

SITE INSPECTION REPORT OF SHRI LAKHWINDER SINGH, APCCF (CENTRAL), BHUBANESWAR IN RESPECT OF DIVERSION OF 509.33 HA OF CHAKLA COAL BLOCK IN LATEHAR FOREST DIVISION, JHARKHAND.

The site inspection of the above project was carried out by me on 31st January, 2014 along with Shri PK Jha, Conservator of Forests, Ms Mamta Priyadarshi, DFO Latehar, field staff and representatives from ESSAR, the user agency. As it was informed that naxals are active in this forest land proposed to be diverted for non-forest use, security personnel were also accompanying us during the visit to the site. We were also advised not to venture deep into the forest area on foot as that could prove risky. So our perambulation of the forest areas was limited to comparatively open forest areas in the northern parts of the Chakla coal block. These areas had been planted with exotic species such as Eucalyptus and Acacia in open spaces.

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

As reported by the DFO, Latehar Forest Division, the legal status of the forest land is as follows:

Protected Forest – 401.78 ha
 Deemed Forest - 107.55 ha
 509.33 ha

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

As reported by the User agency, the purpose-wise break-up of the total land required is as follows:

Sl. No.	Particulars	Notified Forest (In Ha)	G.M .land (In Ha)				Total of all types of lands within M.L. Area (sum of 3 +7)	Total Divertible (forest / deemed forest) area lying in M.L. Area in Hectares(3+4)
			Deemed Forest in G.M.land	G.M.Khas with no jungle - Jhari	G.M. Aam with no jungle - Jhari	Cultivated Agricultural Raiyati + Bakast Land (In Ha)with no jungle- jhari		
1	2	3	4	5	6	7	8	9
i)	Mining	338.46	50.03	20.04	4.44	113.64	526.61	388.49
ii)	O.B Dump & Top-	Nil	8.64	16.98	1.24	87.89	114.75	8.64

	soil storage							
iii)	Roads	1.07	2.66	2.24	0.98	4.07	11.02	3.73
iv)	Labour Shed, Project Office & Other Infrastructure	0.00	0.00	1.52	0.00	3.19	4.71	0.00
	Eco-Park Green belt	8.75	0.00	0.00	0.00	0.00	8.75	8.75
	Workshop	0.00	0.00	0.34	0.21	2.66	3.21	0.00
	Dispensary,	0.00	0.00	0.00	0.00	1.38	1.38	0.00
	Coal Handling Plant(CHP)	0.00	0.00	0.00	0.46	3.36	3.82	0.00
v)	Nala Diversion Alignment Course	0.81	1.44	0.39	0.00	1.22	3.86	2.25
vi)	Forest area not to be mined, but included in FDP as per guidelines for diversion of forest land vide F.No. 11-362/2012, dated 01.02.2013	47.16	43.72	--	--	--	90.88	90.88
Sub-total (A)		396.25	106.49	41.51	7.33	217.41	768.99	502.74
Safety Zone Area(B)		5.53	1.06	--	--	--	6.59	6.59
Area Left Unused(C)		--	--	27.57	3.52	50.32	81.41	
Total (A+B+C)		401.78	107.55	69.08	10.85	267.73	856.99	
Total divertible Forest land (A+B)								509.33
Total Mining Lease Area (A+B)							856.99	
Total area to be diverted for non-forestry use:								
A) From Notified forest- 396.25 + 5.53(safety zone)						= 401.78 Ha		
B) From Deemed forest in GM Land- 106.49 + 1.06 (safety zone)						= 107.55 Ha		

						Total =509.33 Ha		



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

As reported at Point No. 2 above.

4. Total cost of the project at present rates:

As reported by the User agency, the total cost of the project is Rs. 650 Crore.

5. Wildlife:

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

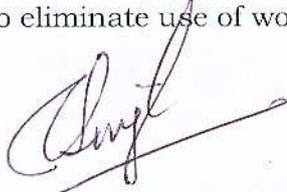
It is reported by the DFO, Latehar Forest division, that the faunal species like Wolf (*Canis lepus Pallipes*), Jackal (*Canis aureus*), Wild boar (*Sus scrofa*), Hyaena (*Hyaena hyaena*), Rabbit (*Lepus nigricolis*), Mongoose (*Herperstes ewardsi*), Common Langur (*Presbytis entellus*), Pangolin (*Manis Crassicaudata*), Barking Deer (*Muntiacus muntjak*), Wild Cat (*Felis Chaus*), Porcupines (*Hystrix indica*), Python (*Python molurus*), Cobra (*Naja naja*), Krait (*Bungrus spp*), Viper (*Vipera ruselli*), Ratsnake (*Ptyas mucosus*) are found in the region. Besides birds like Common owl (*Bubo spp*), Common fruit bat, Dove (*Columbidae*), Mountain quail (*Ophrysia superciliosa*), Cuckoo (*cuculidae spp*), Owls (*Strigidae spp*), are also found in the region.

Obviously, this diversity of fauna needs to be conserved. As the coal blocks are allocated in the series, the entire stretch of forest involved is under stress. Therefore, there is a need to have a comprehensive wildlife conservation plan at the cost of the user agencies involved that will take care of not only this coal block but also the other coal blocks and other mining activities in the area so that adverse impact of mining in the region could be minimized. This wildlife conservation plan is to be duly approved by the state government and implemented.

A wildlife conservation plan has been prepared to mitigate at the common threats to wild life notice in this area so that along with mining and power project activity, wildlife can also take shelter in the adjoining forest areas and tranquility of their habitat.

Important measure to mitigate threats to wild life including following :-

- To improve the forest cover in the nearest forest area to create suitable condition for wildlife habitat.
- To improve the crop density in the ground as well as middle canopy wherever found deficient by introducing afforestation of locally available species.
- Take soil and moisture conservation measures both in the project area as well as in the nearby forest area.
- To prevent forest fire through different measures including cutting of fire lines, elimination of fire hazard by deploying fireguards etc that in turn will create condition for the ground flora to grow.
- Vaccination to cattle to prevent spread of communicable diseases to the wildlife.
- All housing facilities should be supplied with L.P.G. or power for cooking and meeting other needs to eliminate use of wood.



6. Vegetation:

As reported by the DFO, Latehar Forest Division, the density of the vegetation is 04. We walked up to a sample plot taken for assessment of density of the area. It was informed that five such sample plots have been taken so assess the forest density. As we walked through the protected forest area it was seen that Eucalyptus and Acacia had been planted here in the open spaces in the past. As we walked towards the southern parts of the forest area, it could be seen that the density of vegetation is more. Even the google map indicates that the density of vegetation is thicker in the south eastern parts of the coal block. The field officers could not convincingly convey as to how the sites for the sample plots were selected and how these sample plots were representative of the entire protected forest land proposed for diversion. Even the Conservator of Forests had serious doubts about the methodology for arriving at the density. I am therefore of the opinion that there is a need to reassess the density of the vegetation. The CF informed that he could ensure that such an exercise could be completed the earliest possible if required.

(a) **Total number of trees to be felled.**

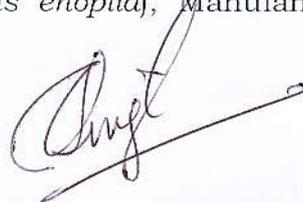
As reported by the PCCF, Jharkhand, a total number of 192882 no. of trees have been enumerated in the said area. It is suggested that even though this huge number of trees have been marked for felling, only those trees should be felled which are absolutely required for mining purposes.

Effect of removal of trees on the general ecosystem in the area:

Even though the number of trees to be removed is very large, the entire tree growth is not proposed to be felled in one go. Instead the tree growth is proposed to be removed in a phased manner. The user agency has estimated that in the first five years about 133 ha of forest land will be worked and about 40000 trees will be removed. From the year 6 to 10 190 ha of forest land will be mined and about 76000 trees will be removed. So also from 11 to 17 years about 200 ha of forest land will be mined and about 77000 number of trees will be removed. It is suggested that the user agency should ensure that as soon as the part of the forest area is mined completely, it is planted with local indigenous species before the new area is taken up for removal of trees for mining purposes. No tree felling should be resorted to in the area in advance. These measures will definitely help minimise the adverse impacts on the ecosystem due to loss of tree growth.

(b) **Important species:**

As reported by the DFO, Latehar Forest Division, the floral species like Sal (*Shorea robusta*), Asan (*Terminalia tomentosa*), Piar (*Bucknania lanjan*), Sidha (*Lagerstroemia parviflora*), Dhaw (*Anogeissus latifolia*), Palas (*Butea monosperma*), Kendu (*Diospyros melanoxylon*), Bhelwa (*Semicarpus anacardium*), Salai (*Baswellia serreta*), Ginjan (*Lanea grandis*), Khair (*Acaqa catechu*), Amaltas (*Cassia fistula*), Aunla (*Emblica officinallis*), Chilbil (*Holoptelia integrefolia*), Harre (*Terminalia chebula*), Mahua (*Madhuca latifolia*), Putri (*Croton oblongifolius*), Manphal (*Randia dumetorum*), Koreya (*Holorrhina antidysentrica*), Karunda (*Carissa carandus*), Marorphal (*Helectrus isora*), *Chlorodendron infortunatum*, Phuldhobai (*Woodfodia floribunda*), Kalmegh (*Swartia chiraita*), Satawar (*Asparagus recemosus*), Chakor (*Cassia tora*), Dithor (*Zizyphus enoplia*), Mahulan (*Bauhinia vahlii*), Ramdatun



(*Smilax macrophylla*), Karjani (*Abrus precatorius*), Choranth (*Heteropogon contortus*), Dub (*Cynodon dactylon*), Jharu (*Thysanolaena agrostis*) are found the region.

Number of trees of girth below 60 cm.

The number of trees of GBH below 60 cm is 174930.

Number of trees of girth above 60 cm

The number of trees of GBH above 60 cm is 17952.

7. Background note on the proposal:

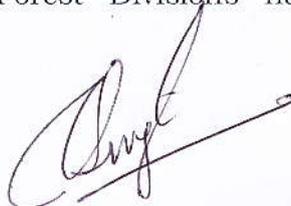
As reported by the User agency, M/s Essar Power (Jharkhand) Limited is a fully owned subsidiary company of M/s ESSAR POWER LIMITED, Essar House, 11, K.K.Marg, Mahalaxmi, Mumbai 400034. M/s. Essar Power Ltd. - the company has been allotted CHAKLA COAL BLOCK in C.C.L command area by the Ministry of Coal (Government of India) vide letter number – 38011/11/2006-CA-I (Part) dated 20-02-2007 to meet the captive requirement of the proposed Thermal Power Plant namely Tori Thermal Power Plant at Tori in District Latehar, Jharkhand. The proposed capacity of Power Plant is 1200 MW. The Coal Block covers an area of about 856.99 hectares having 711.40 Lakh tonnes of mineable reserve of coal (mostly F & G grades). The CHAKLA COAL BLOCK is a part of South Dhadhu Block in the western part of the North Karanpura Coalfield of Central Coalfield limited. It is bounded by Latitude 23°43'03" to 23°44'55" N & Longitude 84°47'23" E to 84°50'18" E in Topo sheet no.-73 A/14 of Survey of India. The village falling inside the allotted coal Block is Chakla (Thana: Chandwa-238), whereas villages around it are Amwatanr, Haraiyatoli, Purunapani, Dhadhu, Nawatoli and Mahuatanr. The rated capacity of mining from the allotted coal block is 4.5 million (45 Lakh) tonnes per annum considering the total requirement of coal for the proposed Power Plant of 1200 MW at Tori by Essar Power (Jharkhand) Limited in the Dist. Latehar. The total coal produced from the allotted coal block is basket linked to meet the requirement of the proposed Power Plant at Tori. Therefore, the diversion of forest land as demanded in the proposal within the allocated area bears reasonable justification. The Coal Block is situated in Chandwa Forest Range of Latehar Forest Division (Jharkhand).

8. Compensatory afforestation:

As reported by the DFO, Latehar Forest Division, the user agency has submitted list of 11 villages comprising 1262.70 acres or 511.00 ha of non-forest land for C.A. work which is outside of Latehar district. Details of non-forest land, where C.A. is proposed, submitted by the User agency is attached as **Annexure I**.

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

The Divisional Forest Officers, Garhwa (South), Garhwa (North), Daltonganj (North), Koderma, Palamu, Bokaro Forest Divisions have issued the land suitability certificates (**Annexure II**).



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

The Circle Officers, Garhwa, Ranka, Ramna, Chattarpur, Markachho, Chainpur, Bokaro have submitted the non-encumbrance Certificates (**Annexure III**).

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

No.

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

It is reported that there are 62 patches in 11 villages and all the patches are compact.

(e) Map with details:

Enclosed with the proposal.

(f) Total financial outlay:

As reported by the DFO, Latehar Forest Division, the total financial outlay for C.A. scheme is Rs. 60248390.19 in ten years.

9. Whether proposal involves violation of Forest (Conservation) Act, 1980 or not. If yes, a detailed report on violation including action taken against the concerned officials:

As reported by the DFO, Latehar Forest Division, there is no violation of Forest (Conservation) Act, 1980.

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

As reported by the User agency, the total nos. of Project Affected Families is 211 (beyond forest area), out of which 104 are SC families and 07 ST families. It is also reported that the relevant R&R scheme has been prepared based on State Government R&R Policy.

11. Reclamation plan:

During the site inspection it was informed by the representatives of the User Agency that a Reclamation Plan has been prepared and got duly approved by the Ministry of Coal.

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

Not applicable.

Catchment area treatment plan to prevent siltation of reservoir:

Not applicable.



13. Cost benefit ratio:

As reported by the User agency, the cost benefit ratio is 1 : 17.92.

14. Recommendations of Additional Principal Chief Conservator of Forests (Central) along with detailed reasons:

Appended separately.

15. Utility of the project:

As reported by the User agency, the project is likely to generate employment for more than 3000 persons directly and indirectly.

Numbers of Scheduled Caste/Scheduled Tribes to be benefited by the project:

Not reported.

16.

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

No.

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

No.

(c) Whether the land under diversion forms part of any unique eco-system:

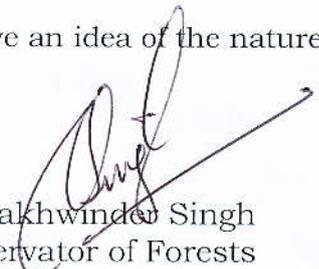
No.

17. Situation with respect to any Protected Area:

As reported by the DFO, Latehar Forest Division, the nearest distance of proposed Chakla Coal Block from Palamu Tiger Reserve is 40 kms. It is also reported that there is a need to prepare an exhaustive wildlife management plan to protect & nurture existing wildlife.

18. Any other information relating to the project:

Some pictures taken during the site visit are enclosed to have an idea of the nature of the terrain and the vegetation in the area.

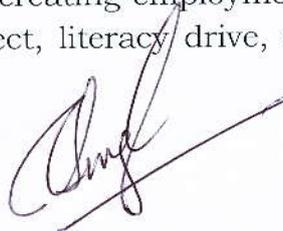

Lakhwinder Singh
Addl. Prl. Chief Conservator of Forests

Recommendations of Additional Principal Chief Conservator of Forests (Central), Bhubaneswar along with detailed reasons:

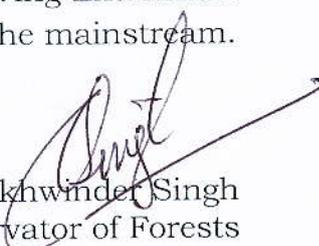
The site is located about 40 kms away from the nearest protected area i.e. Palamu Tiger Reserve. Provisions of FRA have been complied with. DGPS map has been provided by the User agency. The mining project is site specific; hence alternative alignment is not possible. Non-forest land has been identified and found suitable for Compensatory afforestation by the State Forest Department.

The proposal is recommended for approval subject to the following:

1. Density of the forest under the control of the forest department will be reassessed.
2. A comprehensive wildlife conservation plan will be implemented at the cost of the user agency.
3. Tree growth will be removed in a phased manner as suggested by the user agency. The user agency should ensure that as soon as one part of the forest area is mined completely, it is planted with local indigenous species before the new area is taken up for removal of trees for mining purposes. No tree felling should be resorted to in the area in advance.
4. Transport of materials from the mine should be through closed conveyor system up to the railway siding and from there by train so that there is little disturbance on the road and ancillary problems like congestion, dust pollution, inconvenience to local population, etc. is minimized. The trucks which may be used within the mines should be covered with tarpaulin.
5. The user agency should prepare a long term reclamation plan so that at the end of the mining lease, the reclaimed land is put to optimum productivity in terms of agriculture, horticulture, afforestation, pisciculture etc.
6. The coal mines invariably leave a water body which can be used for drinking water and irrigation purposes.
7. The user agency should keep topsoil separate from overburden and sub-soil to ensure that so that the same are put back to main the productivity of the soil.
8. CSR activities: The user agency should implement a corporate plan for the overall development of the people in the vicinity like providing quality education, skill development, creating employment opportunities & health care facilities. Sanitation aspect, literacy drive, etc. should also be taken



care of by them. The user agency should also support the economically backward students in their education in terms of providing study materials and stipends. The user agency should develop an integrated system of health and education including the promotion of traditional healing system and promote agriculture production by providing technical support and creating revolving fund to provide bridge capital during sowing season at a very low interest. Successful implementation of the CSR activities is also important because the Latehar areas are affected by Left Wing Extremism and all efforts should be made to win these people back to the mainstream.


Lakhwinder Singh
Addl. Pri Chief Conservator of Forests

Annexure I

Summary of Land provided for Compensatory Afforestation

o	Village	Khata No	Plot Nos.	Area (Acres)	NOC Status	Afforestation Scheme
1	Baligarh (Garhwa South)	14, 3, 11/2, 14/19,	218,210,224,230,230/6,140,146,154,96,75,210/1,106,107,140,141,155,55/283,62/222,225/409,114,138,97,107,155,145,144,141,141/375,141/379,72,111,113,145,142	132.83	Yes	Yes
2	Gobardaha (Garhwa South)	30	14,16,17,21,23,214,219,220,221,210,213	119.5	Yes	Yes
3	Chanakala (Garhwa North)	3, 16, 33, 1, 17, 58, 82, 74, 2, 82, 7, 10,	620,648,649,650,658,659,675,677,672,679,682,684,658,688,690,652,665,636,639,691,647,657,625,624,623,686,671,678,673,683,681,622,625,624,623,632,670,687,674,676,680,662,693,625,650,655,663,694,698,680,660,627,661,631,632,633,634,640,646,642,637,638,648,645, 628	132.38	Yes	Yes
	Atiari (Garhwa North)		17,18,22,24,26,51,57,81/312,89,126,129,142,211,227,228,231,25,236,244,248,252,253,255,99/270,231/271,168/272,167/282,167/283,168/284,169/288,144,148,156/321,163,170,174,77,179,180,182,183,161/273,273/301,42,116,159,168,169,160,141,146,154,155,158,172,168/285,169/287,160/305,152,143,175		Yes	Yes
4	Korga (Garhwa North)	31	608.605,604,602,608,602,608	104	Yes	Yes
5	Teliadih(Palamu, medininager Forest)	7, 20,	447,441,536	162.16	Yes	Yes
6	Banderchoukawa (Koderma)	4	180-179	201.54	Yes	Yes
7	Pachlewa (Garhwa South)	51,30,4 7,41,1,2	415,416,513,412,408,645,622/A, 629,208,654/A,137/A,64, 423, 404,403,407,424,399,407,402,406,65,71,141,409,418,419,420, 411,396,23,	70.18	Yes	Yes
8	Chainpur (Bokaro)	76	955, 1061	269	Yes	yes
9	Puregarha (Garhwa South)	1	154, 155	35.59	Yes	Yes
10	Anhar (Garhwa South)	29	287, 288, 291, 292, 293, 296, 315, 303, 300, 284	35.52	Yes	Yes
Total				1262.7 Acres		511.2 Ha

