

## भारत सरकार/Government of India पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय

Ministry of Environment, Forest & Climate Change क्षेत्रीय कार्यालय, भुवनेश्वर/ Regional Office, Bhubaneswar उप-कार्यालय, कोलकाता/ Sub-Office, Kolkata

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Life Lifestyle for Environment

No.FP/WB/MIN/43000/2019/32/

Date: 18th September, 2024

To,

The Assistant Inspector General of Forests,

Ministry of Environment, Forest & Climate Change, Forest Conservation Division, Indira Paryavaran Bhawan, Jor Bagh Road, Aliganj, New Delhi – 110003.

Sub: Site Inspection Report in the proposal for non-forestry use of 338.74 ha forest land for Coal Mining in Barjora North Coal Mine Block in favour of West Bengal Power Development Corporation Limited (WBPDCL), Bankura district of West Bengal - reg.

Ref: Ministry's letter No.8-27/2023-FC dated 11th July 2024.

Sir,

With reference to the above cited subject, I am directed to inform that the site inspection of the above project was carried out by this office on 5.09.2024 and the site inspection report along with recommendation of the DDGF(C), Regional Office, Bhubaneswar is enclosed herewith for kind information and necessary action.

Yours sincerely,

Encl: As above.

(Sujoy Dutta)

Assistant Commissioner (Forestry)

### RECOMMENDATION OF DEPUTY DIRECTOR GENERAL OF FORESTS (CENTRAL)

The proposed site was inspected by Shri Sujoy Dutta, Assistant Commissioner (F) along with DFO, Bankura (North) Division and representative of User Agency on 05.09.2024. As per the site inspection of AC (F) the following has been reported.

- 1) The instant proposal is for diversion of 338.74 ha of forest land for coal mining in Barjora North Coal Mine Block in Bankura District of West Bengal by West Bengal Power Development Corporation Ltd. The legal status of forest land proposed for diversion is Protected Forest.
- 2) The forest is Dry Deciduous Sal forests. The species enumerated for felling are Sal, Mahua, Pipal, Acacia and Eucalyptus. Total 67,755 nos. of trees enumerated to be felled. Out of which about 64,033 nos. (94% of total enumerated) of trees are less than 60 cm girth. Trees should be felled in a phased manner and when it is absolutely required to remove to minimize the adverse impact on the eco-system.
- 3) It is reported that adjoining forest patch of Barjora has been utilized by the herd of Asian Elephants. The forest patch of Barjora is the terminal point of the migration route of Elephant and the proposed site of forest land is at north-western edge of the Barjora Forest Patch. The forest land proposed for diversion is not part of any recognized elephant corridor. The CWLW, West Bengal has recommended the proposal with the observation that "Considering the above, it is estimated that the impact of the proposed project could be kept at a manageable level using extraction technology that does not require blasting and adopting the safeguards proposed by the Divisional Forest Officedr, Bankura (N) Division and Chief Conservator of Forests, Central Circle. The proposal, therefore is recommended". To mitigate the impact of mining on wildlife available in the area, the State Govt. should implement Wildlife Conservation Plan duly approved by CWLW, West Bengal at the project cost.
- 4) The "Tartora Nala" flows from west to east of the proposed mine boundary and needs to be diverted as per the approved Mining Plan. As per approved Mining Plan, total length of the diverted nalla will be 6.30 Km and based on the present flow, width and depth of the nala has been considered as 3 meter and 2.5 mter respectively. So, safety zone with plantation of at least 50 meter width may be maintained along the lease boundary close to nala. Efforts should be made to ensure that no discharge leads to the Tartora nalla from the mining lease area by constructing embankment towards the lease boundary of the river.
- . 5) Soil and moisture conservation measures may be done in forest landscape to check soil erosion and for recharging of ground water.

- 6) The reclamation of mined out area will be undertaken as per the approved Progressive Mine Closure Plan. As reported by the inspecting officer, the previous allottee (DVC-EMTA) has already completed Rehabilitation and Resettlement as per the approved plan. No shifting of person is involved in the present revised Mining Plan.
- 7) Since, the proposed forest land is part of the elephant micro-habitat, a proper biofencing need to be installed to prevent entrance of migrated Asian Elephants into mining lease area. Also during mining of the adjacent to the forest boundary, advanced technology should be adopted for blasting to minimize vibrations.
- 8) Total 338.84 ha of non-forest land has been identified compensatory afforestation in lieu of diversion of 338.74 ha of forest land. Approximately, 30 ha of the non-forest land proposed for CA is adjacent to the forest boundary. As reported, identified non-forest land is suitable for plantation.

Since, mining of coal is site specific activity, so the proposal may be considered under Section 2 (ii) of Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980 subject to the usual standard conditions and fulfilling of observation made in the site inspection.

(A.T.:Mishra)

Dy. Director General of Forests (Central)

Site Inspection Report in respect of proposal for diversion of 338.74 ha forest land in favour of West Bengal Power Limited (WBPDCL) for Coal Mining in Barjora Bankura district of West Bengal (Online proposal No. FP/WB/MIN/43000/2019).

Name of the Inspecting Officer: Sujoy Dutta, Assistant Commissioner (F), Sub Office at Kolkata, Regional Office Bhubaneswar, MoEF&CC

Date of Inspection: 5th September 2024.

Officials present from the State Forest Department:

- (i) Shri DM Pradhan, Bankura (North) Forest Division
- (ii) Shri Durgakant Jha, ADFO, Bankura (North) Forest Division

Officials present from the User Agency:

- (i) Shri Chanchal Goswami, Director (Mining), WBPDCL.
- (ii) Shri Aloke Nath, Consultant (Mining), WBPDCL.
- (iii) Shri Narendra Kumar, GM (Mining), WBPDCL.

## 1. Legal status of the forest land proposed for diversion:

Total 338.74 ha Protected Forest proposed for diversion

Name of Village	Forest land (ha)	Non-Forest Land (ha	
Baguli	0.00	36.27	
Barapukhuria	13.47	88.17	
Ghutgaria	24.25	116.23	
Manohar	237.16	98.03	
Sharjora	63.86	1.32	
Tikargram	0.00	4.28	
Total	338.74	344.30	

# 2. Item-wise break-up details of the forest land proposed for diversion.

The User Agency has furnished component wise break up of forest & Non-

forest land as follows:

SI No.	Component	Forest (Ha)	Non-Forest (Ha)	Total Area (Ha)
	Mine Quarry including Back Filling	213.51	217.81	431.32
2	Excavated Void	105.85	72.49	178.34

afety Zone  (ala Diversion  (oad & Infrastructure  (arland Drain  (intouched Area/Mining  ights for UG  (thers  otal	3.85 7.20 5.91 Nil 1.05	4.74 4.07 5.27 2.25 36.58 Nil	8.59 11.27 11.18 2.25 37.63
fala Diversion  load & Infrastructure  farland Drain  Intouched Area/Mining	7.20 5.91 Nil	4.07 5.27 2.25	11.27 11.18 2.25
ala Diversion load & Infrastructure	7.20 5.91	4.07 5.27	11.27 11.18
ala Diversion	7.20	4.07	11.27
afety Zone	3.85	4.74	8.59
op Soil Dump	0.72	1.09	1.81
``C	op Soil Dump	op Soil Dump 0.72	op Soil Dump 0.72 1.09

Some Industrial Area has been observed in middle southern & south-eastern edge of the proposed lease boundary, which are outside of the forest land.

# 3. Whether proposal involves any construction of buildings (including residential) or not. If yes, details thereof:

No construction of building has been proposed in forest land.

#### 4. Total cost of the project at present rates:

During site visit, it was reported by the representative of the User Agency that the total cost of the project is <u>Rs.91,858 Cr.</u>

# 5. Wildlife: Whether forest area proposed for diversion is important from wildlife point of view or not:

It is reported that adjoining forest patch of Barjora has been utilized by the herd of Asian Elephants. The forest patch of Barjora is the terminal point of the migration route of elephant and the proposed site of forest land is at north-western edge of the Barjora Forest Patch. Thus, the entry and exit to the Barjora elephant habitat is lies on the opposite side of the forest land proposed for diversion. The forest land proposed for diversion is not part of any recognized elephant corridor. During inspection, it was informed by the concerned DFO that occasionally elephants are visited the forest land proposed for diversion.

It is reported that Golden Jackal, Bengal Fox, Procupine and Indian Pangoline are also found in the proposed forest land.

### 6. Vegetation:

The forest land is covered under dry deciduous Sal forests along with its associated species, having predominantly low girth trees. As per majority

other than Sal species (40,035 nos), most higher abundance species are Akashmoni (11862 nos), Mohul (4869 nos), Pial (2805 nos) & Eucalyptus (2204 nos) etc. Besides these, the area is also rich in shrubs and climber species.

The vegetation density is reported 0.4.

## (a) Total number of trees to be felled:

Total 67,755 no of trees (15,452 no trees <= 30 cm girth, 48,581 no of tree is 31-60 cm girth & 3,722 no of trees are more than 60 cm girth) are proposed for felling. 94% of the trees (64,033 trees) having less than 60 cm girth.

(b) Effect of removal of trees on the general ecosystem in the area: Definitely, there will be impact of removal of trees on the general ecosystem of the area.

## 7. Background Note on the proposal

The Barjora North Coal mine was initially allotted to M/s DVC-EMTA Coal Mines Limited for which they obtained Environmental Clearance from MoEF&CC vide letter no. J-11015/312/2007-IA.II (M) dated 13th March, 2008 for a lease area of 800.0 hectare (Ha) and maximum production of 3.0 MTPA of coal. The mine plan of the Barjora (North) OCP of DVC-EMTA Coal Mines Limited was approved by Ministry of Coal on 24th August, 2006 and subsequently mining operation was initiated. Around 6.11 million tonnes (MT) of coal were produced by the previous lessee. Further, as per the vesting order under the Coal Mines (Special Provisions) Act, the mine lease was deallocated to West Bengal Power Development Corporation Limited (WBPDCL) on 4th August, 2015. Out of total lease area, a revised mining plan was prepared only for the non-forest land of 260.14 ha and which was approved by MoC on 4th September, 2017. Environmental clearance was also obtained from MoEF&CC by WBPDCL on 31st May, 2018.

Recently another revised mine plan over an area 683.04 including forest and non-forest land was approved by Ministry of Coal, Government of India, on 26/09/2019. As per approved recent mine plan of Barjora (North) Coal Mine, total geological reserve is 91.67MT. Out of total geological reserve, about 6.11Mt coal has already produce by previous lessee. Thus, the remaining geological reserve about 85.56MT. Out of total reserve, 42.88MT coal are reserved under forest land.

## 8. Compensatory afforestation:

Total 338.84 ha non-forest land has been proposed for CA, spread over the 5 districts of West Bengal against the proposed diversion of 338.74 ha forest

land. CA lands are distributed over 57 plots but in 23 contiguous patch/cluster.

Approximately, 30 ha of the non forest land proposed for CA is adjacent to the forest boundary of the single forest patch out of which the proposed forest diversion of 338.74 ha is under consideration.

Details of the proposed CA land is as follows:

		Bank	tura Dist	trict	
Forest	Mouza, JL	Plot	Area	Remarks	
Division	No.	No.	(ha)		
Bankura (North) Division	Gosaindihi JL - 77	38	4.70	Adjacent to the forest land a found suitable for plantation. Free from any encroachment	
	Paharbera JL - 23	118	22.46	Adjacent to the forest land. In a very small portion cultivation activity is observed.	
	Dadhimuk ha JL - 106	1418	6.07	Found suitable for plantation.	
	Unara JL - 41	1044	5.67	Adjacent to the forest land and found suitable for plantation.	
	Saharjora JL-26	38	1.45	Adjacent to the forest patch part of which proposed for	
	Saharjora JL-26	45	1.13	diversion and found suitable for plantation. All the three	
	Saharjora JL-26	150	7.20	patches are contiguous and totalling the area 9.95 ha.	
	Saharjora JL-26	65	0.83	Adjacent to the forest patch part of which proposed for diversion and found suitable for plantation.	
	Saharjora JL-26	3117	3.79	Adjacent to the forest land and found suitable for plantation	
	Saharjora JL-26	3119	0.67	All the three patches are contiguous and totalling the	
	Saharjora JL-26	3125	2.43	area 6.89 ha.	
	Saharjora JL-26	3138	6.61	Adjacent to the forest land and found suitable for plantation	
	Saharjora JL-26	3142	1.35	All the three patches are contiguous and totalling the	
	Saharjora JL-26	3144	0.99	area 8.95 ha.	

		1206.71		During site inspection at the
				south-west corner of the plot
				no.3138, a tin shed (very small
				area) is observed. The UA has
				submitted that before handing
				over the land to the Forest
				Department, the said
				encroachment will be removed.
				No mining activity has been
				observed in the plot no.3138 as
			Company	per EDS raised by the Ministry.
	Anandapur	1488	0.95	Adjacent to the forest land and
	JL-19			found suitable for plantation.
	Anandapur	1511	0.59	All the three patches are
	JL-19			contiguous and totalling the
	Anandapur	1514	1.28	area 3.63 ha.
	JL-19			
	Anandapur	1522	0.81	
	JL-19	. 10		
	Shitla JL-	591	13.17	Adjacent to the forest land and
	31		-8.2	found suitable for plantation.
	Deucha JL-	261	0.36	Adjacent to the forest land and
	42			found suitable for plantation.
	Chakaraba	424	0.54	Adjacent to the forest land and
	d JL-27			found suitable for plantation.
	Beleshola	777	0.51	Adjacent to the forest land and
	JL-27			found suitable for plantation.
Bankura	Kadamberi	871	5.26	Adjacent to the forest land and
(South)	a JL-179			found suitable for plantation.
Division				
	Tota	al Area	88.82	
			lia Dist	
Purulia	Hinjuri JL-	543	5.00	Found suitable for CA
Forest	47	770	7.60	Brown described for CA
Division	Singhara	773	7.69	Found suitable for CA
IZ	JL-45	2433	8.15	Found suitable for CA
Kangsabati	Palanja JL-	2433	0.10	Todala salable for our
(North) Division	Uluberia	3	24.37	Found suitable for CA. All these
DIVISIOII	JL-87		21.07	two patches are contiguous
	OD OI	4	4.05	and totalling the area 28.42 ha.
	Total	al Area	49.26	
	100	ai Aita	77.40	

Medinipur         Kotalkuli         3           Division         JL-326         6           7         8           9         10           11         Total A	) l area alpai	9.14 0.83 0.45 0.93 0.55 1.98 1.30 <b>15.17</b> <b>iguri Dis</b> 8.13	Found suitable for CA. All these patches are contiguous and totalling the area 15.17 ha.  strict  Proposed land is in riverine area of Teesta River. Found suitable for CA with additional
Total A  Baikuntha Purba pur Totagaon	l area alpai	0.45 0.93 0.55 1.98 1.30 <b>15.17</b>	patches are contiguous and totalling the area 15.17 ha.  strict  Proposed land is in riverine area of Teesta River. Found
Baikuntha Purba pur Totagaon	l area alpai	0.45 0.93 0.55 1.98 1.30 <b>15.17</b>	strict  Proposed land is in riverine area of Teesta River. Found
9 10 11 Total A  Baikuntha Purba 24 pur Totagaon	l area alpai	0.93 0.55 1.98 1.30 <b>15.17</b> Iguri Dis	strict  Proposed land is in riverine area of Teesta River. Found
Baikuntha Purba pur Totagaon	l area alpai	0.55 1.98 1.30 <b>15.17</b> iguri Dis	Proposed land is in riverine area of Teesta River. Found
Baikuntha Purba pur Totagaon	l area alpai	1.98 1.30 <b>15.17</b> Iguri Dis	Proposed land is in riverine area of Teesta River. Found
Total A  Total A  Baikuntha Purba 24  pur Totagaon	l area alpai	1.30 <b>15.17</b> iguri Dis	Proposed land is in riverine area of Teesta River. Found
Baikuntha Purba 24 pur Totagaon	alpai ļ	15.17 iguri Di:	Proposed land is in riverine area of Teesta River. Found
Baikuntha Purba 24 pur Totagaon	1		Proposed land is in riverine area of Teesta River. Found
Baikuntha Purba 24 pur Totagaon	1		Proposed land is in riverine area of Teesta River. Found
-	2		area of Teesta River. Found
Division JL-2	2		
	2		Surable for CA WILL additional
	2		soil work.
58	)	66.07	Proposed land is in riverine
59	)	1.01	area of Teesta River. Found
60	)	13.38	suitable for CA with additional
64		0.10	soil work. All these patches are
65	,	0.10	nearly contiguous.
66		0.55	
67		0.53	
68		48.74	
Paschim 10		3.62	Proposed land is in riverine
Totagaon 18		4.94	area of Teesta River. Found
JL-1 22		3.59	suitable for CA with additional
35		4.63	soil work. All these patches are
36		3.32	contiguous and totalling the
37		1.44	area 30.8 ha.
38		0.94	
34	3	8.32	
Total Aı	rea	169.41	
Ali	purc	luar Dis	strict
BTR East Madhya 190	06	6.57	Found suitable for plantation.
Division Haldibari 190	07	3.07	Adjacent to forest boundary. All
JL-38 15'	71	1.61	these patches are contiguous,
15'	72	3.51	and totalling the area 16.18 ha
190	03	1.42	
Total Ar	rea	16.18	

# (a) Whether land for compensatory afforestation is suitable from plantation and management point of view or not:

Due to paucity of time, some proposed CA patches of Saharjora & Anandapur Mouza has been visited by the undersigned in Bankura district, which is found suitable for plantation. Other proposed non-forest lands as CA, are observed in DSS analysis and on the basis of information provided by the State Forest Department, the proposed non-forest land is found suitable for plantation. CA scheme also includes energized power fencing of the proposed CA lands.

# (b) Whether land for compensatory afforestation is free from encroachment/ other encumbrances:

Maximum proposed non-forest land for CA is free from encroachment. In one patch, in a very small portion cultivation activity was observed and in one patch a small tiny shed was observed in a corner. During site visit, the User Agency had assured that before handing over the non-forest land to the Forest Department, all the encroachment will be removed.

# (c) Whether land for compensatory afforestation is important from Religious/Archaeological point of view:

During site inspection no structure of religious and Archaeological importance in the proposed CA land has been found or reported.

# (d) Land identified for raising compensatory afforestation is in how many patches, whether patches are compact or not:

Total 338.84 ha non-forest proposed for CA, are distributed over 57 plots but in 23 contiguous patch/ cluster. From the proposed CA lands (plot wise) which are having less than 5 ha area, are connected to other proposed CA land (of other FC proposals) or contiguous to RF/ PF or clustering with some other proposed CA plots of this instant proposal i.e., all patches create more than 5 ha compact patch.

## (e) Total financial outlay:

The financial provisions for raising and maintenance plantation for 10 years is estimated Rs.22,07,36,009/-.

9. Whether proposal involves violation of Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980or not. If yes, a detailed report on violation including action taken against the concerned officials:

The proposal does not involve violation of Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980.

# 10. Whether proposal involves rehabilitation of displaced persons. If yes, whether rehabilitation plan has been prepared by the State Government or not:

During Site Inspection, it was informed by the User Agency that previous allottee (DVC-EMTA) has already completed R & R as per the approved plan. No shifting of persons is involved in the present revised Mining Plan.

#### 11. Reclamation Plan:

The representatives of the User Agency have informed that reclamation of mined out area will be undertaken as per the approved Progressive Mine Closure Plan. During Site Inspection, backfilling of void area and bio-reclamation in some area has been observed after spreading top soil. As per the provided information, the void backfilling details has been undertaken by

the User Agency so far are as follows:

S1 No	Year	Void Backfilling (MM <sup>3</sup> )	Area wise Breakup (ha)
1	2018-2019	0.616	1.40
2	2019-2020	3.001	6.60
3	2020-2021	6.255	13.70
4	2021-2022	7.647	16.80
5	2022-2023	10.975	24.10
6	2023-2024	4.023	8.80
7	2024-2025 (April-August)	1.70	3.60
Total and	Total	34.217	75.00

The provided bio-reclamation details are as follows:

	About 6.4 Ha area has been covered by plantation by Prior allotte					
SI No.	Year	Area in Ha	No. of Plantation			
1	2018-2019	3.8	Gap plantation of 2675 Nos.			
2	2019-2020	2.6	Gap Plantation of 1451 Nos.			
3	2020-2021	0.76	Plantation at safety zone area of 1900 Nos.			
4	2021-2022	Over Top Soil Bench	30 Kg Grass Seeds were spread			
5	2022-2023	6.5	16250			

	Total	37.73	82451
7	2024-2025 (April- August)	13.77	34425
6	2023-2024	10.3	25750

In northern & north-eastern side of the mine, safety zone of 7.5 m with plantation has been observed.

## 12. Details on catchment and command area under the project:

An existing Tartora nala in non-forest land flows from west to east of the proposed mine boundary and needs to be diverted as per the approved Mine Plan (2<sup>nd</sup> Revision). During site inspection it is informed by the User Agency that necessary approval from the concerned authorities shall be taken (if required) for the diversion of the nala. As per approved Mining Plan, total length of the diverted nala will be 6.30 km and based on the present flow, width and depth of the nala has been considered as 3 meter and 2.5 meter respectively. During site visit, it was also informed that the Tartora nala is seasonal in nature. Two void mine pits in non-forest land have been used as water body and water of the mine pit is being used for water sprinkling and plantation use.

#### Catchment area treatment plan to prevent siltation of reservoir:

NA

#### 13. Cost Benefit Ratio:

The Cost: Benefit Ratio has been reported by the User Agency is 1:7.921.

# 14. Recommendations of the Principal Chief Conservator of Forests/State Government:

The Forest Department, Government of West Bengal has recommended the proposal for diversion of 338.74 ha of forest land for Barjora North Coal Mine Project since this is a site-specific project (which cannot be located/ shifted elsewhere), subject to the following safeguards:

- (a) Formulation of a comprehensive Wildlife Conservation Plan detailing the best practices to be adopted / implemented for the management of the Barjora microhabitat.
- (b) Formulation of a comprehensive Soil Moisture Conservation Plan for overall stability of the forest landscape from erosion and for augmenting the water resources in the area.

- (c) Ensuring minimalistic change in the natural drainage system within the proposed forest diversion area.
- (d) Maintaining international standards of coal extraction and following all the environmental norms as maybe specified for this project.
- (e) Maintaining safety zone/ buffer zone around the mine area, as per norms.
- (f) Abiding by all such conditions as may be imposed for the reforestation and afforestation efforts for the overall forest ecosystem in the area postmining operations.

# 15. Dy. Director General of Forests (Central) shall give detailed comments on whether there are any alternative routes/alignment for locating the project on the non-forest land:

Attached separately.

#### 16. Utility of the project:

This is a Captive Coal Mine of the West Bengal Power Development Corporation Limited (WBPDCL). There is a huge demand of coal for the power generation Plant of WBPDCL. As per the allotment order, coal will be utilized in the following end use plants of WBPDCL:

Sl No.	Name of the Thermal Power Plant	Address	Configuration	Capacity
1	Santaldih TPS	Purulia	2 x 250 MW	500 MW
2	Kolaghat TPS	West Medinipur	6 x 210 MW	1260 MW
3	Bakreswar TPP	Birbhum	5 x 210 MW	1050 MW
4	Sagardighi TPP	Murshidabad	2 x 300 + 2 x 500 MW	1600 MW
5	Bandel TPS	Hoogly	4 x 60 + 1 x 210 MW	450 MW
			Total	4860 MW

At present, the coal is transported to Bankura Railway siding by Road and thereafter it is transported to Santaldih TPS by Rail. During site inspection, it was informed by the User Agency that the mining operation is continuing over the 260.14 ha non-forest land and coal stock over the non-forest land will be exhausted withing December 2024. Therefore, new unbroken land as per approved mining plan is required for coal extraction to meet the coal demand for the Power Generation Plant of WBPDCL.

# 17. (a) Whether land being diverted has any socio-cultural/ religious value:

Not reported.

# (b) Whether any sacred grove or very old growth trees/forests exist in the areas proposed for diversion:

Not reported.

# (c) Whether the land under diversion forms part of any unique ecosystem:

Not reported.

#### 18. Situation with respect to any Protected Area:

The forest area proposed for diversion does not form part of National Park, Wildlife Sanctuary, Elephant Corridors, Tiger Reserve etc and no Protected Areas area located within a distance of 10 Km from the boundary of the area proposed for diversion.

#### 19. Any other information relating to the project:

- The forest land proposed for diversion is lies at the northern most edge of the Barjora elephant micro-habitat which is the terminal point of the elephant migration route. The entry and exit of the elephants to the micro-habitat is opposite side of the forest land proposed for diversion, i.e. diversion proposal has not been created any obstacle for free movement of the elephant within the micro-habitat.
- The 338.74 ha forest land proposed for diversion is a part of single patch of 2900 ha (approx.) forest land i.e. approximately 12% of the single patch of forest land is proposed for diversion. On the other hand, 30 ha (approx.) of the non forest land proposed for CA is adjacent to the forest boundary of the single forest patch, which will add the forest area. Also, another 20 ha (approx.) non forest land will be added to the adjacent forest patches of the elephant migration route. Therefore, 50 ha non forest land (proposed as CA) will be added to the Barjora elephant micro-habitat.
- It is reported that in last three years no human death has been reported within five kilometers radius from the proposed forest land.
- During Site Inspection, the User Agency has submitted the map showing proposed year wise mining and it was observed that the proposed forest land will be used for mining in phase wise manner from the northern side to towards southern direction. It is also observed that last 1000 meter width of the proposed forest land adjacent to the lease boundary/ elephant microhabitat will be used for the mining from the 11th year onwards. Since a large number of trees are proposed for felling, to minimize the adverse impact of

tree felling, trees should be felled in phase manner and when it becomes absolutely necessary for the proposal.

- The State Government has submitted approved Wildlife Conservation Plan of Rs.90 Crore with the provision of Habitat Enrichment & Wildlife Conflict Mitigation Plan. Also submitted approved SMC Plan of total financial outlay of Rs.6 Crore.
- Since the proposed forest land is part of the elephant micro-habitat, a
  proper bio fencing is needs to install to prevent entrance of migrated Asian
  Elephants into the open cast mine area. Also, during mining of the adjacent
  to the forest boundary advanced technology should be used for blasting to
  minimize the vibrations.

In view of the above, it is submitted that the proposal may be considered with proper mitigations and safeguards.

(Sujoy Dutta)

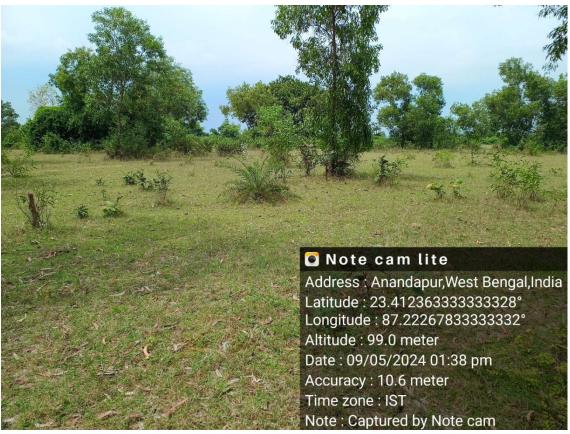
Assistant Commissioner (F)

#### Pictures of the forest land proposed for diversion:





#### Pictures of the proposed CA land:



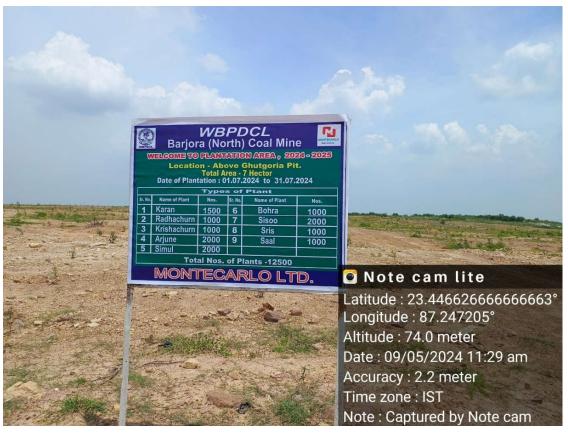




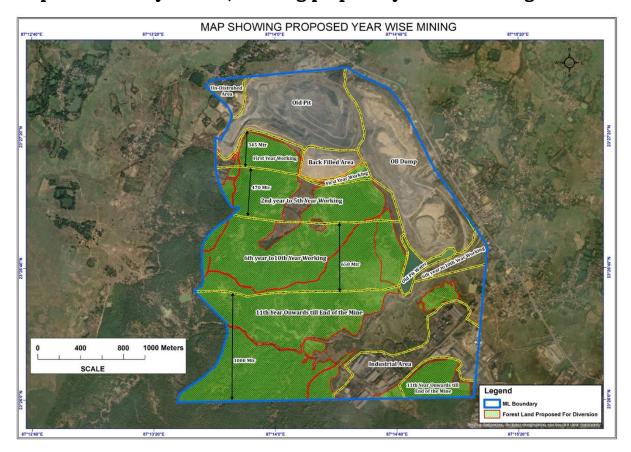
Pictures of the bio-reclamation of the present mining operation in nonforest land:







## Map submitted by the UA, showing proposed year wise mining:



Google image map showing Forest cover of Barjora Range along with Forest Land Proposed for Diversion (338.74 Ha) and CA Land (non forest land) adjacent to Forest Land

