

Subject: Proposal for diversion of 226.67 hectares of forest land for Karo OCP in favour of M/s. Central Coal Fields Limited (CCL) in Bokaro district of Jharkhand.

1. The **FAC in its meeting held on 15.06.2017** considered the submissions made by the Government of Jharkhand Department of Environment Forest and Climate Change vide letter No. 3/Vanbhoomi-2/2009/1316/VP dated 24.03.2017 along with its annexures.
2. The FAC also observed that the proposal had been considered first by the FAC in its meeting on 20th August, 2009
3. The observations of the CCF (Central) as below were considered by the Committee in the meeting on 20th August 2009.
 - a) The user agency is asking for 29.799 (forest) + 64.969 (non-forest) = 94.768 ha of land for external OB dump which appears to be a large area. The user agency should plan in such a fashion that the internal dumping starts early which will reduce the actual OB dump area. The mining plan should be modified in that line. The external OB dump should be limited to the non-forest area alone. The user agency also should explore the possibility of dumping the OB from the proposed mine in the already existing voids or voids being created due to mining in other adjacent mines of the user agency.
 - b) The Karo OCP is located in the East Bakaro coal fields, where a number of mines of CCL are under operation. Due to the mining the area has been denuded causing environmental problems like dust pollution, damage of trees, etc., which need immediate attention. The user agency should plan for taking up plantation in all the available areas in the East Bokaro coalfields of CCL. The plantation should be done by the CCL under the supervision and advice of the Forest Department. Instead of sectoral green planning, the CCL should go for integrated green planning including soil and moisture conservation measures for the East Bokaro coal fields.
 - c) The voids available locally within the CCL should be identified and earmarked for deposition of ash generated from the nearby Bokaro TPS.
 - d) The user agency should give an undertaking to contribute proportionately for the regional wildlife management plan which is under preparation.
4. Subsequently then Committee desired that following information be sought from the State Govt and be placed before next FAC:-
 - i. The details of total area, including forest land, leased to the M/s.CCL with total mineable reserve.
 - ii. The total number of Open cast and underground mines, approved and active, with annual production and utilization of coal from each of them.
 - iii. The time required for de-mining of the existing mines and their reclamation as per existing progressive mine closure plans.
 - iv. The additional requirement of forest area as per long term future expansion plan keeping in view the demand and supply.
 - v. The working plan prescription for the area in question.
5. The above recommendations of the FAC were conveyed to the State Government vide Ministry's letter of even number dated 24.09.2009. The State Government vide their letter No.3/Vanbhumi-2/2009/3354 dated 23.10.2009, submitted the information as under:
 - i. With respect to query no.(i), the User Agency through the State Government has submitted that there are 58 projects involving 21,700 ha area including 4060.95 ha forest area with 1475 MT mineable reserves.
 - ii. With respect to query no.(ii), the User Agency through the State Government has submitted that there are 37 OCP and 21 UG projects.
 - iii. With respect to query no.(iii), the User Agency has submitted the details.

iv. With respect to query no.(iii), the User Agency had submitted the following:

Future Projects	:	2546.91 ha
Expansion Projects	:	1462.41 ha
New Projects	:	<u>1512.15 ha</u>
Total	:	5521.47 ha

The demand and supply position was also given.

v. The Working Plan prescription was also submitted.

6. The proposal along with the additional information submitted by the State Government, was again considered by the **FAC in its meeting held on 4th November, 2009** and the FAC again sought additional information from the State Government on the following:

- i. Whether the present proposal is an extension of the already existing mine or a fresh mine.
- ii. The location of this mine vis-à-vis other 57 mines on the coal map of the area on SOI toposheet of suitable scale.
- iii. Land use pattern within 10 km radius from the boundary of the mine.
- iv. The photographs with report on the forest crop composition of the area.
- v. Certificate of the State Government regarding settlement of right forest dwellers rights under the Forest Rights Act, 2006 as required as per advisory to States issued by the Ministry.

7. The above recommendation of the FAC were communicated to the State Government vide this Ministry's letter of even number dated 14th December, 2009.

8. The Government of Jharkhand vide letter no. 3/Vanbhumi-2/2009/2142 dated 17.06.2010, placed along with its annexures, submitted the requisite information sought by the Ministry vide its letter dated 14.12.2009. Summary of the same is given as under:

- i. With respect to query no.(i), the State Government has submitted that the proposal of Karo OCP is an expansion proposal of existing Kaveri OCP Mine. The final approval for diversion of Kaveri OCP, area 77.43 ha was granted vide MoEF's letter no. 8-22/2003FC dated 31.03.2004.
- ii. With respect to query no.(ii), the User Agency through the State Government submitted that the location map of Karo OCP along with other existing / operating as well as upcoming mines of CCL are given in the toposheet of 1:2,50,000 scale.
- iii. With respect to query no.(iii), the User Agency has submitted the land use pattern within 10 km radius from the boundary of the Karo project, as per satellite survey/data given by CMPDI is given below and enclosed a map.

Sl. No.	Class of Land	Particulars	Area	
			Sq km	Percentage
1.	Settlement	Urban	10.28	3.27
		Rural	3.2	1.02
		Industrial	0.97	0.30
		Sub-total	14.44	4.59
2.	Vegetation Cover	Dense Forest	27.3	8.69
		Open Forest	42.33	13.47
		Scrub	102.30	32.50
		Plantation of OB Dump	6.08	1.94
		Sub-Total	151.71	47.91
3.	Agricultural Land	Crop land	44.92	14.30
		Fallow land	42.28	13.48
		Sub-Total	87.20	27.75
4.	Waste land + Sand land		21.04	6.79
5.	Mine Area	Quarry	4.58	1.46
		OB Dump	4.73	1.51
		Sub-Total	9.01	2.86
6.	Surface Water Body		4.28	1.36
Total			314.28	100.00

iv. With respect to query no.(iv), the State Government has informed that the photographs with report on forest crop composition of the area were being provided.

- v. With respect to query no.(v), the State Government has informed that no proposal/claims for this area has been received under the FRA, 2006.
9. Proposal along with the above information was considered by the FAC in its meeting held on 21st July.2010 and the FAC after detailed discussion recommended the proposal for diversion of forest land.
10. However, the competent authority of the MoEF&CC, after examination of the recommendation of the FAC had made following observation:
- “Isn’t total of about 1,30,000 trees of various girth classes including 85,000 below 60 girth cm on the higher side?”*
11. The above observation of the competent authority of the MoEF&CC were conveyed to the State Government vide this Ministry’s letter of even number dated 29.09.2010.
12. The Government of Jharkhand vide their letter no. 3 / VanBhumi - 02 / 2009 /4221 / VP dated 11th August, 2015, along with its annexures submitted the reply to the observation raised by the MoEF&CC in its letter dated 24.09.2010.
13. The State Government had informed that as per report received from the PCCF, Jharkhand vide his letter no. 2407 dated 24.07.2015, trees enumeration has been done and the abstract enclosed. The State Government has also reported that as per the direct enumeration of trees in the area instead of 1,30,000 trees reported in the original proposal, only 86,412 trees have been found existing in the area. Out of the total enumerated trees those above 60 cm girth are 7,374 while number of trees below below 60 cm girth number of trees estimated to be 79,038
- | | | |
|--------------------------------|---|--------|
| No. of trees below 60 cm girth | - | 79,038 |
| No. of trees above 60 cm girth | - | 7,374 |
14. DGPS maps in shape files for land proposed for diversion have not been provided.
15. The FAC observed that variation in two reports of the state government about number of trees in the forest land proposed for diversion is not understandable. The state government has not given any reason for this variation in number of trees. DGPS maps have not been made available to check /assess the forest cover in the proposed area. The committee was also of the view that since the State Government of Jharkhand has submitted the requisite information after a lapse of a period of almost five years and during the intervening period several attributes like land identified for raising CA, CA scheme, area earmarked for safety zone, etc. might have been changed the area need to be re-inspected.
16. After thorough deliberation the **FAC in its meeting dated 24th November, 2015 recommended** that:
- a. A site inspection be carried out afresh by the Regional Office Ranchi of the area as well as the area identified for compensatory afforestation. The site inspection report would also address the issue of large variation in the tree numbers in two reports of the State Government as well as in the report of Regional Office. The report shall also give the current status of vegetation in area proposed for diversion and CA sites.
 - b. The DGPS co-ordinates of the proposed site and the CA area in shape files to be provided.
 - c. The proposal to incorporate the area under safety zone too, which has presently not been included as, as per the existing guidelines, the area of safety zone needs to be included in the total forest area proposed for diversion.
 - d. The compliance of the conditions stipulated in approval earlier granted vide F No 8-22/2003-FC dated 31.03.2004 for the diversion of 77.74 ha of forest land be provided
 - e. The details about the service area component of the purpose wise breakup of the forest land to be provided.
 - f. The compliance of relevant provisions of The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 to be provided.
17. The FAC also considered the Report on Site Inspection carried out by Regional Office, Ranchi which is reproduced below;

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 28th December, 2015 of MoEF & CC. This proposal was discussed in the Forest Advisory Committee (FAC) meeting held on 24th, 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 7th 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 226.67 ha protected forest**

Item-wise break-up details of the forest land proposed for diversion: *The UA has provided the details of service area.*

<i>Sl. No.</i>	<i>particulars</i>	<i>Forest land in Ha</i>	<i>Non forest Land in Ha</i>	<i>Total land in Ha</i>
<i>1.</i>	<i>Quarry</i>	<i>187.091</i>	<i>110.973</i>	<i>298.064</i>
<i>2.</i>	<i>External OB Dump</i>	<i>29.799</i>	<i>64.969</i>	<i>94.768</i>
<i>3.</i>	<i>Haul Road</i>	<i>8.68</i>	<i>1.92</i>	<i>10.60</i>
<i>4.</i>	<i>CHP</i>	<i>10.62</i>	<i>2.636</i>	<i>13.256</i>
<i>5.</i>	<i>Sub station</i>	<i>1.506</i>	<i>0.134</i>	<i>1.64</i>
<i>6.</i>	<i>Workshop-I Excavation</i>	<i>4.505</i>	<i>1.115</i>	<i>5.62</i>
<i>7.</i>	<i>Service area</i>	<i>61.895</i>	<i>19.689</i>	<i>81.584</i>
<i>8.</i>	<i>Safety Zone</i>	<i>15.61</i>	<i>29.71</i>	<i>45.32</i>
<i>9.</i>	<i>Sub total</i>	<i>319.706</i>	<i>231.146</i>	<i>550.852</i>
<i>10.</i>	<i>Less forest in Safety Zone</i>	<i>(-) 15.61</i>	<i>0.00</i>	<i>(-)15.61</i>
	<i>Total</i>	<i>304.096</i>	<i>231.146</i>	<i>535.242</i>
	<i>Already released under FC Act</i>	<i>77.43</i>		
	<i>Forest land for diversion</i>	<i>226.67</i>		

- 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
	Total	86412	29864	49174	6320	771	283

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 60c m. 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.
Total	480 Ha.

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

<i>Sl No.</i>	<i>Name</i>	<i>Area (ha)</i>
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
Total Area (ha)		652.995187

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) 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 7th year and will continue up to end of 21st year. The internal dumping will start from the end of 21st year and will continue up to end of 35th year.

Details and financial allocation:

Records not available.

11. Details on catchment and command area under the project: Not applicable.

12. Catchment area treatment plan to prevent siltation of reservoir: Not applicable.

13. Cost benefit ratio:

Cost benefit ratio is 1:8.84

14. Recommendations of the Principal Chief Conservator of Forest/State Government: The PCCF has recommended the proposal.

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

Annexed separately.

16. 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.

17. 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.

18. Situation with respect to any Protected Area: Hazaribagh wildlife sanctuary is around 80 km from the proposed diversion site.

19. 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

20. 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 24th, 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 7th 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:

<i>Sl. No.</i>	<i>Particulars</i>	<i>Forest land in Ha.</i>	<i>Non forest Land in Ha.</i>	<i>Total land in Ha.</i>
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 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.

18. The Government of Jharkhand Department of Environment Forest and Climate Change vide letter No. 3/Vanhoomi-2/2009/1316/VP dated 24.03.2017 along with its annexures had forwarded information/documents in response to the Ministry's letter dated 28.06.2016.

19. The details submitted are as below.

S. No.	Observations raised by the MoEF & CC vide letter dated 28.06.2016	Reply submitted by the State Govt. of Jharkhand letter dated 24.03.2017																																							
1.	The DGPS co-ordinates of the proposed site for diversion of forest land and the CA area in shape file to be provided.	<p>In this regard the state government informed that the Regional Office, Ranchi has submitted Site Inspection Report for suitable site of Compensatory Afforestation and demarcated 11 patches for suitable of CA, details are given below:</p> <table border="1"> <thead> <tr> <th>Name of PF</th> <th>Plot No.</th> <th>Area (Ha.)</th> </tr> </thead> <tbody> <tr> <td>Govindpur</td> <td>2765,2496,2745</td> <td>30.00</td> </tr> <tr> <td>Karma</td> <td>1751,1841,1851, 1865,1873,1994, 2010,2030,2031</td> <td>30.00</td> </tr> <tr> <td>Dabhadih & Murhulsudi</td> <td>Dabhadih Plot No.- 1,2,5,90, 228,229,230,231 ,and Murhulsudi Plot No. 2</td> <td>20.00</td> </tr> <tr> <td>Kanjkiro (I)</td> <td>387,403,421,450</td> <td>50.00</td> </tr> <tr> <td>Kanjkiro (II)</td> <td>3166P,3167,3273</td> <td>50.00</td> </tr> <tr> <td>Mungo Rangamati (I)</td> <td>1,2,11,13,28,48,36</td> <td>50.00</td> </tr> <tr> <td>Mungo Rangamati (II)</td> <td>69,138,80,84</td> <td>50.00</td> </tr> <tr> <td>Mungo Rangamati (III)</td> <td>84,258,94, 106,234, 324,319</td> <td>50.00</td> </tr> <tr> <td>Mungo Rangamati (IV)</td> <td>931,1015,1012, 1006, 308,295,1024,278, 297,318,725,995</td> <td>50.00</td> </tr> <tr> <td>Mungo Rangamati (V)</td> <td>859,1025,1024,</td> <td>50.00</td> </tr> <tr> <td>Mungo Rangamati (VI)</td> <td>478,796,814, 829,831,887,885,886, 893,899,838,840,849 ,859,866,921</td> <td>50.00</td> </tr> <tr> <td colspan="2" style="text-align: center;">Total</td> <td>480.00</td> </tr> </tbody> </table> <p>The Land Suitability Certificate has been approved by the Divisional Forest Officer for 11 patches for CA, With CA scheme and DGPS map Hard/Soft copy has been submitted by the State Government.</p>	Name of PF	Plot No.	Area (Ha.)	Govindpur	2765,2496,2745	30.00	Karma	1751,1841,1851, 1865,1873,1994, 2010,2030,2031	30.00	Dabhadih & Murhulsudi	Dabhadih Plot No.- 1,2,5,90, 228,229,230,231 ,and Murhulsudi Plot No. 2	20.00	Kanjkiro (I)	387,403,421,450	50.00	Kanjkiro (II)	3166P,3167,3273	50.00	Mungo Rangamati (I)	1,2,11,13,28,48,36	50.00	Mungo Rangamati (II)	69,138,80,84	50.00	Mungo Rangamati (III)	84,258,94, 106,234, 324,319	50.00	Mungo Rangamati (IV)	931,1015,1012, 1006, 308,295,1024,278, 297,318,725,995	50.00	Mungo Rangamati (V)	859,1025,1024,	50.00	Mungo Rangamati (VI)	478,796,814, 829,831,887,885,886, 893,899,838,840,849 ,859,866,921	50.00	Total		480.00
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2.	The compliance of the conditions stipulated in approval earlier granted vide F. No. 8-22/2003-FC dated 31.03.2004 for the diversion of 77.74 ha of forest land be provided.	In this regard the State Government informed that the compliance of the conditions stipulated in approval earlier granted vide F. No. 8-22/2003-FC dated 31.03.2004 for the diversion of 77.74 ha of forest land has been provided by the project proponent and the copy of the same was enclosed.																																							
3.	It is not clear from the details provided for compliance on the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 whether the entire area of 226.67 ha has been placed	In this regard the State Government informed that the Deputy Commissioner, Bokaro District vide letter No. XXI-10/2010/19(Mun) dated 18.07.2014 has been issued FRA Certificate for 226.67 ha forest land.																																							

<p>before the concerned Gram Sabha for their NOC. Thus, the complete Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 certificate alongwith relevant evidence as per the Ministry's guidelines dated 03.08.2009 read with 05.07.2013.</p>	<p>However, the Gram Sabha Resolution has not been submitted.</p>
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20. Recommendation of FAC in its meeting held on 15.06.2017: The FAC considered the submissions of the State Government, RO Ranchi and the User Agency. The FAC also considered the Decision Support System analysis of the proposal and observed as below:

- (i) The purpose wise break up of forest land as provided does not indicate whether the Safety Zone will be maintained within the area proposed for diversion.
- (ii) The Translated copies of the Gram Sabha resolutions were not provided.
- (iii) The CA sites shown to the RO, Ranchi and as proposed by the State Government are different and therefore the CA sites proposed now by the State Government need to be inspected by the RO, Ranchi.
- (iv) It was also brought to the notice of the FAC that a proposal for conveyor belt has been submitted separately to the RO, Ranchi as a linear project. It may be clarified whether this form integral part of the current proposal.

The FAC after considering the above facts and details recommended that the issues of concern be referred back to the State government and on receipt of the necessary clarification and rectification, the proposal be placed before FAC for its consideration.

21. The above recommendation of FAC, was communicated to State Government of Jharkhand vide Ministry's letter dated 27.07.2017 (Pg. 591/c). The State Government Jharkhand vide their letter No. 3/VAN BHOOMI-02/2009/5008-VP dated 30.11.2017 (Pg. 621-706/c) has forwarded the information / documents in response of Ministry's letter dated 27.07.2017 point-wise summery of the information is given as under:-

S. No.	Observations raised by FAC	Reply submitted by State Government																																														
1	The purpose wise break up of forest land as provided does not indicate whether the Safety Zone will be maintained within the are a proposed for diversion.	<p>It is reported by the State Government that the revised land schedule has been submitted keeping in view to divert safety zone of 5.69 ha in place of 15.61 ha. given earlier which has been forwarded to MoEF vide letter No. 2303 on 13.08.2016. The map showing demarcation of safety zone is being enclosed (Pg. 705-706/c). The current land schedule excluding 77.48 ha. already diverted forest land is given here under:-</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">S. No.</th> <th style="text-align: center;">Particular</th> <th colspan="3" style="text-align: center;">Forest land in Ha.</th> <th style="text-align: center;">Non-Forest land in Ha.</th> <th style="text-align: center;">Total land in Ha.</th> </tr> <tr> <th style="text-align: center;">1</th> <th style="text-align: center;">2</th> <th style="text-align: center;">3</th> <th style="text-align: center;">4</th> <th style="text-align: center;">5</th> <th style="text-align: center;">6</th> <th style="text-align: center;">7</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">1.</td> <td>Quarry</td> <td style="text-align: right;">135.76</td> <td style="text-align: right;">2.62</td> <td style="text-align: right;">138.38</td> <td style="text-align: right;">110.68</td> <td style="text-align: right;">249.06</td> </tr> <tr> <td style="text-align: center;">2.</td> <td>Ext OB Dump</td> <td style="text-align: right;">8.10</td> <td style="text-align: right;">0.00</td> <td style="text-align: right;">8.10</td> <td style="text-align: right;">65.51</td> <td style="text-align: right;">73.61</td> </tr> <tr> <td style="text-align: center;">3.</td> <td>Haul Road, CHP, Washery Substn, WS etc</td> <td style="text-align: right;">36.77</td> <td style="text-align: right;">0.00</td> <td style="text-align: right;">36.77</td> <td style="text-align: right;">8.31</td> <td style="text-align: right;">45.08</td> </tr> <tr> <td style="text-align: center;">4.</td> <td>Service Area</td> <td style="text-align: right;">40.08</td> <td style="text-align: right;">3.34</td> <td style="text-align: right;">43.42</td> <td style="text-align: right;">17.00</td> <td style="text-align: right;">60.42</td> </tr> </tbody> </table>					S. No.	Particular	Forest land in Ha.			Non-Forest land in Ha.	Total land in Ha.	1	2	3	4	5	6	7	1.	Quarry	135.76	2.62	138.38	110.68	249.06	2.	Ext OB Dump	8.10	0.00	8.10	65.51	73.61	3.	Haul Road, CHP, Washery Substn, WS etc	36.77	0.00	36.77	8.31	45.08	4.	Service Area	40.08	3.34	43.42	17.00	60.42
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		5.	Safety Zone in Non-Forest Area	0.00	0.00	0.00	15.72	15.72
		6.	Total Forest land to be diverted	220.71	5.96	226.67	217.22	443.89
2.	The Translated copies of the Gram Sabha resolutions were not provided.	In this regard it is reported by the State Government that the copy of FORM-II issued vide letter no. 752 date 09.09.2017 by DC Bokaro is enclosed (Pg.689/c). The translated copy of Gram Sabha resolution has not been submitted.						
3.	The CA sites shown to the RO, Ranchi and as proposed by the State Government are different and therefore the CA sites proposed now by the State Government need to be inspected by the RO, Ranchi.	In this regard it is reported by the State Government that the CA site inspection by RO Ranchi was carried out on 09.08.2017 Inspection Report is attached.						
4.	It was also brought to the notice of the FAC that a proposal for conveyor belt has been submitted separately to the RO, Ranchi as a linear project. It may be clarified whether this form integral part of the current proposal.	In this regard it is reported by the State Government that the user agency has clarified that <u>the project involved the activity of coal mining, coal beneficiation (washery and evacuation of coal).</u> The coal mining and washery involves 226.67 ha. for which is the present proposal. The coal evacuation involves 7.5 ha of land which is different from the two activities of coal mining and beneficiation and hence was applied as a separate proposal. <u>As such although project involves all the three activities of coal mining, beneficiation (washery) and evacuation, the proposals were separated due to different natures of activities.</u> The proposal of 7.5 ha coal Dispatch conveyer of Karo OCP is not the integral part of current proposal of 226.67 ha. The report of CMPDIL is again being enclosed for perusal (Pg.704/c).						

22. With regard to recommendation of FAC on 15.06.2017 i.e *the CA sites shown to the RO, Ranchi and as proposed by the State Government are different and therefore the CA sites proposed now by the State Government need to be inspected by the RO, Ranchi.* Accordingly, The SIR done by RO Ranchi and the same is placed in file at **pg.592-620/c**). The same is also reproduced below:

This instant proposal was discussed in the Forest Advisory Committee (FAC) meeting held on 15th June, 2017 wherein FAC has observed that the CA sites shown to the RO and as proposed by the State Government are different and therefore the CA sites proposed now by the State Government need to be inspected by the RO, Ranchi. FAC has desired that a fresh site inspection of the CA land be carried out by Regional Office, Ranchi. Accordingly, CA land site inspection has been conducted on 09.08.2017 by DCF, Regional Office, Ranchi in the presence of Sri D.K Srivastava, Range Officer, Bermu Range of Bokaro Forest Division, the User Agency represented by Sri Manoj Kumar, Manager, Mining, Sri Raj Muni Ram, Project Officer Karo, Sri G.S Prasad, Survey officer were present at the time of inspection.

The State Government vide letter no. 3/Van Bhoomi-02/2009-1316 dated 24-3-17 has submitted the CA land details which are as under:

Sl. No.	Name of PF	Plot No.	Area (ha.)
1.	Govindpur	2765, 2496, 2745	30.00
2.	Karma	1751, 1841, 1851, 1865, 1873, 1994, 2010, 2030, 2031	30.00

3.	Dabhadih & Murshulsudi	Dabhadih Plot No- 1, 2, 5, 90, 228, 229, 230, 231 and Murshulsudi Plot No-2	20.00
4.	Kanjkiro (I)	387, 403, 421, 450	50.00
5.	Kanjkiro (II)	3166P, 3167, 3273	50.00
6.	Mungo Rangamati (I)	1, 2, 11, 13, 28, 48, 36	50.00
7.	Mungo Rangamati (II)	69, 138, 80, 84	50.00
8.	Mungo Rangamati (III)	84, 258, 94, 106, 234, 324, 319	50.00
9.	Mungo Rangamati (IV)	931, 1015, 1012, 1006, 308, 295, 1024, 278, 297, 318, 725, 995	50.00
10.	Mungo Rangamati (V)	859,1025,1024	50.00
11.	Mungo Rangamati (VI)	478, 796, 814, 829, 831, 887, 885, 886, 893, 899, 838, 840, 849, 859 ,866,921	50.00
Total			480.00

Total 480 ha of degraded forest land in 11 patches for CA has been identified in Bermu Range of Bokaro Forest Division.

Details of all the patches along with the site inspection remarks are given in tabular form as below:

Sl. No.	CA Land identified	Area (Ha.)	Site inspection remarks
1.	Govindpur	30.00	During the inspection it was noticed that in the plot no. 2496 and 2745, some civil construction were seen . Forest representative informed that the gross area of the entire patch is 38.5 ha and the area required for doing compensatory afforestation is only 30 ha.
2.	Karma	30.00	The entire patch seems to be fit for CA.
3.	Dabhadih & Murshulsudi	20.00	During the inspection it is noticed that some part of the area around 15 ha seems to be Moderately dense forested with density round 0.4 to 0.5 and the DSS also ascertained the same.
4.	Kanjkiro (I)	50.00	During the inspection it was noticed some encroachments in the form of agricultural fields were noticed and forest representative informed that during the course of afforestation these encroachments will be removed.
5.	Kanjkiro (II)	50.00	It is in two patches and area seems to be fit.
6.	Mungo Rangamati (I)	50.00	Identified in six patches and the area seems to be fit for CA.
7.	Mungo Rangamati (II)	50.00	Identified in three patches and area seems to be fit for CA.
8.	Mungo Rangamati (III)	50.00	Area seems to be fit for CA and is free from encroachments and other encumbrances.
9.	Mungo Rangamati(IV)	50.00	During the inspection it is noticed that in this patch some area around 10 ha seems to be moderately dense forested . However no encroachments noticed.
10.	Mungo Rangamati (V)	50.00	During the inspection it is noticed that in this patch some area around 15 ha seems to be moderately dense forest .
11.	Mungo Rangamati (VI)	50.00	During the inspection it is noticed that in this patch some area around 20 ha seems to be moderately dense forest . No encroachments noticed.
Total		480.00	

Final Remarks in SIR:

- As per DSS, software calculated CA area around 675 ha of degraded forest land instead of 480 ha.
- In two patches encroachments in the form of civil constructions and agricultural fields were noticed. In Govinpur patch in the plot no. 2496 and 2745, some civil construction were seen. Forest representative informed that the gross area of the entire patch is 38.5 ha and the area required for doing compensatory afforestation is only 30 ha. In the patch kainjkaro (i), agricultural fields were noticed and forest representative informed that during the course or afforestation these encroachments will be removed.

- As per DSS around 130 ha of the CA area seems to be moderately dense forested especially in the combined Mungo Rangamati patch.

The facts related to the above proposal may be placed before FAC in its meeting to be held on 25.01.2018 for their examination and appropriate recommendation.
