

## **SITE INSPECTION REPORT IN RESPECT OF DIVERSION OF 226.67 HA OF FOREST LANDS FOR KARO OCP OF CCL.**

This has reference to the letter no.8-25/2009-FC dated 28<sup>th</sup> December, 2015 of MoEF & CC. This proposal was discussed in the Forest Advisory Committee (FAC) meeting held on 24<sup>th</sup>, November, 2015 wherein FAC has observed that variation about the number of trees in the two reports of the state Government about the number of trees is not understandable. Accordingly FAC has desired that a fresh site inspection be carried out by Regional Office, Ranchi, which will also give current status of vegetation in the area proposed for diversion and CA sites. Accordingly this office had requested the State Govt to provide following information for conducting site inspection vide letter of even number dated 7<sup>th</sup> January, 2016, which is still awaited from state Govt.

- The DGPS co-ordinates of the proposed site and the CA area in shape files.
- The compliance of the conditions stipulated in approval earlier granted vide F. No.8-22/2003-FC dated 31.3.2004 for the diversion of 77.74 ha of forest land.
- The details about the service area component of the purpose wise breakup of the forest land.
- The compliance of relevant provisions of the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 to be provided.

However, the User agency has provided some details directly to this office and accordingly site inspection has been conducted on 08.03.1016 in the presence of Sri UmaKanta Ram, ACF, Bokaro Forest Division, the user agency represented by Sri L.K.Maha patra, Project Officer Karo, Sri S.P. Sarang, Staff Officer, Sri Mukesh kumar, Dy GM, Sri R.R Nayak, Survey Officer were also present.

### **Details of Site Inspection are as under:**

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

Legal status of 226.67 ha forest land is protected forest

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

Sl. No.	particulars	Forest land in Ha	Non forest Land in Ha	Total land in Ha
1.	Quarry	187.091	110.973	298.064
2.	External OB Dump	29.799	64.969	94.768
3.	Haul Road	8.68	1.92	10.60
4.	CHP	10.62	2.636	13.256
5.	Sub station	1.506	0.134	1.64
6.	Workshop-I Excavation	4.505	1.115	5.62
7.	Service area	61.895	19.689	81.584
8.	Safety Zone	15.61	29.71	45.32
9.	Sub total	319.706	231.146	550.852

10.	Less forest in Safety Zone	(-) 15.61	0.00	(-)15.61
	Total	304.096	231.146	535.242
	Already released under FC Act	77.43		
	Forest land for diversion	226.67		

The UA gave the details of service area

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

Not reported.

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

Rs.115.7572 crores.

**5. Wildlife:**

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

The area, in view of forests around and also ruggedness, appears to be a good habitat for lower vertebrates and reptiles.

**6. Vegetation:**

On ocular estimation the density of Vegetation seems to be **0.4** and above.

The topography of the entire block is rugged, and pronounced with hills, and small valleys. The elevation may vary from 335 meter in the north to a minimum 236 m in the south. In this project, the forest and non forest lands are located side by side and on the non forest land mostly cultivation is taking place.

The forest appears to be moderately dense and much thicker in the northern side. The vegetation includes mixed species such as, sal, mahua, asna, palas(Butea),bauhinia etc. Towards the southern part the forest land is denuded to some extent with a few trees cut at stump height. There are also small grass lands and open lands.

On the hill range the forest is thicker towards the northern side from the western side, whereas the bigger Sal, Mahua trees appear more commonly on the slopes. However the forest is not pure patch of Sal. Mostly Piar(chironji) and Kendu occur in association with Sal in the upper storey along with Mahua. In the middle storey the trees are mainly Khair, Piar(chironji), Dhatki, Koreya, Kendu etc.

In the forest, there are many small nallahs which discharge the water finally to the Damodar river system.

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

As per records only 86,412 trees are to be felled, which is still on the higher side and probability of soil erosion is likely increase following felling on the undulating topography of the applied area. Out of these trees those above 60 cm girth are 7374 while number of trees below 60 cm girth number are 79038.

The state Government had informed vide letter No.3/Van Bhumi-02/2009/4221/Va.Pa. dated 6/8/2015 that 86,412 trees have been found by direct enumeration in place of 1,30,000 trees reported earlier on the basis of sample enumeration. During inspection enumeration marking was seen on some trees. (Photos enclosed)

Species wise list of trees reported is as under:

S. No.	Tree Name	Numbers	0 to 29 cm	30 to 59 cm	60 to 89 cm	90 to 119 cm	120 Cm & Above
1	Aam	16	1	4	7	4	
2	Ailsa	2		2			
3	Aitha	19	15	3	1		
4	Arar	6	3	2	1		
5	Asan	247	85	142	18	2	
6	Awla	21	8	11	1	1	
7	Bandarloor	921	416	463	41	1	
8	Bargad	13		7	4	1	1
9	Behra	7	2	3	1		1
10	Bel	681	198	403	73	7	
11	Bair	190	83	100	4	1	2
12	Bhelwa	3464	913	2310	221	15	5
13	Bhurkund	2		1	1		
14	Bhursa	16	9	7			
15	Bhutta	1	1				
16	Buch	30	16	14			
17	Chaili	14	5	9			
18	Churchur	897	514	357	26		
19	Dhela	1	1				
20	Dhoya	1401	460	760	168	13	
21	Dhundi	3	2			1	
22	Doka	3980	1325	2419	222	11	3
23	Dumar	18	2	12	4		
24	Gamhar	5	1	3		1	
25	Garnim	25	2	16	7		
26	Ghuith	3	3				
27	Gudra	1	1				
28	Gullar	100	39	57	2	1	1
29	Gulmohar	2	2				
30	Gurhi	11	6	5			
31	Gurhikaram	2	2				

32	Harre	25	9	15	1		
33	Jamun	142	27	70	30	11	4
34	Jharya	1	1				
35	Jogiya	10	3	6	1		
36	Kaaj	45	13	23	7	2	
37	Kamail	1	1				
38	Karam	268	66	167	25	10	
39	Karang	82	21	46	11	4	
40	Kari	1411	605	784	19	3	
41	Kathal	4	3		1		
42	Kathmohli	1		1			
43	Kend	9964	3628	5834	440		22
44	Kheir	80	25	55			
45	Khemal	1			1		
46	Karah	7		4	3		
47	Konar	15	1	7	5	2	
48	Koraiya	2578	1379	1116	79	2	2
49	Kusum	1064	341	634	77	8	4
50	Mahua	1054	170	553	168	77	86
51	Makarkend	602	217	364	21		
52	Mayuri	4	3	1			
53	Neem	467	107	309	48	2	1
54	Paker	118	30	68	9	5	6
55	Palas	2648	746	1589	280	27	6
56	Paldhi	150	38	92	14	5	1
57	Paser	61	35	25	1		
58	Peepal	42	13	19	6		4
59	Piranji	1254	332	722	164	32	4
60	Piyar	10368	3729	6211	397	24	7
61	Puttar	1074	618	439	16	1	
62	Raipan	3842	1459	1987	373	19	4
63	Ratangudra	13	12	1			
64	Sakhua	18018	4260	11034	2303	322	99
65	Sallga	77	11	55	11		
66	Sanodh	1	1				
67	Saran	1			1		
68	Shikarbans	1	1				
69	Sidha	12638	5199	6831	552	50	6
70	Simar	189	31	93	48	16	1
71	Siris	59	13	38	7		1
72	Sisam	22	2	15	7		
73	Sisha	2	1			1	
74	Vivid prajati	5909	2598	2856	394	49	12
	<b>Total</b>	<b>86412</b>	<b>29864</b>	<b>49174</b>	<b>6320</b>	<b>771</b>	<b>283</b>

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

The forest seems to be moderately dense and forms a good ecosystem that supports wild flora and fauna, the removal of trees will definitely show adverse impact on them.

#### (b) Important species:

Sal, Mahua, Pipal, Bargad, Harre, Khair, Jamun, Bel, Chiraunji, Karam, Semal, Sidha, Gular, Koraiya, Salai, Kusum, Babul, Siris, Piyar, Neem, Kend, etc.

#### Number of trees of girth below 60 cm.

79038 nos. of trees girth below 60 cm.

#### Number of trees of girth above 60 cm.

7374 nos. of trees girth above 60 cm.

### 7. Compensatory afforestation:

In the original proposal the user agency had identified CA land of 480 ha in four patches as under:

Govindpur PF	50 Ha
Kanjkiro PF	250 Ha
Penk PF	150 Ha
Budgadda PF	30 Ha
<b>Total</b>	<b>480 Ha</b>

Now as per the details given by the user agency new alternate CA land of total 652 Ha has been identified in 10 patches. Details of the CA land along with DGPS maps in shape files were received in this office. During the inspection it is observed that some agricultural fields were seen on the CA and the same was also ascertained through DSS which clearly shows agricultural fields on the proposed CA land.

However, it is evident from DSS that one patch of CA land i.e. Baidkaro- 01 with area 80.18 ha is falling on the mine workable area.

Revised CA land details identified by the project proponents are as under:(As per DSS)

Compensatory Afforestation Land details		
Sl No.	Name	Area (ha)
1	Mungo-05	56.038633
2	Mungo-04A	102.372812

3	Mungo-03	108.074507
4	Mungo-02	39.241327
5	Mungo-01	52.859475
6	Kanjkiro-02C	20.386833
7	Kanjkiro-02B	2.912071
8	Kanjkiro-02A	54.114113
9	Kanjkiro-01	94.87008
10	Govindpur-01	41.942583
11	Baidkaro-01	80.182753
<b>Total Area (ha)</b>		<b>652.995187</b>

**In this regard it is stated that no formal communication has been received from the State Government.**

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

User agency informed that the land for CA has been changed. However, Land suitability certificate of the DFO and CA scheme along with 10 year maintenance for the proposed new CA land has not been submitted by the user agency/state Govt.

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

As per records encroachment has not been reported.

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

Not given.

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

In revised CA scheme compensatory afforestation is proposed in eleven patches.

**(e) Map with details:**

Not received.

**(f) Total financial outlay:**

Financial outlay as per new CA land identified is yet to be submitted by the user agency.

**8. 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:**

Not reported.

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

160 nos. of family are displaced. Rehabilitation plan has been enclosed in the proposal.

**10. Reclamation plan:**

The UA has submitted the reclamation map & plan (enclosed). As per the submitted map external dumping will start from end of 7<sup>th</sup> year and will continue up to end of 21<sup>st</sup> year. The internal dumping will start from the end of 21<sup>st</sup> year and will continue up to end of 35<sup>th</sup> year.

**Details and financial allocation:**

Records not available.

**11. Details on catchment and command area under the project:**

Not applicable.

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

Not applicable.

**12. Cost benefit ratio:**

Cost benefit ratio is 1:8.84

**13. Recommendations of the Principal Chief Conservator of Forest/State Government:**

The PCCF has recommended the proposal.

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

Annexed separately.

**15. Dy. Conservator of Forests shall give detailed comments on whether there are any alternative routes/alignment for locating the project on the non-forest land:**

Coal mining is a site specific activity.

**16. Utility of the project:**

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

270 nos. employments will be generated for which direct beneficiaries will be 1500 and indirect beneficiaries will be 4500. The total man days employed will be around 4700.

**17. Situation with respect to any Protected Area:**

Hazaribag wildlife sanctuary is around 80 km from the proposed diversion site.

**18. Any other information to the project/observations:**

During the inspection it is observed that a number of mines already exist in the area and large amount of OB has been generated and has been stored on different lands. Presently the UA is asking for further forest area for OB dumping for the proposed Karo project. The user agency should explore the possibility of dumping the OB in exhausted voids, or in new voids in other nearby mines so that some forest land can be conserved.

During the inspection no boundary pillars were seen and user agency was advised to undertake demarcation of the area proposed for diversion by erecting 6 feet RCC pillars embedded two feet inside the soil and four feet above the ground with serial number, forward and backward bearings.

Forest area marked as safety zone should be properly demarcated and the same to be afforested at project cost. In no circumstances the area marked as safety zone shall be utilized for any other purposes.

Keeping in view of the density of the forest and since large number of trees are involved in felling the user agency may explore the possibility of underground mining which is less detrimental to the existing flora and fauna.

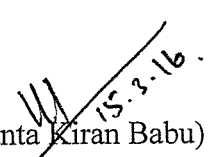
  
(Vasanta Kiran Babu)  
Dy. Conservator of Forests (Central)





Fig. (a) Area proposed for diversion.



Fig.(b) Area proposed for diversion.



Fig.(c) marking on the tree as a result of enumeration.



Fig.(d) CA land identified for raising plantations.(Govindpur-01)

**RECOMMENDATIONS OF ADDL PRINCIPAL CHIEF CONSERVATOR OF FORESTS**  
**(CENTRAL)**

The instant proposal is for diversion of 266.67 ha of forest land for KARO OCP of M/s Central Coalfield Ltd. in Bokaro District of Jharkhand.

This proposal was discussed in the Forest Advisory Committee (FAC) meeting held on 24<sup>th</sup>, November, 2015. The FAC observed that variation about the number of trees in the two reports of the state Government about the number of trees is not understandable and FAC desired that a fresh site inspection be carried out by the Regional Office, Ranchi which will also give current status of vegetation in the area proposed for diversion and CA sites. Accordingly, this office requested the State Govt to provide following information for conducting site inspection vide letter of even number dated 7<sup>th</sup> January, 2016.

1. The DGPS co-ordinates of the proposed site and the CA area in shape files.
2. The compliance of the conditions stipulated in approval earlier granted vide F. No.8-22/2003-FC dated 31.3.2004 for the diversion of 77.74 ha of forest land.
3. The details about the service area component of the purpose wise breakup of the forest land.
4. The compliance of relevant provisions of the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 to be provided.

The reply of the state Government has not been received so far. However, the User agency provided some details directly to this office and accordingly site inspection has been carried out by the DCF on 08.03.1016.

On perusal of records and Site Inspection Report of DCF the following observations are made:

- The item-wise break-up of the land required in this project is as follows:

Sl. No.	Particulars	Forest land in Ha	Non forest Land in Ha	Total land in Ha
1.	Quarry	187.091	110.973	298.064
2.	External OB Dump	29.799	64.969	94.768
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	Total	304.096	231.146	535.242

	Already released under FC Act	77.43		
	Forest land for diversion	226.67		

- The density of Vegetation of the forestland proposed for diversion seems to be **0.4 and above**. The forest appears to be moderately dense and much thicker in the northern side. Southern part the forest the land is denuded to some extent with a few trees cut at stump height. Overall the forest area involved seems to be moderately dense and forms a good ecosystem that supports wild flora and fauna. The removal of trees will definitely show adverse impact on them.

As per report of the State Government 86,412 **trees are to be felled. This figure is quiet large in number** and the probability of soil erosion is likely to increase on account of undulating topography of the area. Out of these **trees those above 60 cm girth are 7374 while the number of trees below 60 cm girth is 79038**. State Government had informed vide letter no. 4221 dated 6/8/2015 that 86,412 trees have been found by direct enumeration in place of 1,30,000 trees reported earlier on the basis of sample enumeration. During inspection enumeration marking was seen on some trees.

- The Cost benefit ratio is 1:8.84, which is very less.
- In the original proposal, the user agency had identified CA land of 480 ha in four patches. Now it is reported by the user agency that it has identified alternate CA land of total 652 Ha in 10 patches. Details of the CA land along with DGPS maps in shape files were received in this office from the user agency. However, no formal communication has been received from the State Government regarding change of CA land. Some agricultural fields were seen on the CA land and the same was also ascertained through DSS, which clearly shows agricultural fields on the proposed CA land.
- Since a number of mines already exist in the area, a large amount of OB has been generated and has been stored on different lands. Presently the user agency is asking for further forest area for OB dumping for the proposed Karo project. The user agency should explore the possibility of dumping the OB in exhausted voids, or in new voids in other nearby mines so that some forest land can be conserved.
- No boundary pillars were seen during site inspection and user agency was advised to undertake demarcation of the area proposed for diversion by erecting 6 feet RCC pillars embedded two feet inside the soil and four feet above the ground with serial number, forward and backward bearings.

Keeping in view the density and quality of the forest land proposed for diversion, which involves felling of a large number of trees, the user agency may explore the possibility of underground mining or reducing the requirement of forest area. The view of the DCF may be perused and issues raised by him may be considered. The FAC may take a view in the light of above stated facts.

ANSHARAN  
15.3.2016

(A.N.Sharan)

Addl. Principal Chief Conservator of Forests(C)

