

**Sub: Diversion of 277.15 ha of forest land in favour of M/s Central Coalfield Limited for Rajrappa Open Cast Mine in Bokaro Forest Division in Bokaro District in the State of Jharkhand –reg.**

1. The State Government of Jharkhand vide their letter No. Van Bhumi-21/2013/4115/V.P. dated 30.07.2015 submitted the above mentioned proposal seeking prior approval of the Central Government under Section-2 of the Forest (Conservation) Act, 1980.
2. The facts related to the proposal as contained in the State Government's letter dated 30.07.2015 are given below in the form of fact sheet:

**FACT SHEET**

1.	Name of the Proposal	Diversion of 277.15 ha of forest land for Rajrappa Open Cast Mine in favour of M/s Central Coalfield Limited in the State of Jharkhand.
2.	Location (i) State (ii) District	Jharkhand Bokaro
3.	Details of the user agency	
	Name of the user agency	M/s Central Coalfield Limited – A subsidiary of Coal India Limited
	Nature of the user agency	A Central Government Undertaking
4.	Particulars of Forests: (i) Name of Forest Division and Forest area involved.  (ii) Legal status/Sy.No.  (iii) Map	Bokaro Forest Division, 98.69 ha. P.F & 178.46 ha. G.M. Land recorded as Jangle-Jhari in Govt. records.  P.F & G.M. Land recorded as Jangle-Jhari in Govt. records.  SOI Toposheet – Not attached Digital DGPS map- Not enclosed
5.	Topography of the area	-
6.	(i) Geology (ii) Vulnerability to erosion	- An area of 227.15 ha land will be used for mining operation maintaining safety zone area so problem of soil erosion will be taken care of.
7.	(i) Vegetation  (ii) Density  (iii) No. of trees to be felled	The area proposed for diversion seems to be sparsely forested. General topography is undulating to ragged with low ridges and valleys. Surface is rocky with scattered trees. The forest is thin and density of vegetation appears to be less than 0.3 (SIR)  0.5 (Part.II)  Part-II mention that details of enumeration of trees are being enclosed. However, the Regional Office, Ranchi, in its site inspection report has mentioned that no. of trees enumerated comes to 14698. However no marking on the trees is found during inspection. Trees less than 30 cm girth are 9454 in number and more than 30 cms are 5244 in number.
8.	Whether area is significant from wildlife point of view	No
9.	Whether forms part of National park, Wildlife Sanctuary, Biosphere Reserve, Tiger Reserve, Elephant Corridor, etc. (if	N.A

	so, details of the area and comments of the Chief Wildlife Warden		
<b>10.</b>	Whether any RET species of flora and fauna are found in the area. If so details thereof	Wild animals commonly found in the area are as follows:-	
		Common Name	Zoological Name
		Striped hyena	<i>HyaenaHyaena</i>
		Wild boar	<i>Susscrofa</i>
		Porcupine	<i>Hystrixindica</i>
		Rhesus macaque	<i>Macacamulatta</i>
		Langur	<i>Presbytis entellus</i>
		Jackal	<i>Canis aureus</i>
		Fox	<i>Vulpesbengalensis</i>
		Jungle cat	<i>Felischaus</i>
		Spotted deer	<i>Axis axis</i>
		Hare	<i>Lepus nigricullis</i>
		Chamelion	<i>Chamelioncalcarata</i>
		Cobra	<i>Najanaja</i>
Ajagar	<i>Python molurus</i>		
Dhanish	<i>Pylasmucosus</i>		
<b>11.</b>	Approximate distance of the proposed site for diversion from boundary of forest.	All the proposed areas are forest land.	
<b>12.</b>	Whether any protected archaeological/ heritage site/defence establishment or any other important monuments is located in the area.	N.A	
<b>13.</b>	Whether any work of in violation of the Forest (Conservation) Act, 1980 has been carried out (Yes/No). If yes details of the same including period of work done, action taken on erring officials. Whether work in violation is still in progress.	No	
<b>14.</b>	Whether the requirement of forest land as proposed by the user agency in col. 2 of Part-I is unavoidable and barest minimum for the project, if no recommended area item-wise with details of alternatives examined.	The proposed area bears deposit of Coal and there is no alternative nearby.	
<b>15.</b>	Whether clearance under the Environment (protection) Act, 1986 is required?	Yes	

16.	Compensatory Afforestation	Compensatory afforestation has been proposed over degraded forest land, twice in extent to the forest land proposed for diversion.
	(i) Details of non-forest area/degraded forest area identified for CA, its distance from adjoining forest, number of patches, size of each patches.	The area identified for compensatory afforestation is protected Forest of Bokaro Forest Division. These forests are in Six patches. Size of each patch is given in the above mentioned list under Sl. No. 10.
	(ii) Map showing non-forest/degraded forest area identified for CA and adjoining forest boundaries.	Photocopy of Cadastral maps (16''-1 mile scale) of the area are attached. However, Differential GPS map of the area identified for raising CA has not been submitted.
	(iii) Detailed CA scheme including species to be planted, implementing agency, time schedule, cost structure, etc.	Acacia, Chakundi, Gamhar, Sagwan, Shisham, Jamun, Kathal etc. will be planted by forest will be as mentioned in para.10. However detailed CA scheme of CA has not been submitted by the State Government along with the proposal.
	(iv) Total financial outlay for CA	Rs. 5,47,55,119.00 is total outlay for compensatory afforestation. (Part.II) Rs. 5.475 crores. (SIR)
	(v) Certificate from the competent authority regarding suitability of the area identified for CA and from management point of view.	Part – II mention that the area identified for compensatory afforestation is suitable for plantation work and from management point of view. Site suitability certificate has not been submitted along with the proposal.
17.	Catchment Area Treatment	NA
18.	Rehabilitation of Oustees a) No of families involved b) Category of families c) Details of rehabilitation plan	850 Approx Being assessed by NGO As per RR Policy of CIL (enclosed as annexure-10) pg-151/c
19.	Compliance of Scheduled Tribe and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006	Not submitted.
20.	Cost Benefit Ratio	1:5.82
21.	Total Cost of the Project	<b>Rs. 510.85 crores. (RCE 2009)</b>
22.	Employment Potential	Not mentioned
	Detail of Mining lease	Land has been acquired under the CBA (A&D) Act, 1957 on 21.12.1966 (Pg 114/c)
	Nature of mining	Open Cast
	Total area of mining lease	3300.53 ha
	Date of Grant of mining lease	Not mentioned
	Validity of mining lease	Not mentioned
	Details of earlier approvals	Area of Block –I involving area of 51.12 ha approved on 15.03.2007
	Mine Plan with Progressive Mine Closure Plan	Enclosed.
23.	Recommendation i. DFO ii. CCF iii. Nodal Officer iv SG	Recommended (pg-98-100/c) Recommended (pg-96-97/c) Recommended (pg-95/c) Recommended (pg-94/c)
24.	District Profile (i) Total Geographical area of the district	3124.80Km <sup>2</sup> .

(ii) Total Forest area/Divisional Forest area	543.93 Km <sup>2</sup> .
(iii) Total area diverted since 1980	1577.559 ha. (Forest area 1079.971Ha., G.M. Jungle Jhari 497.588 Ha.) No. of cases-23
(iv) Total CA stipulated since 1980	
a. Forest land including penal CA	3,533.30 ha
b. Non Forest Land.	114.29 Ha
(v) Progress of Compensatory Afforestation	2429.94 Ha
a. Forest land	2429.94 Ha
b. Non Forest land	Nil

3. The PCCF in his letter dated 17.07.2015 has also reported that out of the total forest area of 336.58 ha involved in Block -II of the Rajrappa, instant proposal covers only 277.15 ha of forest land while proposal for balance area of 59.53 will be submitted by the project proponent at later stage.
4. It is also pertinent to mention here that Central Government has earlier accorded approval **over 510.82 ha** of forest land vide letter no. **8-105/2013-FC dated 15.03.2007** and the mining in the said approved area is ongoing. **The PCCF in his letter dated 17.07.2015 has also reported that total mining lease area of Rajrappa is 3300.53 ha, forest area is 1298.39 ha. Entire project area is divided into five blocks. So far, approval under the Forest (Conservation) Act, 1980 has been obtained for 510.12 ha of forest land while adding up the area of instant proposal i.e. 277.15 ha, so far proposal for total area of 787.27 ha has been received for diversion under the Forest (Conservation) Act, 1980 while forest area of 511.12 ha is yet to be applied for prior approval of the Central Government under the Forest (Conservation) Act, 1980**
5. The Regional Office, Ranchi submitted the site inspection report (SIR) of the area proposed for diversion vide their letter no FP/JH/MIN/3613/2004/167 dated 6.11.2015. Facts reported by the Regional Office in its site inspection report are given as under:

1. The legal status of the forest land is Protected Forests (Notified) and Jungle Jhari.
2. Item-wise break-up details of the forest land proposed for diversion.

The item-wise break-up details of the forest land is as follows:

Division	P.F. area (in ha)	Jungle Jhari (in ha)	Total (ha)
Bokaro	98.69	178.46	277.15

- (iii) Whether proposal involves any construction of buildings (including residential) or not. If yes, details thereof:  
Not reported.
- (iv) **Total cost of the project at present rates is Rs.51.085 crores,(RCE 2009)** With regards to the **Wildlife in the area the Regional Office has reported that** forest area proposed for diversion is important from wildlife point of view or not: No rare/endangered species of fauna arc found in the area. Proposed area for diversion does not form a part of National Park, Wildlife Sanctuary and Biosphere/Tiger Reserve. Since the area of forest land diverted is large i.e.277.15 ha, it will definitely show significant impact on the flora and fauna of the area.
- (v) The Regional Office has further reported that **density of vegetation appears to be less than 0.3** The area proposed for diversion seems to be sparsely forested. General topography is undulating to rugged with low ridges and valleys. Surface is rocky with scattered trees. The forest is thin and density of vegetation appears to be less than 0.3
- (a) **Total number of trees to be felled.**  
The no. of trees enumerated comes to 14698. However no marking on the trees is found during inspection. Trees less than 30 cm girth are 9454 in number and more than 30 ems are 5244 in number.
- (b) **Effect of removal of trees on the general ecosystem in the area:**  
It will adversely affect the general eco-system of the area.

6. **Compensatory afforestation:** As reported, DFO Bokaro has identified 554.30 ha of degraded forest land along forest boundary in 6 patches.

- a) For compensatory afforestation is suitable from plantation and management point of view Suitable as reported by DFO Bokaro
  - b) **Whether land for compensatory afforestation is free from encroachment/other encumbrances:** No information is available in records
  - c) **Whether land for compensatory afforestation is important from Religious/Archaeological point of view:** Not reported.
  - d) Land identified for raising compensatory afforestation is in how many patches, whether patches are compact or not: DFO, Bokaro has identified degraded forest land for raising compensatory afforestation in 6 patches.
  - e) Map with details: Enclosed as Annexure.
  - f) Total financial outlay: Rs.5.475 crores.
7. **With regards to the violation of Forest (Conservation) Act 1980, the Regional Office has reported that** no violation of has been committed.
8. **Whether proposal involves rehabilitation of displaced persons. If yes, whether rehabilitation plan has been prepared by the State Government or not :** As reported around 850 families in mining area will be rehabilitated. Detailed resettlement and rehabilitation plan has been prepared and submitted.
- (ix) **Reclamation plan:** Submitted by the user agency and the same is enclosed.
  - (x) **Details on catchment and command area under the project: Not applicable. Catchment area treatment plan to prevent siltation of reservoir:** Not applicable.
  - (xi) **Cost benefit ratio:** As reported it is 1: 5.82 which is very low.
  - (xii) **Recommendations of the Principal Chief Conservator of Forests/State Government:** Recommended by the PCCF / State Government.
  - (xiii) **Conservator of Forests (Central) shall give detailed comments on whether there are any alternative routes/alignment for locating the project on the non-forest land:** Annexed separately.
  - (xiv) **Utility of the project:**Rajrappa project (Phase II) is one of the largest semi coking mines of Coal India Ltd which lies in Ramgarh Coalfields in F3okaro dist of Jharkhand state. It has good quality of medium coking coal which is a substitute of imported coal used by steel plants. Apart from this, project will provide employment opportunity to people, help in development of local industry, improve the quality of life of the people and help in upliftment of social and educational standards of the people.
  - (xv) **Numbers of Scheduled Caste/Scheduled Tribes to be benefited by the project:** Details not available in the records.
    - (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 eco-system:** Not reported.
  - (xvi) **Situation with respect to any Protected Area:** Proposed area for diversion does not form a part of National Park. Wildlife Sanctuary, Biosphere/Tiger Reserve.
  - (xvii) **Any other information relating to the project:** The proposed area is just opposite to phase I of Rajrappa Project-I. During the site inspection it was observed that no work has been started by the user agency and the whole area was demarcated on the ground. The GPS coordinates of some of the points were selected randomly and were verified on the ground by handheld GPS instruments and found to be in order. However, no RCC boundary pillars were found during inspection. It was observed that in the area proposed for diversion which is mostly in the category of Jungle Jhari, rampant illegal mining by the local villagers is taking place. No tree marking was seen on the enumerated trees in the project area. Since the project operates in Open Cast method, top soil management is a must and the user agency is advised to prepare top soil management plan. The user agency may also explore the possibility of underground mining instead of open cast mining. Since the project area is near Damodar river enough precautions should be taken for not polluting the river. The user agency shall have to take all possible precautions for protection of environment and control of pollution while operating in the area.

## RECOMMENDATIONS OF ADDL. PRINCIPAL CHIEF CONSERVATOR OF FORESTS (CENTRAL)

- i. On perusal of records and Site Inspection Report of DCF the following observations are made: The item-wise break-up of the forest land is as follows:

Division	P.F. area (in ha)	Jungle Jhari (in ha)	Total (ha)
Bokaro	98.69	178.46	277.15

- ii. The density of vegetation has been reported to be less than 0.3 in Bokaro Forest Division and the area appears to be sparsely vegetated.
- iii. Total 14,698 No. of trees are proposed to be felled, out of which 9,454 trees are below 30 cm girth and 5,244 trees are above 30 cm girth.
- iv. Diversion of such a large patch of forest land (277.15 ha) will definitely have adverse impact on the flora and fauna of the area.
- v. The Cost Benefit Ratio is 1: 5.82, which is very less.
- vi. Illegal mining is also seen in Jungle Jhari area.

Keeping in view the fact that the density of forests is low and the area is sparsely vegetated, the Addl. PCCF (central) has recommended the proposal for diversion of forest land. **The Addl. PCCF (Central) has also recommended that possibility of underground mining should also be explored.**

6. The proposal along with SIR was placed before the **Forest Advisory Committee (FAC) in its meeting on dated 24.11.2015**. The FAC after detailed deliberations recommended that State Government be requested to submit following information / documents:
- (i) Comments on the recommendations of the Regional Office, Ranchi that State Government should explore possibility of underground mining.
  - (ii) Comments on the observation of the Regional Office, Ranchi that since the area of forest land diverted is large it will definitely show significant impact on the flora and fauna of the area.
  - (iii) Compliance of the conditions stipulated in central Government's approval dated 15.03.2007 for diversion 510.82 ha.
  - (iv) Reason for submitting the proposal for diversion of only 277.15 ha out of total 336.58 ha of forest land in block II excluding balance of 59.53 ha of forest land.
  - (v) DGPS maps in shape files for the land proposed for diversion.
  - (vi) Purpose wise breakup of forest land proposed to be diverted.
  - (vii) Compliance to Scheduled Tribe and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006.
7. The same was communicated to State Government of Jharkhand vide Ministry's letter dated 31<sup>st</sup> December, 2015 (**Pg. 749/c**). The State Government vide his letter No. Vanbhumi-21/2013/5032/VP dated 02.11.2016 (**Pg. 750-833/c**) submitted their reply in response of Ministry's letter dated 31<sup>st</sup> December, 2015. From the examination of the information/ documents submitted by the State Government of Jharkhand following was observed:
- (i) Comments on the observation of the Regional Office, Ranchi that since the area of forest land diverted is large it will definitely show significant impact on the flora and fauna of the area, **the project proponent has not been submitted the any undertaking in respect.**
  - (ii) DGPS maps in shape files for the land proposed for diversion, have not submitted by the project proponent.
  - (iii) Purpose wise breakup of forest land proposed to be diverted, is not satisfaction.
8. Ministry's vide its letter dated 27th February, 2017 (**Pg-834/c**) requested the State Government to send the following information/documents/clarification to this Ministry:
- i. After examining the compliance report, it is observed that **there are significant variations between the responses given by the State Govt., Pr. Chief Conservator of Forests and State Nodal Officer** vide their letter no. VanBhumi-21/2013/5032 dated 02.11.2016, letter No. 22/ P 2-(2)/2013/3581 dated 19.09.2016 and letter No.890 dated 10.09.2016 respectively.
  - ii. Moreover, the comments on the observation of the Regional Office, Ranchi that since the area of forest land diverted is large it will definitely show significant impact on the flora and fauna of the area, the compliance of the conditions stipulated in central Government's approval dated 15.03.2007 for diversion 510.82 ha., Justifiable

reason for submitting the proposal for diversion of only 277.15 ha out of total 336.58 ha of forest land in block II excluding balance of 59.53 ha of forest land, DGPS map of the area proposed for diversion and compensatory afforestation and purpose-wise break up of land are not given.

9. Now, the State Government of Jharkhand Department of forest, Environment and Climate Change vide his letter No. Vanbhumi-21/2013/3305/VP dated 06.08.2018 (**Pg-835-875/c**) submitted their reply in response of Ministry's letter dated 27.02.2017. The information given by the state government is under below:

<b>S. No.</b>	<b>Observations raised by MoEF&amp; CC on 27.02.2017</b>	<b>Reply submitted by the State Government of Jharkhand</b>
1.	Moreover, the comments on the observation of the Regional Office, Ranchi that since the area of forest land diverted is large it will definitely show significant impact on the flora and fauna of the area	In this regard the State Government informed that there will be definitely impact on the flora and fauna of the area. User agency have submitted undertaking to comply any suggestion pertaining to mitigation of impact on flora and fauna ( <b>Pg-865/c</b> ).
2.	the compliance of the conditions stipulated in central Government's approval dated 15.03.2007 for diversion 510.82 ha.	In this regard the State Government informed that the user agency has complied the conditions stipulated in the Central Government's approval dated 15.03.2017. Photocopy of the status of conditions wise compliance is annexed ( <b>Pg-866-867/c</b> ).
3.	Justifiable reason for submitting the proposal for diversion of only 277.15 ha out of total 336.58 ha of forest land in block II excluding balance of 59.53 ha of forest land	In this regard the State Government informed that the user agency has stated that as per the project report/ mining plan of Rajrappa OCP 3 MTY approved by the CCL Board on 23.12.2009 the requirement of FC is for 277.15 ha forest included jungal-jhari. Block-II consists of Block-II East and Block-II west. Block-II East is part of present PR/Mining plan of Rajrappa OCP approved by the CCL board on 23.12.2009. Against Block-II East, only 277.15 ha forest and JJ land is required. The remaining land of 59.53 ha lies in Block-II west which is beyond the present PR/Mining plan of Rajrappa OCP, Block-II.
4.	DGPS map of the area proposed for diversion and	In this regard the state government informed that the DGPS map of the area proposed for diversion and compensatory afforestation is being enclosed.  DFO, Bokaro reported that However, on examining the compensatory afforestation sites which were proposed in 6 patches for 554.30 ha with the

compensatory afforestation

original proposal (as under) i.e. part-II of the DFO, Bokaro which was forwarded by letter no. 664 dated 25.03.2013, it was observed that the sites proposed for CA were worked at different point of time by doing plantation activities under state government schemes, hence new CA sites are being proposed.

**Originally proposed CA Sites:**

S. no.	Name of Mauza	Thana/Thana no.	Plot. No.	Area (in ha)	Cost of CA (in Rs.)
1	Barki Punnu	Mahuatan d/57	1588, 3246, 1592,3245, 3888	100.00	98,97,050.00
2	Chhotki Punnu	Mahuatan d/56	526, 573, 587, 592	55.00	54,35,027.00
3	Tirla	Mahuatan d/43	211,212, 837, 854, 857, 865, 875, 884, 876, 889, 211, 236, 248, 281, 1010	150.00	1,48,17,741.00
4	Rangamati	Mahuatan d/47	115, 138, 156, 191, 199, 209, 210	100.00	98,78,494.00
5	Chagri	Mahuatan d/47	33, 57, 58, 79, 80, 97, 449, 456, 886, 887, 888, 887, 888, 909, 960	100.00	98,59,938.00
6	Chugru	Mahuatan d/42	1087, 1094, 1095, 1097	49.30	48,66,869.00
<b>Total</b>				<b>554.30</b>	<b>5,47,55,119.00</b>

So, the above mentioned site were changed and new sites were identified for the purpose of compensatory afforestation for 554.30 ha against the forest land diverted for Rajrappa OCP. There are 9 patches in total as mentioned below. These sites have been verified and the entire compensatory afforestation scheme have been revised.



**Revise CA Sites.**

<b>S. no.</b>	<b>Name of Mauza</b>	<b>Thana/Thana no.</b>	<b>Plot. No.</b>	<b>Area (in ha)</b>	<b>Cost of CA (in Rs.)</b>
1	Penk	Nawadih-05	324,351	50.00	1,03,96,000.00
2	Penk	Nawadih-05	324, 322	40.00	88,09,000.00
3	Penk	Nawadih-05	616,618, 578,524, 465,539, 526,488, 518	100.00	2,01,24,000.00
4	Penk	Nawadih-05	1476,1650, 1561,1597, 1879,1862, 1860,1892, 1489	80.00	1,75,19,000.00
5	Penk	Nawadih-05	2025,2030, 2055,1834	20.00	64,55,000.00
6	Nawadih	Petarwar-101	26,239, 498,621, 632,636, 649,652, 669,697, 708,734, 847,885, 890,970, 971,981, 990,1021, 1025	84.00	1,92,17,000.00
7	Tangtona	Petarwar-102	2493	80.00	1,81,08,000.00
8	Banga	Petarwar-31	183,223, 224,232, 246,330, 334,346, 391,392	35.00	86,22,000.00
9	Nawadih	Petarwar-52	3,101, 108,112, 121,126, 249,251, 287,475, 483	65.30	1,69,74,000.00
<b>Total</b>				<b>554.30</b>	<b>12,62,24,000.00</b>

**Site Suitability certificate for revise CA is not given.**

5.	purpose-wise break up of land are not given	In this regard the state government informed that component wise requirement of forest land after rationalization has been submitted.
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**Purpose wise breakup:**

S. no.	Particulars in use of land	Required Area	Tenancy	Forest	Jungle-Jhari	GMK/ GMA	Total required of Forest & JJ Land
1	Quarry	963.72	442.45	99.31	320.69	98.97	277.15 ha
2	Infrastructure	285.14	89.41	102.8	55.61	34.51	
3	Embankment	197.69	36.88	39.66	60.59	59.77	
4	Safety Zone	0	0	2.00	3.9	0	
<b>Total (in Acres)</b>		<b>1446.55</b>	<b>568.74</b>	<b>243.77</b>	<b>440.79</b>	<b>193.25</b>	
<b>Total (in ha)</b>		<b>585.65</b>	<b>230.26</b>	<b>98.69</b>	<b>178.46</b>	<b>78.24</b>	

In view of above, the facts related to the proposal may be placed before FAC in its next meeting scheduled to be held on 26<sup>th</sup> October, 2018 for their examination and appropriate recommendation.

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