is not disturbed; by orienting the floodlights/ masks away from the villagers and keeping the noise levels well within the prescribed limits for day light/night hours.
- (xxi) The project proponent shall take all precautionary measures during mining operation for conservation and protection of endangered fauna, if any, spotted in the study area. Action plan for conservation of flora and fauna shall be prepared and implemented in consultation with the State Forest and Wildlife Department. A copy of action plan shall be submitted to the Ministry of Environment, Forest and Climate Change and its Regional Office.
- (xxii) Study the stability of OB dump beyond 90 m and further necessary permission for DGMS shall be taken for increasing the height of OB. Recommendation of the study shall be implemented and further submitted to Ministry's Regional Office.
- (xxiii) Install in-pit conveyor from the pit bottom upto the silo loading point/rapid loading system within 3 yrs and further no transportation shall be carried over by trucks to railway siding
- (xxiv) Necessary permission from water resources department shall be taken to dump OB for embankment within one year of dumping OB near Sukri River."
- (xxv) Hon'ble Supreme Court in an Writ Petition(s) Civil No. 114/2014, Common Cause vs

Union of India & Ors vide its judgement dated 8th January, 2020 has directed the Union of India to impose a condition in the mining lease and a similar condition in the environmental clearance and the mining plan to the effect that the mining lease holders shall, after ceasing mining operations, undertake re-grassing the mining area and any other area which may have been disturbed due to their mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc. Compliance of this condition after the mining activity is over at the cost of the mining lease holders/Project Proponent". The implementation report of the above said condition shall be sent to the Ministry's Regional Office for site inspection/verification.

5.1 The grant of Environment Clearance is further subject to compliance of the **Standard EC conditions** as under:

(a) Statutory compliance

- (i) The project proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1986, in case of the diversion of forest land for non-forest purpose involved in the project.
- (ii) The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.
- (iii) The project proponent shall prepare a Site-Specific Conservation Plan / Wildlife Management Plan and approved by the Chief Wildlife Warden. The recommendations of the approved Site-Specific Conservation Plan/Wildlife Management Plan shall be implemented in consultation with the State Forest Department. The implementation report shall be furnished along with the six-monthly compliance report (in case of the presence of schedule-I species in the study area).
- (iv) The project proponent shall obtain Consent to Establish/Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State pollution Control Board/ Committee.
- (v) The project proponent shall obtain the necessary permission from the Central Ground Water Authority.
- (vi) Solid/hazardous waste generated in the mines needs to be addressed in accordance to the Solid Waste Management Rules, 2016/Hazardous & Other Waste Management Rules, 2016.

(b) Air quality monitoring and preservation

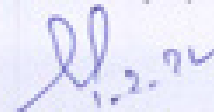
- (i) Continuous ambient air quality monitoring stations as prescribed in the statute be established in the core zone as well as in the buffer zone for monitoring of pollutants, namely PM₁₀, PM_{2.5}, SO₂ and NO_x. Location of the stations shall be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets in consultation with the State Pollution Control Board. Online ambient

air quality monitoring stations may also be installed in addition to the regular monitoring stations as per the requirement and/or in consultation with the SPCB. Monitoring of heavy metals such as Hg, As, Ni, Cd, Cr, etc to be carried out at least once in six months.

- (ii) The Ambient Air Quality monitoring in the core zone shall be carried out to ensure the Coal Industry Standards notified vide GSR 742 (E) dated 25th September, 2000 and as amended from time to time by the Central Pollution Control Board. Data on ambient air quality and heavy metals such as Hg, As, Ni, Cd, Cr and other monitoring data shall be regularly reported to the Ministry/Regional Office and to the CPCB/SPCB.
 - (iii) Transportation of coal, to the extent permitted by road, shall be carried out by covered trucks/conveyors. Effective control measures such as regular water/mist sprinkling/rain gun etc shall be carried out in critical areas prone to air pollution (with higher values of PM₁₀/PM_{2.5}) such as haul road, loading/unloading and transfer points. Fugitive dust emissions from all sources shall be controlled regularly. It shall be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central/State Pollution Control Board.
 - (iv) The transportation of coal shall be carried out as per the provisions and route envisaged in the approved Mining Plan or environment monitoring plan. Transportation of the coal through the existing road passing through any village shall be avoided. In case, it is proposed to construct a 'bypass' road, it should be so constructed so that the impact of sound, dust and accidents could be appropriately mitigated.
 - (v) Vehicular emissions shall be kept under control and regularly monitored. All the vehicles engaged in mining and allied activities shall operate only after obtaining 'PUC' certificate from the authorized pollution testing centres.
 - (vi) Coal stock pile/crusher/feeder and breaker material transfer points shall invariably be provided with dust suppression system. Belt-conveyors shall be fully covered to avoid air borne dust. Side cladding all along the conveyor gantry should be made to avoid air borne dust. Drills shall be wet operated or fitted with dust extractors.
 - (vii) Coal handling plant shall be operated with effective control measures w.r.t. various environmental parameters. Environmental friendly sustainable technology should be implemented for mitigating such parameters.
- (c) **Water quality monitoring and preservation**
- (i) The effluent discharge (mine waste water, workshop effluent) shall be monitored in terms of the parameters notified under the Water Act, 1974 Coal Industry Standards vide GSR 742 (E) dated 25th September, 2000 and as amended from time to time by the Central Pollution Control Board.
 - (ii) The monitoring data shall be uploaded on the company's website and displayed at the project site at a suitable location. The circular No.J-20012/1/2006-IA.11 (M) dated 27th

May, 2009 issued by Ministry of Environment, Forest and Climate Change shall also be referred in this regard for its compliance.

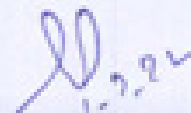
- (iii) Regular monitoring of ground water level and quality shall be carried out in and around the mine lease area by establishing a network of existing wells and constructing new piezometers during the mining operations. The monitoring of ground water levels shall be carried out four times a year i.e. pre-monsoon, monsoon, post-monsoon and winter. The ground water quality shall be monitored once a year, and the data thus collected shall be sent regularly to MOE/FCC/RO.
- (iv) Monitoring of water quality upstream and downstream of water bodies shall be carried out once in six months and record of monitoring data shall be maintained and submitted to the Ministry of Environment, Forest and Climate Change Regional Office.
- (v) Ground water, excluding mine water, shall not be used for mining operations. Rainwater harvesting shall be implemented for conservation and augmentation of ground water resources.
- (vi) Catch and/or earland drains and siltation ponds in adequate numbers and appropriate size shall be constructed around the mine working, coal heaps & OB dumps to prevent run off of water and flow of sediments directly into the river and water bodies. Further, dump material shall be properly consolidated/ compacted and accumulation of water over dumps shall be avoided by providing adequate channels for flow of silt into the drains. The drains/ ponds so constructed shall be regularly de-silted particularly before onset of monsoon and maintained properly. Sump capacity should provide adequate retention period to allow proper settling of silt material. The water so collected in the sump shall be utilised for dust suppression and green belt development and other industrial use. Dimension of the retaining wall constructed, if any, at the toe of the OB dumps within the mine to check run-off and siltation should be based on the rainfall data. The plantation of native species to be made between toe of the dump and adjacent field/habitation/water bodies.
- (vii) Adequate groundwater recharge measures shall be taken up for augmentation of ground water. The project authorities shall meet water requirement of nearby village(s) after due treatment conforming to the specific requirement (standards).
- (viii) Industrial waste water generated from CHP, workshop and other waste water, shall be properly collected and treated so as to conform to the standards prescribed under the standards prescribed under Water Act 1974 and Environment (Protection) Act, 1986 and the Rules made there under, and as amended from time to time. Adequate ETP /STP needs to be provided.
- (ix) The water pumped out from the mine, after siltation, shall be utilized for industrial purpose viz. watering the mine area, roads, green belt development etc. The drains shall be regularly desilted particularly after monsoon and maintained properly.



- (x) The surface drainage plan including surface water conservation plan for the area of influence affected by the said mining operations, considering the presence of river/rivulet/pond/lake etc, shall be prepared and implemented by the project proponent. The surface drainage plan and/or any diversion of natural water courses shall be as per the approved Mining Plan/EIA/EMP report and with due approval of the concerned State/Gol Authority. The construction of embankment to prevent any danger against inrush of surface water into the mine should be as per the approved Mining Plan and as per the permission of DGMS or any other authority as prescribed by the law.
- (xi) The project proponent shall take all precautionary measures to ensure riverine/riparian ecosystem in and around the coal mine up to a distance of 5 km. A riverine/riparian ecosystem conservation and management plan should be prepared and implemented in consultation with the irrigation / water resource department in the state government.
- (d) **Noise and Vibration monitoring and prevention**
- (i) Adequate measures shall be taken for control of noise levels as per Noise Pollution Rules, 2016 in the work environment. Workers engaged in blasting and drilling operations, operation of HEMM, etc shall be provided with personal protective equipments (PPE) like ear plugs/muffs in conformity with the prescribed norms and guidelines in this regard. Adequate awareness programme for users to be conducted. Progress in usage of such accessories to be monitored.
- (ii) Controlled blasting techniques shall be practiced in order to mitigate ground vibrations, fly rocks, noise and air blast etc., as per the guidelines prescribed by the DGMS.
- (iii) The noise level survey shall be carried out as per the prescribed guidelines to assess noise exposure of the workmen at vulnerable points in the mine premises, and report in this regard shall be submitted to the Ministry/RO on six-monthly basis.
- (e) **Mining Plan**
- (i) Mining shall be carried out under strict adherence to provisions of the Mines Act 1952 and subordinate legislations made there-under as applicable.
- (ii) Mining shall be carried out as per the approved mining plan(including Mine Closure Plan) abiding by mining laws related to coal mining and the relevant circulars issued by Directorate General Mines Safety (DGMS).
- (iii) No mining shall be carried out in forest land without obtaining Forestry Clearance as per Forest (Conservation) Act, 1980.
- (iv) Efforts should be made to reduce energy and fuel consumption by conservation, efficiency improvements and use of renewable energy.
- (f) **Land reclamation**

- (i) Digital Survey of entire lease hold area/core zone using Satellite Remote Sensing survey shall be carried out at least once in three years for monitoring land use pattern and report in 1:50,000 scale or as notified by Ministry of Environment, Forest and Climate Change(MOEFC) from time to time shall be submitted to MOEFCC/Regional Office (RO).
- (ii) The final mine void depth should preferably be as per the approved Mine Closure Plan, and in case it exceeds 40 m, adequate engineering interventions shall be provided for sustenance of aquatic life therein. The remaining area shall be backfilled and covered with thick and alive top soil. Post-mining land be rendered usable for agricultural/forestry purposes and shall be diverted. Further action will be treated as specified in the guidelines for Preparation of Mine Closure Plan issued by the Ministry of Coal dated 27th August, 2009 and subsequent amendments.
- (iii) The entire excavated area, backfilling, external OB dumping (including top soil) and afforestation plan shall be in conformity with the "during mining"/"post mining" land-use pattern, which is an integral part of the approved Mining Plan and the EIA/EMP submitted to this Ministry. Progressive compliance status vis-a-vis the post mining land use pattern shall be submitted to the MOEFCC RO.
- (iv) Fly ash shall be used for external dump of overburden, backfilling or stowing of mine as per provisions contained in clause (i) and (ii) of subparagraph (8) of fly ash notification issued vide No 2804 (E) dated 3rd November, 2009 as amended from time to time. Efforts shall be made to utilize gypsum generated from Flue Gas Desulfurization (FGD), if any, along with fly ash for external dump of overburden, backfilling of mines. Compliance report shall be submitted to Regional Office of MoEF&CC, CPCB and SPCB.
- (v) Further, it may be ensured that as per the time schedule specified in mine closure plan it should remain live till the point of utilization. The topsoil shall temporarily be stored at earmarked sites only and shall not be kept unutilized. The top soil shall be used for land reclamation and plantation purposes. Active OB dumps shall be stabilised with native grass species to prevent erosion and surface run off. The other overburden dumps shall be vegetated with native flora species. The excavated area shall be backfilled and afforested in line with the approved Mine Closure Plan. Monitoring and management of rehabilitated areas shall continue until the vegetation becomes self-sustaining. Compliance status shall be submitted to the Ministry of Environment, Forest and Climate Change/ Regional Office.
- (vi) The project proponent shall make necessary alternative arrangements, if grazing land is involved in core zone, in consultation with the State government to provide alternate areas for livestock grazing, if any. In this context, the project proponent shall implement the directions of Hon'ble Supreme Court with regard to acquiring grazing land.

(g) **Green Belt**


 सुधीर मुकुर्जी / Sudhir Mukherjee
 कार्यकारी निदेशक (खन) /
 EXECUTIVE DIRECTOR (Mining)
 एनडीए वॉली कॉर्प., अहमदाबाद-54
 Damodar Valley Corp., Kolkata-54

- (i) The project proponent shall take all precautionary measures during mining operation for conservation and protection of endangered/endemic flora/fauna, if any, spotted/reported in the study area. The Action plan in this regard, if any, shall be prepared and implemented in consultation with the State Forest and Wildlife Department.
- (ii) Greenbelt consisting of 3-tier plantation of width not less than 7.5 m shall be developed all along the mine lease area as soon as possible. The green belt comprising a mix of native species (endemic species should be given priority) shall be developed all along the major approach/ coal transportation roads.
- (b) Public hearing and Human health issues**
- (i) Adequate illumination shall be ensured in all mine locations (as per DGMS standards) and monitored weekly. The report on the same shall be submitted to this ministry & it's RO on six-monthly basis.
- (ii) The project proponent shall undertake occupational health survey for initial and periodical medical examination of the personnel engaged in the project and maintain records accordingly as per the provisions of the Mines Rules, 1955 and DGMS circulars. Besides regular periodic health check-up, 20% of the personnel identified from workforce engaged in active mining operations shall be subjected to health check-up for occupational diseases and hearing impairment, if any, as amended time to time.
- (iii) Personnel (including outsourced employees) working in core zone shall wear protective respiratory devices and shall also be provided with adequate training and information on safety and health aspects.
- (iv) Implementation of the action plan on the issues raised during the public hearing shall be ensured. The project proponent shall undertake all the tasks/measures as per the action plan submitted with budgetary provisions during the public hearing. Land oustees shall be compensated as per the norms laid down in the R&R policy of the company/State Government/Central Government, as applicable.
- (v) The project proponent shall follow the mitigation measures provided in this Ministry's OM No.Z-11013/5712014-1A.II (M) dated 29th October, 2014, titled 'Impact of mining activities on habitations-issues related to the mining projects wherein habitations and villages are the part of mine lease areas or habitations and villages are surrounded by the mine lease area'.
- (f) Corporate Environment Responsibility**
- (i) The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No.22-65/2017-1A.III dated 1st May 2018, as applicable, regarding Corporate Environment Responsibility.
- (ii) The company shall have a well laid down environmental policy duly approve by the Board of Directors. The environmental policy should prescribe for standard operating

procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental/forest/wildlife norms/conditions. The company shall have defined system of reporting infringements/deviation/violation of the environmental/forest/wildlife norms/conditions and/or shareholders/stake holders.

- (iii) A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.
- (iv) Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six Monthly Compliance Report.
- (v) Self environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.
- (j) **Miscellaneous**
 - (i) The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.
 - (ii) The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
 - (iii) The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
 - (iv) The project proponent shall monitor the criteria pollutants level namely: PM₁₀, SO₂, NO_x (ambient level) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.
 - (v) The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
 - (vi) The project proponent shall follow the mitigation measures provided in this Ministry's OM No.Z-11/13-571/2014-IA,II (M) dated 29th October, 2014, titled 'Impact of mining

activities on habitations-issues related to the mining projects wherein habitations and villages are the part of mine lease areas or habitations and villages are surrounded by the mine lease area'.

- (vii) The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
 - (viii) The project authorities shall inform to the Regional Office of the MOEFCC regarding commencement of mining operations.
 - (ix) The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
 - (x) The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.
 - (xi) No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change.
 - (xii) Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
 - (xiii) The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
 - (xiv) The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
 - (xv) The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.
 - (xvi) The above conditions shall 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, Hazardous and Other Wastes (Management and Trans-boundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.
6. The proponent shall abide by all the commitments and recommendations made in the EIA/EMP report and also that during presentation to the EAC. All the commitments made on the issues raised during public hearings shall also be implemented in letter and

spirit.

7. The proponent shall obtain all necessary clearances/approvals that may be required before the start of the project. The Ministry or any other competent authority may stipulate any further condition for environmental protection. The Ministry or any other competent authority may stipulate any further condition for environmental protection.
8. Any appeal against this Environment Clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.
9. The coal company/project proponent shall be liable to pay the compensation against the illegal mining, if any, and as raised by the respective State Governments at any point of time, in terms of the orders dated 2nd August, 2017 of Hon'ble Supreme Court in WP (Civil) No.114/2014 in the matter of 'Common Cause Vs Union of India & others.
10. The concerned State Government shall ensure no mining operations to commence till the entire compensation for illegal mining, if any, is paid by the project proponent through their respective Department of Mining & Geology, in strict compliance of the judgment of Hon'ble Supreme Court.
11. This Environment Clearance shall not be operational till such time the project proponent complies with the above said judgment of Hon'ble Supreme Court, as applicable, and other statutory requirements.

Manoj
22/4/2020
(Manoj Kumar Gangeya)
Director

Copy to:

1. The Secretary, Ministry of Coal, Shastri Bhawan, New Delhi
2. The Secretary, Department of Environment & Forests, Government of Jharkhand, Secretariat, Ranchi
3. The Additional Principal Chief Conservator of Forests, Regional office (ECZ), Ministry of Environment & Forests, Bungalow No. A-2, Shyamali Colony, Ranchi - 834002
4. The Member Secretary, Central Ground Water Authority, Ministry of Water Resources, Curzon Road Barracks, A-2, W-3 Kasturba Gandhi Marg, New Delhi
5. The Member Secretary, Central Pollution Control Board, CBD-cum-Office Complex, East Arjun Nagar, Delhi - 32
6. The Member Secretary, Jharkhand State Pollution Control Board, TA Building, HEC Complex, PO Dhuwa, Ranchi
7. The District Collector, Bokaro, Government of Jharkhand
8. Monitoring File
9. Guard File
10. Record File.
11. Parivesh

Manoj
22/4/2020
(Manoj Kumar Gangeya)
Director

Sudhir
12-21
सुधीर मुखर्जी / Sudhir Mukherjee
कार्यकारी निदेशक (खनन)
EXECUTIVE DIRECTOR (Mining)
दामोदर घाटी निगम, कोलकाता-54
Damodar Valley Corpn., Kolkata-54



DAMODAR VALLEY CORPORATION

D.V.C. TOWERS, V.I.P. ROAD

KOLKATA - 700 054

Phone: (033) 6607-2338 email: sudhir.mukherjee@dvc.gov.in



No. Tubed/FC/2022/20-(XIII)

Date: 01.02.2022

Annexure- XIII

UNDERTAKING

TUBED COAL MINE

This is to certify that, Damodar Valley Corporation (DVC), a corporation constituted under DVC Act, 1948 (Act. No. XIV of 1948), undertake and ensure that 'no labour camp will be established on the forest land and DVC will 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'. This is in connection of the fulfilment of Condition No. xiii of the Stage-I Clearance, for diversion of 162.394 ha forest land in Latchar Forest Division, Dist. Latchar, Jharkhand.

Sudhir Mukherjee
Executive Director (Mining)
Damodar Valley Corporation,
Latchar - 829206.

सुधीर मुखर्जी / Sudhir Mukherjee
कार्यकारी निदेशक (खनन)
EXECUTIVE DIRECTOR (Mining)
दामोदर घाटी निगम, कोलकाता-54
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No. Tubed/FC/2022/20-(XIV)

Date: 01.02.2022

Annexure- XIV

UNDERTAKING

TUBED COAL MINE

This is to certify that, Damodar Valley Corporation (DVC), a corporation constituted under DVC Act, 1948 (Act No. XIV of 1948), undertake and ensure that 'the layout plan of the proposal will not be changed without the prior approval of the Central Government'. This is in connection of the fulfilment of Condition No. xiv of the Stage-I Clearance, for diversion of 162.394 ha forest land in Latchar Forest Division, Dist. Latchar, Jharkhand.

Sudhir Mukherjee
Executive Director (Mining)
Damodar Valley Corporation,
Latchar - 829206.

सुधीर मुकुर्जी / Sudhir Mukherjee
अध्यक्ष (खन) (Mining)
EXECUTIVE DIRECTOR (Mining)
डामोदर घाटी कॉर्पोरेशन, कोलकाता-54
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No. Tubed/PC/2022/20-(XV)

Date: 01.02.2022

Annexure- XV

UNDERTAKING

TUBED COAL MINE

This is to certify that, Damodar Valley Corporation (DVC), a corporation constituted under DVC Act, 1948 (Act. No. XIV of 1948), undertake and ensure that [the forest land will not be used for any purpose other than that specified in the proposal]. This is in connection of the fulfilment of Condition No. xv of the Stage-I Clearance, for diversion of 162.394 ha forest land in Latehar Forest Division, Dist. Latehar, Jharkhand.

Sudhir Mukherjee
Executive Director (Mining)
Damodar Valley Corporation,
Latehar – 829206.

सुधीर मुखर्जी / Sudhir Mukherjee
कार्यकारी निदेशक (खनन)
EXECUTIVE DIRECTOR (Mining)
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No. Tubed/FC/2022/20-(XVI)

Date: 01.02.2022
Annexure- XVI

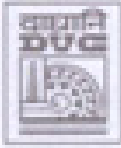
UNDERTAKING

TUBED COAL MINE

This is to certify that, Damodar Valley Corporation (DVC), a corporation constituted under DVC Act, 1948 (Act. No. XIV of 1948), undertake and ensure that 'the forest land proposed to be diverted under no circumstances will be transferred to any other agency, department or person without prior approval of the Central Government'. This is in connection of the fulfilment of Condition No. xvi of the Stage-I Clearance, for diversion of 162.394 ha forest land in Latchar Forest Division, Dist. Latchar, Jharkhand.

Sudhir Mukherjee
Executive Director (Mining)
Damodar Valley Corporation,
Latchar - 829206.

सुधीर मुकुर्जी / Sudhir Mukherjee
कार्यकारी निदेशक (खनन)
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No. Tubed/FC/2022/20-(XVII)

Date: 01.02.2022
Annexure- XVII

UNDERTAKING

TUBED COAL MINE

This is to certify that, Damodar Valley Corporation (DVC), a corporation constituted under DVC Act, 1948 (Act. No. XIV of 1948), undertake and ensure that 'no damage to the flora and fauna of the adjoining area will be caused' during implementation of the project. This is in connection of the fulfilment of Condition No. xvii of the Stage-I Clearance, for diversion of 162.394 ha forest land in Latchar Forest Division, Dist. Latchar, Jharkhand.

Sudhir Mukherjee
Executive Director (Mining)
Damodar Valley Corporation,
Latchar – 829206.

सुधीर मुखर्जी / Sudhir Mukherjee
कार्यकारी निदेशक (खनन)
EXECUTIVE DIRECTOR (Mining)
दामोदर घाटी निगम, लखर - 84
Damodar Valley Corpn., Kolkata-54



DAMODAR VALLEY CORPORATION
D.V.C. TOWERS, V.I.P. ROAD
KOLKATA - 700 054

Phone: (033) 6607-2338 email: sudhir.mukherjee@dvc.gov.in



No. Tubed/FC/2022/20-(XVIII)

Date: 01.02.2022

Annexure- XVIII

UNDERTAKING

TUBED COAL MINE

This is to certify that, Damodar Valley Corporation (DVC), a corporation constituted under DVC Act, 1948 (Act. No. XIV of 1948), undertake 'to explore the possibility of translocation of maximum number of trees identified to be felled and will ensure that any tree felling will be done only when it is unavoidable and that too under strict supervision of the State Forest Department'. This is in connection of the fulfilment of Condition No. xviii of the Stage-I Clearance, for diversion of 162.394 ha forest land in Latehar Forest Division, Dist. Latehar, Jharkhand.

Sudhir Mukherjee
Executive Director (Mining)
Damodar Valley Corporation,
Latehar - 829206.

सुधीर मुखर्जी / Sudhir Mukherjee
एग्ज़िक्यूटिव डायरेक्टर (खनन)
EXECUTIVE DIRECTOR (Mining)
दामोदर घाटी निगम, लतेहार-54
Damodar Valley Corpn., Kolkata-54

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

वन भवन, झारखण्ड, राँची, झारखण्ड, पिन- 834002, Email-perf-ednodar@gor.in

पत्रांक-

राँची, दिनांक-

सेवा में,

क्षेत्रीय मुख्य वन संरक्षक, पलामू।
वन संरक्षक, प्रादेशिक अंचल, मेदिनीनगर।
वन प्रमण्डल पदाधिकारी, लातेहार वन प्रमण्डल, लातेहार।

विषय:- लातेहार जिलान्तर्गत सुबेद कोल ब्लॉक हेतु 162.394 हे० व-भूमि (54.385 हे० अधिसूचित वनभूमि एवं 108.029 हे० जंगल-झाड़ी (Decided Forest) के रूप में अंकित भूमि) के अपयोजन का प्रस्ताव के संबंध में।

प्रसंग :- 1. भारत सरकार, पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय, नई दिल्ली का पत्रांक F.No.-8-23/2019-FC दिनांक 10.09.2021
2. प्रधान मुख्य वन संरक्षक, झारखण्ड, राँची का आर्पांक 2743 दिनांक 31.12.2021

महाराज,

उपर्युक्त प्रसंगाधीन पत्र-1 के संदर्भ में विद्यमान वनभूमि अपयोजन प्रस्ताव में स्टेज-1 के शर्त सं०-XIX के अनुपालन में प्रधान मुख्य वन संरक्षक, झारखण्ड, राँची के कार्यालय अंदर सं० 197 तारसंकीर्ण आर्पांक 2743 दिनांक 31.12.2021 द्वारा Catchment Area Treatment Plan (CAT Plan) की स्वीकृति प्रदान की गई है, जिसकी छायाप्रति इस पत्र के साथ आवश्यक कार्रवाई हेतु संलग्न है।

अतः अनुरोध है कि विद्यमान वनभूमि अपयोजन प्रस्ताव पर भारत सरकार के प्रासंगिक पत्र (छायाप्रति संलग्न) के आलाोक में याचित पूर्ण अनुपालन शीघ्र भेजने की कृपया जाय।

अनुलग्नक :- यथावत।

विश्वासभाजन

ह०/-


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

आर्पांक - 27

दिनांक - 06/1/2022

प्रतिलिपि :- मुख्य अभियंता, दामोदर घाटी निगम, डी०बी०सी० टावर्स, वी०आई०पी० रोड, कोलकाता-64 को सूचनाार्थ एवं आवश्यक कार्रवाई हेतु प्रेषित।

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


सुधीर मुखर्जी / Sudhir Mukherjee
कार्यकारी निदेशक (खनन)
EXECUTIVE DIRECTOR (Mining)
दामोदर घाटी निगम, कोलकाता-64
Damodar Valley Corpn., Kolkata-64

कार्यालय : प्रधान मुख्य वन संरक्षक, झारखण्ड, रांची।

वन विभाग, कोल्हाटूर, रांची-834002, Phone- 0661-2421900 (CA) / 2450413 (A) Email - wns@jha.nic.in

कार्यालय आदेश सं०- 117

दिनांक 29.12.2021

देशीय मुख्य वन संरक्षक, पलामू, मेदिनीनगर के कार्यालय पत्रांक-2800 दिनांक 29.12.2021 द्वारा सातेहार जिला में तुबंद कॉल ब्लॉक हेतु 182394 हे० वनभूमि (54.385 हे० अधिसूचित वनभूमि एवं 108.029 हे० जंगल-डाढ़ी-declared forest) के अपयोजना (वन संरक्षण अधिनियम, 1980 के अंतर्गत) के प्रसंग में संशोधित Catchment Area Treatment Plan तैयार किया गया है। यह CAT प्लान वित्तीय वर्ष 2022-23 से लेकर 2032-33 तक का है अर्थात् ग्यारह वर्षीय है। प्लान-पुस्तिका के पृष्ठ संख्या-32 पर Treatment Measures की विवरणी देते हुए सकल बजट 85.581 करोड़ रुपये (rounded off) प्रस्तावित है। विभिन्न Sub-watershed Areas में कुल 6618.01 हे० भूमि treatment हेतु प्रस्तावित है जो प्लान-पुस्तिका के पृष्ठ संख्या-28 पर निहित है।

अतः कुल 85.581 करोड़ रुपये (पचासी करोड़ अठारह लाख एवं दस हजार रुपये) की लागत पर क्रियान्वयन हेतु इस ग्यारह वर्षीय CAT Plan की स्वीकृति निम्न शर्तों पर प्रदान की जाती है :-

1. प्रत्येक वर्ष सक्षम प्राधिकार द्वारा जितनी राशि APO में स्वीकृत एवं राज्य सरकार द्वारा आवंटित की जाएगी, उसके अनुसार व्यय एवं योजना-क्रियान्वयन किया जाएगा।
2. योजना क्रियान्वयन में सभी संगत वित्तीय प्रावधानों/प्रशासनिक आदेशों/अनुदेशों का पालन किया जाएगा।
3. कार्य-प्रावधानों पर सक्षम स्तर से तकनीकी स्वीकृति प्राप्त करके कार्य कराये जाएंगे।

ह०/-

प्रधान मुख्य वन संरक्षक
झारखण्ड, रांची।

ज्ञापक:

दिनांक :

प्रतिलिपि : अपर मुख्य सचिव, वन, पर्यावरण एवं जलवायु परिवर्तन विभाग, झारखण्ड सरकार को सूचनाार्थ एवं आवश्यक कार्रवाई हेतु प्रेषित। CAT Plan की दो प्रतियाँ संलग्न हैं।

अनु : यथावत्।

सुधीर मुखर्जी / Sudhir Mukherjee

कार्यकारी निदेशक (खनन)

EXECUTIVE DIRECTOR (Mining)

दामोदर घाटी निगम, कोल्हाटूर-54

Damodar Valley Corpn., Kolkata-54

ह०/-

प्रधान मुख्य वन संरक्षक
झारखण्ड, रांची।

शासक: 2743

दिनांक: 31-12-2021

प्रतिलिपि : प्रधान मुख्य वन संरक्षक-सह-कार्यकारी निदेशक, बंजरभूमि विकास बोर्ड, झारखंड, रांची/अपर प्रधान मुख्य वन संरक्षक, कैंम्पा, झारखंड, रांची को सूचनाार्थ एवं आवश्यक कार्रवाई हेतु प्रेषित। CAT Plan की एक-एक प्रति संलग्न है।

अनु: यथोक्त।

[Handwritten signature]
31/12/21

प्रधान मुख्य वन संरक्षक
झारखंड, रांची।



Nikhil Kumar

03/01/2022

[Handwritten signature]

सुधीर मुखर्जी / Sudhir Mukherjee
कार्यकारी निदेशक (खन)
EXECUTIVE DIRECTOR (Mining)
दामोदर घाटी निगम, कोलकाता-54
Damodar Valley Corpn., Kolkata-54



No: Tubed/ Forest/2022/17

Dated :27.01.2022

To
The Divisional Forest officer,
Latehar Forest Division,
Government of Jharkhand.

Sub: Diversion of 162.394 Ha. of Forest Land (54.365 Ha Protected Forest Land and 108.029 Ha Jungle-Jhari Land) in favour of Damodar Valley Corporation for Tubed Coal Mining Project in Latehar District in the State of Jharkhand -Regd.
[Proposal No. FP/JH/MIN/29167/2017]

Ref: i). Your Letter No. 43 Dated: 10.01.2022.
ii). Your Letter No. 83 Dated: 19.01.2022.

Dear Sir,

This is reference to the above subject.


As per your above demand letter no. 43 dated 10.01.2022 and letter no. 83 dated 19.01.2022 challan of amount Rs. Eighty-Five Crore, Fifty-Eight Lakh, Fourteen Thousand, Four Hundred and Sixty-Four only (Rs. 85,58,14,464/-) and Rs. Twenty-Five lakhs only (Rs.25,00,000/-) was generated, and the fund has been deposited in the CAMPA Fund through UTR No. PUNBR52022011918570180 dated 19.01.2022 and UTR No. PUNBR52022012718833854 dated 27.01.2022 respectively (copy enclosed).


Thus, the compliance of condition in point no. (xix) of Stage - I FC has been fulfilled.

This is for your information and needful please.

Encl^o As above.

Yours Faithfully,


(Sudhir Mukherjee)
Executive Director (Mining)
Damodar Valley Corporation
Camp Latehar.


सुधीर मुखाजी / Sudhir Mukherjee
कार्यालयी निदेशक (खनन)
EXECUTIVE DIRECTOR (Mining)
दामोदर घाटी निगम, कोलकाता-54
Damodar Valley Corpn., Kolkata-54

AGENCY COPY




NEFT / RTGS CHALLAN for CAMPA Funds

Date : 18-01-2022

Agency Name.	DAMODAR VALLEY CORPORATION
Application No.	5829167896
MoEF/SG File No.	8-23/2019-FC
Location.	JHARKHAND
Address.	DVC TOWERS, V.I.P. ROAD, ULTADANGA, KOLKATA/Kolkata
Amount(In Rs)	855814464/-

Amount in Words :Eighty-Five Crore Fifty-Eight Lakh Fourteen Thousand Four Hundred and Sixty-Four Rupees Only

NEFT/RTGS to be made as per following details;

Beneficiary Name:	JHARKHAND CAMPA
IFSC Code:	UBIN0003710
Pay to Account No.	150725829167896 Valid only for this challan amount.
Bank Name & Address:	Union Bank Of India Lodhi Complex Branch, Block 11,CGO Complex, Phase I, Lodhi Road, New Delhi -110003

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

BANK COPY




NEFT / RTGS CHALLAN for CAMPA Funds

Date : 18-01-2022

Agency Name.	DAMODAR VALLEY CORPORATION
Application No.	5829167896
MoEF/SG File No.	8-23/2019-FC
Location.	JHARKHAND
Address:	DVC TOWERS, V.I.P. ROAD, ULTADANGA, KOLKATA Kolkata
Amount(In Rs)	855814464/-

Amount in Words :Eighty-Five Crore Fifty-Eight Lakh Fourteen Thousand Four Hundred and Sixty-Four Rupees Only


NEFT/RTGS to be made as per following details;

Beneficiary Name:	JHARKHAND CAMPA
IFSC Code:	UBIN0003710
Pay to Account No.	150725829167896 Valid only for this challan amount.
Bank Name & Address:	Union Bank Of India Lodhi Complex Branch, Block 11,CGO Complex, Phase I, Lodhi Road, New Delhi -110003

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

After making successful payment, User Agencies may send a line of confirmation through Email: helpdeskcampe@corpbank.co.in

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 to Email: cb0371@unionbankofindia.com


सुधीर मुखर्जी / Sudhir Mukherjee
कार्यकारी निदेशक (खन)
EXECUTIVE DIRECTOR (Mining)
दामोदर घाटी निगम, कोलकाता-54
Damodar Valley Corpn., Kolkata-54



DAMODAR VALLEY CORPORATION
CENTRAL ACCOUNTS OFFICE
 DVCTOWERS: VIP ROAD, KOLKATA - 700 054
 PHONE: 033-66072428 / 29

CAOI Treas/5046

Dated. 15.02.2021

To
 The Chief Manager,
 Punjab National Bank
 (erstwhile United Bank of India),
 New Maniktala Branch,
 Kolkata-700 054.

PUNBR52022011918570180

Sub: Payment through RTGS

Dear Sir,

You are requested to transfer the following amount including Bank Charge through RTGS/NEFT by debiting Cash Credit Account No.0082250010682 of DVC maintained with your branch as per the details furnished below:-

Details of Payment

1	Name of the Beneficiary	JHARKHAND CAMPA
2	Amount to be transferred	Rs.85,58,14,464/- (Rupees Eighty-five crore fifty-eight lac fourteen thousand four hundred sixty-four) only
3	Bank & Branch Name where fund to be transferred.	UNION BANK OF INDIA Lodhi Complex Branch New Delhi
4	IFCS/ RTGS Code	UBIN0903710
5	Account No. of the Party.	150725829167896
6	LEI No	335800GCHKL2Y8ZAJC56
7	Purpose of payment	DVC - CAT Plan

Please arrange the remittance under advice to us.

[Signature]
 DGM (Finance)
 DVC, Kolkata
 Damodar Valley Corporation, KOL

Yours faithfully,
[Signature]
 Manager (Finance)
 DVC, Kolkata
 Damodar Valley Corporation, KOL-54

[Signature]
 19.1.22
[Signature]
 19/1/22

सुधीर मुखर्जी / Sudhir Mukherjee
 कार्यकारी निदेशक (खनन)
 EXECUTIVE DIRECTOR (Mining)
 दामोदर घाटी निगम, कोलकाता-54
 Damodar Valley Corpn., Kolkata-54

[Signature]
 19.1.22
 सुधीर मुखर्जी / Sudhir Mukherjee
 कार्यकारी निदेशक (खनन)
 EXECUTIVE DIRECTOR (Mining)
 दामोदर घाटी निगम, कोलकाता-54
 Damodar Valley Corpn., Kolkata-54



19 JAN 2022

AGENCY COPY




NEFT / RTGS CHALLAN for CAMPA Funds

Date : 27-01-2023

Agency Name.	DAMODAR VALLEY CORPORATION
Application No.	5829167541
MoEF/SG File No.	S-23/2019-FC
Location.	JHARKHAND
Address.	DVC TOWERS, V.L.P. ROAD, ULTADANGA, KOLKATA/Kolkata
Amount(In Rs)	2500000/-

Amount in Words : Twenty-Five Lakh Rupees Only

NEFT/RTGS to be made as per following details;

Beneficiary Name:	JHARKHAND CAMPA
IFSC Code:	UBIN0903710
Pay to Account No.	150725829167541 Valid only for this challan amount.
Bank Name & Address:	Union Bank Of India Lodhi Complex Branch, Block 11,CGO Complex, Phase I, Lodhi Road, New Delhi -110003

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

BANK COPY




NEFT / RTGS CHALLAN for CAMPA Funds

Date : 27-01-2023

Agency Name.	DAMODAR VALLEY CORPORATION
Application No.	5829167541
MoEF/SG File No.	S-23/2019-FC
Location.	JHARKHAND
Address:	DVC TOWERS, V.L.P. ROAD, ULTADANGA, KOLKATA Kolkata
Amount(In Rs)	2500000/-

Amount in Words : Twenty-Five Lakh Rupees Only

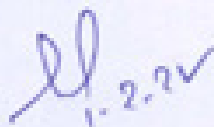
NEFT/RTGS to be made as per following details;

Beneficiary Name:	JHARKHAND CAMPA
IFSC Code:	UBIN0903710
Pay to Account No.	150725829167541 Valid only for this challan amount.
Bank Name & Address:	Union Bank Of India Lodhi Complex Branch, Block 11,CGO Complex, Phase I, Lodhi Road, New Delhi -110003

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

After making successful payment, User Agencies may send a line of confirmation through
Email: helpdeskcampa@corpbank.co.in

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 to
Email: cb0371@unionbankofindia.com



सुधीर मुखर्जी / Sudhir Mukherjee
कार्यकारी निदेशक (खनन)
EXECUTIVE DIRECTOR (Mining)
दामोदर घाटी निगम, कोलकाता-54
Damodar Valley Corpn., Kolkata-54

CAO/Treasury/ 5139

Dated: 27.01.2022

To
The Chief Manager,
Punjab National Bank (Erstwhile UBI),
New Manicktala Branch,
Kolkata -700 054.

UTR no. PUNBAS2022012718833854

Sub: Transfer of Fund to JHARKHAND CAMPA

Dear Sir,

It is requested to transfer an amount of Rs. 25,00,000/- (Rupees Twenty-five lakh) only through RTGS from our A/c 0082250010682 to Mahanadi Coalfields Ltd. as detailed below :-

- | | |
|--|---|
| 1. Name of the Beneficiary | : JHARKHAND CAMPA |
| 2. Bank Account No. of the Party to which Fund to be transferred | : 150725829167541 |
| 3. Bank Name & Branch Name | : UNION BANK OF INDIA
Lodhi Complex Branch
Block II, CGO Complex
Phase I, Lodhi Road, New Delhi - 3 |
| 4. RTGS Code of the Bank where Fund is to be transferred | : UBIN0903710 |
| 5. Amount to be transferred | : Rs. 25,00,000/- |
| 6. Transaction details | : Payment towards diversion of 162.394 ha of Forest Land
In /to DVC for Tubed Opencast Coal Mining Project |


Please arrange the remittance under advice to us.

Thanking you


Dy. G. Manager (Finance)
DVC (Finance)
Damodar Valley Corporation, Kol

Yours faithfully,


Executive Director (Mining)
Manager (Finance)


Sudhir Mukherjee
- कार्यकारी निदेशक (खन) -
EXECUTIVE DIRECTOR (Mining)
डामोदर वली कॉर्पोरेशन - 54
Damodar Valley Corpn., Kolkata-54

Online payment history made by User Agency under CAMPA

Help



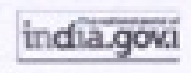
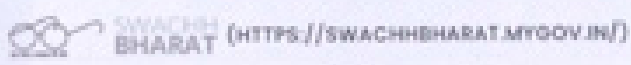
Sno.	Proposal Detail	Application_No	Application No (New)	Date of IN-PRINCIPLE	Amount to be Paid/ Amount Paid (in Rs.)	Payment Status	Payment Detail	Demand Letter
1	FY/34/MIN/2016/72017 [./viewreport.aspx?pid=FY/34/MIN/2016/72017] Tubed Coal Mine	MIN/2016/7201754	5829167542	3 Nov 2019	CA: 0/- Add CA : 0/- PCA: 0/- CAT : 2500000/- Safety Zone: 0/- Add PA : 0/- WPr: 0/- Other Charges : 0/- Other Charges1 : 0/- Other Charges2 : 0/- Other Charges3 : 0/- Total : 2500000/-	Paid	Fund Demand Verified by Social Officer On 27 Jan 2022 Bank Name Union Bank Of India Mode of Payment (Challen) Challen Generated On 27 Jan 2022 Transaction Date 27 Jan 2022	Demand Letter [./writemoddata/Fund/pd/240120221316046171_FY34MIN201672017_User_Fund_Demanded_70780.pr] Generated Challen (./UserAccount/Netf_Challen.aspx?pid=MIN20167201754)
2	FY/34/MIN/2016/72017 [./viewreport.aspx?pid=FY/34/MIN/2016/72017] Tubed Coal Mine	MIN/2016/7201789	5829167892	3 Nov 2019	CA: 0/- Add CA : 0/- PCA: 0/- CAT : 87581444/- Safety Zone: 0/- Add PA : 0/- WPr: 0/- Other Charges : 0/- Other Charges1 : 0/- Other Charges2 : 0/- Other Charges3 : 0/- Total : 87581444/-	Paid	Fund Demand Verified by Social Officer On 18 Jan 2022 Bank Name Union Bank Of India Mode of Payment (Challen) Challen Generated On 18 Jan 2022 Transaction Date 19 Jan 2022	Demand Letter [./writemoddata/Fund/pd/180120221814387182_FY34MIN201672017_User_Fund_Demanded_87577.pr] Generated Challen (./UserAccount/Netf_Challen.aspx?pid=MIN20167201789)

Sudhir Mukherjee

सुधीर मुकुर्जी / Sudhir Mukherjee
 कार्यकारी निदेशक (खनन)
 EXECUTIVE DIRECTOR (Mining)
 दामोदर वल्ली कॉर्पोरेशन - 54
 Damodar Valley Corpn., Kolkata-54



3	FY/31/MIN/2016/2017 ViewReport.aspx? pid=FY/31/MIN/2016/2017	MIN2016/2017/054	MIN2016/2017/054	1 Nov 2019	CA: 0- PCA: 0- Safety Zone: 0- MP: 0- Other Charges1: 0- Other Charges2: 0- Other Charges3: 0- Total: 147541000-	Add CA: 0- CAT: 0- Add PA: 0- SURVEILLANCE AND MONITORING PLAN: 147541000-	Fund Demand Verified by Nodal Officer On Bank Name: Corporation Bank Mode of Payment: NEFT/RTGS (Challan) Challan Generated On: 13 Feb 2021 Transaction Date: 13 Feb 2021	Demand Letter (./writemaddata/Fundpdf/211121200120000000Demand.pdf) Generated Challan (./UserAccount/Neft_ChallanCorp.aspx?pid=MIN2016/2017/054)
4	FY/31/MIN/2016/2017 ViewReport.aspx? pid=FY/31/MIN/2016/2017	MIN2016/2017/054	MIN2016/2017/054	1 Nov 2019	CA: 44259108- PCA: 0- Safety Zone: 0- MP: 10165811- Other Charges1: 0- Other Charges2: 0- Other Charges3: 0- Total: 210917752-	Add CA: 0- CAT: 0- Add PA: 0- Waste Conservation (10000000) Plan:	Fund Demand Verified by Nodal Officer On Bank Name: Corporation Bank Mode of Payment: NEFT/RTGS (Challan) Challan Generated On: 19 Dec 2019 Transaction Date: 20 Dec 2019	Demand Letter (./writemaddata/Fundpdf/12111012001216756200000000dated19-12-2019.pdf) Generated Challan (./UserAccount/Neft_ChallanCorp.aspx?pid=MIN2016/2017/054)



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For any Technical support, Please Contact EPCCIS, NIC, New Delhi, monitoring-fo(at)nic(dot)in

Sudhir Mukherjee

गुप्तिर मुखर्जी / Sudhir Mukherjee
 कार्यकारी निदेशक (खन)
 EXECUTIVE DIRECTOR (Mining)
 दामोदर घाटी निगम, कोलकाता - 54
 Damodar Valley Corp., Kolkata-54





DAMODAR VALLEY CORPORATION
CENTRAL ACCOUNTS OFFICE
 DVCTOWERS: VIP ROAD, KOLKATA - 700 054
 PHONE: 033-66072428 / 29

CAO/ Treas/3399

Dated: 15.02.2021

To
 The Chief Manager,
 Punjab National Bank
 (Erstwhile United Bank of India),
 New Maniktala Branch,
 Kolkata-700 054.

Sub: Payment through RTGS

Dear Sir,

You are requested to transfer the following amount including Bank Charge through RTGS/NEFT by debiting Cash Credit Account No.0082250010682 of DVC maintained with your branch as per the details furnished below:-

Details of Payment

1	Name of the Beneficiary	JHARKHAND CAMPA
2	Amount to be transferred	Rs. 14,35,41,000/- (Rupees Fourteen crore thirty-five lac forty-one thousand) only
3	Bank & Branch Name where fund to be transferred.	CORPORATION BANK
4	IFCS/ RTGS Code	CORP0000371
5	Account No. of the Party.	150725829167056
6	Purpose of payment	Bill No. Application No. 5829167056 MoEF/SG File No. J-23/2019-FC

Please arrange the remittance under advice to us.

[Signature]
 DGM (Finance)
 DVC (Kolkata)
 Damodar Valley Corporation, Kd

Yours faithfully,
 Manager (Finance) *[Signature]*
 DVC (Kolkata) Treasury
 Damodar Valley Corporation, Kd
 Executive (Finance)
 Damodar Valley Corporation, Kd

o/c DVC

PUNBR 520210 215 8601510

[Signature]
 19/2/2021



[Signature]
 सुधीर मुखर्जी / Sudhir Mukherjee
 कार्यकारी निदेशक (खन) /
 EXECUTIVE DIRECTOR (Mining)
 डामोदर घाटी निगम, कोलकाता-54
 Damodar Valley Corpn., Kolkata-54
 सुधीर मुखर्जी / Sudhir Mukherjee
 प्रमुख अभियंता (खन), डामोदर
 Chief Engineer (M), Fuel
 डामोदर घाटी निगम, कोलकाता-54
 Damodar Valley Corpn., Kolkata-54



DAMODAR VALLEY CORPORATION
D.V.C. TOWERS, V.I.P. ROAD
KOLKATA - 700 054
Phone: (033) 6607-2338 email: sudhir.mukherjee@dvc.gov.in



No. Tubed/PC/2022/20-(XXI)

Date: 01.02.2022

Annexure- XXI

UNDERTAKING

TUBED COAL MINE

This is to certify that Damodar Valley Corporation (DVC), a corporation constituted under DVC Act, 1948 (Act. No. XIV of 1948), undertake 'to explore the possibility of translocation of existing native trees from the project site work in consultation with State Forest Department'. This is in connection of the fulfilment of Condition No. xxi of the Stage-I Clearance, for diversion of 162.394 ha forest land in Latchar Forest Division, Dist. Latchar, Jharkhand.

Sudhir Mukherjee
Executive Director (Mining)
Damodar Valley Corporation,
Latchar - 829206.

सुधीर मुखर्जी / Sudhir Mukherjee
कार्यकारी निदेशक (खनन)
EXECUTIVE DIRECTOR (Mining)
दामोदर घाटी निगम, कोलकाता-५४
Damodar Valley Corpn., Kolkata-54



DAMODAR VALLEY CORPORATION

D.V.C. TOWERS, V.L.P. ROAD

KOLKATA - 700 054

Phone: (033) 6607-2338 email: sudhir.mukherjee@dvc.gov.in



No. Tubed/PC/2022/20-(XXII)

Date: 01.02.2022

Annexure- XXII

UNDERTAKING

TUBED COAL MINE

This is to certify that, Damodar Valley Corporation (DVC), a corporation constituted under DVC Act, 1948 (Act. No. XIV of 1948), undertake to 'submit the annual self-compliance report in respect of the conditions of Stage-I clearance to the State Government, concerned Regional Office and to this Ministry by the end of March every year regularly'. This is in connection of the fulfilment of Condition No. xxii of the Stage-I Clearance, for diversion of 162.394 ha forest land in Latehar Forest Division, Dist. Latehar, Jharkhand.

Sudhir Mukherjee
Executive Director (Mining)
Damodar Valley Corporation,
Latehar - 829206.

सुधीर मुखर्जी / Sudhir Mukherjee
कार्यकारी निदेशक (खनन)
EXECUTIVE DIRECTOR (Mining)
दामोदर घाटी निगम, कोलकाता-54
Damodar Valley Corpn., Kolkata-54.



DAMODAR VALLEY CORPORATION
D.V.C. TOWERS, V.I.P. ROAD
KOLKATA - 700 054

Phone: (033) 6607-2338 email: sudhir.mukherjee@dvc.gov.in



No. Tubed/FC/2022/20-(XXIII)

Date: 01.02.2022

Annexure- XXIII

UNDERTAKING

TUBED COAL MINE

This is to certify that, Damodar Valley Corporation (DVC), a corporation constituted under DVC Act, 1948 (Act. No. XIV of 1948), undertake to 'comply all the provisions of 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'. This is in connection of the fulfilment of Condition No. xxiii of the Stage-I Clearance, for diversion of 162.394 ha forest land in Latehar Forest Division, Dist. Latehar, Jharkhand.

Sudhir Mukherjee
Executive Director (Mining)
Damodar Valley Corporation,
Latehar - 829206.

सुधीर मुखर्जी / Sudhir Mukherjee
कार्यकारी निदेशक (खनन)
EXECUTIVE DIRECTOR (Mining)
लतेहार कोटी सिटी, कोलकाता-54
Damodar Valley Corpn., Kolkata-54

Form - II

Annexure - II

(for projects other than linear projects)



GOVT. OF JHARKHAND

OFFICE OF THE DEPUTY COMMISSIONER, LATEHAR

No. 21

Dated 22.12.2018

TO WHOMSOEVER IT MAY CONCERN

In Compliance of the Ministry of Environment and Forest (MOEF), Govt. of India's letter no. 11- 9/98- FC (pt), dated 3rd August 2009 wherein the MOEF issued guidelines on submission of evidences for having initiated and completed the process of settlement of rights under the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 ('FRA' for short) on the forest land proposed to be diverted for non-forest purposes, it is certified that 134.34 Acre (54.365 Hectare) of Forest Land and 266.94 Acre (108.029 Hectare) of Jungle Jhari Land proposed to be diverted in favour of Damodar Valley Corporation for mining at Tubel Coal Mine in Latehar District falls within jurisdiction of Mangra, Tubel, Dihi, Dhobiyajharan & Ambajharan villages in Latehar Tehsil. (Enclosure - Attached)

It is further certified that,

- the complete process for identification and settlement of rights under the FRA has been carried out for the entire 134.34 Acre (54.365 Hectare) of Forest Land and 266.94 Acre (108.029 Hectare) of Jungle Jhari Land Total- 401.28 Acre (162.394 Hectare) area proposed for diversion. A copy of records of all consultations and meetings of the Forest Rights Committee(s), Gram Sabha(s), Sub Division Level Committee(s) and the District Level Committee are enclosed as annexure to annexure
- the proposal for such diversion (with full details of the project and its implications, in vernacular/ local language) have been placed before each concerned Gram Sabha of forest-dwellers, who are eligible under the FRA;
- the each of concerned Gram Sabha(s), has certified that all formalities/ processes under the FRA have been carried out, and that they have given their consent to the proposed diversion and the compensation and ameliorative measures, if any, having understood the purpose and details of proposed diversion. A copy of certificate issued by the gram sabha of Mangra, Tubel, Dihi, Dhobiyajharan & Ambajharan villages(s) is enclosed as annexure to annexure
- the discussion and decisions on such proposals had taken place only when there was a quorum of minimum 50% of the members of Gram Sabha present.
- the diversion of forest land for facilities managed by the Government as required under section 3 (2) of the FRA have been completed and the Gram Sabhas have been given their consent to it.
- the rights of Primitive Tribal Groups and Pre-Agricultural Communities, where applicable have been specifically safeguarded as per section 3(1) (e) of the FRA.

Encl:- As above

सुधीर मुखर्जी / Sudhir Mukherjee
 एग्जीक्यूटिव डायरेक्टर (मिनिंग), डामोदर घाटी निगम (प्रा.) लि., कोलकाता

सुधीर मुखर्जी / Sudhir Mukherjee
 एग्जीक्यूटिव डायरेक्टर (मिनिंग)
 EXECUTIVE DIRECTOR (Mining)
 डामोदर घाटी निगम, कोलकाता-54
 Damodar Valley Corp., Kolkata-54

22/12/18
 Deputy Commissioner,

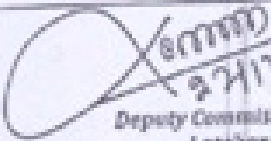
प्रामाण्य भूमि की विवरणी :-

क्र.सं.	अंचल	ग्राम	खाना सं०	खाता सं०	प्लॉट सं०	रकबा (एकड़ में)	
						वन भूमि	गैर-व्यवस्थापित जंगल-आदी भूमि
1	2	3	4	5	6	7	8
1	सापेठार	नंगरा	330	25	3	-	11.20
					6	-	7.93
					10	-	4.31
					13	-	6.37
					17	-	0.67
					19	-	0.30
					22	-	0.60
					26	0.70	1.23
					29	21.20	1.07
					76	-	1.65
					80	-	1.20
योग :-						21.80	36.80
2	सापेठार	सुभेद	333	30	6	6.40	0.03
					13	-	0.29
					17	13.70	4.55
					243	-	7.35
					467	-	15.00
					513	7.70	4.54
					536	-	10.80
					538	-	1.35
					545	-	1.74
					548	-	0.69
					582	-	0.54
योग :-						29.80	48.23
3	सापेठार	खीरी	334	81	14	2.91	0.01
					15	36.95	0.55
					22	-	4.03
					24	2.50	12.15
					25	6.60	1.44
					28	26.30	2.23
					29	0.16	-
					30	3.22	-
योग :-						62.64	30.37
4	सापेठार	घोदियाझरन	336	43	3	-	1.43
					18	-	0.66
					24	-	5.32
					33	-	0.42
					35	-	0.14
					36	-	0.02
					40	-	0.05
					43	-	0.17
					46	-	0.41
48	-	0.52					


सुधीर मुखर्जी / Sudhir Mukherjee
ज्येष्ठ प्रमुख अभियंता (मिनिंग) सुभेद
For Chief Executive (M.I. Fuel)

सुधीर मुखर्जी / Sudhir Mukherjee
कार्यकारी निदेशक (खनन)
EXECUTIVE DIRECTOR (Mining)
दामोदर घाटी निर, कोलकाता-54
Damodar Valley Corpn., Kolkata-54

					56	=	0.15
					62	=	1.07
					70	=	1.14
					79	=	0.03
					83	=	7.92
					103	=	1.80
					105	=	8.68
					107	=	1.70
					104	=	0.12
					196	=	0.09
					199	=	0.19
					205	=	0.23
					206	=	0.04
					213	=	0.04
					227	=	0.05
					229	=	0.08
					231	=	0.03
					232	=	0.03
					236	=	0.12
					291	=	10.50
					293	=	11.70
					352	=	9.45
					355	=	2.45 3.40 (1000)
					योग :-	=	77.28
					1	=	51.05
					2	=	11.00
					130	=	8.68
					134	=	4.35
					योग :-	=	76.28
							134.34 ₹
							268.95 ₹
							कुल योग :- 134.34 + 268.94 = 401.28 ₹


 Deputy Commissioner,
 Larkspur

SP
 Damodar Valley


 सुधीर मुखर्जी / Sudhir Mukherjee
 कार्यकारी निदेशक (खनन)
 EXECUTIVE DIRECTOR (Mining)
 दामोदर घाटी निगम, कोलकाता-54
 Damodar Valley Corp., Kolkata-54



DAMODAR VALLEY CORPORATION
D.V.C. TOWERS, V.I.P. ROAD
KOLKATA - 700 054
Phone: (033) 6607-2338 email: sudhir.mukherjee@dvc.gov.in



No. Tubed/FC/2022/20-(XXV)

Date: 01.02.2022
Annexure- XXV

UNDERTAKING

TUBED COAL MINE

This is to certify that, Damodar Valley Corporation (DVC), a corporation constituted under DVC Act, 1948 (Act. No. XIV of 1948), undertake that DVC will ensure compliance of 'any other condition that the concerned Regional Office of this Ministry may stipulate, from time to time, in the interest of conservation, protection and development of forests & wildlife'. This is in connection of the fulfilment of Condition No. xxv of the Stage-I Clearance, for diversion of 162.394 ha forest land in Latchar Forest Division, Dist. Latchar, Jharkhand.

Sudhir Mukherjee
Executive Director (Mining)
Damodar Valley Corporation,
Latchar - 829206.

सुधीर मुकुर्जी / Sudhir Mukherjee
एग्जीक्यूटिव डायरेक्टर (खनन)
EXECUTIVE DIRECTOR (Mining)
दामोदर घाटी निगम, लॉकराम-54
Damodar Valley Corpn., Kolkata-54



DAMODAR VALLEY CORPORATION
D.V.C. TOWERS, V.I.P. ROAD
KOLKATA - 700 054

Phone: (033) 6607-2338 email: sudhir.mukherjee@dvc.gov.in



No. Tubed/FC/2022/20-(XXVI)

Date: 01.02.2022

Annexure- XXVI

UNDERTAKING
TUBED COAL MINE

This is to certify that, Damodar Valley Corporation (DVC), a corporation constituted under DVC Act, 1948 (Act. No. XIV of 1948), undertake that all the compliance reports will be uploaded on e-portal (<https://parivesh.nic.in/>). This is in connection of the fulfilment of Condition No. xxvi of the Stage-I Clearance, for diversion of 162.394 ha forest land in Latchar Forest Division, Dist. Latchar, Jharkhand.

Sudhir Mukherjee
Executive Director (Mining)
Damodar Valley Corporation,
Latchar – 829206.

सुधीर मुखर्जी / Sudhir Mukherjee
कार्यकारी निदेशक (खनन)
EXECUTIVE DIRECTOR (Mining)
लक्षार घाटी विभाग, झारखण्ड - 84
Damodar Valley Corpn., Kolkata-54



DAMODAR VALLEY CORPORATION
D.V.C. TOWERS, V.I.P. ROAD
KOLKATA - 700 054
Phone: (033) 6607-2338 email: sudhir.mukherjee@dvc.gov.in



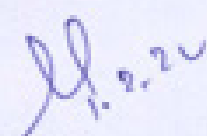
No. Tubed/FC/2022/20-(XXVII)

Date: 01.02.2022
Annexure- XXVII

UNDERTAKING

TUBED COAL MINE

This is to certify that, Damodar Valley Corporation (DVC), a corporation constituted under DVC Act, 1948 (Act No. XIV of 1948), undertake that DVC accepts that 'violation of any of the conditions of Stage-I Clearance will amount to violation of Forest (Conservation) Act, 1980 and action would be taken as prescribed in para 1.21 of Chapter 1 of the Handbook of comprehensive guidelines of Forest (Conservation) Act, 1980 as issued by this Ministry's letter No. 5-2/2017-FC dated 28.03.2019'. This is in connection of the fulfilment of Condition No. xxvii of the Stage-I Clearance, for diversion of 162.394 ha forest land in Latchar Forest Division, Dist. Latchar, Jharkhand.


Sudhir Mukherjee
Executive Director (Mining)
Damodar Valley Corporation,
Latchar - 829206.

सुधीर मुखर्जी / Sudhir Mukherjee
कार्यकारी निदेशक (खनन)
EXECUTIVE DIRECTOR (Mining)
दामोदर घाटी निगम, कोलकाता-54
Damodar Valley Corpn., Kolkata-54

**Preparation of Catchment Area
Treatment Plan for Tubed Coal Mine,
Latehar, Jharkhand**

for

Tubed Coal Mines

of


Damodar Valley Corporation

Prepared by

**Department of Civil Engineering
Indian Institute of Engineering Science and Technology, Shibpur
Howrah 711103**

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 सुधीर मुखर्जी / Sudhir Mukherjee
 मुख्य अभियंता II (बं), ईन्फ
 Chief Engineer II (M), Fuel
 दामोदर घाटी निगम, कोलकाता-54
 Damodar Valley Corpn., Kolkata-54

PREFACE

M/s Damodar Valley Corporation (DVC) has proposed to carry out mining operations in Tubed Coal Block for its captive consumption. The coal is proposed to be catered from Tubed Coal Block by open cast mining operations. The coal block is located near village Tubed Dist. Latehar, Jharkhand. A stream namely, River Sukri, a tributary of Auranga River originates near village Kuramu Dist Latehar. It flows in Westward direction and passes through the Tubed coal block. The diversion of river Sukri and its tributaries is planned by M/s DVC along the boundary of the coal block to carry out coal extraction and mining activities. It is a well-established fact that reservoirs formed by diversion structures on rivers are subjected to sedimentation. The process of sedimentation embodies the sequential processes of erosion, entrainment, transportation, deposition and compaction of sediment. The study of erosion and sediment yield from catchments is of utmost importance as the deposition of sediment in reservoir reduces its capacity, and thus affects the water availability for the designated use. The eroded sediment from catchment when deposited on streambeds and banks causes braiding of river reach. The removal of top fertile soil from catchment adversely affects the agricultural production. Thus, a well-designed Catchment Area Treatment (CAT) Plan is essential to ameliorate the above-mentioned adverse process of soil erosion.

Department of Civil Engineering, Indian Institute of Engineering Science and Technology, Shibpur has prepared the proposal for Catchment Area Treatment Plan for the coal mining project. In this study, widely used and easy to use 'silt yield index' (SYI) method has been used. This method considers sedimentation as product of erosivity, morphometry and delivery ratio of a particular catchment. Various thematic maps of the catchment area have been used in preparation of the catchment area treatment (CAT) plan. Geographic Information System (GIS) has been used to store, analyze and display various spatial data. The various data layers of the catchment area used for the study are as follows: Catchment area map, Land use classification map, Slope map, Soil map. Soil loss has been calculated using Revised Universal Soil Loss Equation (RUSLE) model.

The treatment measures are to be taken up in the areas which are prone to very severe and severe erosion in all the sub-watersheds falling in different priority categories. Therefore, an area of **6616 hectare** will be taken up for treatment. Total cost of the CAT will be approximately **Rs. 85.83 Crores**.


 सुधीर मुखर्जी / Sudhir Mukherjee
 मुख्य अभियंता II (यां), ईन्जन
 Chief Engineer II (M), Fuel
 दामोदर घाटी निगम, कोलकाता-54
 Damodar Valley Corpn., Kolkata-54

1. Project Background

The Auranga Coalfield is the Eastern most part of the North Koel Vally of Gondwana basin. It is about 8 km West of North Karanpura Coalfield, which is Western most part of Damodar Valley of Gondwana Basin. Auranga Coalfield covers an area of 250 sq. km and located in Latehar district of Jharkhand State. Tubed Coal Block is one of the identified non-CIL blocks and lies in the northern part of Auranga Coalfield. The net geological reservoir of coal is 189.8228 million tonnes and the extractable reserve is 103.8 million tonnes out of which 166.9688 million tonnes falls in Proved Category.

2. Objective and Scope of the Work

The objective of the work is to prepare a proposal for catchment area treatment plan for Tubed Coal Mine, Latehar, Jharkhand with the following scopes of work.

1. To understand the erosion characteristics of the terrain and
2. To suggest remedial measures to reduce the erosion rate.

3. Details of Study Area

3.1. Location

The Tubed Coal Block covering an area of 4.6 sq. km is situated in Latehar district of Jharkhand State. The latitude and longitude of the coal block is N23°48'20" - N23°50'09" and E84°34'09" - E84°35'45". The place is well connected by a fair-weather road to district HQ, Latehar. It is only 12 km. National Highway 75 (Ranchi-Daltonganj) passes through Latehar. The nearest railway station is Gomoh. The location of the coal block is shown in Figure 1.

3.2. Physiography, drainage and climate

The coal block exhibits undulating topography. General slope is towards west. A predominant valley is located in South-West part of the block along which Sukri River flows. The ground elevation (RL) varies from 386 m in the North-West (near river) to 412 m in the Northeast (high land area).


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The drainage of the block is mainly controlled by Sukri River flowing in South-West part of the block. There are 3 East West flowing nalahs which drain to Sukri River. Besides, there is a nalah in the Northern part of the block which drains also in Sukri River.

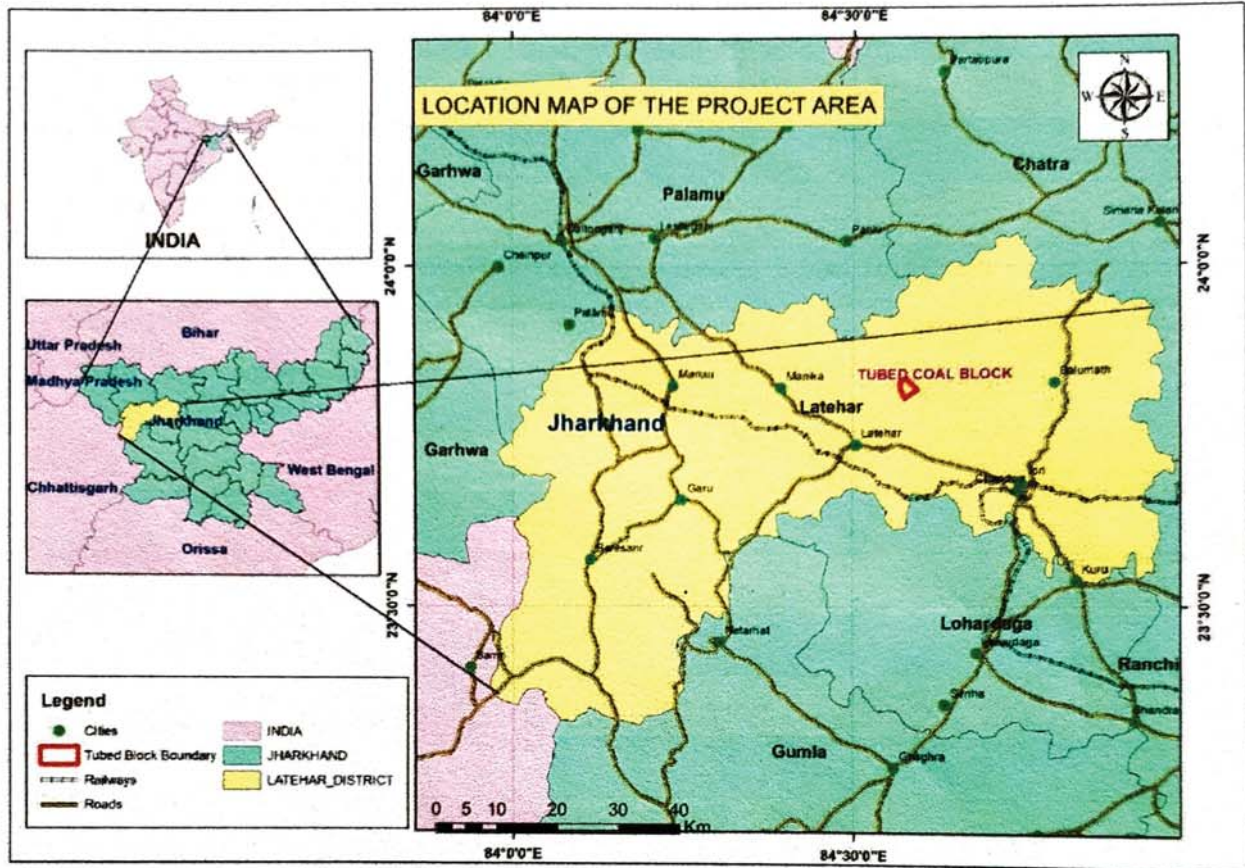


Figure 1: Location of the Tubed Coal Block

As per annual temperature map of India, the average daily temperature of the place is 22-25°C. The summer and winter are extreme. The annual rainfall is 1200-1400 mm.

3.3. Description and Delineation of the watershed area along with sub-watershed

For the demarcation of sub-watersheds, a hierarchical delineation system developed by AIS & LUS (AIS&LUS Technical Bulletin 9) was followed. The codification system as given in Watershed Atlas of India (AISLUS) was followed for Sukri River watershed on 1:50,000 Survey of India toposheets. The area is within 2A5B4 sub-catchment as per the AISLUS, watershed Atlas of India. As per the Central Ground Water Board codification system the catchment is

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named as SONE93. Therefore, for the preparation of the CAT plan, part of Sukri watershed comprising the free-draining catchment area on the Tubed coal block outlet point has been delineated along with 7 sub-watersheds in the free-draining catchment area as per the codification system as given in the Watershed Atlas of India (AISLUS) on 1:50,000 Survey of India toposheets of the project area. The catchment area of Sukri River under the Tubed Coal Block is approximately 217.67 sq. km. The catchment area has been divided in 7 parts as shown in Figures 2a and 2b. The Sukri river watershed under Tubed Coal Block on Toposheet is shown in Figure 2c.

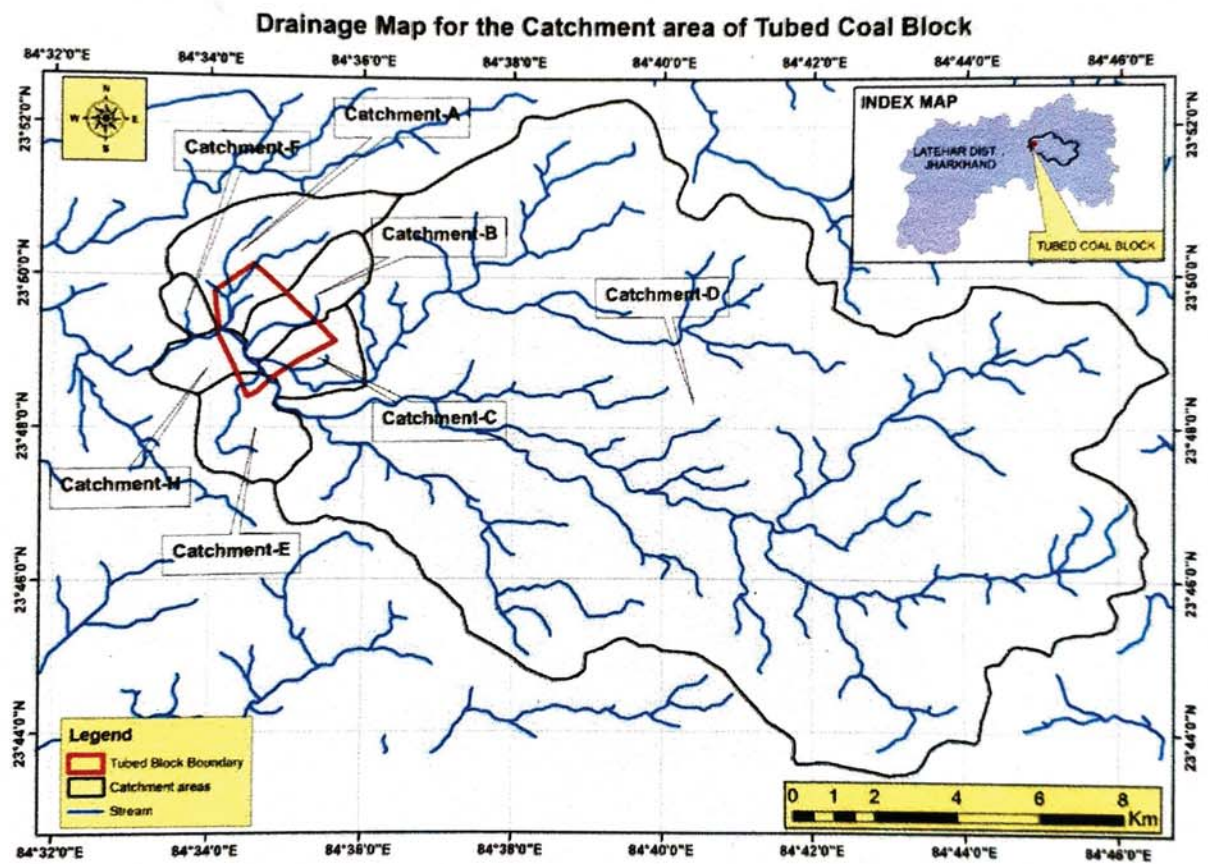



Figure 2a: Catchment of Sukri river under Tubed Coal Block

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Figure 2b: Micro-Watersheds of Sukri river under Tubed Coal Block (as per AISLUS, watershed Atlas of India)


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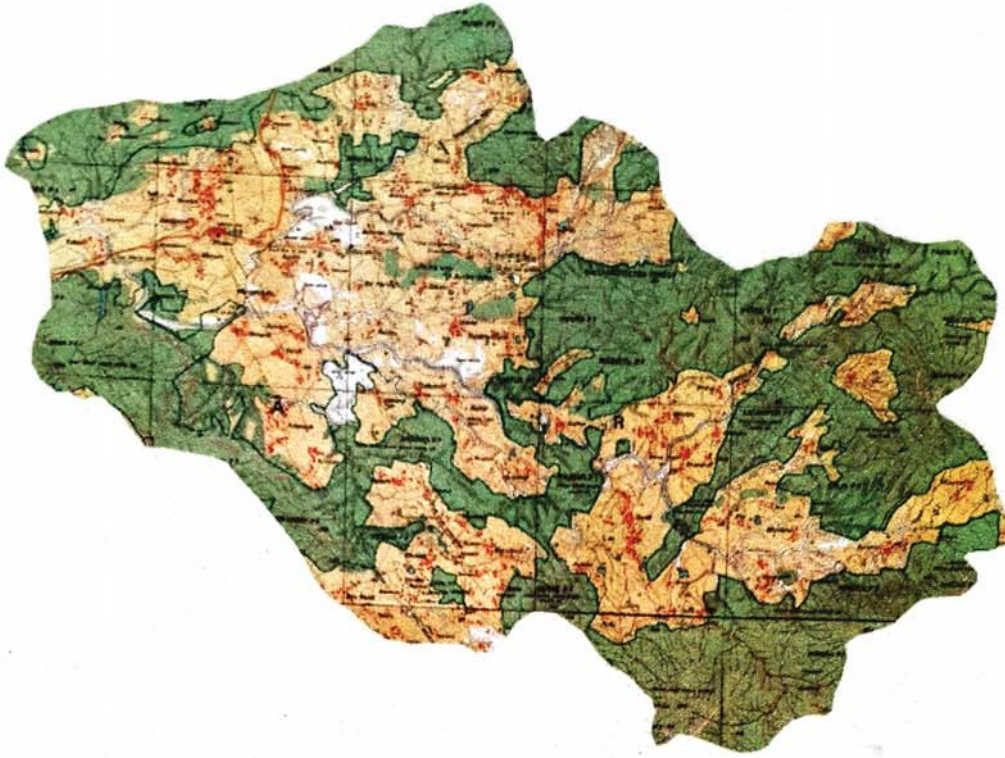


Figure 2c: Sukri river Watershed under Tubed Coal Block on Toposheet

The details of each sub-catchment under consideration are given Table 1a and Table 1b

Table 1a: Sub-catchments of the Sukri river under Tubed Coal Block

Sl. No.	Catchment designation	Area (sq. km)
1	A	8.50
2	B	3.66
3	C	3.264
4	D	193.663
5	E	5.172
6	F	1.000
7	H	2.411


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Table 1b: Micro-watersheds of the Sukri river under Tubed Coal Block

Sl. No.	Micro-watershed	Area (in Ha)	Area (in Sq. Km)
1	2A5B4j2	772.19	7.7219
2	2A5B4j3	803.52	8.0352
3	2A5B4j4	926.17	9.2617
4	2A5B4j5	662.58	6.6258
5	2A5B4j6	677.88	6.7788
6	2A5B4j7	1101.7	11.017
7	2A5B4j8	803.04	8.0304
8	2A5B4j9	739.12	7.3912
9	2A5B4k1	979.32	9.7932
10	2A5B4k2	995.58	9.9558
11	2A5B4k3	1003.08	10.0308
12	2A5B4k4	757.05	7.5705
13	2A5B4k5	902.8	9.028
14	2A5B4k6	631.54	6.3154
15	2A5B4k7	987.67	9.8767
16	2A5B4k8	861.48	8.6148
17	2A5B4k9	1001.51	10.0151
18	2A5B4m1	555.47	5.5547
19	2A5B4m2	382.52	3.8252
20	2A5B4m3	774.52	7.7452
21	2A5B4m4	962.23	9.6223
22	2A5B4m5	751.69	7.5169
23	2A5B4m6	1321.69	13.2169
24	2A5B4m7	763.18	7.6318
25	2A5B4m8	739.23	7.3923
26	2A5B4m9	910.79	9.1079
		21767.55	217.6755

Source: SLUSI Data on Micro-Watersheds



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Table 1c: List of villages, their Population, List of Forest in Catchment Area of Sukri river upto Tubed Coal Mine

Serial no.	Name of village	Population	Name of Forest	Forest Area in Ha
1	AMBAJHARAN	391	-----	-----
2	DIHI	2985	DIHI PF	506.38
3	DHOBIAJHARAN	218	-----	-----
4	NEWARI	1373	-----	-----
5	CHOPE	543	-----	-----
6	MURUP	1066	-----	-----
7	KUNDRI	904	KUNDRI PF	12.07
8	SEMARIA	317	SEMARIA PF	157.55
9	TUBED	1225	TUBED PF	396.67
10	MANGRA	760	MANGRA PF	391.45
11	TEMKI	1057	-----	-----
12	ARAGUNDI	1071	ARAGUNDI PF	387.24
13	JAREANG	788	JAREANG PF	267.58
14	RENCHI	1191	RENCHI PF	147.93
15	RAJBAR	1285	RAJBAR PF	343.85
16	DAREA	1158	DAREA PF	169.15
17	SURLI	631	SURLI PF	57.47
18	SARAK	3734	SARAK PF	424.99
19	TASU	1016	TASU PF	357.47
20	MOHANPUR	388	MOHANPUR PF	44.95
21	KASIADIH	272	KASIADIH PF	7.61
22	PATRATU	797	-----	-----
23	BHALU GARI	234	-----	-----
24	LUTI	651	-----	-----
25	BAMHAN HERA	373	BAMHAN HERA PF	11.25
26	BALU	6288	BALU PF	921.32
27	TUMBAGARA	327	TUMBAGARA PF	26.69
28	DIRIDAG	752	DIRIDAG PF	326.14
29	BHANG	351	BHANG PF	273.62
30	HUNDI	248	HUNDI PF	46.29
31	BANKITA	313	BANKITA PF	245.71
32	GHUTAM	1002	GHUTAM PF	110.82
33	ARAHARA	806	ARAHARA PF	17.71
34	PANDUKA	147	PANDUKA PF	7.23
35	KULHERWA	276	-----	-----
36	DATAM	282	DATAM PF	23.01



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37	KURIAM KALAN	526	KURIAM KALAN PF	41.27
38	KURIAM KHURD	758	KURIAM KHURD PF	50.62
39	LEJANG	726	LEJANG PF	53.06
40	LUNDIBAR	35	LUNDIBAR PF	109.18
41	GURTHUR	473	GURTHUR PF	295.6
42	MASIATU	2765	MASIATU PF	239.87
43	HOLANG	1309	HOLANG PF	263.54
44	ERUD	342	ERUD PF	159.45
45	OLHEPAT	806	OLHEPAT PF	422.62
46	BATHANIA KHAR ALIAS BHUTAHABAB	54	BATHANIA KHAR ALIAS BHUTAHABAB PF	309.51
47	CHETAG	1592	CHETAG PF	316.55
48	KITA	1176	KITA PF	361.15
49	LACHHIPUR	669	LACHHIPUR PF	627.06
50	NINDRA	469	NINDRA PF	369.1
51	TARHASI	290	TARHASI PF	343.52
52	CHATUNGA	932	CHATUNGA PF	675.67
53	NAGAR	2078	NAGAR PF	652.91
54	KURAMUBARAPUR	309	KURAMUBARAPUR PF	245
55	MURGAON	554	MURGAON PF	153.18
56	HEMPUR	1517	HEMPUR PF	49.34
57	NAWADA	1347	NAWADA PF	267.59
58	CHITARPUR	1286	CHITARPUR PF	179.21
59	BAN HARDI	2051	BAN HARDI PF	237.26
60	BISHRAMPUR	156	BISHRAMPUR PF	33.35
61	PAKRI	1044	PAKRI PF	281.27
62	OBAR	571	OBAR PF	390.98
63	NAWADHI	412	-----	-----
	TOTAL	59467		12810.01

In the present study, the soil erosion intensity and silt yield index (SYI) of the above catchments as in table 1a have been determined and the catchment treatment plan has been suggested.

4. Methodology

In this study, widely used and easy to use 'silt yield index' (SYI) method has been used. This method considers sedimentation as product of erosivity, morphometry and delivery ratio of a particular catchment. The method was conceptualized by Soil and Land Use Survey of India (SLUSOI) as early as 1969 and has been operational since then to meet the requirements of prioritization of smaller hydrologic units within river valley project catchment areas. The terrain


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of the Tubed Coal Block has been subdivided into various sub-catchment (as shown in Figure 2) and the erodibility has been determined on relative basis. SYI provides a comparative erodibility criterion of catchment (low, moderate, high, etc.).

Various thematic maps of the catchment area have been used in preparation of the catchment area treatment (CAT) plan. Geographic Information System (GIS) has been used to store, analyze and display various spatial data. The various data layers of the catchment area used for the study are as follows:

- Catchment area map
- Land use classification map
- Slope map
- Soil map

The details of the map preparation, calculation of Soil Erosion Intensity and silt yield index have been discussed below.


4.1. Land use Classification Map

For the present study, land use or land cover maps is collected from SLUSI and has been geo-referenced using Survey of India topographical sheets with the help of standard data preparation techniques in standard image processing software. The geo-referenced data was digitized for the different land use/ land cover classes. The classified land use map of the catchment area, considered for the study, is shown as Figure

3. The land use pattern of the catchment area is summarized in Table 2. The land use/land cover map of the catchment of Sukri river under the Tubed Coal Block can be classified into six classes. Out of these six classes, the area of open forest is the highest while area of River and Water bodies is least.

Table 2: Land use classification for the Sukri River catchment under consideration

Sl.No.	Land use/ Landcover	Area (sq km)	Area (%)
1.	Dense Forest	25.5	11.7
2.	Open Forest	67.5	31.09
3.	Waste Land	33.87	15.5
4.	Settlement	31.3	14.37


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5.	Agricultural Land	56.9	26.13
6.	River and Water Bodies	2.7	1.21
	Total	217.67	100.00

4.2. Slope Map

Digital Elevation Model (DEM) has been developed of the catchment area. The digitized slope map was generated using the elevation values. After marking the catchment area, all the contours on the topographical maps were derived. The output of the digitization procedure was the contours as well as points contours in form of x, y and z points. (x, y - location and z - their elevation). All this information was in real world co-ordinates (latitude, longitude and height in meters above mean sea level). A Digital Terrain Model (DTM) of the area was then prepared and it was used to derive slope map. The areas falling under various standard slope categories are shown in Table 3. The slope map is shown as Figure 4.

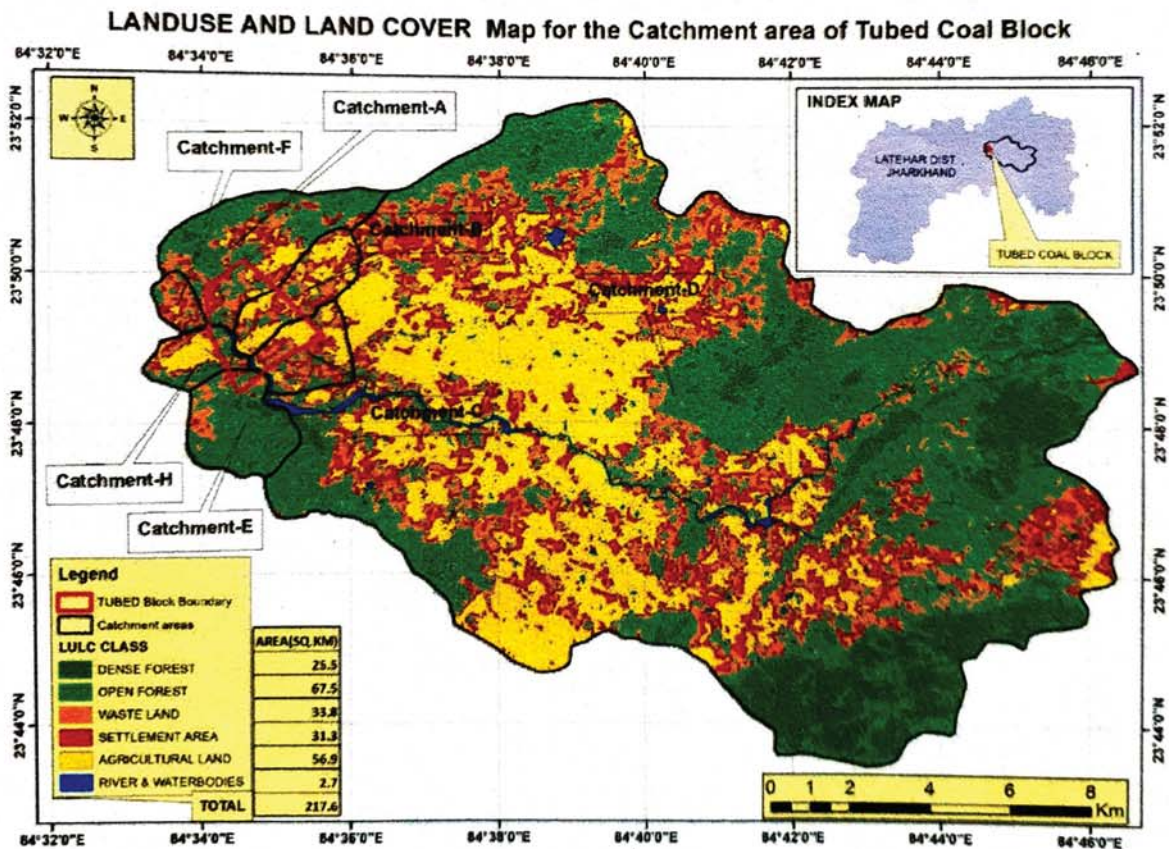


Figure 3: Land use map of Sukri river catchment under Tubed Coal Block

Source: SLUSI data on Micro-Watersheds

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Table 3: Areas falling under different slope categories of Sukri river catchment

Slope (Degrees)	Slope Category	Area (sq km)	Area (%)
Upto 2	Gently Sloping	105.2476	48.37
2-8	Moderately Sloping	55.763	25.63
8-15	Strongly Sloping	25.9337	11.92
15-30	Moderately Steep	16.5986	7.63
30-45	Steep	10.2969	4.7
45-60	Very Steep	3.8237	1.76
Above 60	Extremely Steep	0.00062	0.0003
Total		217.67	100.00

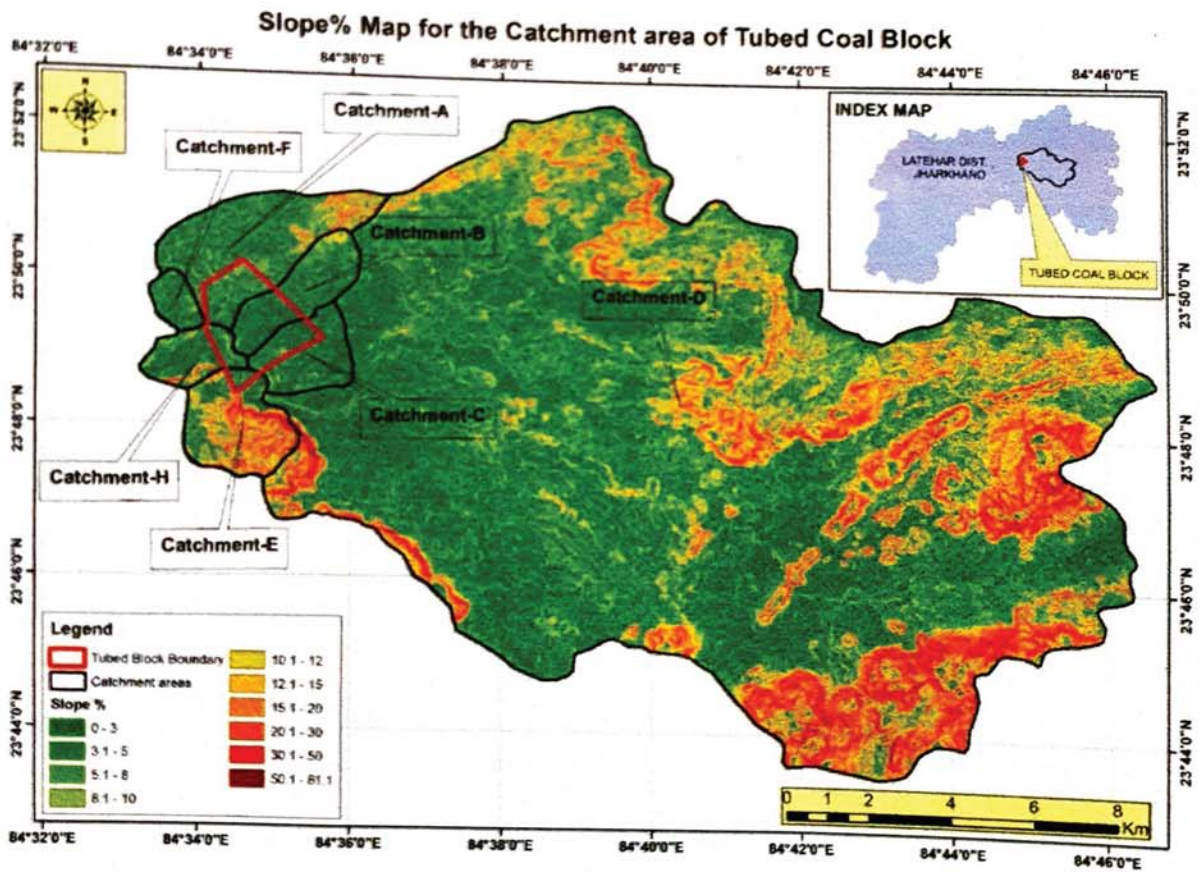


Figure 4: Slope map of Sukri river catchment under Tubed Coal Block

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4.3. Soil map

Digitized soil map has been developed by using information in National Bureau of Soil Survey and Land use Plan. The soil map has been shown in Figure 5.

The classes of soil are given in Table 4.

4.4. Rainfall intensity

The competent authority of Develecto Mining Limited supplied the monthly rainfall data of Latehar which are very close to the project site for the year 2006 to 2017. These data were analyzed to obtain average annual rainfall of the project site. The value was found to be 1029 mm/year. This rainfall value was used for the estimation of soil erosion.

Table 4: Soil classes of Sukri River catchment

Soil Types	Area (sq. km)	Area (%)
Loamy-Skeletal, Typic Haplustepts Very deep, reddish brown to yellowish red colour. Sandy clay loam to sandy clay subsoil texture and moderately drained.	0.912	0.42
Loamy-Skeletal, Typic Haplustalfs Very deep, dark reddish brown to yellowish red colour. Sandy clay loam to clay texture with subsoil argillic horizon and moderately well drained.	18.113	8.32
Fine, Mixed, Udic Paleustalfs Very deep imperfectly drained coarse loamy soil occurring on very gently sloping to undulating directed upland with loamy surface and moderate erosion	1.869	0.86
Fine Loamy Typic Haplustepts Very deep dark reddish brown to dark brown colour. Sandy clay subsoil texture and moderately well drained.	29.132	13.38


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Mixed Fine loamy, Typic Ustarthents		
Loamy surface and moderate erosion associated with deep, moderately well drained loamy soil	103.3	47.46
Loamy-Skeletal, Utic Haplustalfs		
Very deep dark brown to dark reddish brown colour loamy sand to sandy clay loam texture with subsoil orgillic horizon and imperfectly drained	64.342	29.56

4.5. Calculation of soil loss

Soil loss has been calculated using Revised Universal Soil Loss Equation (RUSLE) model. The model equation is given below. which is computed by the following equation:

$$A = R \times K \times LS \times C \times P$$

Where, A is soil loss (Tonnes/ha/year); R is rainfall & runoff erosivity factor (MJ/ha/mm/year), which depends upon the annual average rainfall in mm; K is erodibility factor (Tons/MJ/mm), which depends on the organic matter, texture permeability and profile structure of the soil; LS is topographic factor (dimensionless), which depends upon flow accumulation and steepness and length of slope in the area; C is vegetation cover and crop management factor (dimensionless), which is the ratio of bare soil to vegetation and non- photosynthetic material; and P is support practice factor (dimensionless), which takes into account specific erosion control practices like contour bunding, bench terracing etc. This factor is taken as 1 for bare soil where no erosion control practice is taking place. The values of the R, K, LS, C and P of the catchment are shown in Figure 6-10. This calculation enables to produce soil erosion intensity mapping unit (EIMU) which will be used for calculation of silt yield index. EIMU is a composite expression of physiography, land use, and conservation practices adopted. While computing soil erosion intensity in a catchment all the factors (physiography, land use, and conservation practices) are already taken into consideration. Therefore, EIMUs are assumed as per the soil erosion intensity in the sub-catchment. The six classes of EIMUs have been used, which are mentioned in Table 5.


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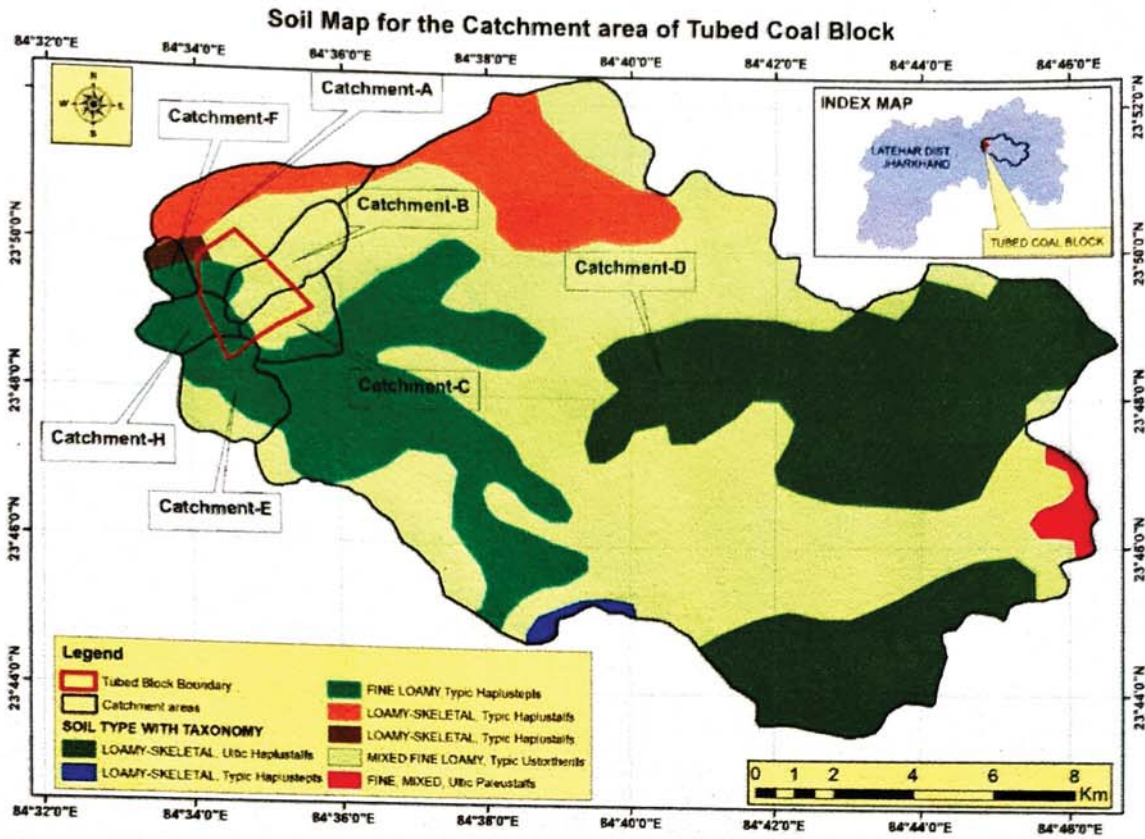


Figure 5: Soil map of Sukri river catchment under Tubed Coal Block

Source: National Bureau of Soil Survey and Land use Plan.

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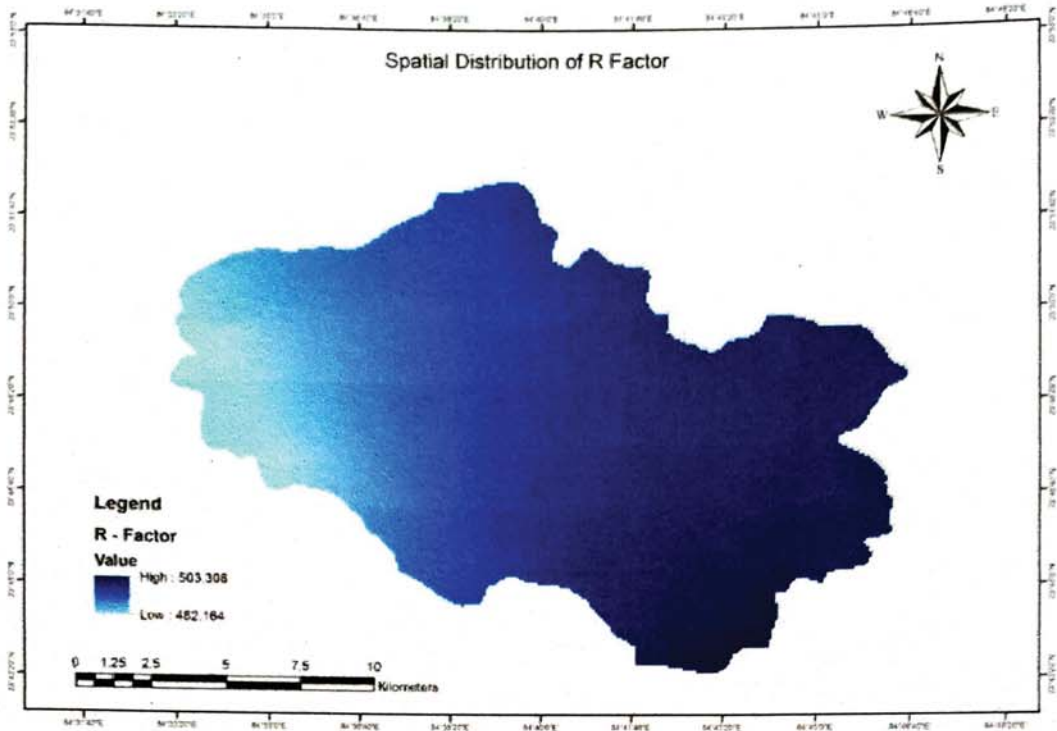


Figure 6: R factor for the Sukri river catchment under Tubed Coal Block

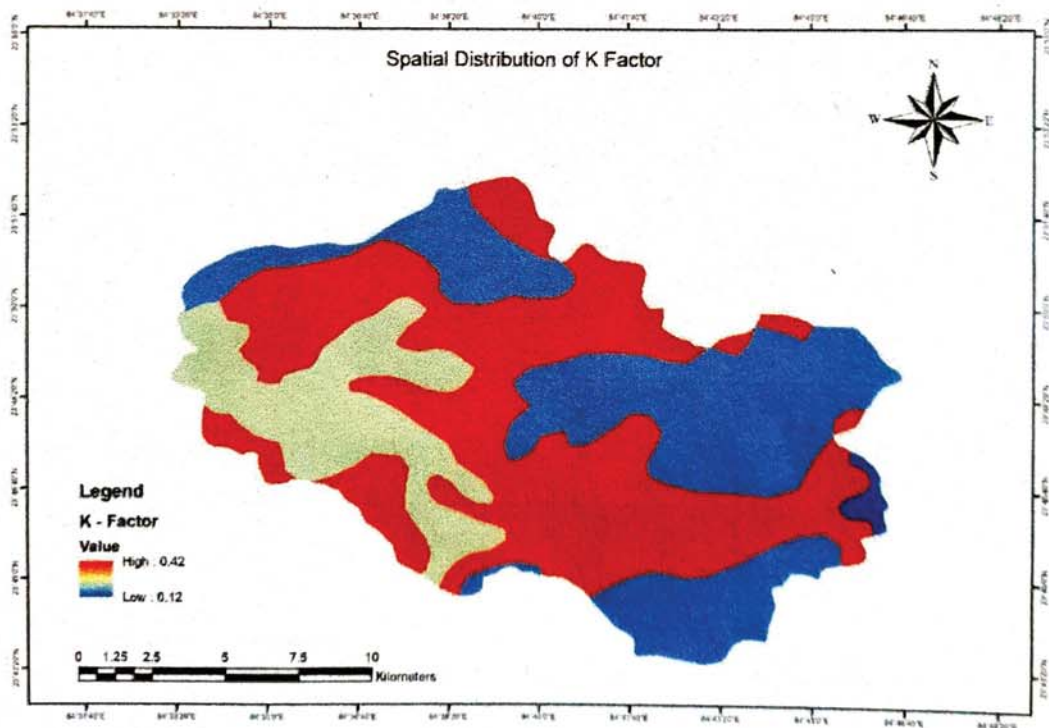


Figure 7: K factor for the Sukri river catchment under Tubed Coal Block

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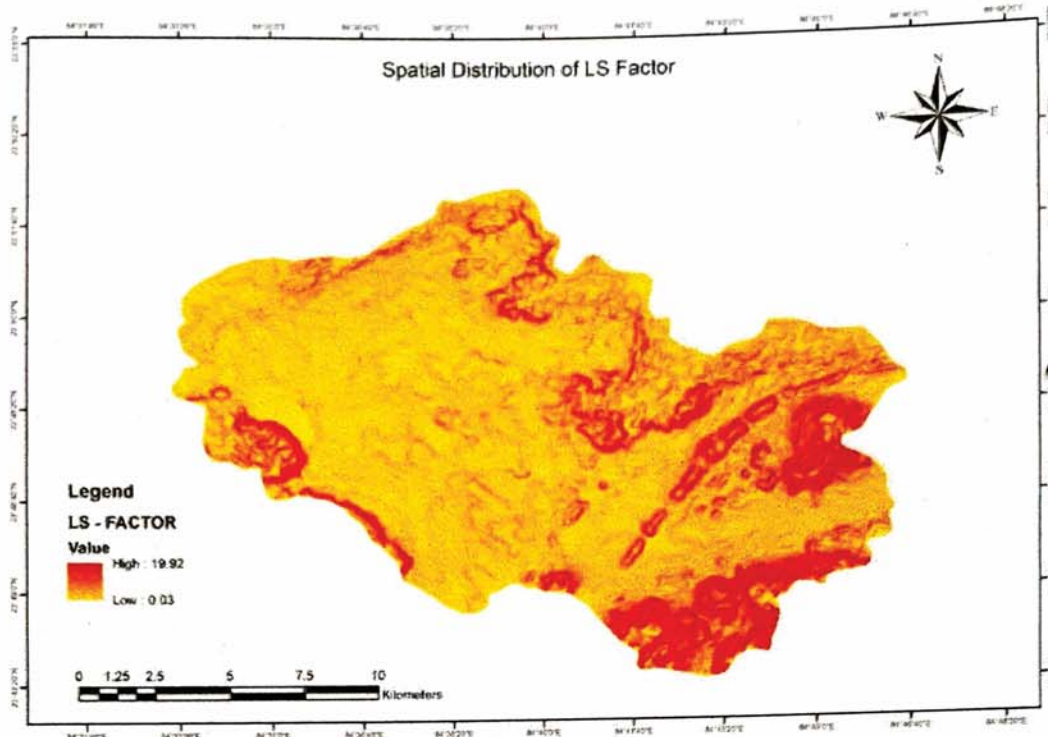


Figure 8: LS factor for the Sukri river catchment under Tubed Coal Block

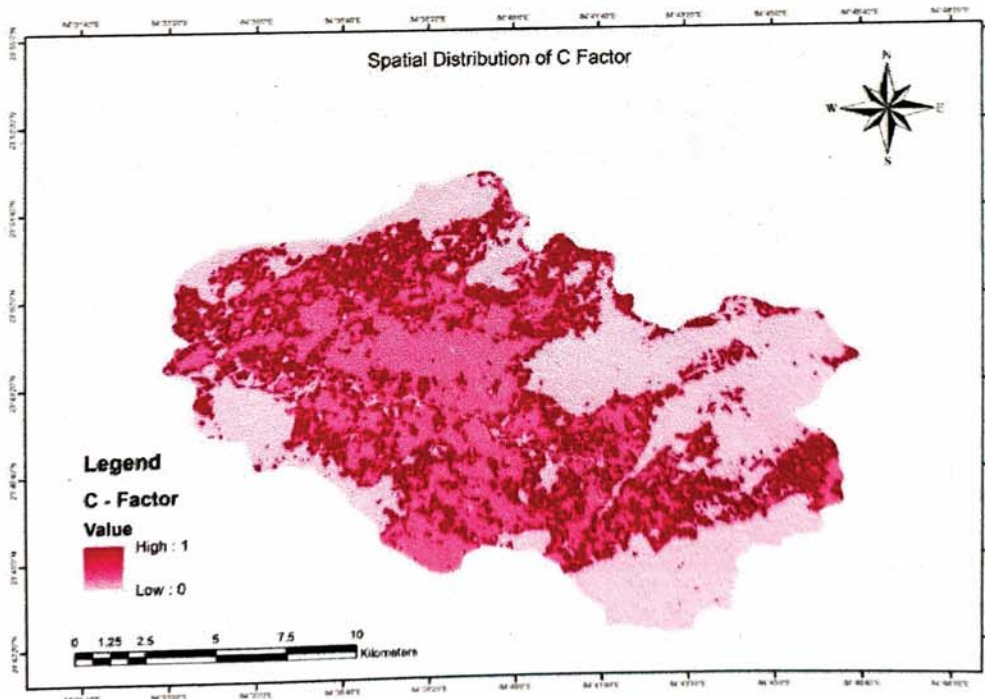


Figure 9: C factor for the Sukri river catchment under Tubed Coal Block

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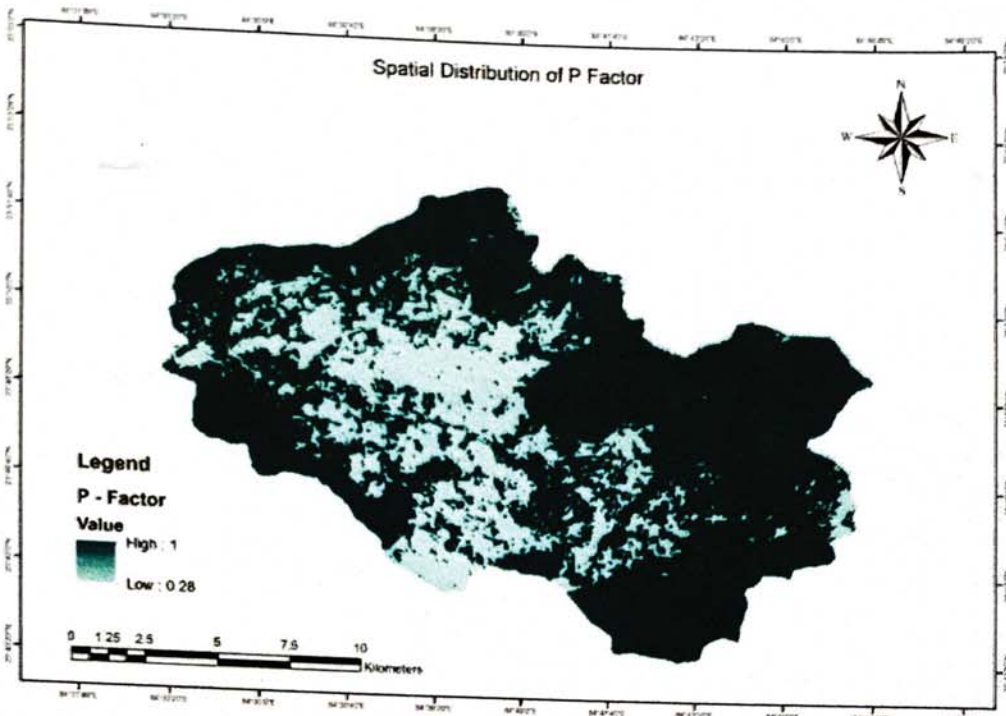


Figure 10: P factor for the Sukri river catchment under Tubed Coal Block

Table 5: EIMU classification

EIMU code	Soil erosion intensity
1	Very Severe
2	Severe
3	Moderate
4	Low
5	Very Low
6	Negligible/ Slight

4.5. Calculation of silt yield index (SYI)

The SYI conceptualizes sediment delivery into the water body as a multiplicative function of potential soil detachment representing the erosivity factor (weightage value) and transportability of the detached material (delivery ratio value).

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Silt yield index (SYI) was calculated using following empirical formula:

$$SYI = \frac{\sum A_i W_i D_i}{A_w} \times 100$$

Where, $i = 1$ to n

A_i = area of i^{th} unit (EIMU)

W_i = weightage value of i^{th} unit

N = No. of mapping unit

A_w = total area of catchment


D_i = Delivery ratio

Delivery ratios are assigned to all erosion intensity units depending upon their distance from the nearest stream. The criteria adopted for assigning the delivery ratio are as follows:

Table 6: Delivery ration

Nearest Stream	Delivery ratio
0 - 0.9 km	1.00
1.0 - 2.0 km	0.95
2.1 - 5.0 km	0.90
5.1 - 15.0 km	0.80
15.1 - 30.0 km	0.70

Weightage values are assigned to the erosion intensity unit depending upon the soil erosion intensity and delivery ratio in a sub-watershed. Higher the soil erosion intensity and delivery ratio in the sub-watershed higher is the weightage value assigned to the erosion mapping unit. The weightage value assigned to erosion mapping unit in a sub- watershed range from 11-19. The SYI values for classification of various categories of erosion intensity rates are given in Table 7.


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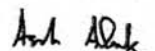


Table 7: Criteria for erosion intensity rate


Priority categories	SYI Values
Very high	> 1300
High	1200-1299
Medium	1100-1199
Low	1000-1099
Very Low	<1000

5. Estimate of soil erosion

A thematic map for soil erosion of the catchment area has been prepared using RUSLE model mentioned in the previous sections. The catchment was then demarcated into different soil erosion intensity classes based upon the extent of soil loss (see Table 8 & 9 and Figure 11 & 12).

Table 8: Soil loss ranges for Sukri river catchment area

Sl.No.	Soil loss in tons/hectare/annum	Soil Erosion Intensity	Area (ha)	Area (%)
1	1-5	Slight	15150.96	69.60
2	5-10	Very Low	1113.46	5.15
3	10-20	Low	1488.03	6.83
4	20-40	Moderate	1776.15	8.15
5	40-80	Severe	1636.732	7.51
6	>80	Very Severe	601.6525	2.76
Total			21767	100


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Table 9: Sub-watershed wise area under each EIMU class

Sub-Watershed	A	B	C	D	E	F	H	TOTAL
EIMU Code	Area (ha)							
1	59.606	33.3836	15.5428	459.539	12.3143	11.7647	9.50147	601.6525
2	72.670	31.6662	14.5400	1312.97	143.667	24.4008	36.8182	1636.732
3	91.450	25.7909	12.5345	1444.27	155.981	8.71459	37.4120	1776.15
4	66.138	16.9780	7.0193	1312.97	53.3619	5.44662	26.1290	1488.043
5	52.257	30.4618	10.0276	984.727	8.20952	9.36819	18.4091	1113.46
6	507.87	227.719	266.735	13851.8	143.667	40.3050	112.83	15150.96
TOTAL	85	366	326.4	19366.3	517.2	100	241.1	21767

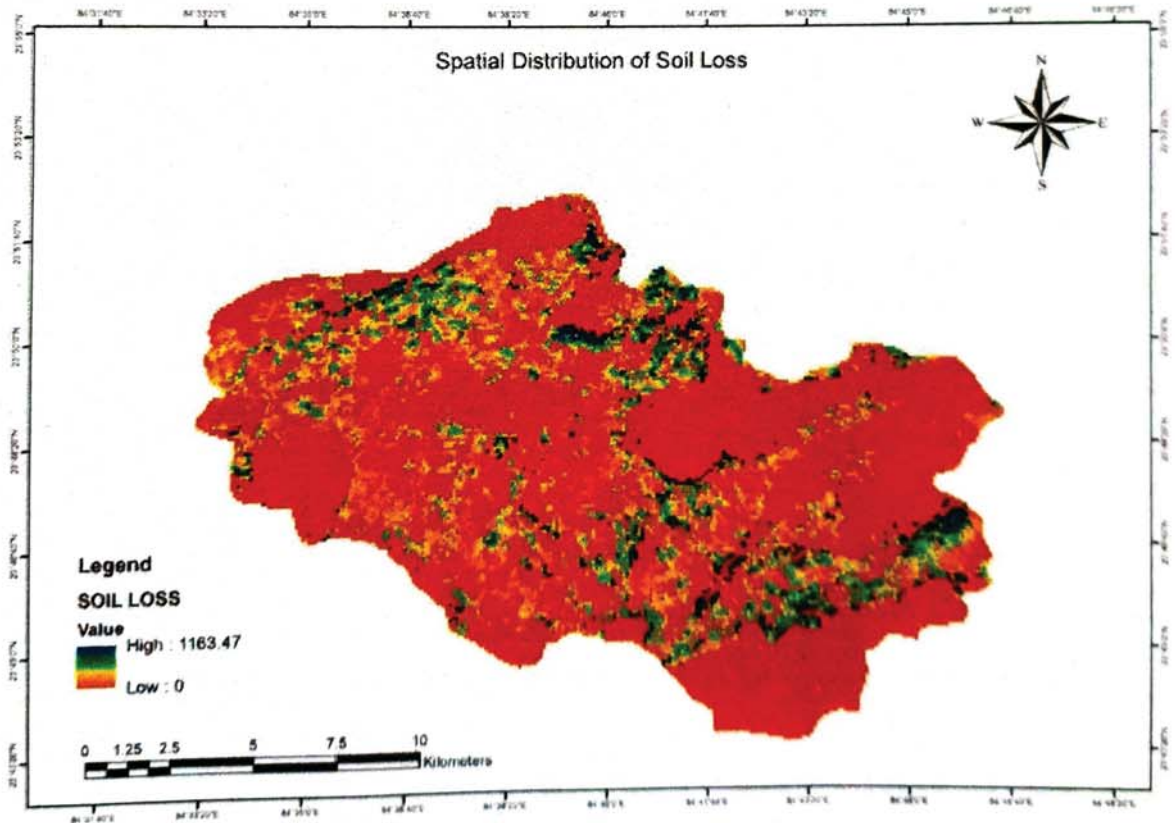


Figure 11: Soil loss map of Sukri river catchment area under Tubed Coal Block

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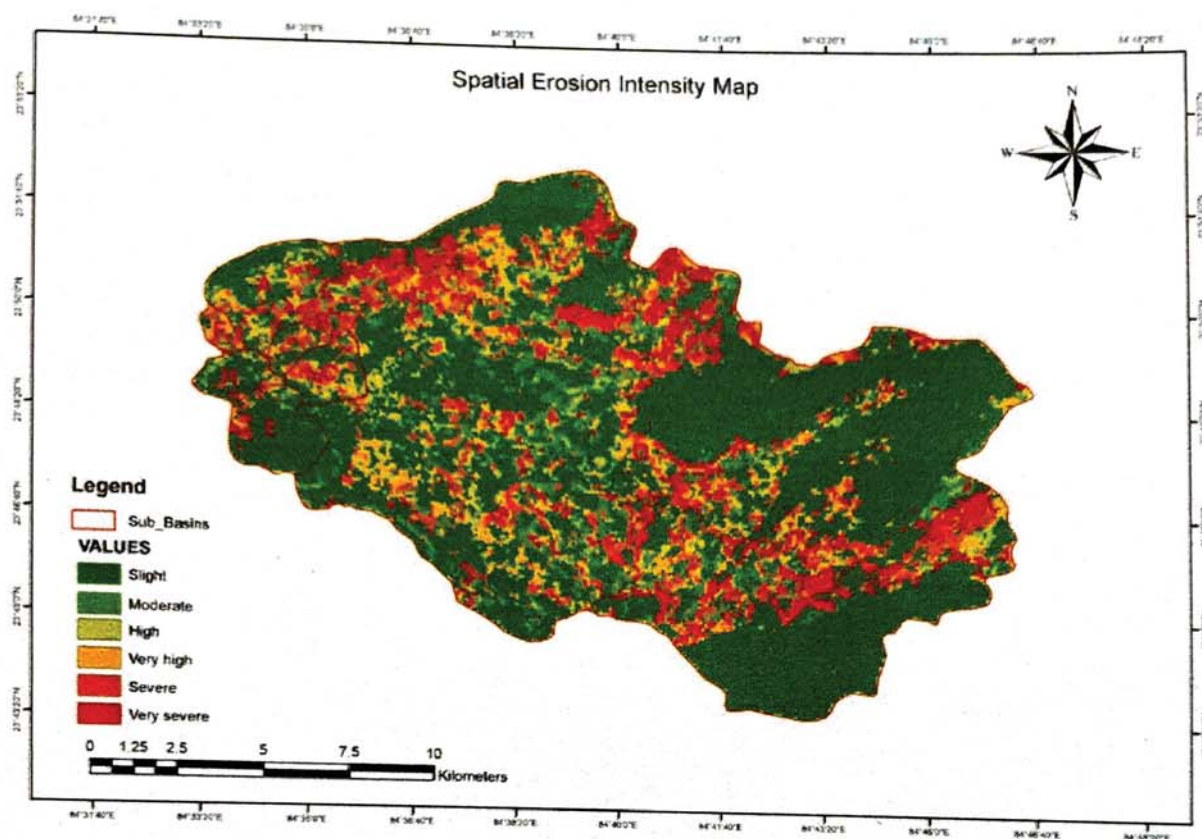


Figure 12: Soil erosion intensity map of Sukri river catchment area under Tubed Coal Block

6. Estimation of soil loss using silt yield index (SYI) method

The SYI index as per erosion category of various sub-watersheds in the catchment area has been estimated and given in **Table 10**.

The erosion category of various sub-watersheds in the catchment area as per the SYI index are shown in the table mentioned above. The objective of the SYI method is to prioritize sub-watershed in a catchment area for treatment. The sub-watersheds with high and medium priority category in the catchment are required to be treated on priority basis; however, the area under severe and very severe soil erosion category in all the sub-watersheds need to be taken up for treatment measures. Thus, the prioritization will help in

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understanding which sub-watershed to be taken for priority during the 10-year CAT plan comprising of 4 years of implementation and 6 years of maintenance.

Hence, under the CAT plan implementation, the sub-watersheds would be treated as per the priority defined in Table 11.

Table 10: SYI Index as per Erosion Category of Sub-Watersheds


Sub-Watershed	EIMU	EIMU Area (ha)	Weightage factor (WF)	Silt Yield (SY) = EA * (WF)	Delivery Ratio (DR)	SYI = (SY*DR*100)/SA
		(EA)				
A	1	59.60615	18	1072.91	0.9	1281
	2	72.67051	17	1235.4		
	3	91.45053	16	1463.21		
	4	66.13833	15	992.075		
	5	52.25744	14	731.604		
	6	507.877	13	6602.4		
Total		850		12097.6		1281

Sub-Watershed	EIMU	EIMU Area (ha)	Weightage factor (WF)	Silt Yield (SY) = EA * (WF)	Delivery Ratio (DR)	SYI = (SY*DR*100)/SA
		(EA)				
B	1	33.38366	16	534.139	0.9	1097
	2	31.66627	15	474.994		
	3	25.79099	14	361.074		
	4	16.97806	13	220.715		
	5	30.46108	12	365.533		
	6	227.7199	11	2504.92		
Total		366		4461.37		1097


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Sub-Watershed	EIMU	EIMU Area (ha)	Weightage factor (WF)	Silt Yield (SY) = EA * (WF)	Delivery Ratio	SYI = (SY*DR*100)/SA
		(EA)			(DR)	
C	1	15.54286	18	279.771	0.9	1224
	2	14.54009	17	247.182		
	3	12.53456	16	200.553		
	4	7.019355	15	105.29		
	5	10.02765	14	140.387		
	6	266.7355	13	3467.56		
Total		326.4		4440.74		1224

Sub-Watershed	EIMU	EIMU Area (ha)	Weightage Factor (WF)	Silt Yield (SY) = EA *(WF)	Delivery Ratio	SYI = (SY*DR*100)/SA
		(EA)			(DR)	
D	1	459.5393	17	7812.17	0.9	1152
	2	1312.969	16	21007.5		
	3	1444.266	15	21664		
	4	1312.969	14	18381.6		
	5	984.7271	13	12801.5		
	6	13851.83	12	166222		
Total		19366.3		247889		1152


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Sub-Watershed	EIMU	EIMU Area (ha)	Weightage factor (WF)	Silt Yield (SY) = EA *(WF)	Delivery Ratio	SYI = (SY*DR*100)/SA
		(EA)			(DR)	
E	1	12.31429	15	184.714	0.9	1112
	2	143.6667	14	2011.33		
	3	155.981	13	2027.75		
	4	53.3619	12	640.343		
	5	8.209524	11	90.3048		
	6	143.6667	10	1436.67		
Total		517.2		6391.11		1112

Sub-Watershed	EIMU	EIMU Area (ha)	Weightage factor (WF)	Silt Yield (SY) = EA * (WF)	Delivery Ratio	SYI = (SY*DR*100)/SA
		(EA)			(DR)	
F	1	11.76471	17	200	0.9	1262
	2	24.40087	16	390.414		
	3	8.714597	15	130.719		
	4	5.446623	14	76.2527		
	5	9.368192	13	121.786		
	6	40.30501	12	483.66		
Total		100		1402.83		1262


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Sub-Watershed	EIMU	EIMU Area (ha)	Weightage factor (WF)	Silt Yield (SY) = EA * (WF)	Delivery Ratio (DR)	SYI = (SY*DR*100)/SA
		(EA)				
H	1	9.501478	15	142.522	0.9	1040
	2	36.81823	14	515.455		
	3	37.41207	13	486.357		
	4	26.12906	12	313.549		
	5	18.40911	11	202.5		
	6	112.83	10	1128.3		
Total		241.1	1040	2788.68		1040


Table 11: Erosion Intensity Categorization as per SYI Classification

Sub-watershed	SYI	Priority Number
High		
A	1280	1
F	1262	2
C	1224	3
Medium		
D	1152	4
E	1112	5
Low		
B	1097	6
H	1040	7

7. Treatable area

The treatment measures are normally taken up in the areas which are prone to very severe and

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severe erosion in all the sub-watersheds falling in different priority categories. Although areas which are prone to moderate, low and very low erosion does not require treatment measures most of the time, however, for the better environmental and erosional measures, it is proposed to be included in the treatment plan (Table 12). The areas prone to slight erosion does not require any treatment measures. Therefore, under the Catchment Area Treatment plan an area of approximately 6616 hectares will be taken up for treatment.

Table 12: Sub-watershed wise area under Severe and Very Severe Erosion Category

Sub-Watershed	Erosion Intensity Category					Total (ha)
	Very Severe (ha)	Severe (ha)	Moderate (ha)	Low (ha)	Very low (ha)	
A	59.61	72.67	91.45	66.14	52.26	342.13
B	11.76	24.4	25.79	16.98	30.46	109.39
C	9.5	36.8	12.53	7.02	10.03	75.88
D	459.53	1312.97	1444.27	1312.97	984.73	5514.47
E	15.54	14.54	155.98	53.36	8.21	247.63
F	12.31	143.67	8.71	5.45	9.37	179.51
H	33.38	31.67	37.41	26.13	18.41	147
Total	601.63	1636.72	1776.14	1488.05	1113.47	6616.01

8. Catchment treatment plan

8.1. Treatment measure

Watershed management is the optimal use of soil and water resources within a given geographical area so as to enable sustainable production. It implies changes in land use, vegetative cover, and other structural and non-structural action that are taken in a watershed to achieve specific watershed management objectives. The overall objectives of watershed management programme are to:

- Ground water recharge/Water conservation.
- Control excessive runoff.


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- Manage & utilize runoff for useful purpose.

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The eroded sediment from catchment of Sukri River when deposited on streambeds and banks causes braiding of the river reach. The removal of top fertile soil & formation of gully in catchment area adversely affects the agricultural production. Thus, a well-designed catchment area treatment plan is essential to ameliorate the above-mentioned adverse processes of soil erosion. In hilly area, erosion due to water is a common phenomenon and the same has been studied as a part of the Catchment Area treatment (CAT) plan. Hence, it is necessary to adopt corrective measures in the catchment area so as to reduce the sediment load.

The Engineering and Biological measures proposed have been elaborated below:

(i) Treatment Measures: Engineering Measures

(a) Check Dams


Gully erosion is one of the concerned soil erosions in the slope and hilly areas. The gully formed area is proposed to be treated with the help of check Dams. Check dams would be constructed in some of the areas to promote growth of vegetation that will consequently lead to the stabilization of the slopes/area and prevention of further deepening of gullies and erosion. For controlling the gully, the erosive velocities are reduced by flattening out the steep gradient of the gully. This is achieved by constructing a series of checks which transform the longitudinal gradient into a series of steps with low risers and long flat treads.

b) Loose Boulders Structure (LBS)

Loose Boulder Structures (LBS) are one of the most important drainage line treatments. As the name suggests, LBS is made up of loosely arranged boulders so as to arrest excess erosion and water loss during the rainy season. LBS acts as a speed-breaker that reduces the speed of the water flow when it rains heavily. It slows down the water, reduces soil erosion and arrests the loss of fertile soil usually washed away. LBS is proposed to be built at short intervals in a sequence so as they collectively and efficiently serve as a mechanism helping in groundwater recharge as and when it rains.

(ii) Biological Measures

It is always better to undertake preventive measures than to mitigate the factors that ultimately leads to soil erosion. Such preventive measures will indirectly help to conserve soil and to recharge groundwater in the long run. Keeping in view, the importance of integral eco-restoration strategy with socio-economic needs of the local community wherein both ecology and economics are developed. The preventive measures that are proposed in the catchment area of Sukri River are


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as follows.

a) Afforestation

In the upland/hilly region like this catchment area, the trees and vegetation cover play an important role in the conservation of soil, forest, and ecology. Afforestation would be taken up in such areas that contain large patches of barren grassy slopes and are generally devoid of trees and are honeycombed by cultivation. In critically degraded areas, plantation of locally useful, diverse, and indigenous plant species is proposed.

(b) Gap Plantation:

In dense forest area, some gaps are developed due to various reasons, which is required to be filled up for further prevention of soil erosion and to maintain the ecological balance.


The various measures suggested for catchment area treatment are mentioned in Table 13 and expenses of which have to be borne by the project proponents.

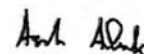
Table 13: Sub-Watershed wise details of various treatment measures

SERIAL NO	SUB-WATERSHED	AFFORESTATION (Ha)	GAP PLANTATION / SMC ACTIVITIES LIKE CONTOUR BUNDING, GULLY PLUGGING ETC. (Ha)	CHECK DAM (Nos.)/Ha	LOOSE BOULDER STRUCTURE IN PLACE OF BRUSHWOOD CHECK BUNDS (Nos)
1	A	40	205	8	40
2	B	17	82	6	40
3	C	14	95	3	12
4	D	892	3746	50	1100
5	E	19	76	4	20
6	F	4	32	3	10
7	H	14	67	7	10
TOTAL		1000	4303	81	1232

Recommended locations for treatment measures such as:

- (i) Afforestation is proposed to be done at degraded forest land & forest land, where density of trees is low, such as Dihi PF, Kundri PF, Semaria PF Tubed PF, Mangra PF, Aragundi PF, Jareang PF, Renchi PF, Rajbar PF, Darea PF, Surli PF, Sarak PF, Tasu PF, Mohanpur PF,


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- (ii) Kasiadih PF, Bamhan Hera PF, Balu PF, Tumbagara PF, Diridag PF, Bhang PF, Hundi PF, Bankita PF, Ghutam PF, Arahara PF, Panduka PF, Datam PF, Kuriam Kalan PF, Kuriam Khurd PF, Lejang PF, Lundibar PF, Masiatu PF Holang PF, Erud PF, Olhepat PF, Bathania Khar Alias Bhutahabab PF, Chetag PF, Kita PF, Lachhipur PF, Nindra PF, Tarhasi PF, Chatunga PF, Nagar PF, Kuramubarapur PF, Murgaon PF, Hempur PF, Nawada PF, Chitarpur PF, Ban Hardi PF, Bishrampur PF, Obar PF, Pakri PF.
- (iii) Gap plantation is proposed to be done at dense forest which has developed gap in the forest area due to various reasons. The gap plantation is also proposed in the forest such as Dihi PF, Kundri PF, Semaria PF Tubed PF, Mangra PF, Aragundi PF, Jareang PF, Renchi PF, Rajbar PF, Darea PF, Surli PF, Sarak PF, Tasu PF, Mohanpur PF, Kasiadih PF, Bamhan Hera PF, Balu PF, Tumbagara PF, Diridag PF, Bhang PF, Hundi PF, Bankita PF, Ghutam PF, Arahara PF, Panduka PF, Datam PF, Kuriam Kalan PF, Kuriam Khurd PF, Lejang PF, Lundibar PF, Masiatu PF Holang PF, Erud PF, Olhepat PF, Bathania Khar Alias Bhutahabab PF, Chetag PF, Kita PF, Lachhipur PF, Nindra PF, Tarhasi PF, Chatunga PF, Nagar PF, Kuramubarapur PF, Murgaon PF, Hempur PF, Nawada PF, Chitarpur PF, Ban Hardi PF, Bishrampur PF, Obar PF, Pakri PF.
- (iv) Loose Boulder Structure is proposed to be taken up in the area where the river & streams formed gully and erosion of the topsoil is happening. In the plain area, where due to low velocity of river water, nalas are formed. To check the slit deposition & water conservation check dams are proposed on those places.

8.2. Year-wise Phasing of Treatment Measures

The year-wise detail of all biological as well as engineering treatment measures required in different sub-watersheds is given in **Table 14**.


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8.3. Cost Estimates

The estimated cost required for Catchment Area Treatment is **Rs. 8583.14 lakh**. The details are given in **Table 15**.

Table 15: Estimated cost of CAT Plan Implementation

Serial No	Item	Amount (Rs)
1	Biological Measures	767,987,322.14
2	Engineering Measures	87,827,141.40
3	Silt Observation Units	2,500,000.00
Grand Total		858,314,463.54


*As regard to Silt Observation Ports (SOP) necessary technical support will be provided by DVC to establish SOP by State Forest Department, Govt. of Jharkhand.

9. Conclusion

The treatment measures are normally taken up in the areas which are prone to very severe and severe soil erosion. In the present case such area is around 10.27%. However, for better environmental and soil anti-erosion measures, the areas which are prone to moderate, low and very low soil erosion potential, may also be considered under the catchment treatment plant.

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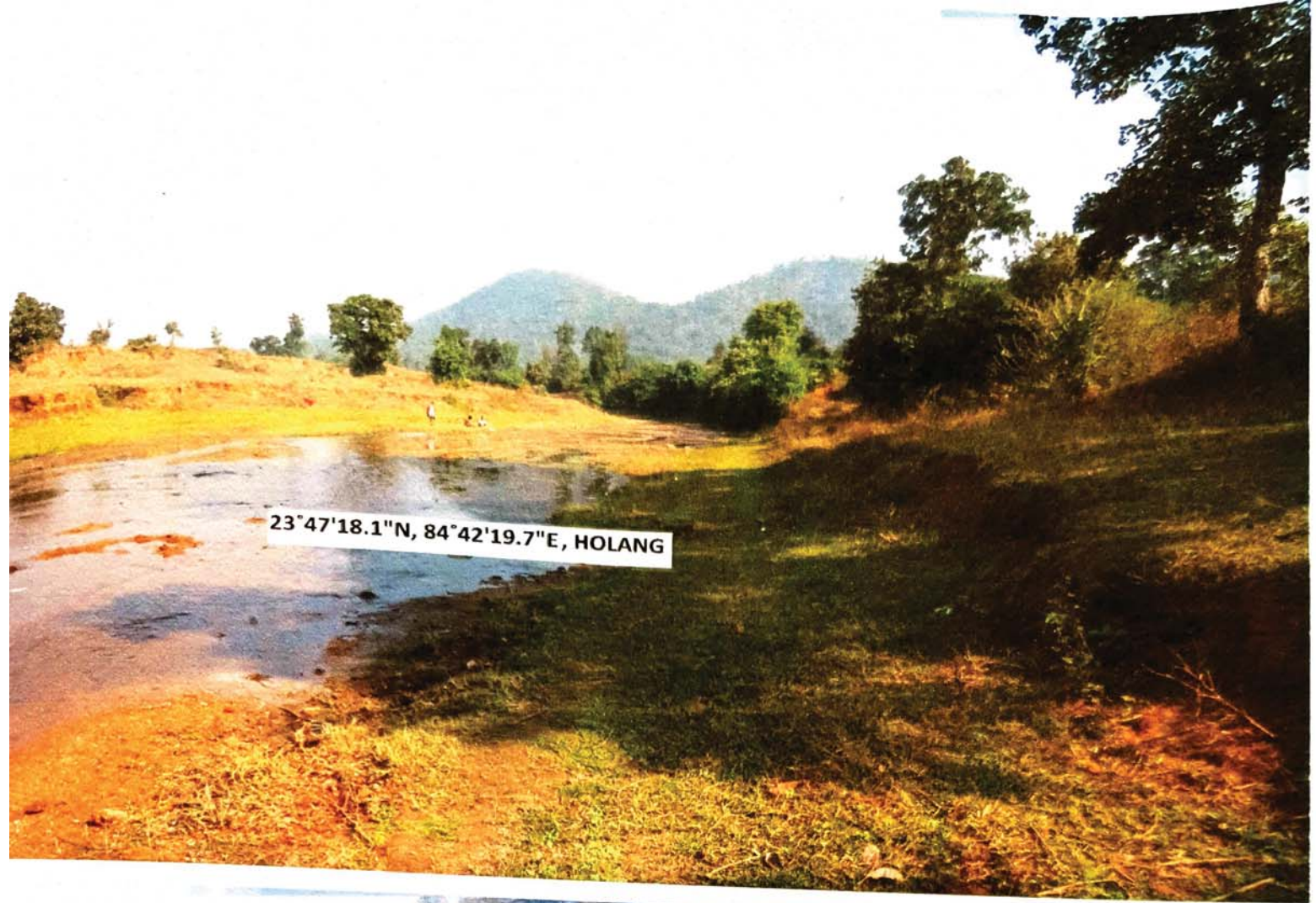
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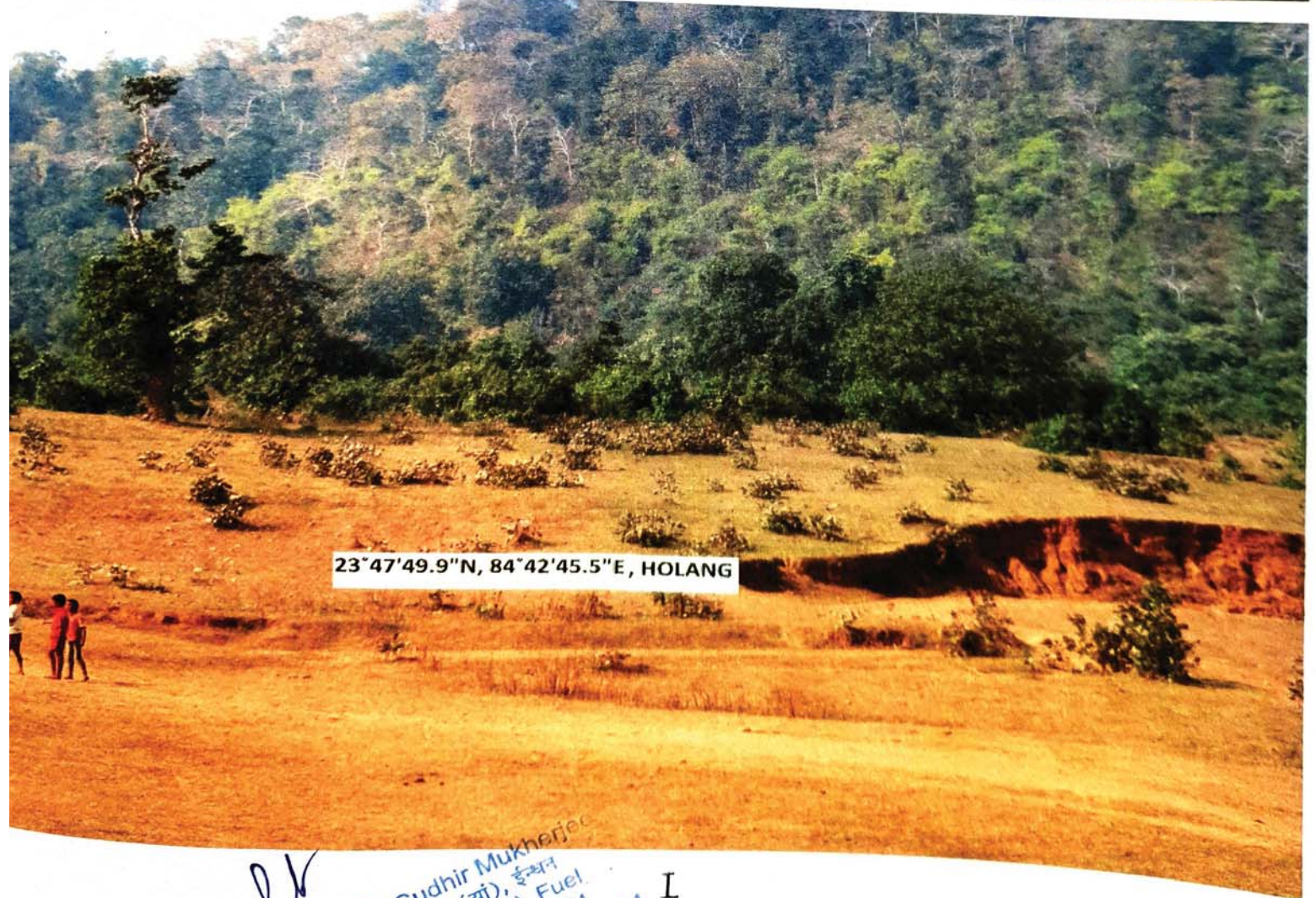
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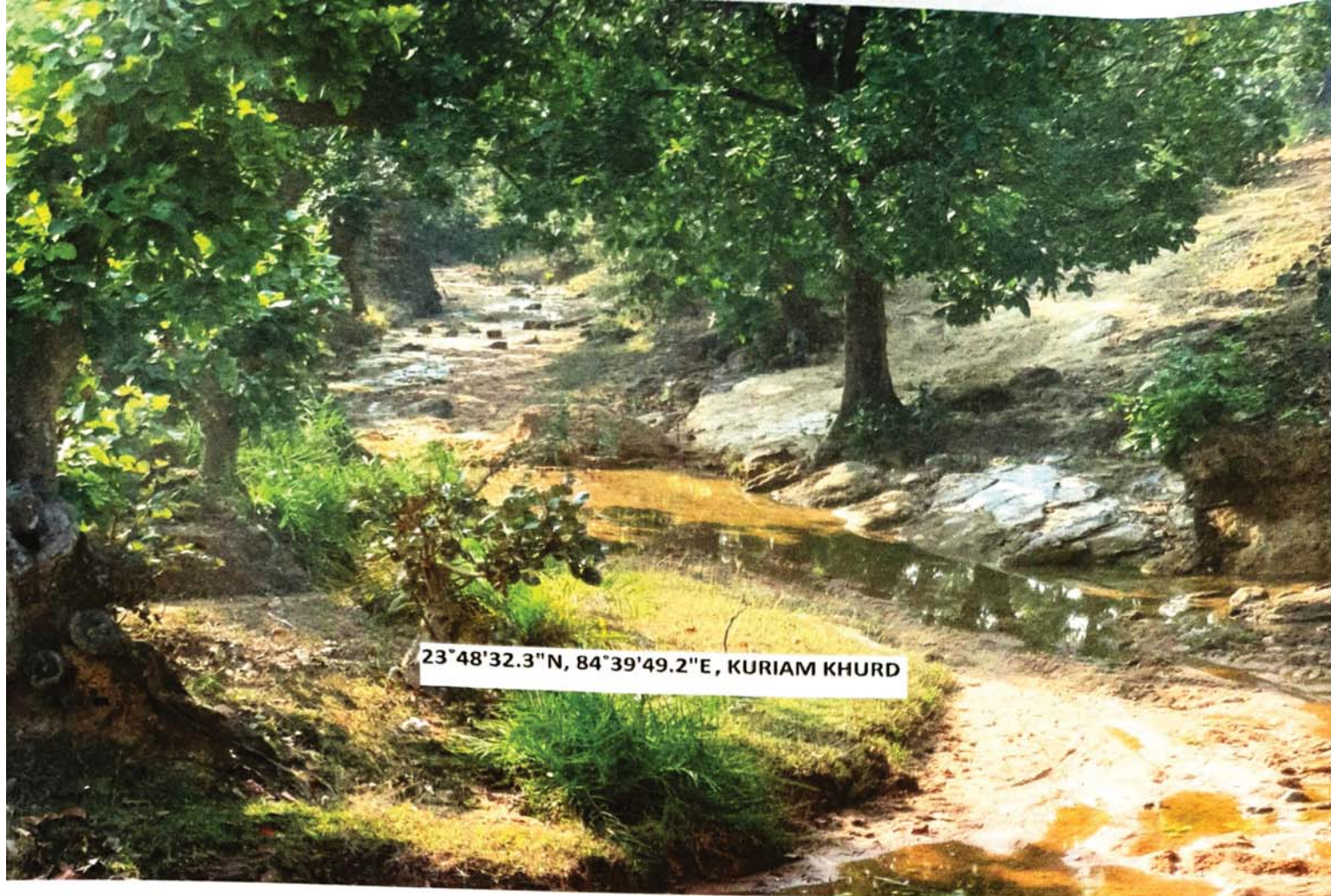


23°47'18.1"N, 84°42'19.7"E, HOLANG



23°47'49.9"N, 84°42'45.5"E, HOLANG

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23°48'32.3"N, 84°39'49.2"E, KURIAM KHURD



23°47'45.4"N, 84°39'46.08"E, KURIAM KHURD


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23°44'43.77"N, 84°41'9.32"E, SERAK

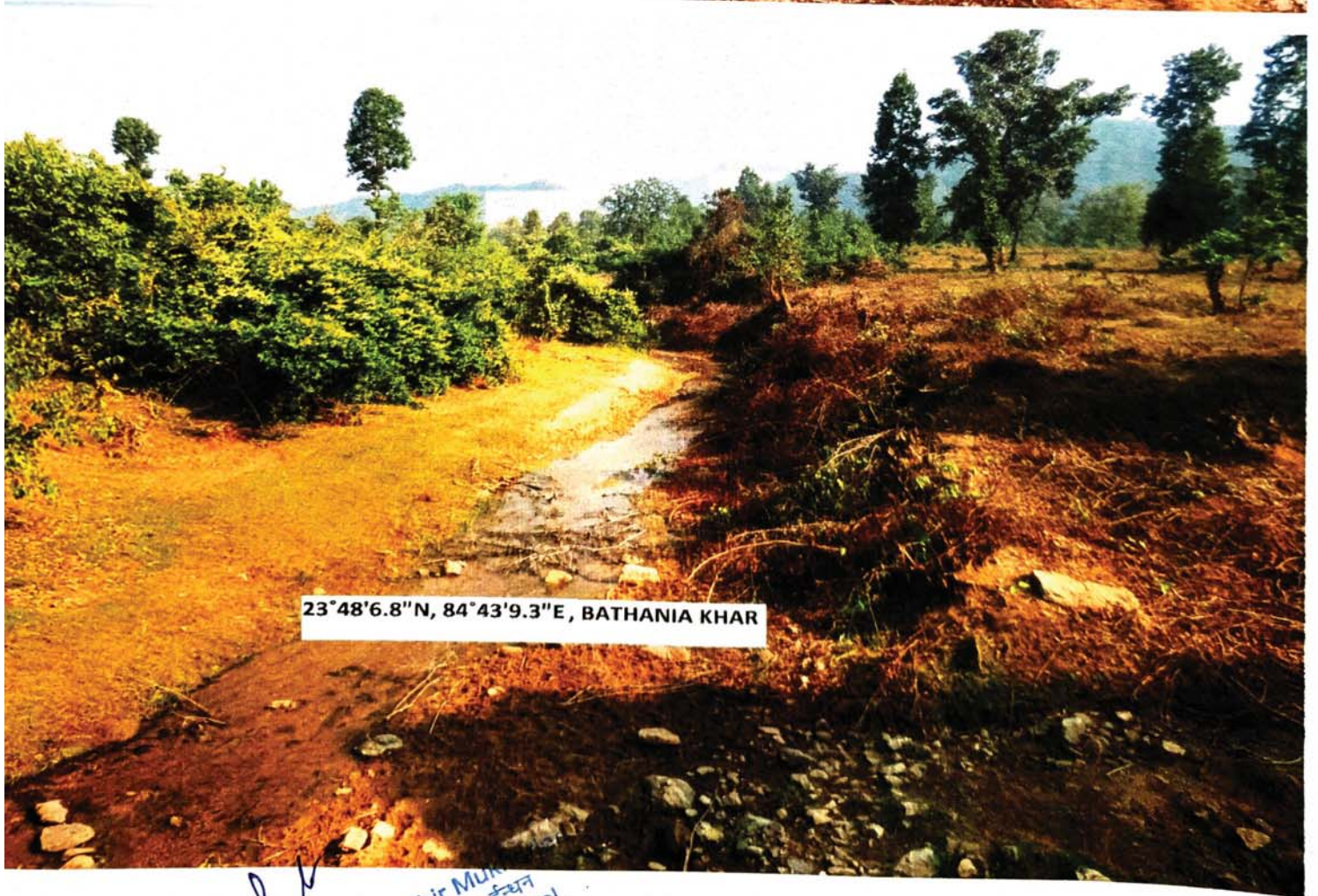


23°44'53.5"N, 84°42'12.3"E, TARHASI



सुधीर मुखर्जी / Sudhir Mukherjee
मुख्य अभियंता II (वां), ईंधन
Chief Engineer II (M), Fuel
गोदर घाटी निगम, कोलकाता-54
Goder Valley Corpn., Kolkata-54 III



23°48'6.8"N, 84°43'9.3"E, BATHANIA KHAR



23°48'6.8"N, 84°43'9.3"E, BATHANIA KHAR


सुधीर मुखर्जी / Sudhir Mukherjee
मुख्य अभियंता II (यां), ईंधन
Chief Engineer II (M), Fuel
रेलवे प्रायोजित निगम, कोलकाता-54
Railway Corpn., Kolkata-54

IV



23°49'08.1"N, 84°39'55.4"E, BALU

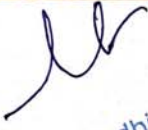


23°48'59.5"N, 84°44'25.4"E, OLHEPAT

[Signature]
सुधीर मुखर्जी / Sudhir Mukherjee
मुख्य अभियंता II (बो), एन.ए.सी.
Chief Engineer II (M), N.E.C.
दामोदर घाटी निगम, कोलकाता-54
Damodar Valley Corpn., Kolkata-54



23°48'9.8"N, 84°39'50.6"E, LUNDIBAR


सुधीर मुखर्जी / Sudhir Mukherjee
मुख्य अभियंता II (यां), ईंधन
Chief Engineer II (M), Fuel
दामोदर घाटी निगम, कोलकाता-54
Damodar Valley Corpn., Kolkata-54

Compliance of Stage I Conditions

Uploaded on 17.02.2021

Proposal No: FP/JH/MIN/29167/2017



DAMODAR VALLEY CORPORATION

Mining Section
DVC Towers, VIP Road,
Kolkata - 700 054
Email: sudhir.mukherjee@dvc.gov.in



No: HQ/Mining/Tubed FC/ 19
To,
The Divisional Forest Officer,
Latehar Division,
Latehar, Jharkhand

Dated: 17.02.2021

Sub: Diversion of 162.394ha of forest land in favour of Damodar Valley Corporation for Tubed Coal Mining Project in Latehar District in the State of Jharkhand.
(Proposal No: FP/JH/MIN/29167/2017)

Ref: 1. Demand letter from your office vide no: 80 dated 15.01.21
2. Letter from PCCF vide no :279 dated 04.02.21

Dear sir,

Kindly refer to the above.

This is to state that 30 no of pillars (15 at mine boundary and 15 at safety zone boundary) have been erected as per specification mentioned in condition no VII of Stage I Forest Clearance at locations 1,2,3,6,7,8,9,10,11,12,13,14,15,16 & 17 of the geo reference map submitted with our application for Stage I Clearance. The balance pillaring work is expected to be completed by 15th March 21.

The geo-reference map along with locations of pillars is enclosed.

In compliance to the demand letter referred under sl. no. 1 above, payment of Rs. 14,35,41,000/- for the Surveillance and Monitoring Plan to the CAMPA Fund has been made vide UTR No: PUNBR 52021021518601510 dated 15.02.21 against the challan generated through Parivesh Portal. Payment has been confirmed at Parivesh Portal (Copy enclosed).

Enco.: As stated.

Your faithfully

(Sudhir Mukherjee)
Chief Engineer (M), Mining

**Office of the Principal Chief Conservator of Forest -cum- Executive
Director, Watershed Development Board, Barkhanda,
Van Bhanu, P.O. - Darwada, Barkhanda, Ranchi - 834 002**

Letter No.

Ranchi, Date-

**Mr. Sanj Kumar
Technical Director
Forest and Climate Change Information Services (FCCIS)
Ministry of Environment, Forest and Climate Change,
Room No. 4-236, 2nd Floor, Agni-Bhok
Indira Park, New Delhi-110003
Email: sanj.kumar@moef.gov.in
Landline Telephone No.: 011-2605487**

- AR/De/WRD/WRD/2023/ Forest Land Map.

With reference to the above mentioned proposals it is to inform that for verification of compliance the proposal has been forwarded by undersign-officer to State Government. Government has raised query on few points which needs to be complied by the user agency and they have to upload the demand raised by the concerned DFO.

User agency is not able to upload compliance and demand since the proposal status is pending at State Government level. State Government has no provision for sending back to the Office.

Therefore, it is requested kindly to return the proposal at the end of user agency so that query could be made and pendency of the aforesaid proposals can be addressed.

Yours faithfully,


**P. C. Singh-Executive Director,
Watershed Development Board,
& Field, P.O. An Barkhanda, Ranchi**

	required on the CA land shall be deposited in advance with the Forest Department by the project authority. The CA will be maintained for 10 years. The scheme may include appropriate provision for anticipated cost increase for works scheduled for subsequent years.	Code-CORP0000371, Corporation Bank Lodhi Complex Branch Block No.-11, CGO Complex Phase-1, Lodhi Road New Delhi through online challan generate from MoEF Portal. Copy of challan is enclosed as Annexure-3 .
iv	<p>Net Present Value (NPV):</p> <p>(a) The State Government shall charge the Net Present Value (NPV) for the 162.394 ha forest area to be diverted under this proposal from the User Agency as per the orders of the Hon'ble Supreme Court of India dated 30/10/2002, 01/08/2003, 28/03/2008, 24/04/2008 and 09/05/2008 in LA No. 566 in WP (C) No. 202/1995 and as per the guidelines issued by the Ministry vide letters No. 5-1/1998-FC (PLII) dated 18/09/2003, as well as letter No. 5-2/2006-FC dated 03/10/2006 and 5-3/2007-FC dated 05/02/2009 in this regard.</p> <p>(b) Additional amount of the NPV of the diverted forest land, if any, becoming due after finalization of the same by the Hon'ble Supreme Court of India on receipt of the report from the Expert Committee, shall be charged by the State Government from the User Agency. The User Agency shall furnish an undertaking to this effect.</p>	<p>Amount of Rs 10,16,58,644.00 towards NPV deposited in CAMPA A/C number 150725829167556 IFSC Code-CORP0000371, Corporation Bank Lodhi Complex Branch Block No.-11, CGO Complex Phase-1, Lodhi Road New Delhi through online challan generate from MoEF Portal. Copy of challan is enclosed as Annexure-4.</p> <p>The User Agency has submitted an undertaking for additional NPV regarding this condition as Annexure-5.</p>
v	The cost of felling of trees shall be deposited by the User Agency with the State Forest Department.	<p>An undertaking has been submitted by the User Agency in compliance of this condition which is annexed as Annexure-6.</p> <p>UA agreed to the terms and condition of the letter vide no. 151 dated 05.02.2020 of small forest product project Division, Daltonganj copy is attached as Annexure-7.</p>
vi	All the funds received from the user agency under the project shall be transferred/ deposited to CAMPA fund only through e-portal (https://parivesh.nic.in/).	The User Agency has submitted an undertaking for all fund deposited in CAMPA Account through e-portal as Annexure-8 .
vii	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 co-ordinates;	An undertaking has been submitted by the User Agency in compliance of this condition which is annexed as Annexure-9 .
viii	The 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 & Regulating) Act, 1957, as amended or Rules framed there under, subject to a maximum period of 30 years;	An undertaking has been submitted by the User Agency in compliance of this condition which is annexed as Annexure-10 .
ix	The user agency shall undertake mining in a 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	An undertaking has been submitted by the User Agency in compliance of this condition which is annexed as Annexure-11 .

	<p>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 Chief Conservator of Forests (Central) may direct that the mining activities shall remain suspended till such time, such reclamation activities are satisfactorily executed.</p>	
<p>x</p>	<p>Following activities shall be undertaken by the user agency for the management of safety zone:</p> <p>(a) User agency shall ensure demarcation of boundary of safety zone (7.5 meter strip all along the inner boundary of the mining lease area), and its protection by erecting adequate number of 4 feet high RCC boundary pillars inscribed with DGPS coordinates and deploying adequate number of watchers under the supervision of the State Forest Department.</p> <p>(b) In case of the mining leases adjoining the habitation stretch of the boundary of the safety zone of the lease adjacent to the habitation/roads should be properly fenced by the user agency at the project cost to protect the vegetation /regeneration activities in the safety zone.</p> <p>(c) Safety zone shall be maintained as green belt around the mining lease and to ensure dense canopy cover in the area, regeneration shall be taken in this area by the user agency at the project cost under the supervision of the State Forest Department.</p> <p>(d) Afforestation on degraded forest land, to be selected elsewhere, measuring one and a half times the forest area under safety zone shall also be done by the user agency at the project cost under the supervision of the State Forest Department.</p>	<p>The User Agency has submitted undertaking in compliance of condition x(a), x(b) and x(c) as Annexure-12.</p> <p>(d) The User Agency has fund deposited of compensatory afforestation in CAMPA A/C number 150725829167556 IFSC Code-CORP0000371, Corporation Bank Lodhi Complex Branch Block No.-11, CGO Complex Phase-1, Lodhi Road New Delhi through online challan generate from MoEF Portal. Copy of challan is enclosed as Annexure-13.</p>
<p>xi</p>	<p>Following activities shall be undertaken by the User Agency at the project cost:</p> <p>(a) Preparation and implementation of a plan containing appropriate mitigative measures to minimize soil erosion and choking of streams;</p> <p>(b) Planting of adequate drought hardy plant species and sowing of seeds in the appropriate area within the mining lease to arrest soil erosion;</p> <p>(c) Construction of check dams, retention /toe walls along the contour to arrest sliding down of the excavated material;</p> <p>(d) Stabilize the overburden dumps by appropriate grading/benching so as to ensure that that angles of repose at any given place is less than 28°; and</p> <p>(e) Strict adherence to the prescribed top soil management.</p>	<p>An undertaking has been submitted by the User Agency in compliance of this condition xi (a), (b), (c), (d) & (e) is annexed as Annexure 14.</p> <p>The User Agency has submitted schemes of this condition which is annexed as Annexure-15.</p>

xii	The User Agency shall obtain the Environment Clearance as per the provisions of the Environmental (Protection) Act, 1986, if required;	The User Agency has submitted the copy of Environment clearance Annexure-16.
xiii	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;	User Agency has submitted an undertaking 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. Annexure-17.
xiv	The layout plan of the proposal shall not be changed without the prior approval of the Central Government;	User Agency has submitted an undertaking that the layout plan of the proposal shall not be changed without the prior approval of the Central Government. Annexure-18.
xv	The forest land shall not be used for any purpose other than that specified in the proposal;	User Agency has submitted an undertaking that the forest land shall not be used for any purpose other than that specified in the proposal. Annexure-19
xvi	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;	User Agency has submitted an undertaking 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. Annexure-20
xvii	No damage to the flora and fauna of the adjoining area shall be caused;	User Agency has submitted an undertaking that no damage to the flora and fauna of the adjoining area shall be caused. Annexure-21.
xviii	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;	An undertaking has been submitted by the User Agency in compliance of this condition which is annexed as Annexure-22.
xix	User agency shall submit CAT plan for the catchment of Sukri River. The plan shall be finalised and approved by competent authority prior to Final approval	An undertaking has been submitted by the User Agency in compliance of this condition which is annexed as Annexure-23. The User Agency has submitted CAT plan in compliance of this condition as Annexure-24.
xx	State Government shall prepare a surveillance and monitoring plan to ensure that the large scale translocation of families from the area shall not get shifted to the adjoining forest land after their reallocation. Surveillance and Monitoring system for the forest hinterlands of the project area to be planned and executed at the project cost with provisions of patrolling manpower, building infrastructure (watch tower, check post etc), forest road access and vehicular resources as necessary.	An undertaking has been submitted by the User Agency in compliance of this condition which is annexed as Annexure-25 (A) & 25 (B) The surveillance and monitoring plan has been prepared & submitted by the DFO, Lathar a copy of which is being annexed as Annexure-26.

xxi	User agency shall explore the possibility of translocation of existing native trees from the project site work in consultation with State forest department.	User Agency has given undertaking for explore the possibility of translocation of existing native trees from the project site work in consultation with State forest department Annexure-27.
xxii	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; and	An undertaking has been submitted by the User Agency in compliance of this condition which is annexed as Annexure-28.
xxiii	The user agency shall 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.	An undertaking has been submitted by the User Agency in compliance of this condition which is annexed as Annexure-29.
xxiv	The complete compliance of the FRA, 2006 shall be ensured by way of prescribed certificate from the concerned District Collector.	The User Agency has submitted the copy of FRA certificate which is annexed as Annexure-30.
xxv	Any other condition that the concerned Regional Office of this Ministry may stipulate, from time to time, in the interest of conservation, protection and development of forests & wildlife;	User Agency has submitted an undertaking that any other condition that the concerned Regional Office of this Ministry may stipulate, from time to time, in the interest of conservation, protection and development of forests & wildlife. Annexure-31.
xxvi	The compliance report shall be uploaded on e-portal (https://parivesh.nic.in/).	An undertaking has been submitted by the User Agency in compliance of this condition which is annexed as Annexure-32.
xxvii	Violation of any of these conditions will amount to violation of Forest (Conservation) Act, 1980 and action would be taken as prescribed in para 1.21 of Chapter 1 of the Handbook of comprehensive guidelines of Forest (Conservation) Act, 1980 as issued by this Ministry's letter No. 5-2/2017-FC dated 28.03.2019	An undertaking has been submitted by the User Agency in compliance of this condition which is annexed as Annexure-33.

इस अनुपालन प्रतिवेदन पर प्रधान मुख्य वन संरक्षक, झारखण्ड, राँची का अनुमोदन प्राप्त है।

अतः विषयगत वन भूमि अधयोजन प्रस्ताव के स्टेज-1 के शर्तों का प्राप्त अनुपालन प्रतिवेदन तीनों प्रतियों में इस पत्र के साथ संलग्न कर अप्रतार कार्रवाई हेतु भेजा जा रहा है।

अनु०-यधोक्त।

विश्वासभाजन

ह०/-

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

आपांक 385

दिनांक 22.06.2020

प्रतिलिपि:- क्षेत्रीय मुख्य वन संरक्षक, पलामू/वन संरक्षक, प्रादेशिक अंचल, मेदिनीनगर, वन प्रमण्डल पदाधिकारी, सातहारा वन प्रमण्डल को सूचनार्थ एवं आवश्यक कार्रवाई हेतु प्रेषित।

ह०/-

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

232
2316

कार्यालय: मुख्य वन संरक्षक, प्रादेशिक अंचल, मेदिनीनगर।

Office of Chief Conservator of Forests, Territorial Circle, Medininagar.

ईमेल / Email: cf-medininagar@ gov.in

दूरभाष / Phone: 06562-224953 Mobile No-8987790232



पत्रांक- 4444 /

सेवा में,

प्रधान मुख्य वन संरक्षक, -सह-कार्यकारी निदेशक,
बंजर भूमि विकास बोर्ड, झारखंड, राँची।

मेदिनीनगर दिनांक- 04.03.2020

लातेहार जिला अन्तर्गत तुबेद कोल ब्लॉक हेतु 162.394 हे० वन भूमि (54.365 हे० अधिसूचित वन भूमि एवं 108.029 हे० जंगल-झाड़ी (Deemed Forest) के रूप में अंकित भूमि) के अपयोजन प्रस्ताव के संबंध में।

आपका पत्रांक 1401 दिनांक 03.12.2019 एवं वन प्रमण्डल पदाधिकारी, लातेहार वन प्रमण्डल का पत्रांक 283 दिनांक 28.02.2020

प्रसंग:-

महाशय,

उपर्युक्त विषयक आपके कार्यालय के प्रासंगिक पत्र के आलोक में वन प्रमण्डल पदाधिकारी, लातेहार वन प्रमण्डल ने अपने कार्यालय पत्रांक 283 दिनांक 28.02.2020 (छायाप्रति संलग्न) के द्वारा विषयगत परियोजना प्रस्ताव, जिसमें भारत सरकार, पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय, नई दिल्ली का पत्रांक P.No.8-23/2019-PC दिनांक 13.11.2019 द्वारा Stage-I की स्वीकृति 27 शर्तों के साथ दी गयी है के संदर्भ में Stage-I की स्वीकृति में लगाये गये 27 शर्तों का विन्दुवार अनुपालन प्रतिवेदन अपने मंत्रालय के साथ साथ प्रतियों में समर्पित किया है।

इस कार्यालय का पत्रांक 437 दिनांक 03.03.2020 के द्वारा विषयक मामले की सचिका, अनुपालन प्रतिवेदन तथा अग्रसारण पत्र प्रारूप वन, पर्यावरण एवं जलवायु परिवर्तन विभाग, झारखण्ड सरकार के पत्रांक 4542 दिनांक 08.10.2014 के निर्देश के आलोक में क्षेत्रीय मुख्य वन संरक्षक, पलामू, मेदिनीनगर की सहमति, अनुमोदन प्राप्त करने हेतु भेजी गयी। क्षेत्रीय मुख्य वन संरक्षक, पलामू, मेदिनीनगर के पत्रांक 812 दिनांक 04.03.2020 द्वारा प्राप्त अनुमोदन के आलोक में प्रस्ताव की पौष-पौष प्रति इस पत्र के साथ संलग्न कर भेजी जा रही है।

अनु० यथोक्त।

6-3-2020
नितीश कुमार

विशवासमान,
04/3/2020
मुख्य वन संरक्षक,
प्रादेशिक अंचल, मेदिनीनगर।

Buis
4/3/2020



DAMODAR VALLEY CORPORATION
D.V.C. TOWERS, V.I.P. ROAD
KOLKATA -700 054
Phone: (033) 6607-2338 email: sudhir.mukherjee@dvc.gov.in



No. HQ/Mining/Tubed/FC/193

Dated:13.02.2020

To
Divisional Forest Officer
Lachar Forest Division
Government of Jharkhand,

Sub: Diversion of 162.394 Ha. of Forest Land for Tubed Coal Mine of Damodar Valley Corporation -
Compliance to your letter vide No:2052 Dated 4.12.2019
(Proposal No. FP/HQ/MIN/29167/2017)

Received
17.2.2020

Dear Sir,

Kindly refer to above.


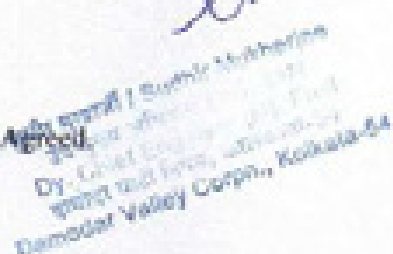
उपरोक्त सिद्धि
आवश्यक
नहीं है।

Compliances required, compliance to your letter vide No:2052 dated 23.12.2019 are submitted herewith for your kind perusal and

Sl.	CONDITION	COMPLIANCE
i)	<i>Legal status of the diverted forest land shall remain unchanged</i>	Agreed An undertaking in this regard enclosed in [Annexure-I]
ii)	<i>Compensatory Afforestation: (a) Compensatory Afforestation shall be raised over degraded forest land, double in extent to the forest area being diverted, by the State Forest Department at the cost of user Agency; (b) The area proposed for diversion includes 12 ha of CA plantation done in Dihli, Protected forest' area. In addition to stipulated CA required for diversion, user agency shall pay additional cost for raising CA over degraded forest land. The additional 12 ha degraded land shall be identified and shape files shall be submitted.</i>	a) Agreed b) The Additional 12 ha degraded forest land for afforestation has been identified in Sikni Mouza. KML file has been attached in [Annexure-II]
iii)	<i>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 project authority. The CA will be maintained for 10 years. The scheme may include appropriate provision for anticipated cost increase for works scheduled for subsequent years.</i>	The cost of Compensatory Afforestation as per the demand note has been deposited in CAMPA Fund on 20.12.2019 Payment receipt enclosed in [Annexure- III]
iv)	<i>Net Present Value (NPV): (a) The State Government shall charge the Net Present Value(NPV) for the 162.394 ha forest area to be diverted under this proposal from the User Agency as per the orders of the Hon'ble Supreme Court of India dated 30/10/2002, 01/08/2003, 28/03/2008, 24/04/2008 and 09/05/2008 in LA No. 366 in WP (C) No. 202/1995 and as per the guidelines issued by the Ministry vide letters No. 3-1/1998-FC (P.II) dated 18/09/2003, as well as letter No. 3-2/2006-FC dated 03/10/2006 and 3-3/2007-FC dated 05/02/2009 in this regard. (b) Additional amount of the NPV of the diverted forest land, if any, becoming due after finalization of the same by the Hon'ble Supreme Court of India on receipt of the report from the Expert Committee, shall be charged by the State Government from the User Agency. The User Agency shall furnish an undertaking to this effect.</i>	a) Net Present Value (NPV) has been deposited in CAMPA Fund on 20.12.2019 as per the demand note Payment receipt enclosed in Annexure- III b) Agreed An undertaking in this regard has been submitted in Annexure-IV(b)

[Handwritten signature]

Sudhir Mukherjee
Joint Engineer (M), Forest
Lachar Forest Division
Damodar Valley Corporation

SL.	CONDITION	COMPLIANCE
v)	<i>The cost of felling of trees shall be deposited by the User Agency with the State Forest Department.</i>	Agreed to the terms and conditions of the letter vide no: 151 dt: 05.02.2020 of Small Forest Product Project Division, Daltonganj. Copy of letter enclosed as Annexure-V(a) An undertaking has been submitted in this respect in Annexure-V
vi)	<i>All the funds received from the user agency under the project shall be transferred/ deposited to CAMPA fund only through e-portal (https://parivesh.nic.in/).</i>	Agreed. An undertaking in this respect has been furnished in Annexure-VI
vii)	<i>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 co-ordinates.</i>	Agreed. An undertaking in this regards has been submitted as Annexure-VII
viii)	<i>The 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 & Regulating) Act, 1957, as amended or Rules framed there under, subject to a maximum period of 30 years;</i>	Agreed. In this regard an undertaking has been furnished as Annexure- VIII
ix)	<i>The user agency shall undertake mining in a 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 Chief Conservator of Forests (Central) may direct that the mining activities shall remain suspended till such time, such reclamation activities are satisfactorily executed.</i>	Agreed. An undertaking in this respect is enclosed in Annexure-IX.
x)	<i>Following activities shall be undertaken by the user agency for the management of safety zone:</i> <i>(a) User agency shall ensure demarcation of boundary of safety zone (7.5-meter strip all along the inner boundary of the mining lease area), and its protection by erecting adequate number of 4 feet high RCC boundary pillars inscribed with DGPS coordinates and deploying adequate number of watchers under the supervision of the State Forest Department.</i> <i>(b) In case of the mining leases adjoining the habitation stretch of the boundary of the safety zone of the lease adjacent to the habitation/roads should be properly fenced by the user agency at the project cost to protect the vegetation /regeneration activities in the safety zone.</i> <i>(c) Safety zone shall be maintained as green belt around the mining lease and to ensure dense canopy cover in the area, regeneration shall be taken in this area by the user agency at the project cost under the supervision of the State Forest Department.</i> <i>(d) Afforestation on degraded forest land, to be selected elsewhere, measuring one and a half times the forest area under safety zone</i>	a) Agreed. KML file of Safety Zone has been submitted as Annexure-E b) Agreed. c)  Agreed By:  Dy. Chief Engineer, P&T Mining and Forest, Damodar Valley Corporation, Kolkata-74 d) Fund deposited. The receipt has been enclosed in

SL	CONDITION	COMPLIANCE
	<i>shall also be done by the user agency at the project cost under the supervision of the State Forest Department.</i>	Annexure- III An undertaking in this respect has been submitted in Annexure- X (a, b, c)
x i)	<i>Following activities shall be undertaken by the User Agency at the project cost:</i> <i>(a) Preparation and implementation of a plan containing appropriate mitigative measures to minimize soil erosion and choking of streams;</i> <i>(b) Planting of adequate drought hardy plant species and sowing of seeds in the appropriate area within the mining lease to arrest soil erosion;</i> <i>(c) Construction of check dams, retention / toe walls along the contour to arrest sliding down of the excavated material;</i> <i>(d) Stabilize the overburden dumps by appropriate grading/benching so as to ensure that that angles of repose at any given place is less than 28°; and</i> <i>(e) Strict adherence to the prescribed top soil management.</i>	Agreed. Schemes for this activities have been prepared and submitted as Scheme a, b, c, d & e An undertaking in this respect has been submitted as Annexure- XI (a, b, c, d & e)
x ii)	<i>The User Agency shall obtain the Environment Clearance as per the provisions of the Environmental (Protection) Act, 1986, if required;</i>	Expert Appraisal Committee, MoEF & CC, GOI in its 51 st meeting held on 5 th December 2019 at New Delhi has recommended for grant of Environment Clearance to Tubed Coal Mines project of 6 MTPA capacity of M/S Damodar Valley Corporation. The issuance of letter form MoEF & CC, GOI is awaited. Copy of the Minutes of EAC meeting has been annexed as Annexure-XII
x iii)	<i>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;</i>	Agreed. An undertaking in this respect has been submitted as Annexure- XIII
x iv)	<i>The layout plan of the proposal shall not be changed without the prior approval of the Central Government;</i>	Agreed. An undertaking in this context has been submitted as Annexure- XIV
x v)	<i>The forest land shall not be used for any purpose other than that specified in the proposal;</i>	Agreed. An undertaking in this respect has been submitted as Annexure- XV
x vi)	<i>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;</i>	Agreed. An undertaking in this respect has been submitted as Annexure-XVI
x vii)	<i>No damage to the flora and fauna of the adjoining area shall be caused;</i>	Agreed. An undertaking in this context has been submitted as Annexure-XVII
x viii)	<i>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;</i>	Possibility of translocation of maximum number of trees identified to be felled shall be explored and ensure that any tree felling shall be done only when it is unavoidable. An undertaking in this respect has been submitted as Annexure-XVIII

Dr. Sumir Mukherjee
 Director (M), Forest
 Department, Govt. of West Bengal

SL	CONDITION	COMPLIANCE
xix)	User agency shall submit CAT plan for the catchment of Sukri River. The plan shall be finalised and approved by competent authority prior to Final approval	CAT plan has been prepared and submitted as Annexure-XIX(a) An undertaking in this respect has been submitted as Annexure-XIX
xx)	State Government shall prepare a surveillance and monitoring plan to ensure that the large scale translocation of families from the area shall not get shifted to the adjoining forest land after their reallocation. Surveillance and Monitoring system for the forest hinterlands of the project area to be planned and executed at the project cost with provisions of patrolling manpower, building infrastructure (watch tower, check post etc.), forest road access and vehicular resources as necessary.	Agreed. An undertaking in this respect has been submitted as Annexure-XX
xxi)	User agency shall explore the possibility of translocation of existing native trees from the project site work in consultation with State forest department.	Possibility of translocation of translocation of existing native trees from the project site shall be explored. In this regards an undertaking has been submitted as Annexure-XXI
xxii)	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; and	Agreed. An undertaking in this context has been submitted as Annexure-XXII
xxiii)	The user agency shall 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.	Agreed. An undertaking in this context has been submitted as Annexure-XXIII
xxiv)	The complete compliance of the FRA, 2006 shall be ensured by way of prescribed certificate from the concerned District Collector.	Certificate in Form II issued by Deputy Commissioner, Latehar is enclosed as Annexure-XXIV
xxv)	Any other condition that the concerned Regional Office of this Ministry may stipulate, from time to time, in the interest of conservation, protection and development of forests & wildlife;	Agreed. An undertaking in this respect has been submitted as Annexure-XXV
xxvi)	The compliance report shall be uploaded on e-portal (https://parivesh.nic.in/).	Agreed. An undertaking in this respect has been submitted as Annexure-XXVI
xxvii)	Violation of any of these conditions will amount to violation of Forest (Conservation) Act, 1980 and action would be taken as prescribed in para 1.21 of Chapter 1 of the Handbook of comprehensive guidelines of Forest (Conservation) Act, 1980 as issued by this Ministry's letter No. 5-2/2017-FC dated 28.03.2019	Agreed. An undertaking in this respect has been submitted as Annexure-XXVII

Your kind consideration of the proposal is solicited.

Enclosed: As stated.

Yours faithfully



(Sudhir Mukherjee)

Dy. Chief Engineer (M), Mining

युधि गुराज / सुधीर मुकेश
 डी. चिफ इंजीनियर (एम), मिनिंग
 डी. चिफ इंजीनियर (एम), फुल
 डेमोडर वैली कॉर्पो., कोकाटा-54

F. No. 8-23/2019-FC
Government of India
Ministry of Environment, Forests and Climate Change
(FC Division)

Indira Paryavaran Bhawan,
All India Jor Bag Road,
New Delhi - 110003.

Dated: October, 2019
13th Nov.

To

The Principal Secretary (Forests),
Government of Jharkhand,
Ranchi,


Sub: Diversion of 162.394 ha of forest land (54.365 ha Protected Forest Land and 108.029 ha Jungle-Jhadi land) in favour of Damodar Valley Corporation for Tubed Opencast Coal Mining Project in Latehar District in the State of Jharkhand - reg.

Sir,

I am directed to refer to the Government of Jharkhand's letter No. Van Bhumi-23/2019-2578/V.P. dated 11.07.2019 on the above mentioned subject seeking prior approval of the Central Government under Section-2 of the Forest (Conservation) Act, 1980 and to say that the proposal has been examined by the Forest Advisory Committee constituted by the Central Government under Section-3 of the aforesaid Act.

After careful examination of the proposal of the State Government and on the basis of the recommendations of the Forest Advisory Committee and approval of the same by the competent authority of the MoEF&CC, New Delhi, the Central Government hereby accords 'in-principle' approval under Section - 2 of the Forest (Conservation) Act, 1980 for diversion of 162.394 ha of forest land (54.365 ha Protected Forest Land and 108.029 ha Jungle-Jhadi land) in favour of Damodar Valley Corporation for Tubed Opencast Coal Mining Project in Latehar District in the State of Jharkhand subject to fulfilment of the following conditions:

- i. Legal status of the diverted forest land shall remain unchanged;
- ii. Compensatory Afforestation:
 - (a) Compensatory Afforestation shall be raised over degraded forest land, double in extent to the forest area being diverted, by the State Forest Department at the cost of user Agency;
 - (b) The area proposed for diversion includes 12 ha of CA plantation done in Dihli Protected forest area. In addition to stipulated CA required for diversion, user agency shall pay additional cost for raising CA over degraded forest land. The additional 12 ha degraded land shall be identified and shape files shall be submitted.
- 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 project authority. The CA will be maintained for 10 years.


मुख्य प्रबंधक / Sudhir Mukherjee
या मुख्याधिकारी (नं), डैमर
Dy. Chief Engineer (N), Fuel
डैमर वॉली कॉर्पोरेशन, कोकटो-54
Damodar Valley Corp. Kolkata-54



13. 11. 19

The scheme may include appropriate provision for anticipated cost increase for works scheduled for subsequent years.

iv. **Net Present Value (NPV):**

(a) The State Government shall charge the Net Present Value(NPV) for the 162.394 ha forest area to be diverted under this proposal from the User Agency as per the orders of the Hon'ble Supreme Court of India dated 30/10/2002, 01/08/2003, 28/03/2008, 24/04/2008 and 09/05/2008 in IA No. 566 in WP (C) No. 202/1995 and as per the guidelines issued by the Ministry vide letters No. 5-1/1998-FC (Pt.II) dated 18/09/2003, as well as letter No. 5-2/2006-FC dated 03/10/2006 and 5-3/2007-FC dated 05/02/2008 in this regard.

(b) Additional amount of the NPV of the diverted forest land, if any, becoming due after finalization of the same by the Hon'ble Supreme Court of India on receipt of the report from the Expert Committee, shall be charged by the State Government from the User Agency. The User Agency shall furnish an undertaking to this effect.

v. The cost of felling of trees shall be deposited by the User Agency with the State Forest Department.

vi. All the funds received from the user agency under the project shall be transferred/ deposited to CAMPA fund only through e-portal (<https://parivesth.nic.in/>).


vii. 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 co-ordinates;

viii. The 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 & Regulating) Act, 1957, as amended or Rules framed there under, subject to a maximum period of 30 years;

ix. The user agency shall undertake mining in a 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 Chief Conservator of Forests (Central) may direct that the mining activities shall remain suspended till such time, such reclamation activities are satisfactorily executed.


x. Following activities shall be undertaken by the user agency for the management of safety zone:

(a) User agency shall ensure demarcation of boundary of safety zone (7.5 meter strip all along the inner boundary of the mining lease area), and its protection by erecting adequate number of 4 feet high RCC boundary pillars inscribed with DGPS coordinates and deploying adequate number of watchers under the supervision of the State Forest Department.


सुधीर मुखर्जी / Sudhir Mukherjee
ज्येष्ठ अभियंता (सि), ५४२२
Dy. Chief Engineer (M), Fuel
राज्य वन विभाग, कोयला-६
००००००, ५६


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- (b) In case of the mining leases adjoining the habitation stretch of the boundary of the safety zone of the lease adjacent to the habitation/roads should be properly fenced by the user agency at the project cost to protect the vegetation /regeneration activities in the safety zone.
- (c) Safety zone shall be maintained as green belt around the mining lease and to ensure dense canopy cover in the area, regeneration shall be taken in this area by the user agency at the project cost under the supervision of the State Forest Department.
- (d) Afforestation on degraded forest land, to be selected elsewhere, measuring one and a half times the forest area under safety zone shall also be done by the user agency at the project cost under the supervision of the State Forest Department.
- xi. Following activities shall be undertaken by the User Agency at the project cost:
- (a) Preparation and implementation of a plan containing appropriate mitigative measures to minimize soil erosion and choking of streams;
- (b) Planting of adequate drought hardy plant species and sowing of seeds in the appropriate area within the mining lease to arrest soil erosion;
- (c) Construction of check dams, retention toe walls along the contour to arrest sliding down of the excavated material;
- (d) Stabilize the overburden dumps by appropriate grading/benching so as to ensure that that angles of repose at any given place is less than 28° ; and
- (e) Strict adherence to the proscribed top soil management.
- xii. The User Agency shall obtain the Environment Clearance as per the provisions of the Environmental (Protection) Act, 1986, if required;
- xiii. 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;
- xiv. The layout plan of the proposal shall not be changed without the prior approval of the Central Government;
- xv. The forest land shall not be used for any purpose other than that specified in the proposal;
- xvi. 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;
- xvii. No damage to the flora and fauna of the adjoining area shall be caused;
- xviii. 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;
- xix. User agency shall submit CAT plan for the catchment of Sukri River. The plan shall be finalised and approved by competent authority prior to Final approval.
- xx. State government shall prepare a surveillance and monitoring plan to ensure that the


सुधीर मुकुर्जी / Sudhir Mukherjee
अधीनस्थ अभियंता (म), ईंधन
Dr. Chief Engineer (M), Fuel
राज्यीय वन विभाग, कोकाल-54
Dumraon, Madhya Pradesh, Kothala-54




12.11.15

large scale translocation of families from the area shall not get shifted to the adjoining forest land after their reallocation. Surveillance and Monitoring system for the forest hinterlands of the project area to be planned and executed at the project cost with provisions of patrolling manpower, building infrastructure (watch tower, check post etc), forest road access and vehicular resources as necessary.

- xxi. User agency shall explore the possibility of translocation of existing native trees from the project site work in consultation with State forest department.
- xxii. 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; and
- xxiii. The user agency shall 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.
- xxiv. The complete compliance of the FRA, 2006 shall be ensured by way of prescribed certificate from the concerned District Collector.
- xxv. Any other condition that the concerned Regional Office of this Ministry may stipulate, from time to time, in the interest of conservation, protection and development of forests & wildlife;
- xxvi. The compliance report shall be uploaded on e-portal (<https://parivesh.nic.in>).
- xxvii. Violation of any of these conditions will amount to violation of Forest (Conservation) Act, 1980 and action would be taken as prescribed in para 1.21 of Chapter 1 of the Handbook of comprehensive guidelines of Forest (Conservation) Act, 1980 as issued by this Ministry's letter No. 5-2/2017-FC dated 28.03.2019.

After receipt of the compliance report on the fulfilment of the above mentioned conditions from the State Government, formal approval will be considered in this regard under Section-2 of the Forest (Conservation) Act, 1980. The transfer of forest land to the User Agency shall not be affected by the State Government till formal orders approving the diversion of forest land are issued by the Central Government.

Yours faithfully,


(Sandeep Sharma)


Assistant Inspector General of Forests

Copy to:

1. The Principal Chief Conservator Forests, Government of Jharkhand, Ranchi
2. The Nodal Officer, O/o the PCCF, Government of Jharkhand, Ranchi
3. The Deputy Director General (Central), Regional Office, Ranchi.
4. User Agency
5. Monitoring Cell of FC Division, MoEF&CC
6. Guard file


(Sandeep Sharma)

Assistant Inspector General of Forests


शुभ्र सुधीर / Sudhir Mukherjee
उप मुख्य अभियंता (सी), फरे
Dy. Chief Engineer (M), Fuel
राजकोयला व नदी विभाग, कोकराठर-64
Kokrat Valley Corpn., Kokrats-64

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DAMODAR VALLEY CORPORATION

D.V.C. TOWERS, V.I.P. ROAD

KOLKATA - 700 054

Phone: (033) 6607-2338 email: sudhir.mukherjee@dvc.gov.in



No. HQ/Mining/Tubed/FC/193(1)

Dated: 13.02.2020

Annexure- I

UNDERTAKING
TUBED COAL MINE

This is to certify that, Damodar Valley Corporation (DVC), a corporation constituted under DVC Act, 1948 (Act. No. XIV of 1948), undertake to ensure that the legal status of the diverted forest land shall remain unchanged during implementation of the project. This is in connection of the fulfilment of the Condition No. i of the Stage-I Clearance, for diversion of 162.394 ha forest land in Latchar Forest Division, Dist. Latchar, Jharkhand.

Sudhir Mukherjee
Dy. Chief Engineer(Mech), Mining
Damodar Valley Corporation,
D.V.C. Towers, V.I. P. Road,
Kolkata- 700054

18 February, 2020 | User: PADMINI | SOL ID: 0082 | Menu Shortcut:

Real Time Gross Settlement System

Function	ENQUIRY	Message Type	R41	UTR	UTR#19054000030
SOL ID	0082	Payee ID	RTGS	Tran. Type	Transfer
Tran. ID	548789120	Tran. Date	20-12-2019		

General Details

Message Status
 Reject Reason Code
 Rejection Reason
 Message Priority (1-99)
 Value Date
 Dr. Ac. ID
 Cr. Ac. ID
 Tran. Amount
 Mobile No
 Email ID
 Charge Event ID
 Charge Ac. ID
 Instrmt Type
 Instrmt No.
 Tran. Particulars

 25
 20-12-2019
 0082750010082
 00825125001041
 INR 210017752.00

Acknowledgement (cont. 059.001.04)



http://172.16.130.61:8389/finbranch/rtgs/rtgs_curl.jsp

18-02-2020

Handwritten initials



DAMODAR VALLEY CORPORATION
D.V.C. TOWERS, V.I.P. ROAD
KOLKATA - 700 054
Phone: (033) 6607-2338 email: sudhir.mukherjee@dvc.gov.in



No. HQ/Mining/Tubed/FC/193(IV)

Dated: 13.02.2020

Annexure- IV (b)

UNDERTAKING
TUBED COAL MINE

This is to certify that, Damodar Valley Corporation (DVC), a corporation constituted under DVC Act, 1948 (Act. No. XIV of 1948), undertake to deposit the additional amount of the NPV of the diverted forest land, if any, becoming due after finalization of the same by the Hon'ble Supreme Court of India on receipt of the report from the expert committee. This is in connection of the fulfilment of Condition No. iv (b) of the Stage-I Clearance, for diversion of 162.394 ha forest land in Latehar Forest Division, Dist. Latehar, Jharkhand.

Sudhir Mukherjee
Dy. Chief Engineer (Mech), Mining
Damodar Valley Corporation,
D.V.C. Towers, V.I. P. Road,
Kolkata- 700054



DAMODAR VALLEY CORPORATION
D.V.C. TOWERS, V.I.P. ROAD
KOLKATA - 700 054

Phone: (033) 6607-2338 email: sudhir.mukherjee@dvc.gov.in



No. HQ/Mining/Tubed/FC/193(V)

Dated: 13.02.2020

Annexure- V

UNDERTAKING

TUBED COAL MINE

This is to certify that, Damodar Valley Corporation (DVC), a corporation constituted under DVC Act, 1948 (Act. No. XIV of 1948), undertake to execute the felling of trees within the diverted land, logging and transportation to the depot at its own cost. Depot rent, supervision and handling, fire safety charges, depot insurance etc. will be deposited after receiving the demand from the state government. This is in connection of the fulfilment of Condition No. V of the Stage-I Clearance, for diversion of 162.394 ha forest land in Latchar Forest Division, Dist. Latchar, Jharkhand.

Sudhir Mukherjee
Dy. Chief Engineer (Mech), Mining
Damodar Valley Corporation,
D.V.C. Towers, V.I. P. Road,
Kolkata- 700054



झारखण्ड स्टेट फॉरेस्ट डेवलपमेंट कॉर्पोरेशन लिमिटेड
Jharkhand State Forest Development Corporation Ltd.

(A Govt. of Jharkhand Undertaking)

झारखण्ड राज्य शासकीय उद्योग, जमु वन पदार्थ परिवहन प्रणाली विकास बालासोर, जमु


संख्यांक: 157 दिनांक: 25.02.2020

प्रतिनिधि: सुधीर मुखर्जी उपायुक्त मुख्य अभियंता (यांत्रिक) रागोदर घाटी निगम को सूचनाार्थ एवं आवश्यक कार्रवाई हेतु प्रेषित।


प्रमोद कुमार

जमु वन पदार्थ परिवहन प्रणाली विकास,
बालासोर।

157


सुधीर मुखर्जी / Sudhir Mukherjee
उपायुक्त मुख्य अभियंता (यां), जमु
Dy. Chief Engineer (M), Fuel
रागोदर घाटी निगम, बालासोर-54
Demodar Valley Corpn., Kolkata-54

कार्यालय:- प्रगल्भतीय प्रबंधक, लघु वन पदार्थ परियोजना प्रमण्डल, डालटनगंज ।

देना:- सोनभार, जिला-डालातोहार में 400/220 की०मी० वीडि काय स्टेशन निर्माण हेतु अधिष्ठित भूमि में पड़ने वाले वृक्षों के पातन हेतु सुपरविजन एवं डैजसिंग, डीपू रेंट अग्नि सुरक्षा, वनागार का बीमा आदि काशि का प्रासिकलन/मददगार विवरणी ।

क्र.सं०	कार्य विवरणी	निर्धारित दर	अनुमानित मात्रा	कुल	कार्य दर (लक्षमा में) प्रति ईकाई	कुल रकम
		घण्टा / घण्टी	घण्टी में			
1	टिन्डर बाली आदि का डैजसिंग काय करी ००००।	1.00	15 घण्टी		240.99	3615.00
2	डैजसिंग टिन्डर बाली आदि करी टुक 5.71 घण्टी।	2.93	15 घण्टी		240.99	10592.00
3	बालका घट्टा लगाना (12 घण्टी एक घट्टा के लिए)	3.92	15 घण्टी		240.99	14170.00
4	वीलरी के लिए लॉट विधान।	0.9	15 घण्टी		240.99	3253.00
5	सुपरविजन कार्य काय मई 2018 से दिसम्बर 2018 तक के लिए।					
	(अ) घातन लम्बीय कर दो डैनिक घण्टा भोगी करी, डीपू में सम्भालन हेतु दो डैनिक घण्टा भोगी करी, डैजसिंग सम्भालन में डैजसिंग विधान हेतु एक डैनिक घण्टा भोगी करी (कुल तीन करी)			2x26x2= 104days	104x240.99	25063.00
	(ब) बीमार्, फट, लेकन राली आदि @5000/Month					1000.00
	(ग) घातन एक घट्टा @5000/Month					2000.00
	(घ) डैनिक अधिष्ठित का सम्भालन @2000/Month					2000.00
	(ङ) डैनिक मय @3000/Month					1800.00
6	डीपू रेंट @5000/Month					5000.00
7	अग्नि सुरक्षा					1000.00
8	वनागार का बीमा					5000.00
	कुल विचार इन्डर करी विधान के काय					73693.00

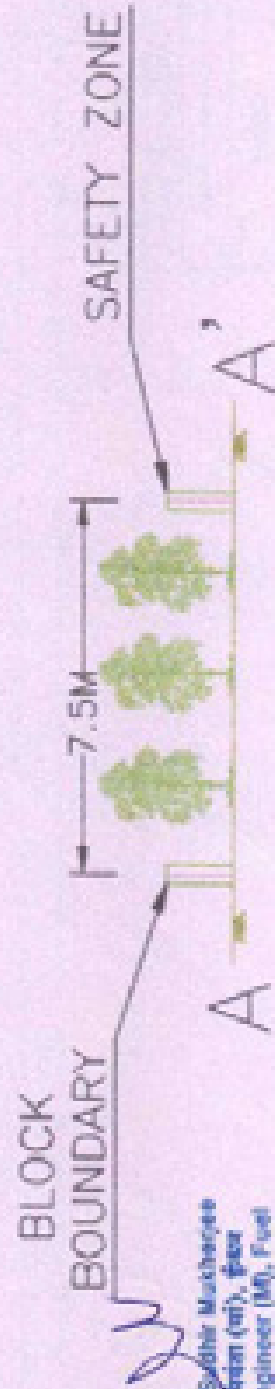
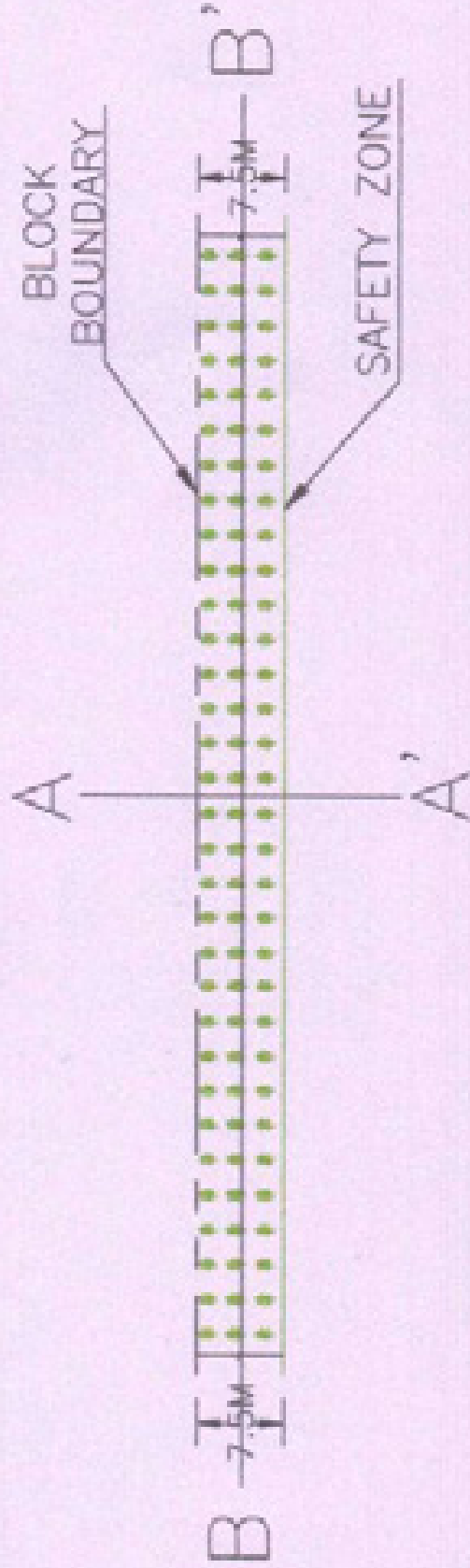
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प्रमण्डलीय प्रबंधक,
लघु वन पदार्थ परियोजना प्रमण्डल,
डालटनगंज ।

सुधीर मुखर्जी / Sudhir Mukherjee
ज्य. वृक्ष अभियंता (सी), ईन्टर
Dr. Civil Engineer (M), Fuel
एम्प्लॉय कांटी रिजल, कोड-54
Comodit Valley Corpn., Kolkata-54

TUBED COAL MINE

DVC, LATEHAR DISTRICT, JHARKHAND



Dr. Sandip Kumar Mishra
M. Tech. in Mining Engineering
Dy. Chief Engineer (M), Fuel
Group and Mines, Jamshedpur-84
Dumka-Mishra Group, Khatwa-84

NOT TO SCALE



DAMODAR VALLEY CORPORATION
D.V.C. TOWERS, V.I.P. ROAD
KOLKATA - 700 054

Phone: (033) 6607-2338 email: sudhir.mukherjee@dvc.gov.in



No. HQ/Mining/Tubed/FC/193(VI)

Dated: 13.02.2020

Annexure- VI

UNDERTAKING

TUBED COAL MINE

This is to certify that, Damodar Valley Corporation (DVC), a corporation constituted under DVC Act, 1948 (Act. No. XIV of 1948), undertake and ensure that all funds shall be transferred / deposited to CAMPA Fund only through e-portal (<https://parivesh.nic.in/>). This is in connection of the fulfilment of Condition No. vi of the Stage-I Clearance, for diversion of 162.394 ha forest land in Latehar Forest Division, Dist. Latehar, Jharkhand.

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Damodar Valley Corporation,
D.V.C. Towers, V.I. P. Road,
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No. HQ/Mining/Tubed/FC/193(VII)

Dated: 13.02.2020

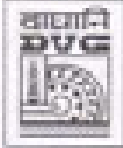
Annexure- VII

UNDERTAKING

TUBED COAL MINE

This is to certify that, Damodar Valley Corporation (DVC), a corporation constituted under DVC Act, 1948 (Act. No. XIV of 1948), undertake to demarcate on ground the boundary of the diverted Forest land, Mining Lease and Safety zone by erecting 4(four) feet high reinforced cement concrete pillars, each inscribed with it serial number, distance from pillar to pillar and GPS coordinates as per the specification laid down in Stage-I Clearance at its own cost. This is in connection of the fulfilment of Condition No. vii of the Stage-I Clearance, for diversion of 162.394 ha forest land in Latchar Forest Division, Dist. Latchar, Jharkhand.

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No. HQ/Mining/Tubed/FC/193(VIII)

Dated: 13.02.2020

Annexure- VIII

UNDERTAKING
TUBED COAL MINE

This is to certify that, Damodar Valley Corporation (DVC), a corporation constituted under DVC Act, 1948 (Act. No. XIV of 1948), undertake that the period of diversion of 162.394 ha forest land under the approval (F. No. 8-23/2019-FC, Dt. 13.11.2019) shall be for a period co-terminus with the period of mining lease proposed to be granted under the Mines and Minerals (Development & Regulating) Act, 1957, as amended or Rules framed there under, subject to a maximum period of 30 years. This is in connection of the fulfilment of Condition No. viii of the Stage-I Clearance, for diversion of 162.394 ha forest land in Latchar Forest Division, Dist. Latchar, Jharkhand.

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No. HQ/Mining/Tubed/FC/195(IX)

Dated: 13.02.2020

Annexure- IX

UNDERTAKING

TUBED COAL MINE

This is to certify that, Damodar Valley Corporation (DVC), a corporation constituted under DVC Act, 1948 (Act. No. XIV of 1948), undertake to ensure that the mining operation is being done in a phased manner as per Approved Mine Plan after taking due care for reclamation over the mined over area as per Approved Mine Closure Plan and 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. This is in connection of the fulfilment of Condition No. ix of the Stage-I Clearance, for diversion of 162.394 ha forest land in Latchar Forest Division, Dist. Latchar, Jharkhand.

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No. HQ/Mining/Tubed/FC/193(X)

Dated: 13.02.2020

Annexure- X

UNDERTAKING

TUBED COAL MINE

This is to certify that, Damodar Valley Corporation (DVC), a corporation constituted under DVC Act, 1948 (Act. No. XIV of 1948), undertake to complete the following activities for the management of Safety Zone. This is in connection of the fulfilment of Condition No. x (a,b,c) of the Stage-I Clearance, for diversion of 162.394 ha forest land in Latehar Forest Division, Dist. Latehar, Jharkhand.

- (a) Demarcation of boundary of safety zone (7.5 meter strip all along the inner boundary of the mining lease area), and its protection by erecting adequate number of 4 feet high RCC boundary pillars inscribed with DGPS coordinates and deployment of adequate number of watchers under the supervision of the State Forest Department.
- (b) Proper fencing of the boundary of the safety zone of the lease adjacent to the habitation/roads to protect the vegetation /regeneration activities.
- (c) Safety zone shall maintained green belt around the mining lease and ensure dense canopy cover in the area under the supervision of the State Forest Department.

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Kolkata- 700054

Management of Safety Zone of Tubed Coal Mine Latehar District, Jharkhand

In Compliance with Condition No. x of Stage-I Forest Clearance vide letter
F. No. 8-23/2019-FC, Dt. 13.11.2019 of Ministry of Environment, Forest & Climate Change
(FC Division),
Govt. of India, New Delhi

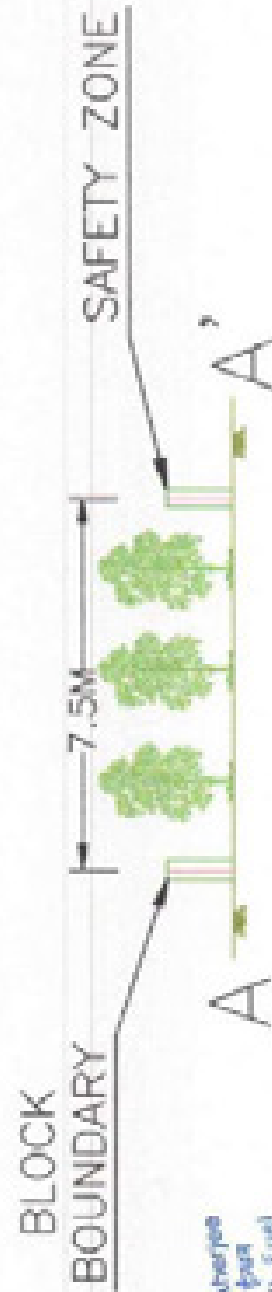
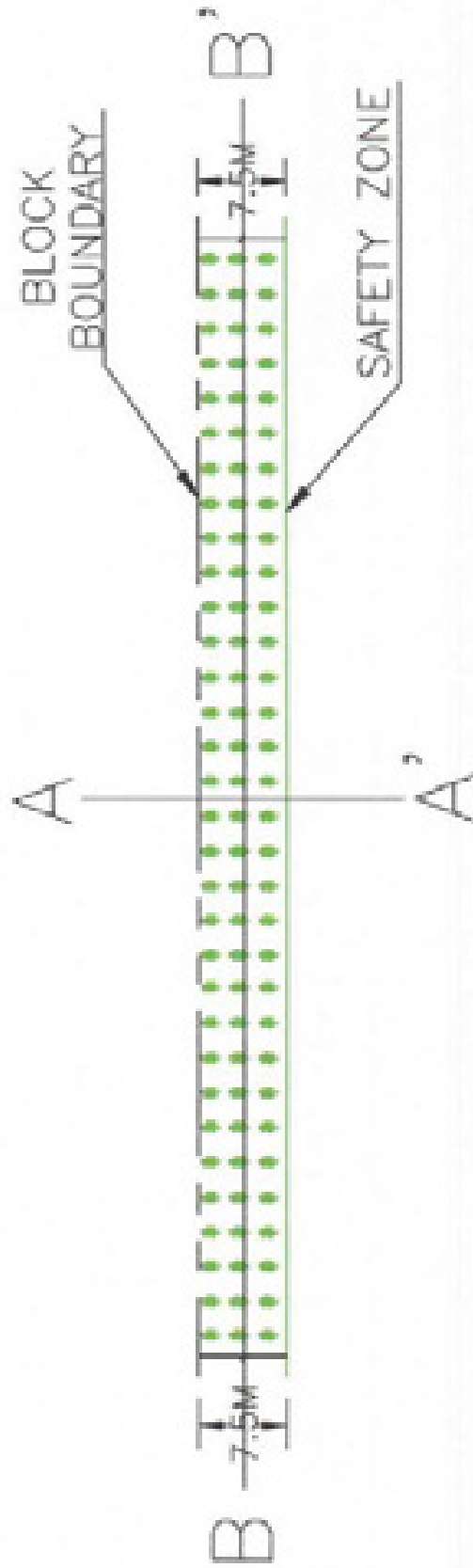
<i>Safety Zone Area :</i>	6.6 ha
<i>Demarcation :</i>	Boundary of the safety zone (7.5m strip all along the inner boundary of the mining lease area), and its protection by erecting 4ft. high RCC pillars inscribed with DGPS coordinates has been executed. (KML file enclosed)
<i>Cost of Block Plantation in Safety Zone :</i>	Rs.878269/-
<i>Cost of Fencing of Safety Zone (8829m x 2) = 17658 m :</i>	Rs.5562270/-
<i>Watch & ward :</i>	The safety zone will be monitored by the environmental cell of the company on regular basis deploying adequate number of competent persons throughout the year under the supervision of State Forest Department (DFO-Latehar)
<i>Total cost implication for management of safety zone :</i>	Rs.6440539/-


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अधीनस्थ अभियंता (मि), खनन
Dy. Chief Engineer (M), Mining
दामोदर घाटी निगम, कोलकाता-५४
Damodar Valley Corp., Kolkata-54

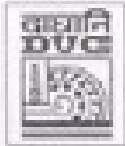
TUBED COAL MINE

DVC, LATEHAR DISTRICT, JHARKHAND



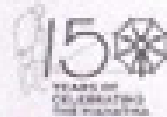
NOT TO SCALE

Dr. Sudhir Mukherjee
Civil Engineer (M), Fuel
DVC, Latehar, Jharkhand-84
13/08/2024



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No. HQ/Mining/Tubed/FC/193(XI)

Dated: 13.02.2020

Annexure- XI (a,b,c,d & e)

UNDERTAKING TUBED COAL MINE

This is to certify that, Damodar Valley Corporation (DVC), a corporation constituted under DVC Act, 1948 (Act. No. XIV of 1948), undertake that the following activities will be undertaken at the project cost:

- a) Preparation and implementation of a plan containing appropriate mitigative measures to minimize soil erosion and choking of streams;
- (b) Planting of adequate drought hardy plant species and sowing of seeds in the appropriate area within the mining lease to arrest soil erosion;
- (c) Construction of check dams, retention /toe walls along the contour to arrest sliding down of the excavated material;
- (d) Stabilize the overburden dumps by appropriate grading/benching so as to ensure that that angles of repose at any given place is less than 28°; and
- (e) Strict adherence to the prescribed top soil management

This is in connection of the fulfilment of Condition No. xi (a,b,c,d & e) of the Stage-I Clearance, for diversion of 162.394 ha forest land in Latchar Forest Division, Dist. Latchar, Jharkhand.

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**GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE
(IMPACT ASSESSMENT DIVISION)
(COAL MINING SECTOR)**

**SUMMARY RECORD OF 51st MEETING OF THE EXPERT APPRAISAL COMMITTEE
FOR ENVIRONMENTAL APPRAISAL OF COAL MINING PROJECTS CONSTITUTED
UNDER THE EIA NOTIFICATION, 2006, HELD ON DECEMBER 5, 2019.**

The 51st meeting of the Expert Appraisal Committee (EAC) for Coal mining projects was held on 5th December, 2019 in the Ministry of Environment, Forest and Climate Change at Indus Meeting Hall, Jal Wing, Ground Floor, Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi to consider the proposals relating to coal mining sector. The following members were present:

1.	Dr. Navin Chandra	-	Chairman
2.	Shri G.P. Kundargi	-	Member
3.	Dr. J.K. Pandey	-	Member
4.	Shri N. S. Mondal	-	Member
5.	Ms. Manjari Srivastava	-	Member
6.	Dr. R.B. Lal, Scientist 'E', MoEFCC	-	Member Secretary
MoEF&CC			
7.	Shri Munna Kumar Shah, Scientist 'D'	-	MoEFCC

Confirmation of minutes

There being no comments from any of the members of the Committee, minutes of the 50th meeting of the EAC held during 15th November, 2019 were confirmed in the presence of the members who had been present in the 51st meeting of EAC.

Details of the proposals considered during the meeting, deliberations made and the recommendations of the Committee are explained in the respective agenda items as under:-

After welcoming the Committee Members, discussion on each of the agenda items was taken up ad-seriatim.

Agenda No. 51.1

Suliyari Coal Mining Project of 5.0 MTPA of M/s Andhra Pradesh Mineral Development Corporation Limited in mine lease area of 1298 ha located in Singrauli Coalfields, Tehsil Saral, District Singrauli (Madhya Pradesh) - Consideration of Environmental Clearance - reg.

[Proposal No. IA/MP/CMIN/73904/2018; F.No. J-11015/35/2018-IA.II]

- (x) Permission for usage for surface water i.e. from kelo river (as proposed for initial 3 years) for mining operation/domestic purposes shall be obtained from concerned statutory authority
- (x) Carrying capacity of the area shall be carried considering the presence of the other coal mines and mitigation measures shall be proposed accordingly.
- (xi) Mining Lease or Letter of Intent for the project area shall be submitted by PP from concerned state government authorities.
- (xii) Compliance of issues raised during Public Hearing shall be submitted with certain timeline and allocation.
- (xiii) Social Impact Assessment Study for the proposed displacement of Tribals/SC/ST.
- (xiv) Impact of mine drainage and diversion of nallah based on quality and quantity (inflow of river).
- (xv) Details of hazardous waste generation (if any) during mining operations and further handling/disposal shall be provided in details.
- (xvi) Impact on villages due to mining activity present in core zone (not proposed to be displaced) shall be provided.
- (xvii) The activities and fund provisions for CER shall be made as per the guidelines issued by the ministry regarding CER on 1st May, 2018.
- (xviii) Clarification from DFO/PCCF whether there is any presence of Elephant Corridor or movement of elephants in the region.
- (xix) Impact of mine drainage on kelo river shall be submitted in detail.
- (xx) Detailed Traffic impact assessment/ study for road transportation of coal to linked Railway Siding / Power Plant shall be conducted.

The proposal was therefore returned in present form as it is, for completing full details on Form#2 and other observations as given above.

Agenda No.50.5

Tubed Coal Mines Project M.L area 460 ha, production capacity 6 MTPA of Damodar Valley Corporation in mine lease area of 460 ha near villages Tubed, Mangra, Dihi, Ambajharan, Dhobajharam, Nawari, Tehsil Latehar, District Latehar (Jharkhand) – Consideration of Environment Clearance

[IA/JH/CMIN/65302/2017, IA-J-11015/54/2017-IA-II(M)]

50.5.1 The proposal is for Environmental Clearance for Tubed Coal Mine Project of 6 MTPA capacity of M/s Damodar Valley Corporation located in mine lease area of 460 Ha in village Tubed, Dhobajharan, Ambajharan, Dihi, Nawari and Mangra, Tehsil Latehar, District Latehar (Jharkhand).

50.5.2 Details of the proposal, as ascertained from the proposal documents and as revealed from the discussions held during the meeting, are given as under:

- (i) The project area is covered under Survey of India Topo Sheet No F45/A9 and is bounded by the geographical coordinates ranging from 23°48'20" to 23°50'09" N and longitudes 84°34'09" and 84°35'45" E.

- (iii) Joint venture cartel has been formed - Not Applicable
- (iv) Project does not fall in the Critically Polluted Area (CPA), where the MoEF&CC's vide its OM dated 13th January, 2010 has imposed moratorium on grant of environment clearance.
- (v) Employment generation, employment to 1200 persons will be provided from the project.
- (vi) The project is reported to be beneficial in terms of Socio-economic development of the local population.
- (vii) Total mining lease area as per block allotment is 460 ha. Mining Plan (Including Progressive Mine Closure Plan) has been approved by the MoC, Golon 12.10.2009 for Mine Plan and 10.08.2011 for Progressive Mine Closure Plan.
- (viii) The land usage pattern of the project is as follows:

Pre-mining land use details

(Area in Ha)

S. No.	Land Use	Within ML Area	Outside ML Area	Total
1	Agricultural Land	230	-	230
2	Forest Land	162.4	-	162.4
3	Wasteland	39	-	39
4	Grazing Land	-	-	-
5	Surface Water Bodies	22	-	22
6	Settlements	1	-	1
7	Others (Specify)	-	-	-
	Old Excavation Area (East Quarry)	-	-	-
	Old Excavation Area (West Quarry)	-	-	-
	Old OB Dumps	-	-	-
	Roads & Mine Infrastructure	5.6	-	5.6
	R & R Colony	-	-	-
	Staff Colony	-	-	-
	Green Belt	-	-	-
	Balance Area	-	-	-
	Total Project Area =	460	Nil	460

Post Mining

S. No.	Land use	Land use (ha)				Total
		Plantation	Water Body	Public Use/	Undisturbed	
1	External OB Dump	63	-	-	-	63

4	Roads	3	-	4	-	7
5	Built-up Area	7	-	3	-	10
6	Green Belt	-	-	-	-	-
7	Undisturbed Area	-	-	-	-	-
8	Safety Zone / Rationalization Area	16	-	-	-	16
9	Diversion / Below River / Nala / Canal	4	10	-	-	14
10	Water Body	-	-	-	-	-
11	Staff Colony	-	-	-	-	-
	Total Area =	423	22	15	-	460

- (ix) Total geological reserve reported in the mine lease area is 189.82 MT with 170.83 MT mineable reserve. Out of total mineable reserve of 170.83 MT, 139 MT are available for extraction. Percent of extraction is 81.3.%.
(x) 12 seams with thickness ranging from 0.10 m to 15 m are workable. Grade of coal is mostly F Grade, stripping ratio 2.15, while gradient is 3° to 15°.
(xi) Method of mining operations envisages by Open Cast (Shovel Dumper & Surface Miner) method.
(xii) Life of mine is 30years.
(xiii) The project has 1 external OB dumps in an area of 63 ha with 90 m height and 55 Mm³ of OB. Existing OB Dumps shall be re-handled and backfilled in 12th, 13th and 14th year. The OB from the current mining operations shall be backfilled from 1st year onwards. 2 Internal OB in an area of 350 ha with 215.Mm³ of OB is envisaged in the project.
(xiv) Total quarry area is 350 ha out of which backfilling will be done in 350 ha while final mine void will be created in an area of 4 Ha with a depth of 30 to 40 m. Backfilled quarry area of 330 ha shall be reclaimed with plantation. Final mine void will be converted Water Body
(xv) Transportation of coal has been proposed by Dumpers in mine pit head, from surface to siding by Road and at sidings by Rail. Dedicated railway siding is proposed for evacuation of coal. As an interim measure coal will be transported to nearby Railway Siding by Road till the commissioning of the siding.
(xvi) Reclamation Plan in an area of 460.ha, comprising of 63 ha of external dump, 350 ha of internal dump and 8.7 ha of green belt. In addition to this, an area of 6.7 ha, included in the safety zone/rationalization area, has also been proposed for green belt development.

- (vii) 162.394 ha of forest land has been reported to be involved in the project. Stage I Approval under the Forest (Conservation) Act, 1980 for diversion of 162.394 ha of forest land for non-forestry purposes has been obtained vide MoEF&CC letter No. F No 8-23/2019-FC dated 13.11.2019
- (xviii) No National Parks, Wildlife Sanctuaries and Eco-Sensitive Zones have been reported within 10 km boundary of the project.
- (xix) The ground water level has been reported to be varying between 12m to 15 m during pre-monsoon and between 10m to 12 m during post-monsoon. Total water requirement for the project is 750 KLD.
- (xx) Approval of the Central Ground Water Authority for 810m³/Day has been obtained on 05.09.2019 vide NOC No. CGWA/NOC/MIN/ORIG/2019/5876
- (xxi) Public hearing for the project of 6 MTPA capacity in an area of 460 ha was conducted on 10.01.2019 at Latehar. Major issues raised in the public hearing include Land Compensation, R&R, Socio-economic Development and Environment protection. Appropriate action to address the issues raised in the Public Hearing have already been taken/proposed to be taken are as under:
- a. Land Compensation will be payable as per LA Act, 2013
 - b. R&R will be done as per schedule II of the LA Act, 2013
 - c. R&R Colony will be constructed as per schedule III off the LA Act, 2013
 - d. Suitable person will be given employment in unskilled category.
- (xxii) Sukri River/nalla is flowing through boundary of lease. The nallah will be diverted in consultation with the Water Resource Department of the State Government. In principle approval is accorded by the WRD Government of Jharkhand.
- (xxiii) No court cases, violation cases are pending against the project of the PP.
- (xxiv) The project involves 418 project affected families. R&R of the PAPs will be done as per LA Act 2013.
- (xxv) Total cost of the project is Rs. 130000 lakhs. Cost of production is Rs. 700 /- per tonne., CSR cost is Rs. 6.75 per tonne, R&R cost is Rs. 78.18 crores. Environment Management Cost is Rs. 42.8 crores.

51.5.3 During deliberations on the proposal, the EAC took note as follows:

- The proposal is for Environmental Clearance for Tubed Coal Mine Project of 6 MTPA capacity of M/s Damodar Valley Corporation located in mine lease area of 460 Ha in village Tubed, Dhobla Jharan, Ambajharan, Dihl, Newari and Mangra, Tehsil Latehar, District Latehar (Jharkhand).
- Tubed Coal Block (460 ha.) of Auranga Coal Field is allotted in favour of "Damodar Valley Corporation" incorporated in India under the Damodar Valley Corporation

Authority constituted under section 6 of the Coal Mines (Special Provision) Act, 2015, Allotment Order no. 103/04/2016/NA on dated 07.10.2016 under clause (c) of sub-rule (2) of rule 7 and sub-rule (1) of rule 13. DVC is deemed lessee as per section 11 of CBA act.

- Mining Plan and Mine Closure Plan for Tubed Coal Mine have been approved by Ministry of Coal vide letter No. 13016/19/2009-CA-I dated 12.10.2009 and vide Letter No. 34011-03-2011-CPAM on dated 10.08.2011 respectively. Same has been transferred along with Allotment Order on dated 07.10.2016 in the name of Damodar Valley Corporation
- ToR for the proposal was granted by this Ministry vide letter dated 16th March, 2018.
- Public hearing for the project of 6 MTPA capacity in an area of 460 ha was conducted on 10th January, 2019 at Latehar Stadium Near Boys High School, Jharkhand.
- Project involves forest land wherein PP has been granted Stage-1 FC for diversion of 162.394 ha of forest land (including 54.365 ha Protected forest land and 108.029 ha of Jungle Jhadl land) on 13th November, 2019.
- Primary baseline data on environmental quality air (PM10, PM2.5, SOx, NOx. and heavy metals was carried out in summer season 2018 (March 2018 to May 2018).
- The Sukri river enters the block from South side, then runs along South north in western part of the block. After traversing half of the block it turns westward & leaves the block. All these water courses would be diverted along line boundary of the block. As water flow from upland beyond the lease area will be all diverted to sukri river, diversion or river diversion would not affected any down stream.
- The diversion plan has been accepted 'in principal' by Office of the Chief Engineer Design, Master Planning & Hydrology (Water Resource Department), Jai Bhawan, Ranchi vide letter no. SE/canal/304/plan/2019/1045 on dated 13.11.2019.
- NOC for ground water abstraction has been Issued by Ministry of Jal Shakti, Department of Water Resources, River Development & Ganga Rejuvenation, Central Ground water Authority vide NOC no. CGWA/NOC/MIN/ORIG/2019/5876 valid from 14.08.2019 to 13/08/2021.
- The public hearing of M/s Damodar Valley Corporation for "Tubed coal mine" project in village Tubed, Mangra, Dihl, Ambiajharan, Nawari District Latehar, Jharkhand with production capacity of 6.0 TPY was held on 10.01.2019 at Latehar Stadium (Near Boys High School), Jharkhand under the Chairmanship of Additional collector Mr. Nelson Ayan Bagay and Regional Officer, Jharkhand State pollution Control Board.
- The Environment Clearance of this project is to be given by MoEF&CC. In this

news paper Pioneer and Indian Express in English and also in local Newspaper Hindustan Prabhat Khabar (Palamu version) the on 08.12.2018.

- A Wildlife Conservation Plan along with the appropriate budgetary provision prepared by prior allottee was approved by Chief Wildlife Conservator of Forest Officer, Jharkhand Ranchi Authority. The same has been transferred to M/s Damodar Valley Corporation vide letter no. 911 on dated 23.05.2018.
- The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, have examined the proposal submitted by the Project Proponent in desired form along with EIA/EMP report prepared and submitted by the Consultant accredited by the QCI/NABET on behalf of the Project Proponent.
- The EAC noted that the Project Proponent has given undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP report and public hearing process. If any part of data/information submitted is found to be false/misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent. The EAC has deliberated the proposal and has made due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC have found the proposal in order and have recommended for grant of Environmental Clearance (EC).

51.5.4 The Committee, after deliberations, **recommended** grant of environment clearance to Tubed Coal Mine Project of 6 MTPA capacity of M/s Damodar Valley Corporation, located in mine lease area of 460 Ha in village Tubed, Dhobiajharan, Ambajharan, Dihl, Newari and Mangra, Tehsil Latehar, District Latehar (Jharkhand), under the provisions of the Environment Impact Assessment Notification, 2006 and subsequent amendments/circulars thereto subject to the compliance of the following terms & conditions / specific conditions in addition to the standard environmental conditions notified by the Ministry mentioned below:-

- (i). The project proponent shall obtain Consent to establish from the State Pollution Control Boards for the proposed peak capacity of 4 MTPA prior to commencement of the increased production.
- (ii). Transportation of coal from Coal Handling Plant shall be through covered trucks.
- (iii). To control the production of dust at source, the crusher and in-pit belt conveyors shall be provided with mist type sprinklers.
- (iv). Mitigating measures shall be undertaken to control dust and other fugitive emissions all along the roads by providing sufficient water sprinklers. Adequate corrective measures shall be undertaken to control dust emissions, which would include mechanized sweeping, water sprinkling/mist spraying on haul roads and

vertical greenery system, green belt, dust suppression arrangement at loading and unloading points, etc. 2-3 tier of native tree with broad leaves of plantation shall be carried out all along the road transportation till Ritchughuta Railway Station (as proposed).

- (v). The company shall obtain approval of CGWA for use of groundwater for mining operations at its enhanced capacity of 4 MTPA. All the stipulated in the NOC vide no. CGWA/NOC/MIN/ORIG/2019/5876 valid from 14.08.2019 to 13/08/2021 shall be complied.
- (vi). Continuous monitoring of occupational safety and other health hazards, and the corrective actions need to be ensured.
- (vii). Persons of nearby villages shall be given training on livelihood and skill development to make them employable.
- (viii). To ensure health and welfare of nearby villages, regular medical camps shall be organized at least once in six months.
- (ix). Thick green belt of adequate width at the final boundary in the down wind direction of the project site shall be developed to mitigate/check the dust pollution. No shrubs/bushes shall be planted and only trees of native species shall be planted
- (x). Efforts shall be made for utilizing alternate sources of surface water, abandoned mines or else whatsoever and thus minimizing the dependability on a single source.
- (xi). The activities and fund provisions for CER shall be made as per the guidelines issued by the ministry regarding CER on 1st May, 2018.
- (xii). Project Proponent shall obtain blasting permission from DGMS for conducting mining operation near villages and also explore deployment of rock breakers of suitable capacity in the project to avoid blasting very near to villages. There shall be no damages caused to habitation/structures due to blasting activity.
- (xiii). Distance of 100 meters shall be maintained from the bank of Surkhi river (both side) during mining operation till the permission for diversion of river is obtained from concerned statutory authority.
- (xiv). All the recommendation of approved Wild Life Conservation Plan shall be complied
- (xv). No transportation of coal shall be carried by road after commission of proposed railway siding near the coal mine i.e. after 36 months from the date of issue of EC.
- (xvi). The Project Proponent shall complies with all the statutory requirements and judgement of Hon'ble Supreme Court dated the 2nd August 2017 in Writ Petition

Ors. State Government shall ensure that the entire compensation levied, if any, for illegal mining paid by the Project Proponent through their respective Department in strict compliance of judgment of Hon'ble Supreme Court dated the 2nd August 2017 in Writ Petition (Civil) No. 114 of 2014 in the matter of Common Cause versus Union of India and Ors.

- (xvii). Project Proponent shall obtain the necessary prior permission from the Central Ground Water Authority (CGWA) in case of intersecting the Ground water table. The intersecting ground water table can only be commence after conducting detailed hydrogeological study and necessary permission from the CGWA. The Report on six monthly basis on changes in Ground water level and quality shall be submitted to the Regional Office of the Ministry, CGWA and State Pollution Control Board.
- (xviii). Proponent shall appoint an Occupational Health Specialist for Regular and Periodical medical examination of the workers engaged in the Project and maintain records accordingly; also, Occupational health check-ups for workers having some ailments like BP, diabetes, habitual smoking, etc. shall be undertaken once in six months and necessary remedial/preventive measures taken accordingly. The Recommendations of National Institute for ensuring good occupational environment for mine workers shall be implemented; The prevention measure for burns, malaria and provision of antsnake venom including all other paramedical safeguards may be ensured before initiating the mining activities.
- (xix). Project Proponent shall follow the mitigation measures provided in Office Memorandum No. Z-11013/57/2014-IA.II (M), dated 29th October, 2014, titled "Impact of mining activities on Habitations-Issues related to the mining Projects wherein Habitations and villages are the part of mine lease areas or Habitations and villages are surrounded by the mine lease area".
- (xx). The illumination and sound at night at project sites disturb the villages in respect of both human and animal population. Consequent sleeping disorders and stress may affect the health in the villages located close to mining operations. Habitations have a right for darkness and minimal noise levels at night. PPs must ensure that the biological clock of the villages is not disturbed; by orienting the floodlights/ masks away from the villagers and keeping the noise levels well within the prescribed limits for day light/night hours.
- (xxi). The project proponent shall take all precautionary measures during mining operation for conservation and protection of endangered fauna, if any, spotted in the study area. Action plan for conservation of flora and fauna shall be prepared and implemented in consultation with the State Forest and Wildlife Department. A copy of action plan shall be submitted to the Ministry of Environment, Forest and Climate Change and its Regional Office.

Agenda No.50.6

**SCHEME FOR MITIGATIVE MEASURE TO MINIMIZE SOIL
EROSION & CHOCKING OF STREAMS**

**In Compliance with Condition No. xi (a) of Stage-I Forest
Clearance vide letter F. No. 8-23/2019-FC, Dt. 13.11.2019 of
Ministry of Environment, Forest & Climate Change**

(FC Division),


Govt. of India, New Delhi

For

Diversion of 162.394 Ha of Forest Land In Latehar District

In Favour of Damodar Valley Corporation for

Tubed Coal Mine


સુધીર મુખર્જી / Sudhir Mukherjee
Dy. Chief Engineer (M), Fuel
Damodar Valley Corpn., Kolkata-64

Damodar Valley Corporation

Tubed Coal Mine

1. Introduction

The Tubed Coal Mine was allotted to DVC by the nominated authority, GOI, vide Order. No 103/04/2016/NA, Dt. 07th October, 2016 of the Coal Mines (special provision) Act, 2015 for captive use its own plants at different locations in West Bengal and Jharkhand.

2. Location of Tubed Coal Mine and Mining Lease area

Tubed Coal Mine covering an area of 4.6 Sq. Km is situated in Latchar District of Jharkhand State. The block forms a part of survey of India Toposheet No. 73 A/9 (OSM No. F45A9) (1:50,000) between coordinates

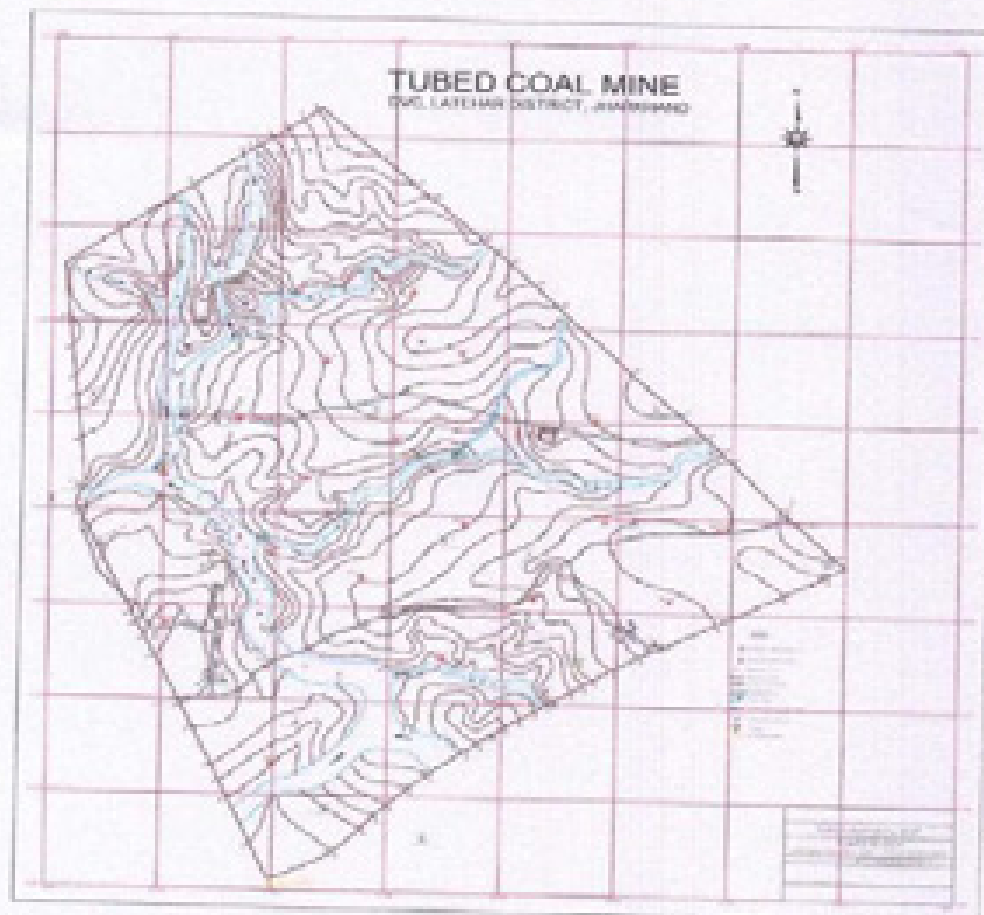
Latitude (N) 23°48'20" to 23°50'09"

Longitude (E) 84°34'09" to 84°35'45"

Lease area of Tubed Coal Mine is 460 ha.

3. Access

Tubed Coal Mine is well connected by fair weather road to district HQ, Latchar. Latchar is at a distance of about 12km from the Coal Block. National Highway 75 (Ranchi – Daltonganj) passes through Latchar. Latchar is at about 100km from Ranchi which is the Capital of Jharkhand State. A broad gauge railway line between Gomoh & Barwadih (loop line of East Central Railway) has Latchar as a railway Station.



4. Climate

As per annual temperature map of India (National Atlas), the block falls within the temperate zone having mean temperature of 25°C. The summers & winters are extreme. According to rain fall data, the area falls in the zone of 1000 to 1500 mm.

5. Physiography & Drainage

Tubed Coal Mine exhibits undulating topography. General slope is towards west. A prominent valley is located in SW part of the block along which Sukri River flows. The ground elevation (RL) varies from 386m in the north-west (near the river) to 412 m in north - east (high land area).

The drainage of the mine is mainly controlled by Sukri River flowing in SW part of block. There are 3 East West flowing nalas which drain to Sukri River. Besides, there is also a nala located in the Northern part of the block which also joins Sukri River near Bore Hole MAT 10.

6. Present, Proposed & Post Mining Land Use in Proposed Lease Area

All Fig-in-hectares (ha)

Sl. No.	Present Land Use		Proposed Land Use		Post Mining Land Use					
	Particular	Area	Particular	Area	Plantation	Agricultural	Water Body	Road for Public Uses	Green Belt	Total
1	Agriculture	230	Quarry	250	208	138	4			350
2	Waste land	59	External Dump	63	63					63
3	Nalok River	22	Infrastructure Facility	11.3		5.3		4	2	11.3
4	Road	5.6	Embankment, Nalok Road	29	17		8	4		29
5	Habitation	1	Safety Barrier against Mine Boundary	6.7					6.7	6.7
6	Forest	162.4								
	Total	460		460	288	143.30	12	8	8.7	460

7. Existing Vegetation

The area proposed for diversion includes Bushes of dominant species as detailed below

<u>Botanical Name</u>	<u>Local Name</u>
Mangifera Indica	Aam
Terminalia Tomentosa	Aasan
Embllica Officinalis	Amla
Acacia Nilotica	Babal
Terminalia Bellarica	Bahera
Zyzyphus Jujube	Her
Melia Azadirachta	Baken
Ficus Bengalensis	Bargad
Aegle marmelos	Bel
Senna occidentalis	Chakunda
Holoptelea integrifolia	Chalbal
Achyranthes	Chirchita
Ficus glomerata	Dumari
Gmelin Arborea	Gambhar
Terminalia chebula	Harra
Terminalia bellarica	Hara Baher
Terminalia indica	Imli
Terminalia arjuna	Jamun

Dr. Chief Engineer (M), Forest
 Dy. Chief Engineer (M), Forest
 Jharkhand State Forest Department

Botanical Name	Local Name
Murraya koenigii	Kari
Diospyros melanoxylon	Kendu
Acacia Catechu	Khair
Swietenia macrophylla	Mahaguni
Madhua indica	Mahua
Azadirachta Indica	Neem
Butea Monosperma	Palash
Ficus religiosa	Pipal
Pyrus	Piyar
Sorbus	Rohan
Tectona Grandis	Sagwan
Shorea robusta	Sakhua
Dalburgia Sisoo	Shisham
Lagerstroemia Parviflora	Sidha

And also the trees in local names are mainly Bandar Ladri, Birbiri, Gazm Siyar, Ghora Karamz, Ginjaan, Hundra, Kakar, Kantai, Katul, Kichkocheho, Koinaar, Korkorya, Mudkur, Papara, Paproad, Ramri, Ruri Karam, Semar, Siran, Sona Rakhi, Thawta, Til, Tilay etc.

a. Factors responsible for Soil Erosion and Chocking of Streams:

Due to opencast mining a few number of Nalas have immersed in the active mining Pit. The water that's runs off from the over burden dump slope and mined out coal deposit area carry substantial amount of solid in the lower order stream and later chock the higher order streams. This lower order streamlets have high erosion capacity due to steep gradient and transport rough fragments with high velocity and deposit the same in the connecting high order streams due to velocity drop. It is also evident in the field that a number of Nalas have immersed from the periphery of the mining pit, which carry substantial soil. When these undercut material falls in to the Stream and the fragments are transported and deposited in the streambed and chokes the stream mouth.

8. Objective of Scheme

The objectives of the proposed Scheme are follow:

- To fulfil condition no. xi (a) of Stage- I approval granted by MoEF vide their Letter F. No. 8-23/2019-PC, Dt. 13.11.2019 which envisage undertaking mitigative measure to minimize soil erosion and chocking of stream.
- Prevention of erosion of surface soil.
- Prevention of obstruction of discharge of water in to the streams.
- Proper Management of over burden material so as to prevent siltation in the stream.
- Prevention of overflow of eroded soil from the coal mining area to adjoining agriculture land, Natural streams and habitation.

9. Proposed Methodology

The objective can be achieved in two way approach i.e. Biological and Structural works for soil water conservation. The vegetative measures are to be adopted mostly in the upper reaches and structural work in the lower reaches such as Drain. The vegetative measures in the upper reaches will ~~prevent~~ ^{reduce} the sedimentation load, which is ultimately Prevent chocking of stream followed by De- Silting before ~~run-off~~ ^{run-off} of monsoon. The following activities are proposed to be under taken.

- ~~By~~ ^{By} ~~Drain~~ ^{Drain} ~~Extensive~~ ^{Extensive} ~~is~~ ^{is} ~~believe~~ ^{believe} run-off is carried-with silt and sediments which increase the velocity of

construct loose boulder structure of 4 meter span of height 1.3 m at an interval of every 100 meter - 48 Nos.

- Construction of 2 nos. of settling tank at the end of Nala where the Nala joins the boundary wall of the MI area. The size of the tank will be 4 m length 3 m width and 1.5 m height.
- Grass seeds will be sown all around the exposed soil of mining pit and on all along side of the Nala immersed in the lease area up to the compound wall.

10. Measures Proposed

a. Structural Measures

- Construction of loose boulder structure of 4 m length 3 m width and 1.5 m height at an interval of every 100m all along the rain water discharge Nala connected from the Coal stock yard over a length of 500 meters in both directions. These structures should be made on either side to check the flow of water especially during rain.
- Construction of a **Settling Pond** two numbers (West and South-East) near the Compound wall of the lease area of 18m length x 10m width x 3.5m height where the flow of rain water collected in Garland Drain can be settled. There will be a provision of outflow of the rain water after sedimentation of the silt to outside of the lease area and join the natural stream. The siltation tank needs to be scoured intermittently.
- A retaining wall over length of 60m of height 1.5m will be constructed all along the Weigh Bridge in the Coal Stock Yard.

b. Biological Measures

- Plantation will be undertaken in the vacant space on the road side from rain-cut Nala to mining pit over 10 ha in **Block model**.
- Grass seed will be sown all along the exposed soil of the mining pit and alongside the rain cut Nala up to end of lease boundary. Length of mining pit all around is 4000mt x 1m width = 4000sq.m(0.4 ha). Length of rain cut Nala 2000m x 3m= 6000sq.m or 0.6 ha. In the rest of the mining area in vacant places grass seed sowing will be over another 4 ha. So altogether grass seed sowing will be over 5.0 ha.

11. Species suitable for Block plantation

Palash(*ButeaMonosperma*), Amla (*EmblicaOfficinalis*), Neem (*AzadirachtaIndica*), Jamun (*SyzygiumCumini*), Shejara (*MoringaOleifera*), Karanj (*PongamiaPinnata*), Babul (*Acacia Nilotica*), Khair (*Acacia Catechu*), Ber (*Zyzyphus Jujube*), Imli (*TamarindusIndicus*), Peepal (*FicusReligiosa*), Bargad (*FicusDenghalensis*), Kula or Kadava (*SterculiaIrens*), Roheda (*TecomellaUndulata*)

12. Pre-Planting and Planting Operation

Block Model

Different species which will be taken up for plantation are as follows: -

Handwritten signature
The project is approved by the
Mining Officer (M.I.)
Chief Engineer (M.I.)
and the Mining Engineer (M.I.)
and the Mining Officer (M.I.)
and the Mining Engineer (M.I.)
and the Mining Officer (M.I.)
and the Mining Engineer (M.I.)

ii) Alignment and pitting

Alignment and pitting, will be taken up in the month of March – April, Pits of size 30cm X 30cm X 30cm will be dug maintaining a spacing of 2.5mtr X 2.5mtr.

iii) Actual Planting

The seedling will be planted in the dugout pits of size 30cm x 30cm x 30cm with spacing of 2.5mx 2.5m. Plantation should be taken up after first regular shower of monsoon and should be completed by the end of July. Species shall be planted as per suitability of the soil condition. NPK fertilizer @ 30gms per plant should be given as basal dosage. Anti-termite insecticide should also be applied to each pit while planting. Casualty if any noticed will be replaced with the excess seedling raised for the purpose. During second year also casualty replacement will be done for which seedling shall be raised.

iv) Weeding, Soil working & Manuring

For establishment and better growth of the planted seedlings, weeding, soil working and manuring are necessary. It is prescribed to carry out two weeding, soil working and manuring during first year and second year of plantation and one weeding and soil working during third year. During the first year and second year first weeding and manuring shall be carried out during August-September and the second one during October-November. First weeding shall be an area weeding and the second will be of strip weeding. The weeding of third year will be an area weeding which will be carried out during August. After each weeding, soil working will be done around each plant at radius of 0.5mtr and manuring of each plant will be done 30gms of NPK per plant.

v) Application of insecticides:

The plantation site after planting good healthy seedling may cause influx of insects, which usually eat and damage the tender leaves and shoots of the plants. To get rid of such insects attack application of the insecticides will be taken up in required doses at desired intervals. Spraying of insecticides shall be done preferably in a sunny day before forenoon.

The Schedule of operation for preparation of site, pre-planting, planting, post-planting is prescribed herewith.

OPERATIONS	PERIOD OF COMPLETION
i. Advance preparation of site.	End of October
ii. Alignment & Digging of pits	End of February
iii. Stacking	End of February
iv. Pre sponged poly potted stump planting.	1 st week of July
v. Casualty replacement	End of July
vi. 1 st soil working, weeding, manuring	End of August
vii. Soil & water conservation measuring	End of September
viii. 2 nd soil working, weeding	During October
ix. Fire line tracing	During December
x. Watch & ward	July to March

For the 2nd year, the following operations are prescribed:

Casualty replacement, 1st weeding soil & manuring : End of July Working

- c. Watch & ward : Throughout the year
- vii) 3rd Year.
 - a. Wedding, soil working and application of manure : End of July
 - b. Fire line tracing : December
 - c. Watch & ward : Throughout the year
- viii) 4th year to 10th year
 - a. Fire line tracing : End of December
 - b. Pruning & Singling : September
 - c. Watch & Ward : Throughout the year

ix) Grass Seeding

Particularly on eroded areas which are susceptible to further erosion should be cover with grasses. The area contains yellowish brown soil and gravelly soil where the pH is below 7. In such area species like *Chrysopogonfulvas*, *Themadatriendra* and *Cynodondactylon* will be sown broadcast.

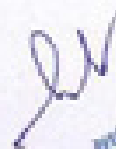
In the first year after a good plowing using country plow weeds will be uprooted. Farmyard manure will be added to the soil 3 truck loaded per hector. Grass seeds @ 2kg per hector will be sown broadcast. Science Grass seeds area very light may not be effective in broadcast sowing there-fore palat preparation with 6:1 (Soil+ FYM mixture) will be dibbled at a spacing of 1.5m x 1m and weeding of unwanted grasses will be made as and when necessary. In the 2nd year same procedure will be followed in order to establish the grassy land. However, grass seeding will be done over 5.0 ha.

13. Executive Agency

Damodar Valley Corporation, being the User Agency will execute the above works at the Project cost. To facilitate this, the user Agency shall establish its own Executive and Supervision cell along with required infrastructural facilities. In order to maintain the quality of the work, in house supervision through competent personnel shall be entrusted. The entire work shall be carried out in co-ordination with Forest Department (DFO, Latchar Division).

14. REQUIREMENT OF FUNDS

The total cost of implementation of mitigative measures [condition si(a)] will be Rs.1954687/- . The above expenditure will be spent over the next three years period. Therefore, budgetary provision will be kept according by the User Agency.


 १००००००० / Sudevir Mukherjee
 १००००००० (०१), १०००
 Chief Engineer (M), Fuel
 १०००००००, १०००००००-०४
 १०००००००

TOTAL COST OF THE PROJECT

Sl. No.	Description of the Work	Unit	Rate	Fund Required In Rs.
Biological Measures				
01	Block Plantation	10 ha	133071.00	1330710.00
02	Grass seeding	5 ha	22624.00	113120.00
Structural Measures				
03	Loose Boulder Structure (14' x 10' x 5')	48 nos.	8207.00	393936.00
04	Intermittent Settling Tank (10m x 4m x 1.5m)	03 nos.	38973.50	116920.50
Total				1954686.50 Say 1954687/-

Sudhir Mukherjee
Dy. Chief Engineer(Mech), Mining
Damodar Valley Corporation,
D.V.C. Towers, V.L.P. Road,
Kolkata- 700054

সুধীর মুখার্জী (সি), প্রকৌশল
ডায়. চীফ ইঞ্জিনিয়ার (সি), মাইনিং
ডামোদার বালি কর্পোরেশন (সি), ফুয়েল
ডায়. টাওয়ার, এল.পি. রোড, কলকাতা-৫৪

**SCHEME FOR PLANTING OF ADEQUATE DRAUGHT
HARDY PLANT SPECIES AND SOWING OF SEEDS IN THE
APPROPRIATE AREA WITHIN THE MINING LEASE TO
ARREST SOIL EROSION**

**In Compliance with Condition No. xi (b) of Stage-I Forest
Clearance vide letter F. No. 8-23/2019-FC, Dt. 13.11.2019 of
Ministry of Environment, Forest & Climate Change**

(FC Division),


Govt. of India, New Delhi

For

Diversion of 162.394 Ha of Forest Land In Latehar District

In Favour of Damodar Valley Corporation for

Tubed Coal Mine


with special / Special Authorisation
in your division (06), 8222
Dy. Chief Engineer (06), Forest
Division, Latehar, Jharkhand-84
Damodar Valley Corp., Kolkata-84

Damodar Valley Corporation

Tubed Coal Mine

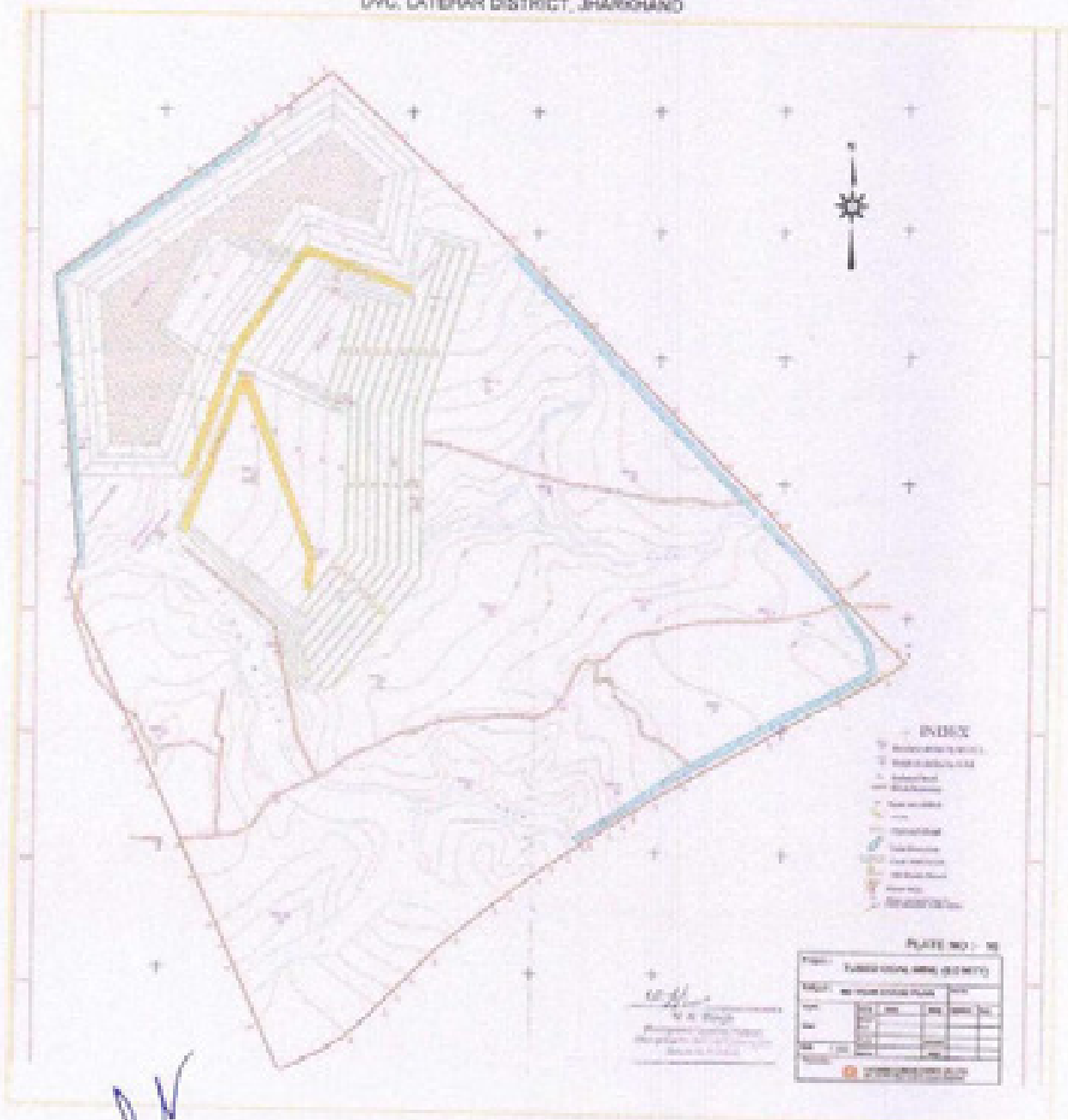
Under the Latehar Forest Division

1. Introduction

The Tubed Coal Mine was allotted to DVC by the nominated authority, GOI, vide Order No 103/04/2016/NA. Dt. 07th October, 2016 of the Coal Mines (special provision) Act, 2015 for captive use its own plants at different locations in West Bengal and Jharkhand.

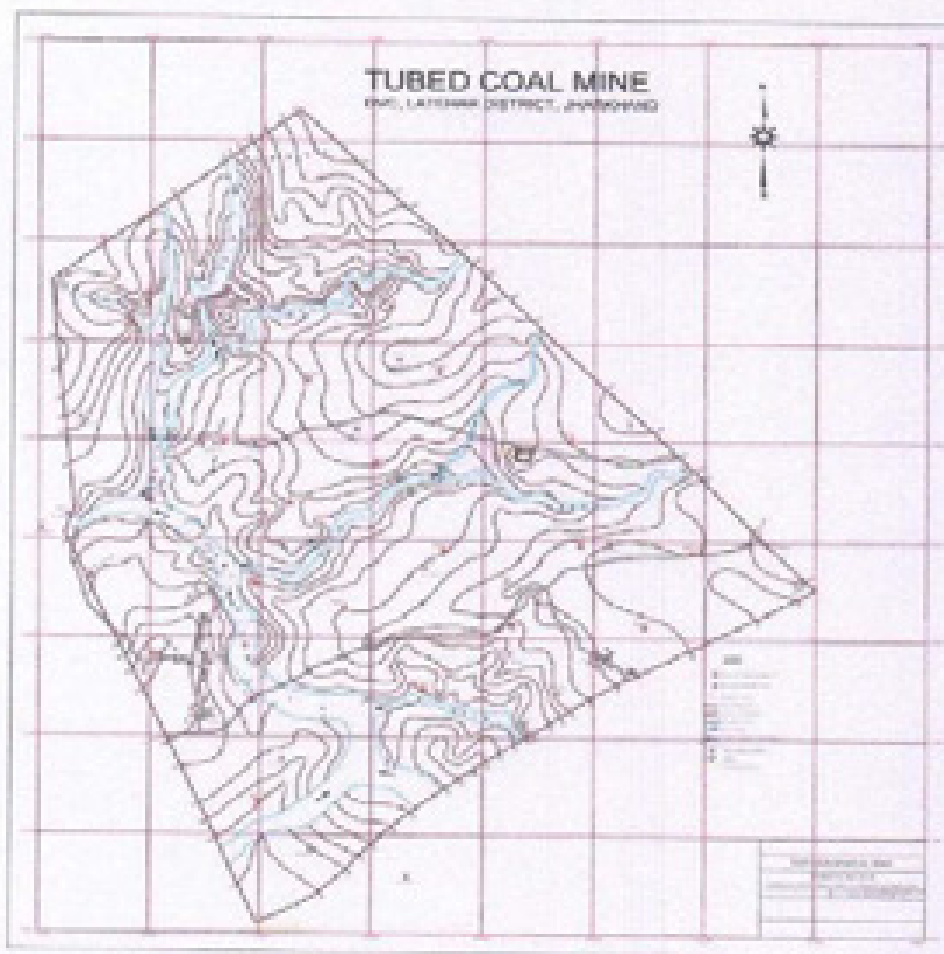
TUBED COAL MINE

DVC, LATEHAR DISTRICT, JHARKHAND



[Handwritten signature]

सुधीर मुखर्जी / Sudhir Mukherjee
उप मुख्य अभियंता (म), ईंधन
Dy. Chief Engineer (M), Fuel
राजमोहन पार्क सिटी, कोलकाता-54



2. Location of Tubed Coal Mine and Mining Lease area

Tubed Coal Mine covering an area of 4.6 Sq. Km is situated in Latchar District of Jharkhand State. The block forms a part of survey of India Toposheet No. 73 A/9 (OSM No. F45A9) (1:50,000) between coordinates

Latitude (N) $23^{\circ}48'20''$ to $23^{\circ}50'09''$

Longitude (E) $84^{\circ}34'09''$ to $84^{\circ}35'45''$

Lease area of Tubed Coal Mine is 460 ha.

3. Access:

Tubed Coal Mine is well connected by fair weather road to district HQ, Latchar. Latchar is at a distance of about 12km from the Coal Block. National Highway 75 (Ranchi – Daltonganj) passes through Latchar. Latchar is at about 100km from Ranchi which is the Capital of Jharkhand State. A broad gauge railway line between Gomoh & Barwadih (loop line of East Central Railway) has Latchar as a railway Station.

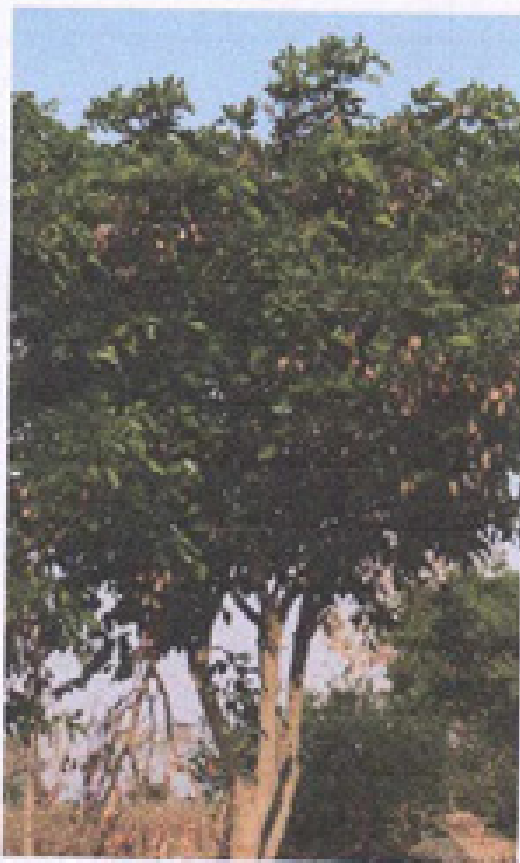
4. Climate:

As per annual temperature map of India (National Atlas), the block falls within the temperate zone having mean temperature of 22°C – 25°C . The summers & winters are extreme. According to rain fall data, the area falls in the zone of 1200mm to 1400 rainfall.

9. Proposed Methodology:

A. Biological Measures:

- a) Indigenous species like Palash(*Butea Monosperma*), Amla(*Emblica Officinalis*), Neem(*Azadirachta Indica*), Jamun(*Syzygium Cumini*), Shejara(*Moringa Oleifera*), Karanj(*Pongamia Pinnata*), Babul (*Acacia Nilotica*), Khair (*Acacia Catechu*), Ber (*Zyzyphus Jujube*), Imli (*Tamarindus Indicus*), Peepal (*Ficus Religiosa*), Bargad(*Ficus Benghalensis*), Kulu or Kadava (*Sterculia Urens*), Roheda (*Tecomella Undulata*) etc. will be planted on the terraces @ 1600 per ha. over approximately 42 ha.
- b) By means of cultivating vetiver which is a bunch grass has a gregarious habit and grows in tufts. Several aspect of vetiver makes it an excellent erosion control plant in warmer climates. Vetiver's root grow almost exclusively downward 2m to 4m which is deeper than some tree roots. This makes vetiver an excellent stabilizing hedge for stream banks terraces etc. and protect soil from sheet-erosion. The roots bind to the soil, therefore it cannot dislodge. Vetiver has been used to stabilize embankment, dump slopes in geologically challenging situations in an attempt to prevent dump slide during rain. The plant also penetrates and loosens compacted soil. Vetiver mulch increase water infiltration and reduce evaporation, then protects soil moisture under hot and dry condition. This mulch also protect soil against splash erosion. This type of plantation has basically the following advantages:
- i) It maintain the moisture percentage into the soil.
 - ii) It can grow in hot & dry condition.
 - iii) It protects soil from erosion during rainy season.



Drought Hardy Plant (Karanj)


सुधीत सुधावती / Sudhar (S.M. 40) 100
उप मुख्य अभियंता (पा), इलाहाबाद
Dy. Chief Engineer (M), Fuel
सुधीत सुधावती निवास, अजमेरकान-54

12. Requirement of Funds

The total cost of the implementation of planting of adequate draught hardy species and sowing of seeds in the appropriate area within the mining lease area to arrest soil erosion [condition xi (b)] will be Rs.60,80,206/-

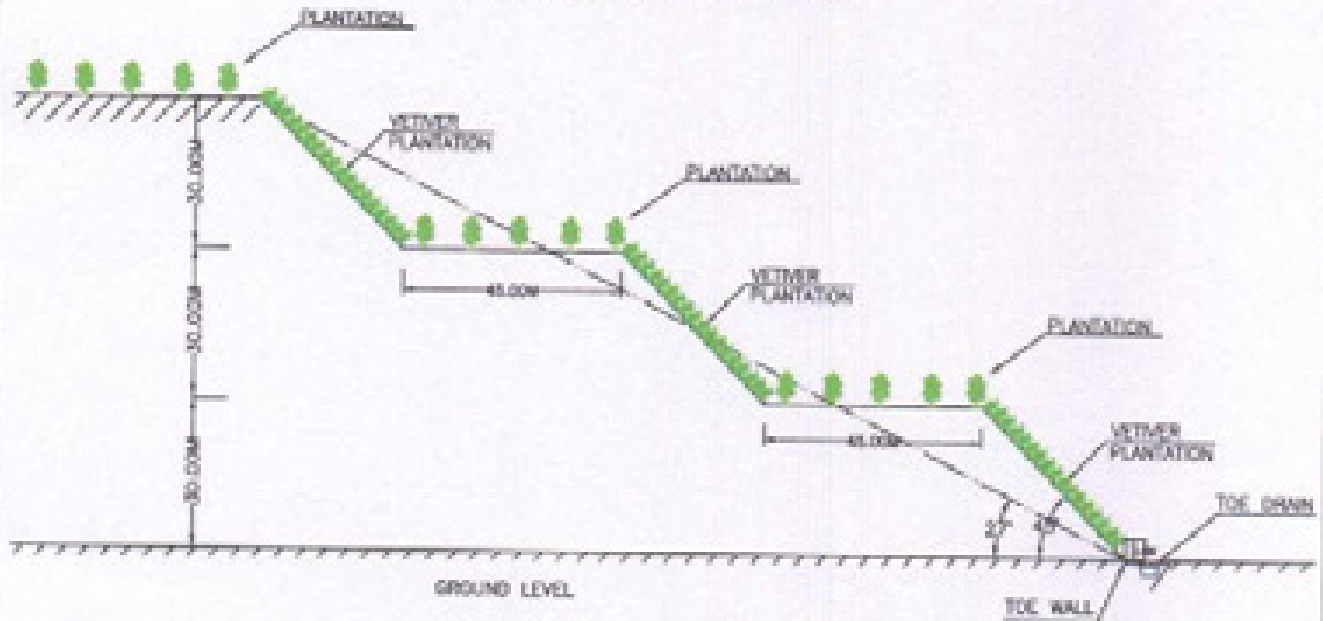
TOTAL COST OF THE PROJECT

Sl No.	Description of the Work	Unit	Rate	Fund required in Rs.
Biological Measures				
01	Block Plantation	42ha	1,33,071.00	55,88,982.00
02	Veiver Plantation	12.6 ha	38,986.48	4,91,223.60
Total				60,80,205.60 Say 60,80,206/-


Sudhir Mukherjee
Dy. Chief Engineer (Mech), Mining
Damodar Valley Corporation,
D.V.C. Towers, V.L.P. Road,
Kolkata- 700054

সুধীর মুখার্জী / Sudhir Mukherjee
ডায়েরী ইঞ্জিনিয়ার (মি), খনিজ
কল্যাণ কর্পোরেশন (ডি), ফুইল
ডামোদর বালী কর্পোরেশন, কলকাতা-৫৪

TUBED COAL MINE
DVC, LATEHAR DISTRICT, JHARKHAND



OVER ALL SLOPE ANGLE = 27°
PLANTATION = 42 Hectare
VETIVER PLANTATION = 12.6 Hectare

NOT TO SCALE

सुधीर मुखर्जी / Sudhir Mukherjee
असिस्टेंट प्रिंसिपल (सि), डीएन
Dy. Chief Engineer (M), Fuel
डामोदर वॉली कॉर्पोरेशन, कोलकाता-54
Damodar Valley Corp., Kolkata-54

**SCHEME FOR CONSTRUCTION OF CHECK DAM,
RETENTION/TOE WALL TO ARREST SLIDING DOWN OF
THE EXCAVATED MATERIAL ALONG THE CONTOUR**

**In Compliance with Condition No. xi (c) of Stage-I Forest
Clearance vide letter F. No. 8-23/2019-FC, Dt. 13.11.2019 of
Ministry of Environment, Forest & Climate Change**

(FC Division),

Govt. of India, New Delhi

For

Diversion of 162,394 Ha of Forest Land In Latehar District

In Favour of Damodar Valley Corporation for

Tubed Coal Mine



**Dr. Chait Engineer (M), Forest
Engineer with Power, Rehabilitation &
Damodar Valley Corp., Ranchi-834 004**

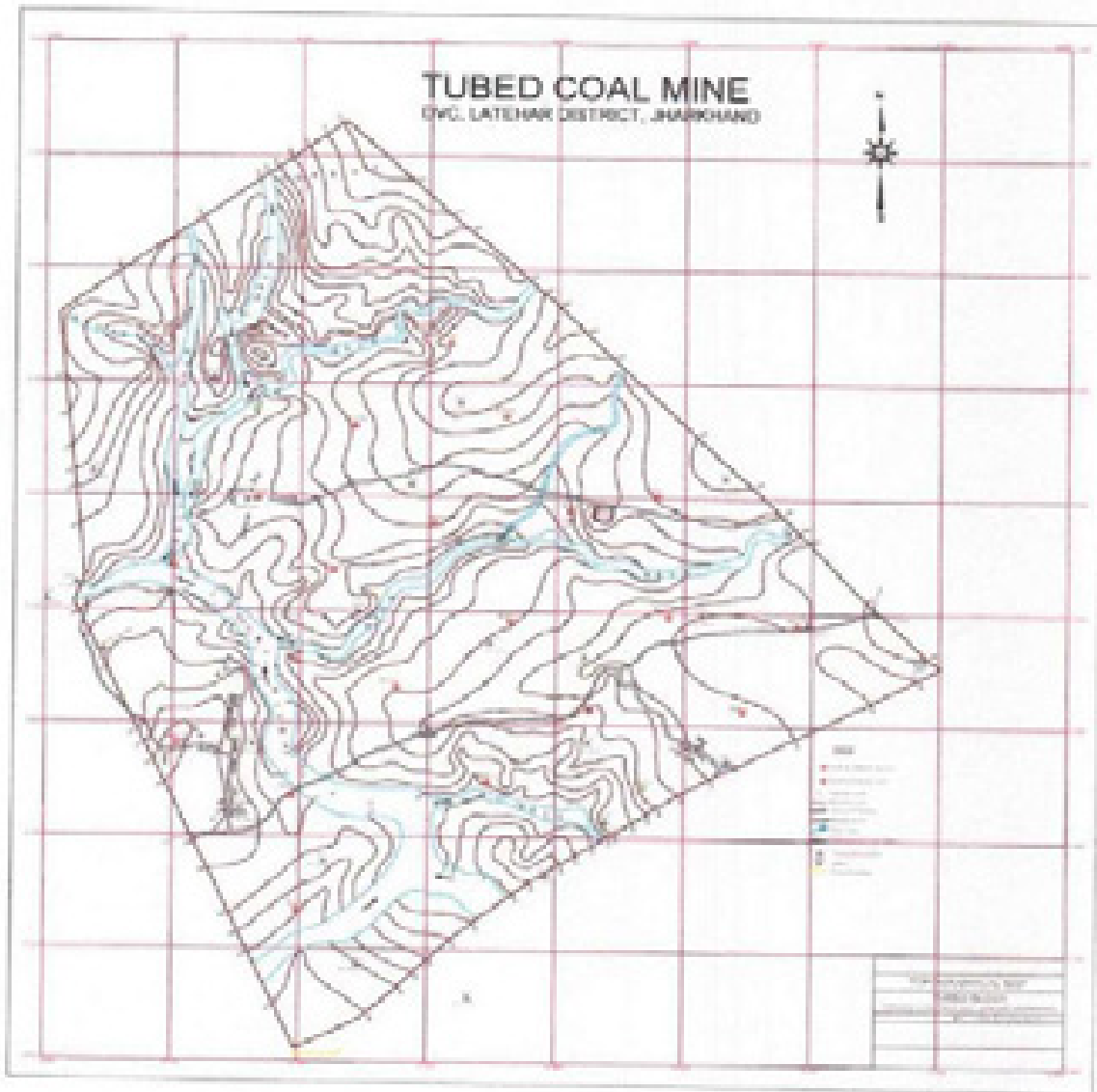
Damodar Valley Corporation

Tubed Coal Mine

Under the Latchar Forest Division

1. Introduction

The Tubed Coal Mine was allotted to DVC by the nominated authority, GOI, vide Order. No 103/04/2016/NA. Dt. 07th October, 2016 of the Coal Mines (special provision) Act, 2015 for captive use its own plants at different locations in West Bengal and Jharkhand.



2. Location of Tubed Coal Mine and Mining Lease area

Tubed Coal Mine covering an area of 4.6 Sq. Km is situated in Latchar District of Jharkhand State. The block forms a part of survey of India Toposheet No. 73 A/9 (OSM No. F45A9) (1:50,000) between coordinates

Latitude (N) $23^{\circ}48'20''$ to $23^{\circ}50'09''$

Longitude (E) $84^{\circ}34'09''$ to $84^{\circ}35'45''$


Lease area of Tubed Coal Mine is 460 ha.



EXISTING DRAIN

10. Executive Agency

Damodar Valley Corporation, being the User Agency will execute the above works at the Project cost. To facilitate this, the user Agency shall establish its own Executive and Supervision cell along with required infrastructural facilities. In order to maintain the quality of the work, in house supervision through competent personnel shall be entrusted. The entire work shall be carried out in co-ordination with Forest Department (DFO, Latehar Division).


सुधर मुखर्जी / Sudhar Mukherjee
ज्य. प्रमुख अभियंता (सि), डामर
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राज्यीय कोयला विभाग, कोयला-54
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topographic factor (dimensionless), which depends upon flow accumulation and steepness and length of slope in the area; C is vegetation cover and crop management factor (dimensionless), which is the ratio of bare soil to vegetation and non- photosynthetic material; and P is support practice factor (dimensionless), which takes into account specific erosion control practices like contour bunding, bench terracing etc. This factor is taken as 1 for bare soil where no erosion control practice is taking place. The values of the R, K, LS, C and P of the catchment are shown in Figure 6-10. This calculation enables to produce soil erosion intensity mapping unit (EIMU) which will be used for calculation of silt yield index. EIMU is a composite expression of physiography, land use, and conservation practices adopted. While computing soil erosion intensity in a catchment all the factors (physiography, land use, and conservation practices) are already taken into consideration. Therefore, EIMUs are assumed as per the soil erosion intensity in the sub-catchment. The six classes of EIMUs have been used, which are mentioned in Table 5.

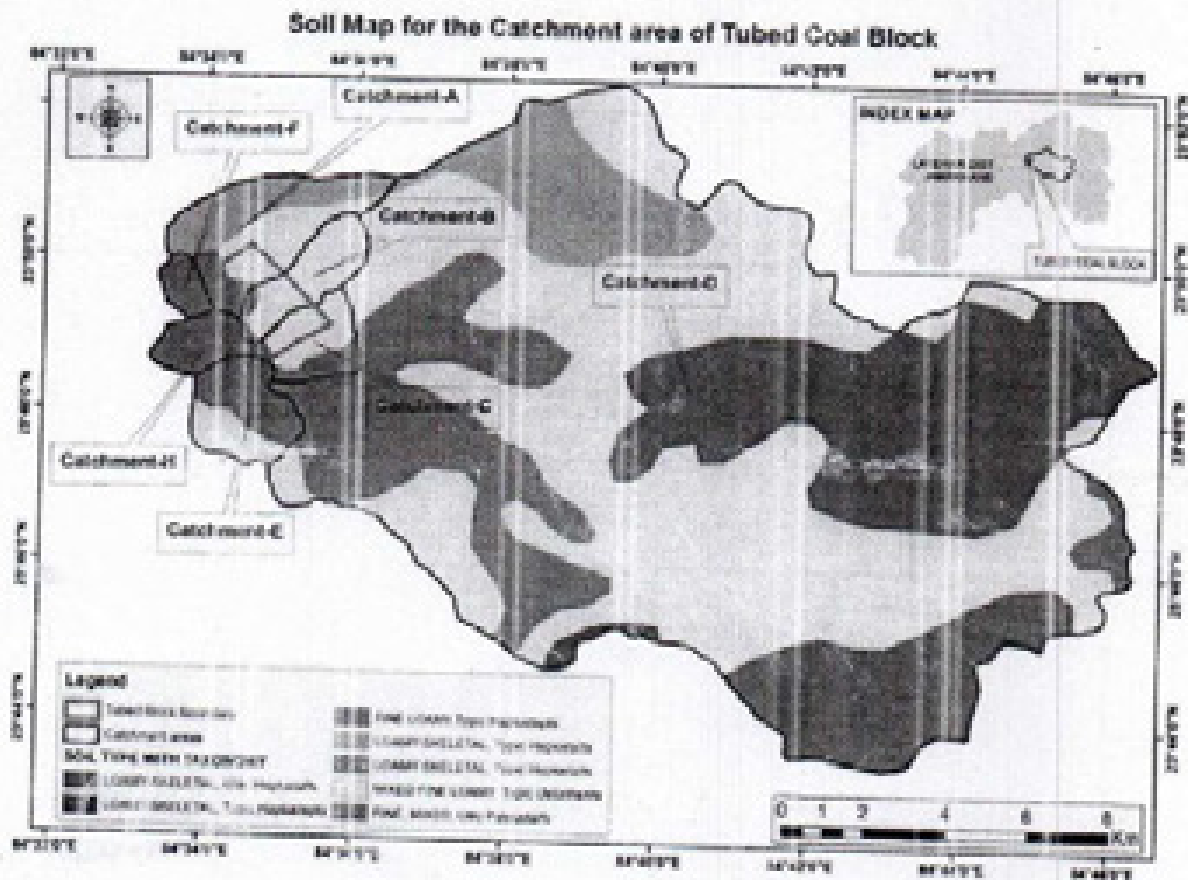


Figure 5: Soil map of Surki river catchment under Tuled Coal Block

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 Shibir (nr), Bgra
 (nr) (nr), Fuel
 1100-54

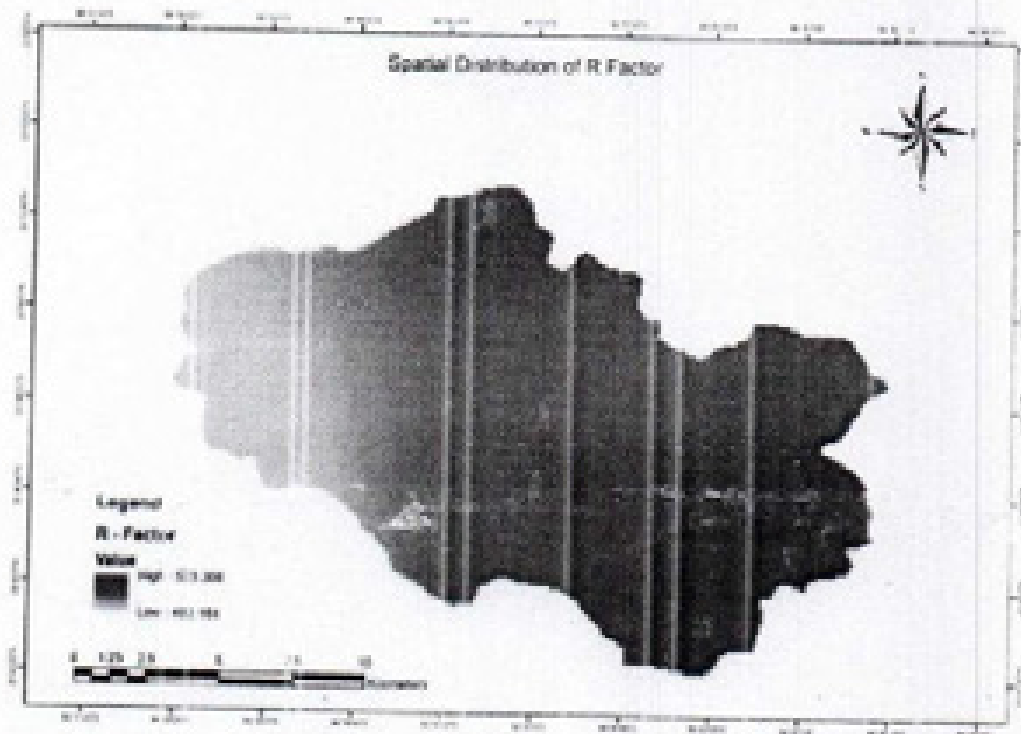


Figure 6: R factor for the Surki river catchment under Tubed Coal Block

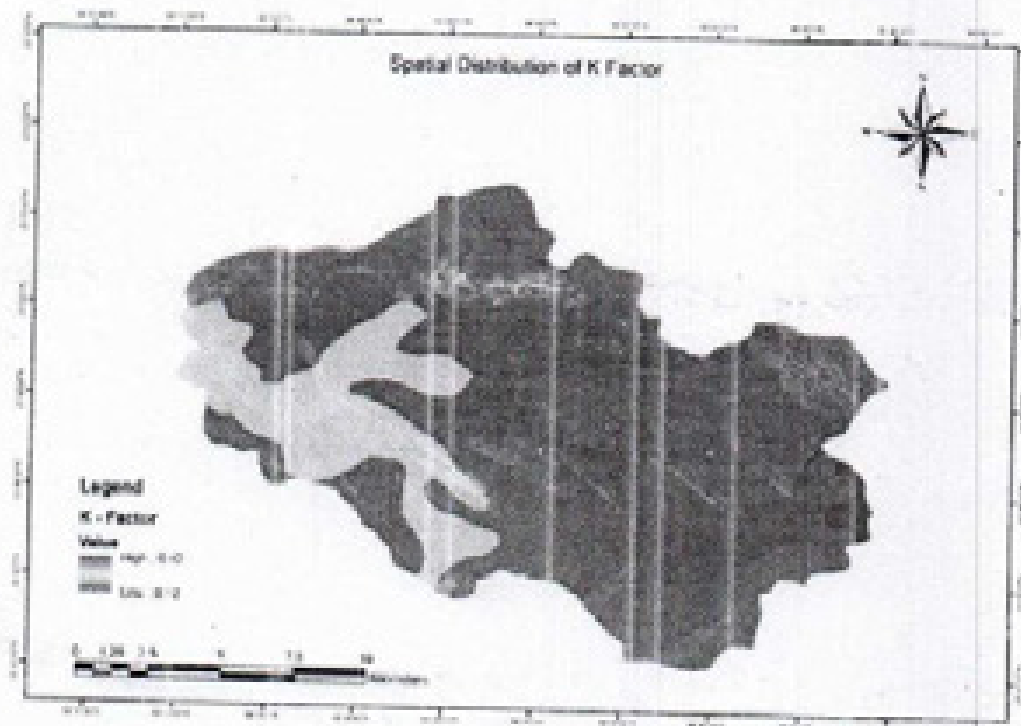


Figure 7: K factor for the Surki river catchment under Tubed Coal Block

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Geologist (G), West
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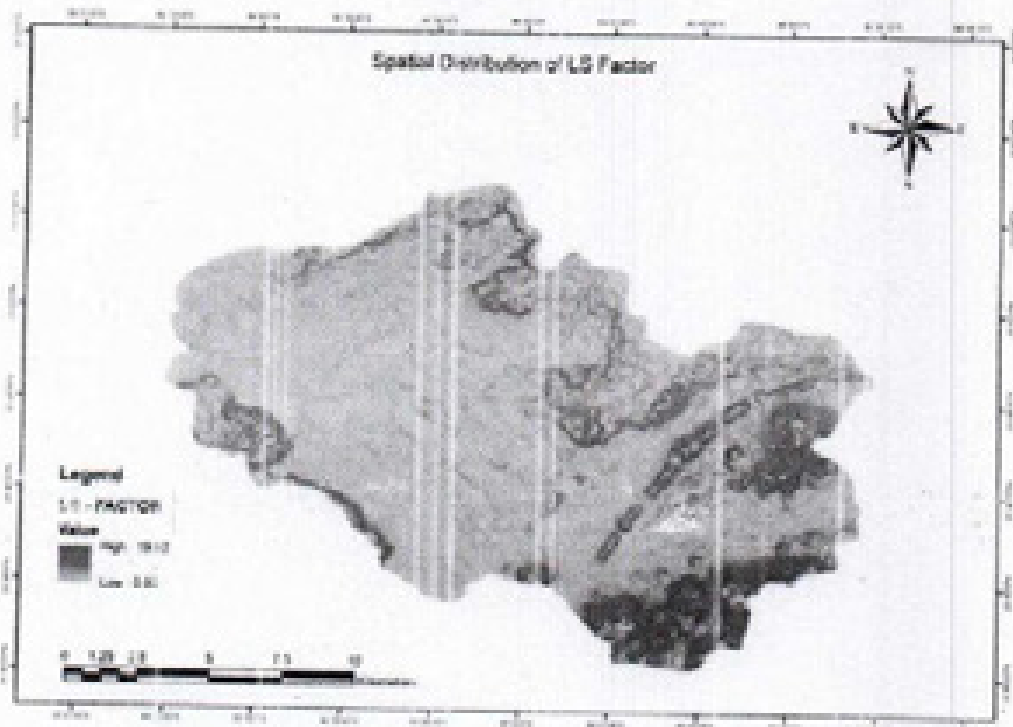


Figure 8: LS factor for the Surki river catchment under Tubed Coal Block

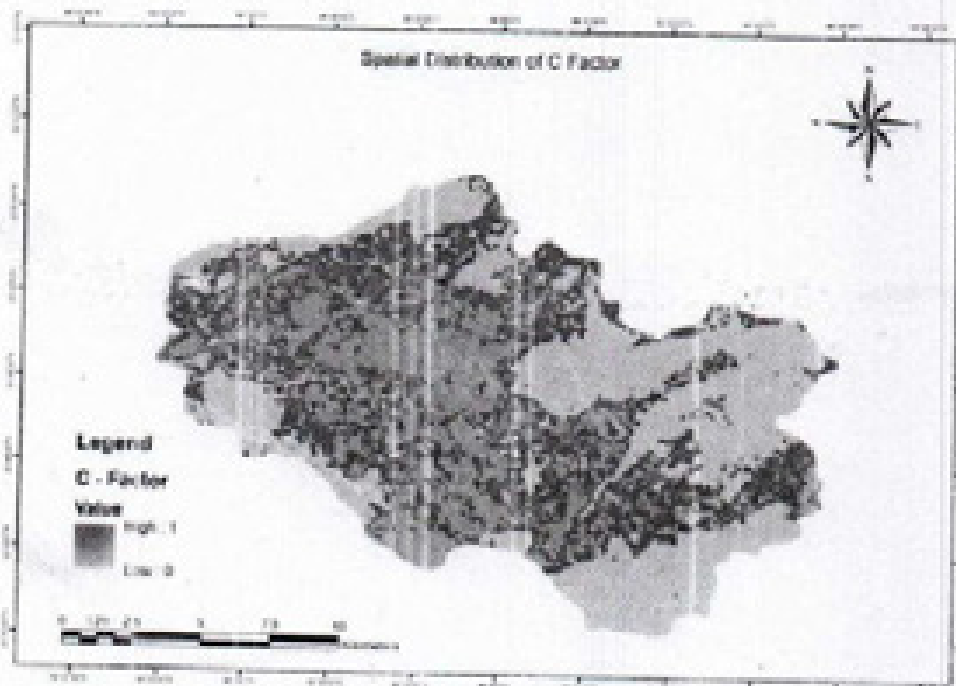


Figure 9: C factor for the Surki river catchment under Tubed Coal Block

ht
M. S. Ghosh / Senior Mechanical
Engineer (Sd), JICA
Chief Engineer (Sd), P. W. D.
Surki, West Shikhar, JICA
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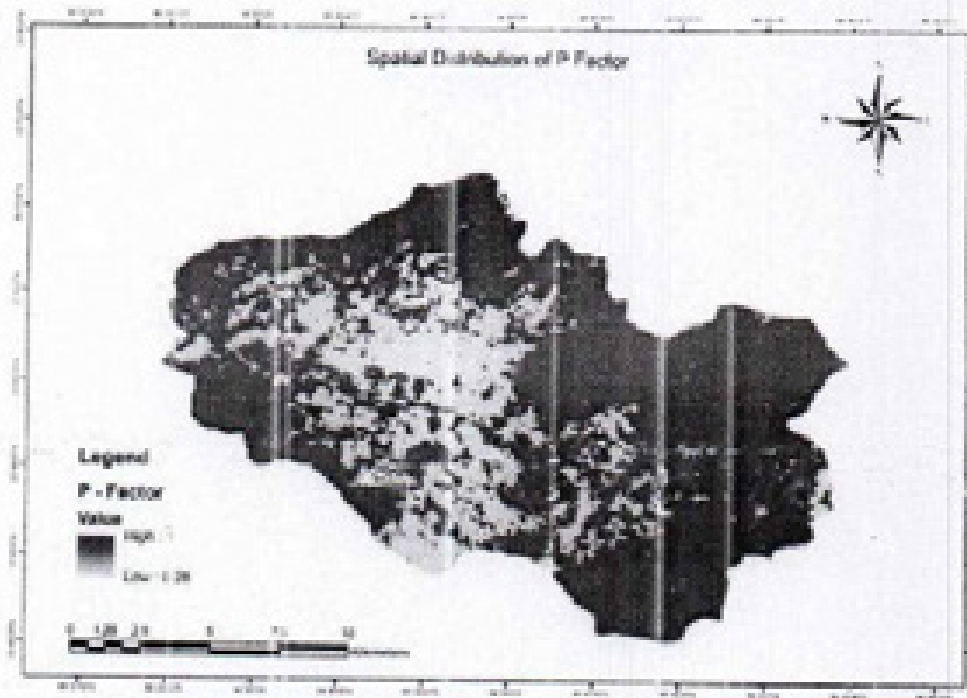


Figure 10: P factor for the Surki river catchment under Tubed Coal Block.

Table 5: EIMU classification

EIMU code	Soil erosion intensity
1	Very Severe
2	Severe
3	Moderate
4	Low
5	VeryLow
6	Negligible/ Slight

4.5. Calculation of silt yield index (SYI)

The SYI conceptualizes sediment delivery into the water body as a multiplicative function of potential soil detachment representing the erosivity factor (weightage value) and transportability of the detached material (delivery ratio value).

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 Dy. Chief Engineer (S), West
 Valley Corpn., Kharibanda

[Handwritten Signature]

Dy. Chief Engineer (S), West Valley Corpn., Kharibanda

Silt yield index (SYI) was calculated using following empirical formula

$$SYI = \frac{\sum_{i=1}^n A_i W_i D_i}{A_w} \times 100$$

Where, $i = 1$ to n

A_i = area of i^{th} unit (EIMU)

W_i = weightage value of i^{th} unit

N = No. of mapping unit

A_w = total area of catchment

D_i = Delivery ratio

Delivery ratios are assigned to all erosion intensity units depending upon their distance from the nearest stream. The criteria adopted for assigning the delivery ratio are as follows:

Table 6: Delivery ratio

Nearst Stream	Delivery ratio
0 - 0.9 km	1.00
1.0 - 2.0 km	0.95
2.1 - 5.0 km	0.90
5.1 - 15.0 km	0.80
15.1 - 30.0 km	0.70

Weightage values are assigned to the erosion intensity unit depending upon the soil erosion intensity and delivery ratio in a sub-watershed. Higher the soil erosion intensity and delivery ratio in the sub-watershed higher is the weightage value assigned to the erosion mapping unit. The weightage value assigned to erosion mapping unit in a sub- watershed range from 11-19. The SYI values for classification of various categories of erosion intensity rates are given in Table 7.

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 Dy. Chief Engineer (SE), Irrigation
 West Bengal, Kalyanpur
 West Bengal, Kalyanpur

Anshu Anand

Table 7: Criteria for erosion intensity rate

Priority categories	SYI Values
Very high	> 1300
High	1200-1299
Medium	1100-1199
Low	1000-1099
Very Low	<1000

5. Estimate of soil erosion

A thematic map for soil erosion of the catchment area has been prepared using RUSLE model mentioned in the previous sections. The catchment was then demarcated into different soil erosion intensity classes based upon the extent of soil loss (see Table 8 & find Figure 11 & 12).

Table 8: Soil loss ranges for Surki river catchment area

SLNo.	Soil loss in tons/hectare/annum	Soil Erosion Intensity	Area (ha)	Area (%)
1	1-5	Slight	15150.96	69.60
2	5-10	Very Low	1113.46	5.15
3	10-20	Low	1488.03	6.83
4	20-40	Moderate	1776.15	8.15
5	40-80	Severe	1636.732	7.51
6	>80	Very Severe	601.6525	2.76
Total			21767	100

(Signature)
With regard to the above mentioned
Dr. Chaudhary Anil Kumar, Director
Water Resources Department, Government of Haryana
Chaudhary Valley Group, Haryana-136124

(Signature)

Table 9: Sub-watershed wise area under each EIMU class

Sub-Watershed	A	B	C	D	E	F	H	TOTAL
EIMU Code	Area (ha)							
1	59.6061	33.3836	15.5428	459.539	12.3143	11.7647	9.50147	601.6525
2	72.6705	31.6662	14.5400	1312.97	143.667	24.4008	36.8182	1636.732
3	91.4505	25.7909	12.5345	1444.27	155.981	8.71459	37.4120	1776.15
4	66.1383	16.9780	7.0193	1312.97	53.3619	5.44662	26.1290	1488.043
5	52.2574	30.4618	10.0276	984.727	8.20952	9.36819	18.4091	1113.46
6	507.877	227.719	266.735	1385.18	143.667	40.3050	112.83	15150.96
TOTAL	850	366	326.4	19366.3	517.2	100	241.1	21767

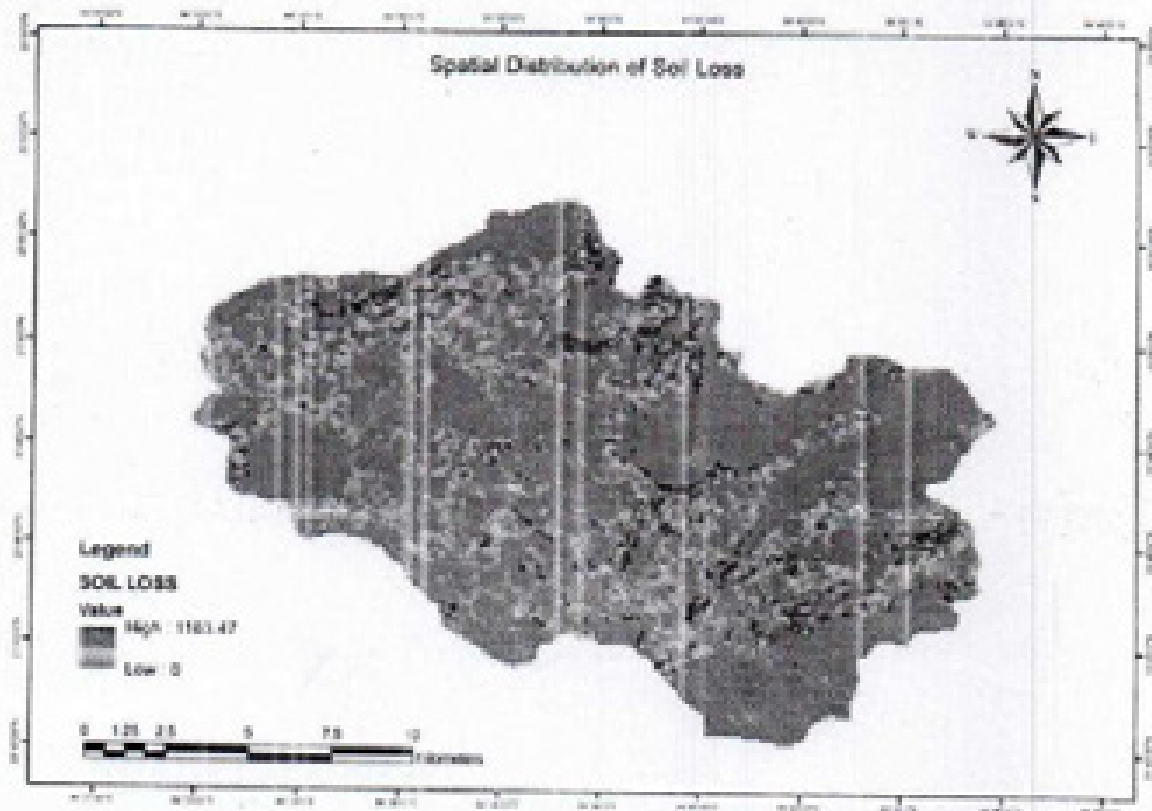


Figure 11: Soil loss map of Surki river catchment area under Tubed Coal Block

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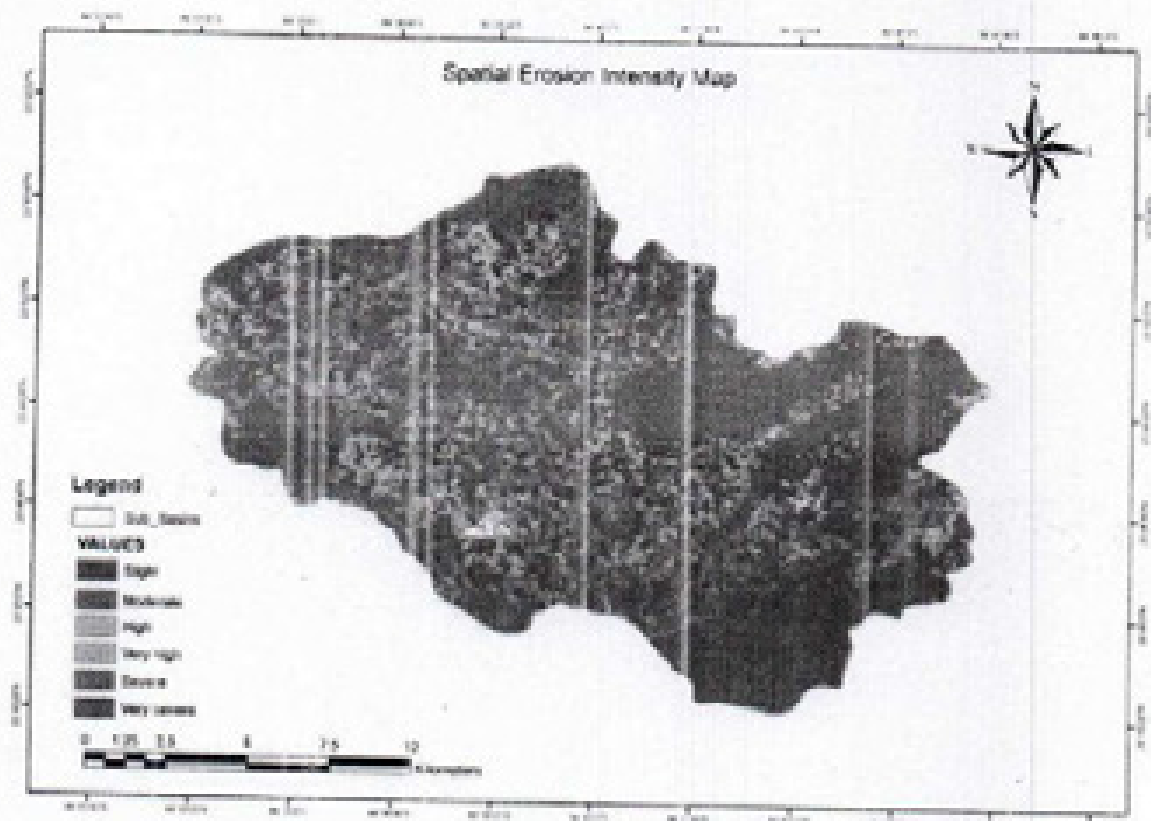


Figure 12: Soil erosion intensity map of Surki river catchment area under Tubed Coal Block

6. Estimation of soil loss using silt yield index (SYI) method

The SYI index as per erosion category of various sub-watersheds in the catchment area has been estimated and given in Table 10.

The erosion category of various sub-watersheds in the catchment area as per the SYI index are shown in the table mentioned above. The objective of the SYI method is to prioritize sub-watershed in a catchment area for treatment. The sub-watersheds with high and medium priority category in the catchment are required to be treated on priority basis, however, the area under severe and very severe soil erosion category in all the sub-watersheds need to be taken up for treatment measures. Thus, the prioritization will help in understanding which sub-watershed to be taken for priority during the 10 year CAT plan.

(Signature)
 with regard to Sudhir Mukherjee
 Lead Engineer (en) - Engr
 A.P. Singh, Sr. Engineer - Engr
 Comp., Kolkata-24

(Signature)
 Asok Adak, Ph.D.

comprising of 4 years of implementation and 6 years of maintenance.

Hence, under the CAT plan implementation, the sub-watersheds would be treated as per the priority defined in Table 11.

Table 10: SYI Index as per Erosion Category of Sub-Watersheds

Sub-Watershed	EIMU	EIM U Area (ha)	Weightage factor (WF)	Silt Yield (SY) = EA * (WF)	Delivery Ratio (DR)	SYI = (SY*DR*100)/S A
		(EA)				
A	1	59.80615	18	1072.91	0.9	1281
	2	72.67061	17	1235.4		
	3	91.45063	16	1463.21		
	4	66.13833	15	992.075		
	5	52.25744	14	731.604		
	6	507.877	13	6602.4		
Total		850		12097.6		1281

Sub-Watershed	EIMU	EIM U Area (ha)	Weightage factor (WF)	Silt Yield (SY) = EA * (WF)	Delivery Ratio (DR)	SYI = (SY*DR*100)/S A
		(EA)				
B	1	33.38388	16	534.139	0.9	1097
	2	31.66627	15	474.994		
	3	25.79099	14	361.074		
	4	16.97806	13	220.715		
	5	30.46108	12	365.533		
	6	227.7199	11	2504.92		
Total		366		4461.37		1097

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 Sr. Engineer / District Milk Producers' Co-Operative Societies
 Milk Division (M), P. No. 1
 P. No. 1, Engineer (M), P. No. 1
 P. No. 1, Engineer (M), P. No. 1
 P. No. 1, Engineer (M), P. No. 1

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Sub-Watershed	EIMU	EIM U Area (ha)	Weightage factor (WF)	Silt Yield (SY) = EA * (WF)	Delivery Ratio (DR)	SYI = (SY*DR*100)/S A
		(EA)				
C	1	15.54286	18	279.771	0.9	1224
	2	14.54009	17	247.182		
	3	12.53456	16	200.553		
	4	7.019355	15	105.29		
	5	10.02755	14	140.387		
	6	269.7355	13	3507.56		
Total		326.4		4440.74		1224

Sub-Watershed	EIMU	EIM U Area (ha)	Weightage factor (WF)	Silt Yield (SY) = EA * (WF)	Delivery Ratio (DR)	SYI = (SY*DR*100)/S A
		(EA)				
D	1	459.5393	17	7812.17	0.9	1152
	2	1312.969	16	21007.5		
	3	1444.266	15	21664		
	4	1312.069	14	18369.6		
	5	984.7271	13	12801.5		
	6	13851.83	12	166222		
Total		19366.3		247889		1152

Sub-Watershed	EIMU	EIM U Area (ha)	Weightage factor (WF)	Silt Yield (SY) = EA * (WF)	Delivery Ratio (DR)	SYI = (SY*DR*100)/S A
		(EA)				
	1	12.31429	15	184.714		



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 Civil Engineer (M), Dept
 of Irrigation, West Bengal
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 Ph. D.

E	2	143.6687	14	2011.33	0.9	1112
	3	155.981	13	2027.75		
	4	53.3819	12	640.343		
	5	8.209524	11	90.3048		
	6	143.6687	10	1436.67		
Total		517.2		6391.11		1112

Sub-Watershed	EIMU	EIM U Area (ha) (EA)	Weightage factor (WF)	Silt Yield (SY) = EA * (WF)	Delivery Ratio (DR)	SYI = (SY*DR*100)/S A
F	1	11.76471	17	200	0.9	1262
	2	24.40087	16	390.414		
	3	8.714507	15	130.719		
	4	5.446623	14	76.2527		
	5	9.368192	13	121.788		
	6	40.30501	12	483.66		
Total		100		1402.83		1262

Sub-Watershed	EIMU	EIM U Area (ha) (EA)	Weightage factor (WF)	Silt Yield (SY) = EA * (WF)	Delivery Ratio (DR)	SYI = (SY*DR*100)/S A
H	1	9.501478	15	142.522	0.9	1040
	2	36.81823	14	515.455		
	3	37.41207	13	486.357		
	4	26.12906	12	313.549		
	5	18.40911	11	202.5		
	6	112.83	10	1128.3		


 With Honor / Quality Matters
 2019 Best Software (S), Best
 Chief Engineer (M), Best
 2019 Best, 2019 Best-24
 Group - Kolkata-54

H	33.38	31.67	65.05
Total	601.63	1638.72	2238.35

8. Catchment treatment plan

8.1. Treatment measure

Watershed management is the optimal use of soil and water resources within a given geographical area so as to enable sustainable production. It implies changes in land use, vegetative cover, and other structural and non-structural action that are taken in a watershed to achieve specific watershed management objectives. The overall objectives of watershed management programs are to:

- increase infiltration into soil;
- control excessive runoff;
- Manage & utilize runoff for useful purpose.

Following Engineering and Biological measures have been suggested for the catchment area treatment.

1. Engineering measures

- Step drain
- Angle iron barbed wire fencing
- Stone masonry
- Check dams

2. Biological measures

- Development of nurseries
- Plantation/afforestation
- Pasture development
- Social forestry

The basis of site selection for different biological and engineering treatment measures under CAT are given in Table 13.

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Table 13: Basis for selection of catchment area treatment measures

Treatment measure	Basis for selection
Social forestry, fuel wood and fodder grass development	Near settlements to control tree felling
Contour Bunding	Control of soil erosion from agricultural fields.
Pasture Development	Open canopy, barren land, degraded surface
Afforestation	Open canopy, degraded surface, high soil erosion, gentle to moderate slope
Barbed wire fencing	In the vicinity of afforestation work to protect it from grazing etc.
Step drain	To check soil erosion in small streams, steps with concrete base are prepared in sloppy area where silt erosion in the stream and bank erosion is high due to turbidity of current.
Nursery	Centrally located points for better supervision of proposed afforestation, minimize cost of transportation of seedling and ensure better survival.

The various measures suggested for catchment area treatment are mentioned in Table 14, expenses of which have to be borne by the project proponents.

[Signature]
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[Signature]
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Table 14: Sub-Watershed wise details of various treatment measures

Sl. No.	Sub-Watershed	Afforestation (Ha)	Gap Plantation (Ha)	Check Dams (Nos)	Brushwood Check bunds (Nos)	Contour Bunding (Nos)
1	A	29	65	5	25	5
2	B	5	17	3	25	5
3	C	4	22	2	10	5
4	D	229	885	40	400	70
5	E	7	14	3	20	5
6	F	6	77	2	10	5
7	H	16	31	5	10	5
Total		300	1118	60	500	100

8.2. Year-wise Phasing of Treatment Measures

The year-wise detail of all biological as well as engineering treatment measures required in different sub-watersheds is given in Table 15. First year is kept or earmarked for nursery development so that the biological treatment activities are smoothly undertaken.

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Table 15: Year-wise physical and financial details of various treatment measures

S. No.	Treatment Measures	I Year		II Year		III Year		IV Year		Total	
		Phy.	Fin. (Rs.)	Phy.	Fin. (Rs.)	Phy.	Fin. (Rs.)	Phy.	Fin. (Rs.)	Phy.	Fin. (Rs.)
1	Afforestation (Ha)			200	20000000	50	5000000	50	5000000	300	30000000
2	Gap Plantation (Hr)			618	30900000	250	12500000	250	12500000	1118	55900000
3	Broadwood Check Dams (Nos.)			300	3000000	100	1000000	100	1000000	500	5000000
4	Check Dams (Nos.)			30	6000000	15	3000000	15	3000000	60	12000000
5	Contour Bundling (Nos.)			50	1750000	30	1050000	20	700000	100	3500000
TOTAL				1198	61650000	445	22950000	435	22200000	2078	106440000

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 Civil Engineer (M), P. U.
 Comptroller, West Shikhar
 Comptroller Valley Shikhar Kothari

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8.3. Cost Estimates

The estimated cost required for Catchment Area Treatment is Rs. 1169 lakh. The details are given in Table 16.

Table 16: Estimated cost of CAT Plan Implementation

S. No.	Item	Amount (Rs.)
1	Biological Measures	8,59,00,000.00
2	Maintenance cost for 6 years including watch & ward @ Rs. 5.00 lakh per year	30,00,000.00
3	Nursery Development	25,00,000.00
	Sub-Total I (1 - 3)	9,14,00,000.00
4	Engineering Measures	2,05,00,000.00
5	Silt Observation Units	50,00,000.00
	Sub-total II (4-5)	2,55,00,000.00
	Total I + II	11,69,00,000.00

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 with regard / Sushir Mukherjee
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Phone: (033) 6607-2338 email: sudhir.mukherjee@dvc.gov.in



No. HQ/Mining/Tubed/FC/199(XX)

Dated: 13.02.2020

Annexure- XX

UNDERTAKING

TUBED COAL MINE

This is to certify that, Damodar Valley Corporation (DVC), a corporation constituted under DVC Act, 1948 (Act No. XIV of 1948), undertake to deposit the cost towards Surveillance and Monitoring system for the forest hinterland of the project area as advised by the State Govt. This is in connection of the fulfilment of Condition No. xx of the Stage-I Clearance, for diversion of 162.394 ha forest land in Latchar Forest Division, Dist. Latchar, Jharkhand.

Sudhir Mukherjee
Dy. Chief Engineer (Mech), Mining
Damodar Valley Corporation,
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No. HQ/Mining/Tubed/FC/193(XXI)

Dated: 13.02.2020

Annexure- XXI

UNDERTAKING

TUBED COAL MINE

This is to certify that, Damodar Valley Corporation (DVC), a corporation constituted under DVC Act, 1948 (Act. No. XIV of 1948), undertake to explore the possibility of translocation of existing native trees from the project site work in consultation with State Forest Department. This is in connection of the fulfilment of Condition No. xxi of the Stage-I Clearance, for diversion of 162.394 ha forest land in Latchar Forest Division, Dist. Latchar, Jharkhand.

Sudhir Mukherjee
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Damodar Valley Corporation,
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Kolkata- 700054



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No. HQ/Mining/Tubed/FC/193(XXII)

Dated: 13.02.2020

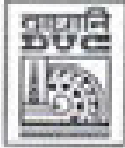
Annexure- XXII

UNDERTAKING

TUBED COAL MINE

This is to certify that, Damodar Valley Corporation (DVC), a corporation constituted under DVC Act, 1948 (Act. No. XIV of 1948), undertake to submit the annual self-compliance report in respect of the conditions of Stage-I clearance to the State Government, concerned Regional Office and to this Ministry by the end of March every year regularly. This is in connection of the fulfilment of Condition No. xxii of the Stage-I Clearance, for diversion of 162,394 ha forest land in Latchar Forest Division, Dist. Latchar, Jharkhand.

Sudhir Mukherjee
Dy. Chief Engineer (Mech), Mining
Damodar Valley Corporation,
D.V.C. Towers, V.I. P. Road,
Kolkata- 700054



DAMODAR VALLEY CORPORATION
D.V.C. TOWERS, V.I.P. ROAD
KOLKATA -700 054
Phone: (033) 6607-2338 email: sudhir.mukherjee@dvc.gov.in



No. HQ/Mining/Tubed/FC/193(XXII)

Dated: 13.02.2020
Annexure- XXIII

UNDERTAKING

TUBED COAL MINE

This is to certify that, Damodar Valley Corporation (DVC), a corporation constituted under DVC Act, 1948 (Act No. XIV of 1948), undertake 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. This is in connection of the fulfilment of Condition No. xxiii of the Stage-I Clearance, for diversion of 162.394 ha forest land in Latchar Forest Division, Dist. Latchar, Jharkhand.

Sudhir Mukherjee
Dy. Chief Engineer (Mech), Mining
Damodar Valley Corporation,
D.V.C. Towers, V.I. P. Road,
Kolkata- 700054

(for projects other than linear projects)



GOVT. OF JHARKHAND

OFFICE OF THE DEPUTY COMMISSIONER, LATEHAR

No. 21

Dated 22.12.2018

TO WHOMSOEVER IT MAY CONCERN

In Compliance of the Ministry of Environment and Forest (MOEF), Govt. of India's letter no. 11- 9/98- FC (pt), dated 3rd August 2009 wherein the MOEF issued guidelines on submission of evidences for having initiated and completed the process of settlement of rights under the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 ('FRA' for short) on the forest land proposed to be diverted for non-forest purposes, it is certified that 134.34 Acre (54.365 Hectare) of Forest Land and 266.94 Acre (108.029 Hectare) of Jungle Jhari Land proposed to be diverted in favour of Damodar Valley Corporation for mining at Tubel Coal Mine in Latehar District falls within jurisdiction of Mangra, Tubed, Dihal, Dhobiyajharan & Ambajharan villages in Latehar Tehsil. (Enclosure - Attached).

It is further certified that,

- the complete process for identification and settlement of rights under the FRA has been carried out for the entire 134.34 Acre (54.365 Hectare) of Forest Land and 266.94 Acre (108.029 Hectare) of Jungle Jhari Land Total- 401.28 Acre (163.394 Hectare) area proposed for diversion. A copy of records of all consultations and meetings of the Forest Rights Committee(s), Gram Sabha(s), Sub Division Level Committee(s) and the District Level Committee are enclosed as annexure to annexure
- the proposal for such diversion (with full details of the project and its implications, in vernacular/ local language) have been placed before each concerned Gram Sabha of forest-dwellers, who are eligible under the FRA;
- the each of concerned Gram Sabha(s), has certified that all formalities/ processes under the FRA have been carried out, and that they have given their consent to the proposed diversion and the compensation and ameliorative measures, if any, having understood the purpose and details of proposed diversion. A copy of certificate issued by the gram sabha of Mangra, Tubed, Dihal, Dhobiyajharan & Ambajharan villages(s) is enclosed as annexure to annexure
- the discussion and decisions on such proposals had taken place only when there was a quorum of minimum 50% of the members of Gram Sabha present.
- the diversion of forest land for facilities managed by the Government as required under section 3 (2) of the FRA have been completed and the Gram Sabhas have been given their consent to it.
- the rights of Primitive Tribal Groups and Pre-Agricultural Communities, where applicable have been specifically safeguarded as per section 3(1) (e) of the FRA.

Encl :- As above

ग्रामवार भूमि की विवरणी :-

क्र०	अंचल	ग्राम	खाना सं०	खारा सं०	प्लॉट सं०	रकबा (एकड़ में)	
						वन भूमि	गैर-भारतवा जनस-आदी भूमि
1	2	3	4	5	6	7	8
1	लाहौर	मंगरा	330	25	3	-	11.20
					6	-	7.99
					10	-	4.31
					13	-	6.37
					17	-	0.67
					19	-	0.30
					22	-	0.66
					28	0.70	1.26
					29	21.20	1.01
					76	-	1.66
					80	-	1.20
योग :-						21.90	36.80
2	लाहौर	पुरंदर	333	30	6	8.40	0.03
					12	-	0.24
					17	13.70	4.53
					293	-	7.35
					437	-	15.00
					513	7.70	4.54
					536	-	10.80
					538	-	1.36
					545	-	1.74
					548	-	0.09
					552	-	0.58
योग :-						29.80	40.23
3	लाहौर	सीही	334	91	14	2.91	0.01
					15	38.95	0.65
					22	-	4.03
					24	2.50	12.15
					25	8.60	11.40
					26	26.30	2.23
					29	0.10	-
					30	3.22	-
योग :-						82.64	30.37
4	लाहौर	धोबियाझारन	336	43	3	-	1.43
					19	-	0.68
					24	-	5.32
					33	-	0.42
					35	-	0.14
					38	-	0.02
					40	-	0.66
					43	-	0.17
					46	-	0.41
48	-	0.52					

4	समीक्षक	भोमिवाडारन	335	43	55	-	6.15
					62	-	1.07
					70	-	1.14
					79	-	0.03
					82	-	7.92
					103	-	1.80
					105	-	8.68
					167	-	1.70
					184	-	0.12
					198	-	0.09
					199	-	0.10
					205	-	0.23
					208	-	0.04
					213	-	0.04
					227	-	0.05
					229	-	0.09
					231	-	0.03
					232	-	0.02
					238	-	0.12
					291	-	10.53
					293	-	11.70
					352	-	9.40
355	-	249.340					
योग :-					-	77.28	
5	समीक्षक	आकाशारन	335	1	1	-	51.55
					2	-	11.60
					130	-	8.88
					134	-	4.33
योग :-					-	76.36	
					134.34 रु	266.95 रु	
कुल योग :- 134.34+266.94 = 401.28 एकड							


Deputy Commissioner,
Lachar

Dr. ...
Demodar Valley Corp...



DAMODAR VALLEY CORPORATION
D.V.C. TOWERS, V.I.P. ROAD
KOLKATA -700 054
Phone: (033) 6607-2338 email: sudhir.mukherjee@dvc.gov.in



No. HQ/Mining/Tubed/FC/193(OXY)

Dated: 13.02.2020

Annexure- XXV

UNDERTAKING

TUBED COAL MINE

This is to certify that, Damodar Valley Corporation (DVC), a corporation constituted under DVC Act, 1948 (Act. No. XIV of 1948), undertake that DVC will ensure compliance of any other condition that the concerned Regional Office of this Ministry may stipulate, from time to time, in the interest of conservation, protection and development of forests & wildlife; This is in connection of the fulfilment of Condition No. xxv of the Stage-I Clearance, for diversion of 162,394 ha forest land in Latchar Forest Division, Dist. Latchar, Jharkhand.

Sudhir Mukherjee
Dy. Chief Engineer (Mech), Mining
Damodar Valley Corporation,
D.V.C. Towers, V.I. P. Road,
Kolkata- 700054



DAMODAR VALLEY CORPORATION
D.V.C. TOWERS, V.I.P. ROAD
KOLKATA - 700 054
Phone: (033) 6607-2338 email: sudhir.mukherjee@dvc.gov.in



No. HQ/Mining/Tubed/FC/193(XXVI)

Dated: 13.02.2020

Annexure- XXVI

UNDERTAKING
TUBED COAL MINE

This is to certify that, Damodar Valley Corporation (DVC), a corporation constituted under DVC Act, 1948 (Act. No. XIV of 1948), undertake that all the compliance reports will be uploaded on e-portal (<https://parivesh.nic.in>). This is in connection of the fulfilment of Condition No. xxvi of the Stage-I Clearance, for diversion of 162.394 ha forest land in Latchar Forest Division, Dist. Latchar, Jharkhand.

Sudhir Mukherjee
Dy. Chief Engineer (Mech), Mining
Damodar Valley Corporation,
D.V.C. Towers, V.I. P. Road,
Kolkata- 700054



DAMODAR VALLEY CORPORATION
D.V.C. TOWERS, V.I.P. ROAD
KOLKATA -700 054
Phone: (033) 6607-2338 email: sudhir.mukherjee@dvc.gov.in



No. HQ/Mining/Tubed/TC/193(XXVII)

Dated: 13.02.2020
Annexure- XXVII

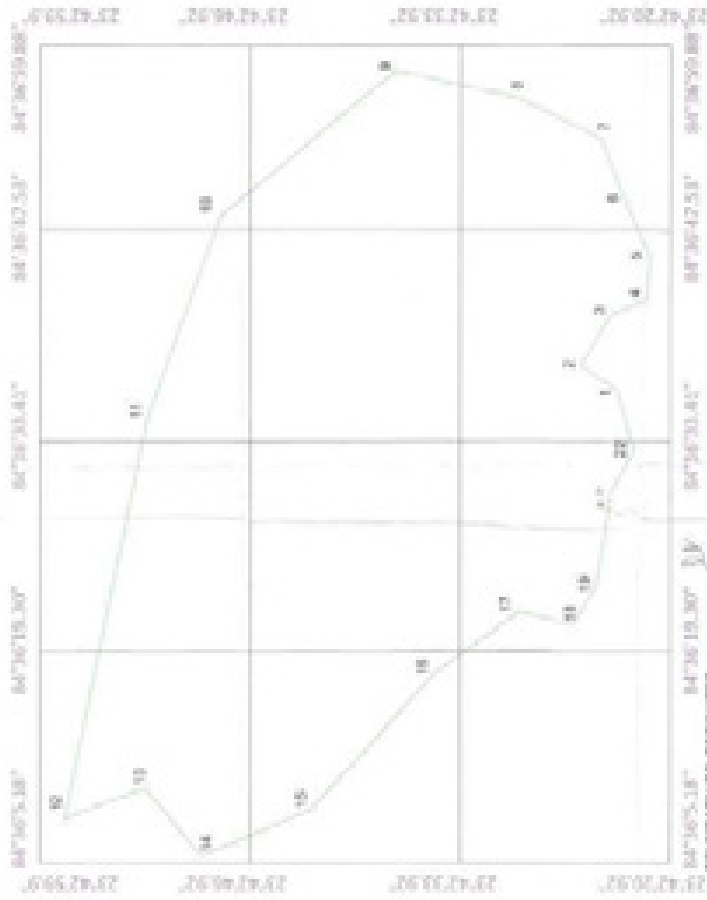
UNDERTAKING

TUBED COAL MINE

This is to certify that, Damodar Valley Corporation (DVC), a corporation constituted under DVC Act, 1948 (Act. No. XIV of 1948), undertake that DVC accepts that violation of any of the conditions of Stage-I Clearance will amount to violation of Forest (Conservation) Act, 1980 and action would be taken as prescribed in para 1.21 of Chapter 1 of the Handbook of comprehensive guidelines of Forest (Conservation) Act, 1980 as issued by this Ministry's letter No. 5-2/2017-FC dated 28.03.2019. This is in connection of the fulfilment of Condition No. xxvii of the Stage-I Clearance, for diversion of 162.394 ha forest land in Latchar Forest Division, Dist. Latchar, Jharkhand.

Sudhir Mukherjee
Dy. Chief Engineer (Mech), Mining
Damodar Valley Corporation,
D.V.C. Towers, V.I. P. Road,
Kolkata- 700054

**DANODAR VALLEY CORPORATION
TUBED COAL BLOCK
GRID-REFERENCE MAP SHOWING COMPENSATORY AFFIRMATION AREA
VILLAGE - SEUSI**



NO. OF COMPENSATORY COAL BLOCKS

1	1
2	1
3	1
4	1
5	1
6	1
7	1
8	1
9	1
10	1
11	1
12	1
13	1
14	1
15	1
16	1
17	1
18	1
19	1
20	1
21	1
22	1

SCALE

0 100 200 300 400 500 FEET

Scale

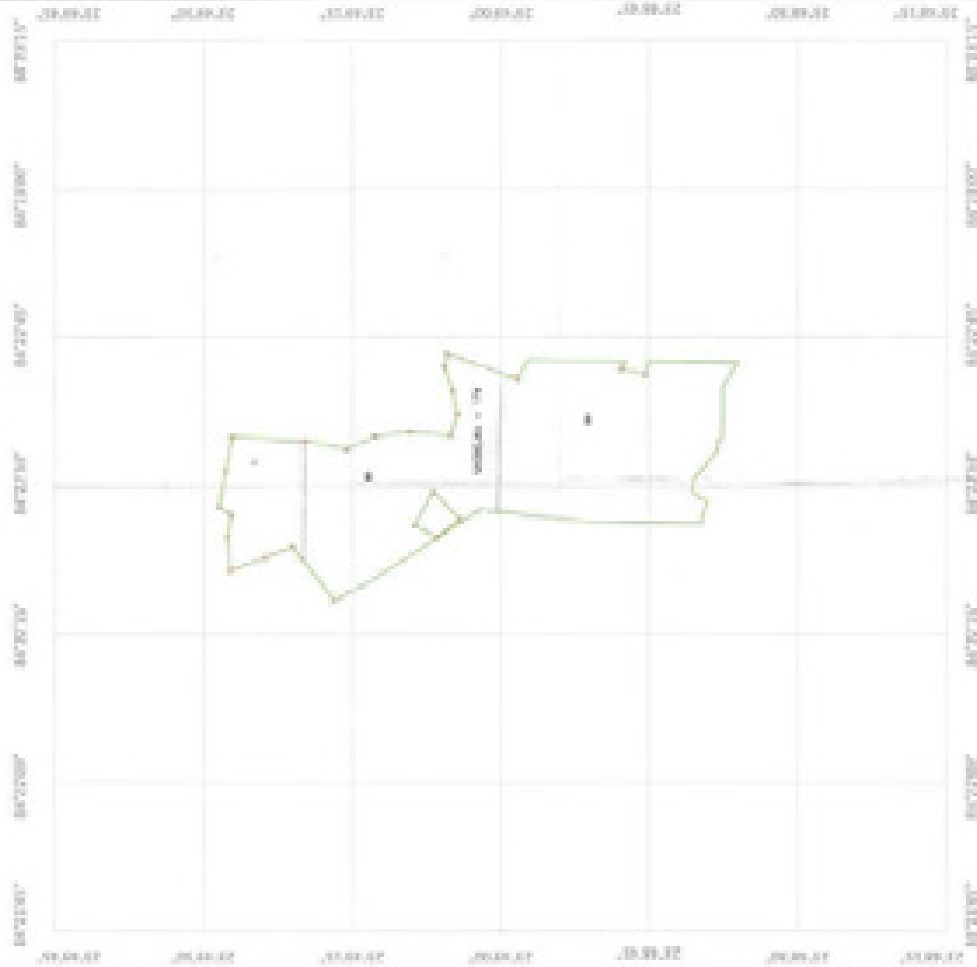
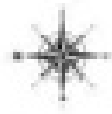
1	1
2	1
3	1
4	1
5	1
6	1
7	1
8	1
9	1
10	1
11	1
12	1
13	1
14	1
15	1
16	1
17	1
18	1
19	1
20	1
21	1
22	1

PROJECT INFORMATION

Project Name	DANODAR VALLEY CORPORATION
Client	THE STATE OF MONTANA
Contract No.	10000000000000000000
Scale	AS SHOWN
Date	10/10/2023
Drawn By	10000000000000000000
Checked By	10000000000000000000
Approved By	10000000000000000000

DAMODAR VALLEY CORPORATION
TUBEL-COAL-BLOCK

**GEO-REFERENCE MAP SHOWING COMPENSATORY AFFORESTATION AREA,
 VILLAGE - NARBEHLI, M.A.**



Scale: 1:5000
 Date: 10/10/2019

DAMODAR VALLEY CORPORATION
 MEMBERSHIP
 27, 28/10/2019

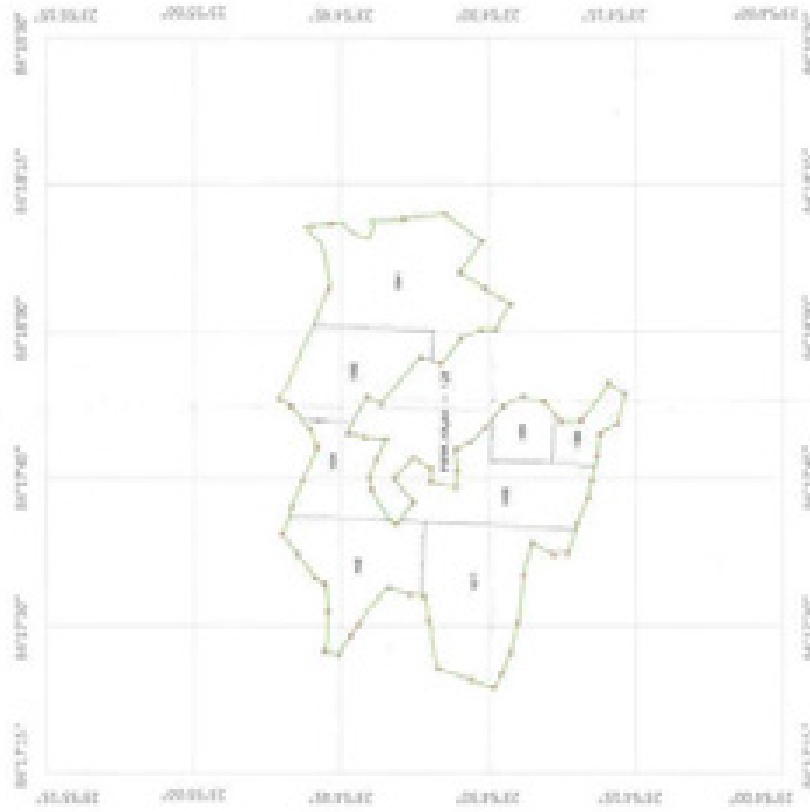
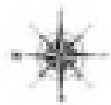
DAMODAR VALLEY CORPORATION
 TUBEL-COAL-BLOCK
 P.O. NARBEHLI, M.A.
 DISTRICT - NARBEHLI

Date: 10/10/2019
 User: 10/10/2019

Distributed Digital of Plan/Block

Sl.No	Block Name	District	Thana	Area In Ha.	Order No.	Leaf No.
1	NARBEHLI	LATEHAR	PH	1	1	10 Sheets

DAMODAR VALLEY CORPORATION
THIRD COAL BLOCK
GEO-REFERENCE MAP SHOWING COMPENSATORY AFFORESTATION AREA,
VILLAGE - PIPRA KALAN,



SCALE
 1 cm = 100 meters
 1 inch = 2540 mm

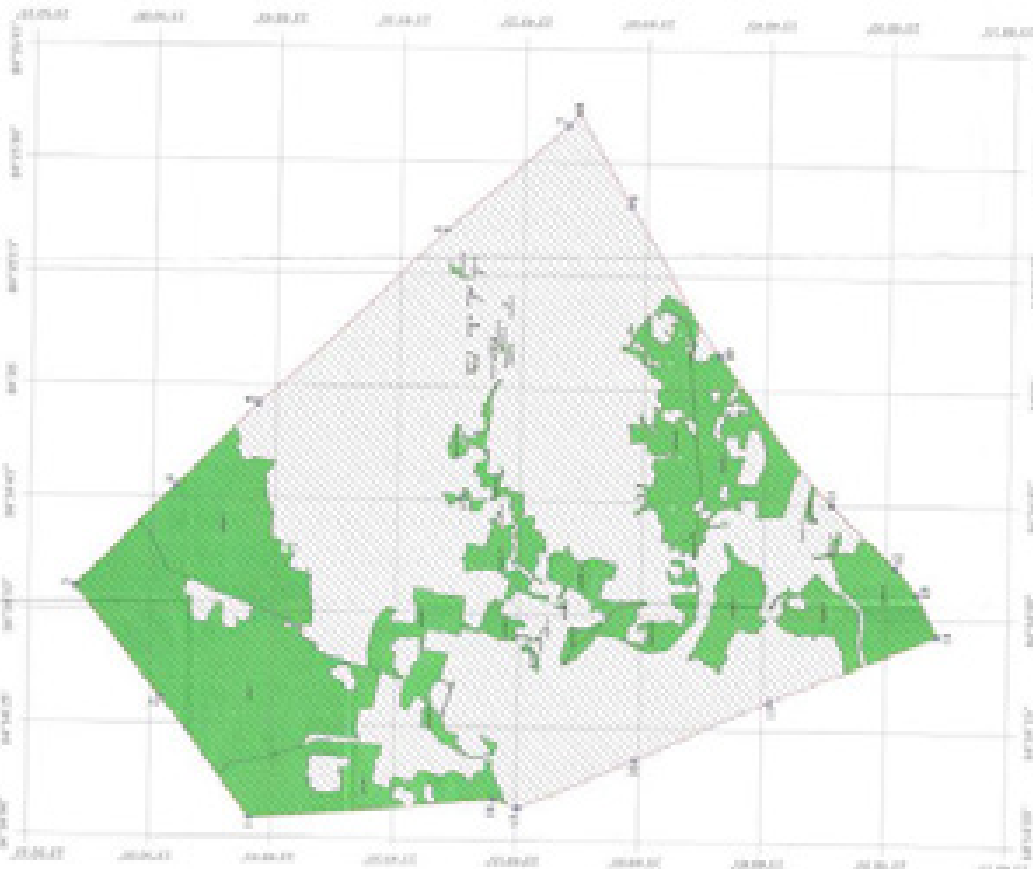
PROJECT INFORMATION
 PROJECT: DAMODAR VALLEY CORPORATION
 TITLE: GEO-REFERENCE MAP SHOWING COMPENSATORY AFFORESTATION AREA
 DATE: 10/2008
 DRAWN BY: [Name]
 CHECKED BY: [Name]

Scale
 0 100 200 300 400 500 Meters

Geographical Region of the State				
Sl No	Block Name	Block Area	Block Area (Ha)	Block Area (Ac)
1	PIPRA KALAN	100	100	25

**DAModar VALLEY CORPORATION
TURBID COAL BLOCK**

GEO-REFERENCED BOUNDARY MAP SHOWING THE FOREST AREA

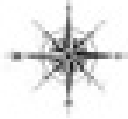


Sl. No.	Area (Ha)	Area (Acres)
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2	1000.00	247.10
3	1000.00	247.10
4	1000.00	247.10
5	1000.00	247.10
6	1000.00	247.10
7	1000.00	247.10
8	1000.00	247.10
9	1000.00	247.10
10	1000.00	247.10
11	1000.00	247.10
12	1000.00	247.10
13	1000.00	247.10
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17	1000.00	247.10
18	1000.00	247.10
19	1000.00	247.10
20	1000.00	247.10
21	1000.00	247.10
22	1000.00	247.10
23	1000.00	247.10
24	1000.00	247.10
25	1000.00	247.10
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90	1000.00	247.10
91	1000.00	247.10
92	1000.00	247.10
93	1000.00	247.10
94	1000.00	247.10
95	1000.00	247.10
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98	1000.00	247.10
99	1000.00	247.10
100	1000.00	247.10

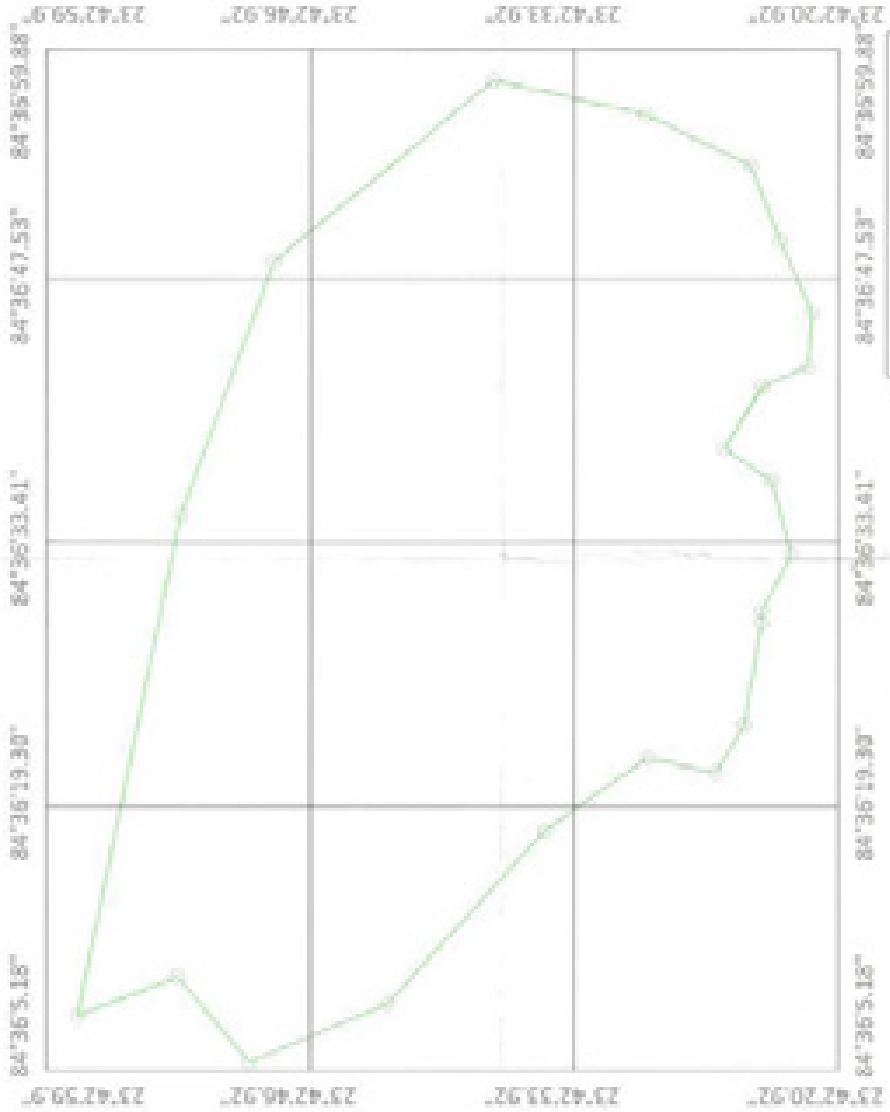
Scale: 1:50,000

Prepared by: [Name]

Date: [Date]



DAMODAR VALLEY CORPORATION
TUBED COAL BLOCK
GEO-REFERENCE MAP SHOWING COMPENSATORY AFFORESTATION AREA
VILLAGE - SIKMI



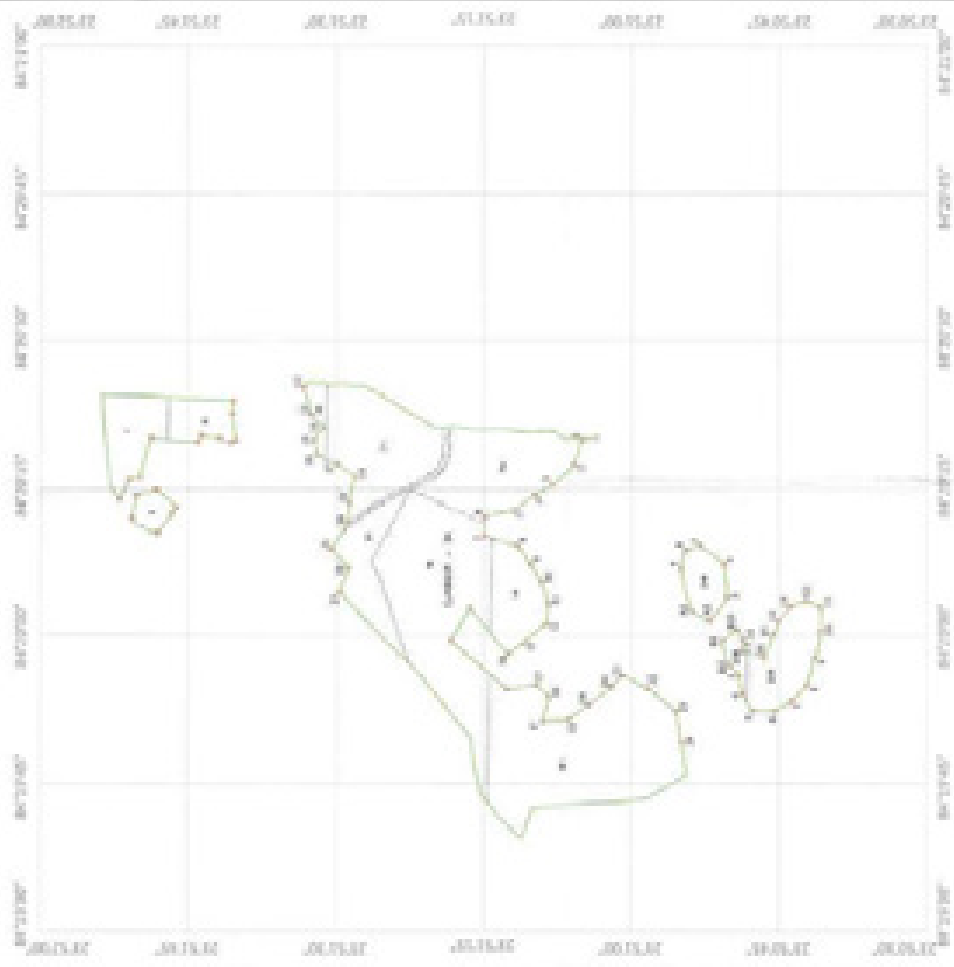
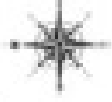
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DATE	2010
DAMODAR VALLEY CORPORATION	
100, RAJENDRA NAGAR, RAIPUR, JHARKHAND	
RAJENDRA NAGAR, RAIPUR, JHARKHAND	
RAIPUR, JHARKHAND	
INDIA	
PROJECT NO. 100/2010	
PAGE NO. 10	

S.P.

DANODDAR VALLEY CORPORATION

TUBED COAL BLOCK

**GEO-REFERENCE MAP SHOWING COMPENSATORY AFFORESTATION AREA,
VILLAGE - EJAMMANR.**

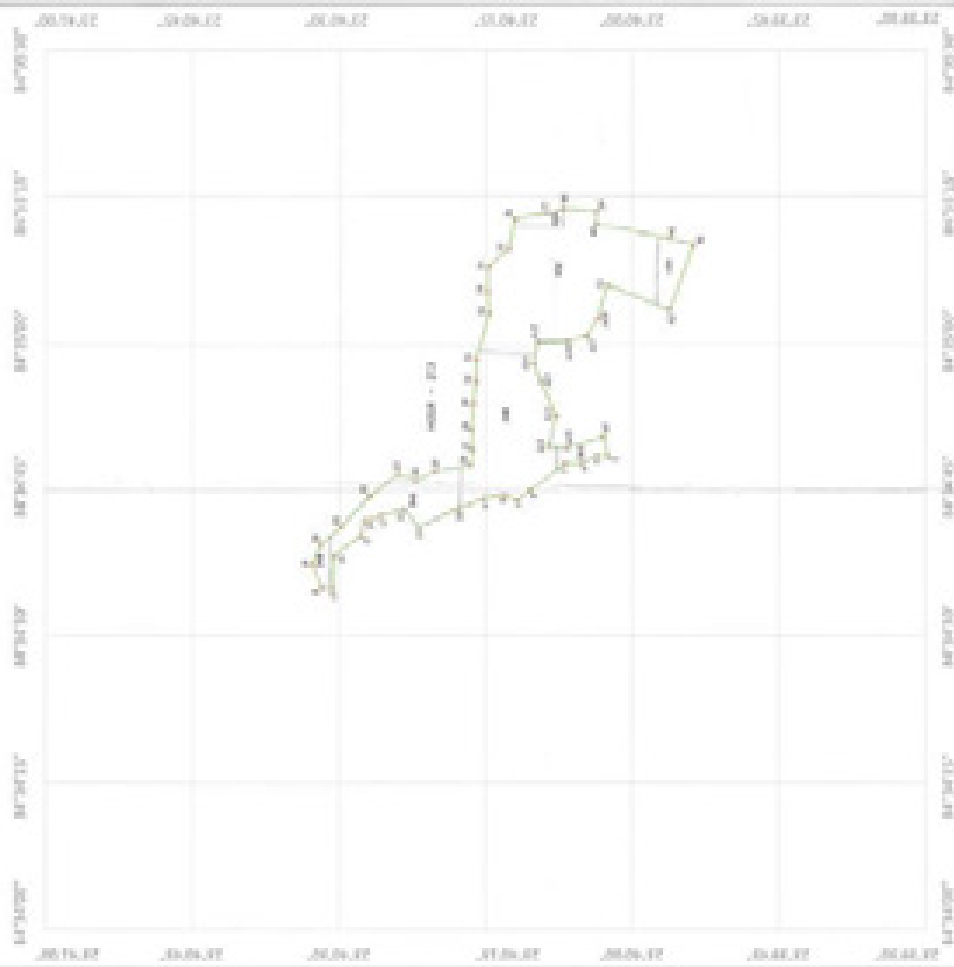
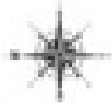


1	2	3	4	5	6	7	8	9	10	11	12	13	14
100000	100000	100000	100000	100000	100000	100000	100000	100000	100000	100000	100000	100000	100000
100000	100000	100000	100000	100000	100000	100000	100000	100000	100000	100000	100000	100000	

DANODDAR VALLEY CORPORATION
 15, G. S. ROAD, CHENNAI - 600 002
 TEL: 044-2611-1111
 FAX: 044-2611-1111
 E-MAIL: dvc@vsnl.com

Summary Report of PAs Schedule				
S.No.	Area Name	Block	Area Sq. Km.	Total Area
1	100000	100000	100000	100000

**BANDANA VALLEY CORPORATION
THIRD COAL BLOCK
GEO-REFERENCE MAP SHOWING COMPENSATORY AFFORESTATION AREA
VILLAGE - HOSUR**



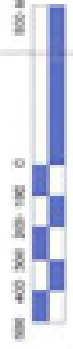
DATE	14.08.2024
BY	SRINIVAS RAO
FOR	PROJECT MANAGER

BANDANA VALLEY CORPORATION
 HOSUR
 DISTRICT - CHITRADURGA
 STATE - KARNATAKA

PROJECT: **THIRD COAL BLOCK**
 VILLAGE: **HOSUR**

SCALE: 1:50000
 DATE: 14.08.2024

1/1



Summary Report of the Schedule

Sl. No.	Block Name	Block No.	Area (Ha)	Plantation No.	Plantation Area (Ha)	Total Area (Ha)
1	THIRD COAL BLOCK	1	171	1	171	171