



भारत सरकार / Government of India

पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय / Ministry of Environment, Forest & Climate Change

क्षेत्रीय कार्यालय, भुवनेश्वर / Regional Office, Bhubaneswar

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No.5-ORA613/2023-BHU

6th December, 2023

To

The Addl. Director General of Forests (FC),
Ministry of Environment, Forest & Climate Change,
Indira Paryavaran Bhawan,
Jor Bagh Road, Aliganj,
New Delhi – 110 003

Sub: Proposal seeking prior approval of the Central Government under Section 2 (ii) of FC Act, 1980 in favour of Mahanadi Coalfield Ltd. for non-forestry use of 193.845 ha of forest land within Mining Lease area over 1265.00 ha of Balaram Open Cast expansion (15 MTY) Coal Block of MCL under Anul Forest Division of Angul District of Odisha.

Ref: Ministry's letter No.8-143/1989-FC (Vol) dated 31.10.2023.

Sir,

With subject and reference cited above, I am to inform that Ministry vide letter under reference has requested this office to carry out site inspection of the proposed area for diversion, area identified for raising C.A. and earlier diverted area of 85.201 ha and CA against already approved area. The site inspection of the instant project site was carried out by the undersigned along with DFO, Angul and representative of user agency. The site inspection report is attached herewith for favour of kind information and necessary action.

This office vide letter dated 01.12.2023 has requested the DFO, Rourkela to furnish the updated detailed status of CA raised in Panpose Range in lieu of earlier diverted forest land of 85.201 ha of forest land. The desired information from DFO, Rourkela is yet to be received. The monitoring report of earlier diverted forest land of 85.2021 ha will be submitted after receipt of desired information from the DFO, Rourkela.

Encl: As above.

Yours faithfully,

(Signature)
6/12/23

(A.T. Mishra)

Dy. Director General of Forests (C)

SITE INSPECTION REPORT IN RESPECT OF PROPOSAL FOR DIVERSION OF 193.845 HA OF FOREST LAND WITHIN MINING LEASE AREA OVER 1265.00 HA OF BALARAM OPEN CAST EXPANSION (15 MTY) COAL BLOCK OF MAHANADI COAL FIELD LIMITED IN ANGUL FOREST DIVISION OF ANGUL DISTRICT OF ODISHA.

The Site inspection of the above project was carried out by the undersigned on 21.11.2023 along with the DFO, Angul and representatives from M/s Mahanadi Coalfield Limited (MCL). The instant proposal is for diversion of 193.845 Ha of forest land. The total project area is 1265.000 Ha comprising of 193.845 Ha of forest land and 1071.155 Ha of non-forest land.

1. Legal status of the forest land proposed for diversion

As reported by State Govt., legal status of the forest land is as below:

Legal Status		Forest Area (in Ha)
Reserved Forest	:	149.62
Revenue Forest	:	0.129
DLC Forest	:	44.096
Total		193.845

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

Pattern of Utilization	Forest land in Ha				Non-forest land in Ha	Total Land in Ha
	Reserved forest	Revenue Forest	DLC Forest	Total Forest		
Mining excavation	148.156	0.053	38.556	186.765	1008.935	1195.700
Safety Zone 7.5 m.	1.464	0.000	0.387	1.851	7.449	9.300
Infrastructure	0.000	0.077	5.152	5.229	54.771	60.000
Total	149.620	0.130	44.095	193.845	1071.155	1265.000

As reported, as per the mining plan 1265.00 ha land has been set aside for different pattern of utilization including use of proposed 193.845 ha of forest land. Pattern of utilization of land given by the DFO, Angul in his site inspection report has been rectified changing safety zone area from 1.467 ha to 1.851 ha and accordingly excavation area has been calculated.

In the land use pattern “Infrastructure” it is proposed to utilize 5.229 ha of forest land. It is certified by the user agency that out of 5.229 ha, 3.1 ha will be utilized for a railway line proposed from Subhadra OCP to Angul Railway station and remaining 2.129 ha of forest land are in scattered patches in which a pipe conveyor is proposed to be constructed in future.

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

No.

4. Total cost of the project at present rates:

As reported by the State Govt., the total capital outlay of the project will be Rs.3504.21 Crores.

5. Wildlife:

As reported by the DFO, Angul, wild animals such as Wild Boar (*Sus scrofa*), Barking Deer (*Muntiacus*), Indian Hare (*Leporidae*), Langur (*Semnopithecus*), Jackal (*Canis aureus*) & Indian penfowl (*Pavo cristatus*), Egretta (*novae hollandiae*), Kingfisher (*Alcedinidae*), Drongo (*Dicruridae*) etc. are seen in the area. No rare/ endangered/ unique species of flora and fauna found in the area.

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

The DFO, Angul Forest Division has reported that the applied area does not form a part of any National Park/ Wildlife Sanctuary/ Biosphere Reserve/ Tiger Reserve/ Elephant Corridor. It was also reported that the proposed site for the project does not come under eco-sensitive zone of any protected area.

6. Vegetation:

As reported by the DFO, Angul Forest Division, the canopy density of existing vegetation varies from 0.1 to 0.4 under Eco-value Class-III.

(a) Total number of trees to be felled.

Total- 5256 nos of trees (Reserve Forest)

Total- 473498 nos. Bamboo Clump (Reserve Forest)

Total- 183 Nos. of trees (Revenue Forest)

As reported by the DFO, Angul tree enumeration has been taken up in forest land through the Range Officer, Talcher. In Gopalprasad Reserved Forest, total 5256 trees of 54 species and 7323 bamboo clumps over 149.62 ha forest land have been enumerated. Similarly, 183 trees of 21 varieties have been enumerated over 44.225 ha of Revenue Forest land.

No trees have been enumerated over non-forest land. It is mentioned that over 1071.155 ha non-forest land of the project, trees to be enumerated.

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

As there are large numbers of trees to be felled, it will affect the general ecosystem of the area. Trees should be felled in a phased manner to minimize the adverse impact on the eco-system.

As reported DFO, Angul, felling of trees outside forest area will adversely impact air and hydrology in the area. To mitigate the impact of the felling of trees outside forest, ten times numbers of trees is recommended to be planted at the time of felling of trees as Angul- Talcher is one of the 43 critically polluted areas identified by the CPCB.

(b) Important species:

As reported by the DFO, Angul, the tree species available in the applied area are Arjuna (*Terminala arjuna*), Amla (*Emblica officinalis*), Bahada (*Terminalia belerica*), Bara (*Ficus bengalensis*), Chara (*Buchanania lanzen*), Dhaura (*Anogeissus latifolia*), Bhuinchai (*Flacourtia indica*), Chulla (*Elaedendron glaucum*), Fasi (*Anogeissus acuminata*), Kakhada (*Casearia elliptica*), Karanja (*Pongamia pinnata*), Kendu (*Diospyros melanoxylon*), Khairakanchan (*Mimusops hexandra*), Mahul (*Madhuca indica*), Mango (*Manjifera indica*), Sal (*Shorea robusta*), Valia (*Semicarpus anacardum*), Bela (*Aegle murex*), Chakunda (*Cassia siama*), Muturi (*Smilax macrophylla*), Mahi (*Lannea coromandelica*), Neem (*Azadirachta indica*), Jamu (*Syzygium cumini*), Palasa (*Butea monosperma*), Patamasu (*Garuga pinnata*), Simili (*Bombax ceiba*), Teak (*Tectona grandis*), Piasal (*terocarpus marsupium*), Patasa (*Eucalyptus*), Sakarakanda (*Ipomea batatas*), Acacia (*Acacia auriculiformis*), Asan (*Terminalia tomentosa*), Kadamba (*Anthocephalus cadamba*), Krushnachuda (*Delonix regia*), Barakoli (*Zrziphus jujube*), Guava (*Psidium guava*), Kaitha (*Feronia limonia*), Osts (*ficus religiosa*), Rohini (*Soymida febrifuga*), Tal (*Borassus flabellifer*), Karada (*Cleistanthus collainuS*), Achhu (*Morinda tinctoria*), Sisu (*Dalbergia latifolia*), Veru (*Chloroxylon swetenia*), Sirisa (*Albizia procera*), Sunari (*Cassia fistula*), Halada (*Diospyros montana*), Kasi (*Bidelia retusa*), Ankula (*Elengium lamarkaii*), Dhamana (*Grewia tillifolia*) Barabakalia (*Dalergia paniculata*), Gohira (*Acacia leucophloea*), etc.

7. Background note on the proposal:

The Balaram OCP is an opencast expansion (15 MTY) mine located in Talcher Tahasil of Angul District in Odisha State. It is the renaming of erstwhile Kalinga OCP of 08 MTY. The functional directors of MCL in its 154th meeting held on 10.04.2006 deliberated on the subject of change of name of Kalinga OCP in detail and in consideration of the facts and circumstances highlighted in the proposed note and based on the clarification offered during deliberation, approved the proposal to change the name of Kalinga OCP as Balaram OCP placing the same under administrative control of Hingula Area with immediate effect. This was further decided to convey the change of name to MCL board, CIL and Ministry of Coal, GoI Board of directors of MCL Board in its 81st Board meeting held on 26.06.2006 at Kolkata changed the name of erstwhile Kalinga OCP (08 MTY) as Balaram OCP in Angul district of Odisha in accordance with the decision of the Board of functional directors held on 10.04.2006. Accordingly, MCL, Sambalpur vide its Office Order No.MCL/HQ/EE/2006/4971 dt.11.04.2006 changed the name of Kalinga OCP to Balaram OCP. The Kalinga OCP of 8 MPTA capacity (renamed as Balaram OCP in 2005-2006) was opened in 1991 to supply coal to North Madras and Tuticorin power house by rail.

Balaram expansion OCP, formed by combining Kalinga East and Kalinga west blocks (seams), lies on the south of central part of Talcher Coalfield of MCL. In the meeting taken by D (T/P&D), MCL with CMPDIL, it was decided that a combined expansion report will be prepared by CMPIDL during 2009-10 comprising of left out portion of Kalinga east/ west (seams) and part of Konark block (seam). Later, it was decided by MCL to attach a virgin portion of Kalinga East spreading over villages like Banabaspur, Telipur, Salada, Satyabadipur, Gopalaprasad Khamar, Birabarpur & Khuringa Tahasils of Angul District. These are seven villages affected by the expansion project excluding villages affected by Balaram 8 MTY and its extension. Coal India Limited Board in its 405th Board meeting approved Balaram expansion OCP for rated capacity of 15 MTY with dovetailing the Balaram extension OCP (8MTY).

Implementation of proposed Balaram Expansion OCP (15MTY) will require 2779.00 ha of total lease area. Out of which 2574.00 ha of land is required for its operation (mining lease). The lease area consists of Government land, Private land and Forest land. The total lease area includes the area required for actual excavation, blasting zone, other infrastructural facilities etc. in addition to 205 ha of land for R&R colony and others. The balance land requirement for the expansion area have been estimated as 1265.00 ha mining lease and 1309.00 ha as total lease, which is over and above the land already envisaged in approval P.R and E.C of Balaram OCP (8MTY). The project has been planned for a targeted production of 15.0 MT of coal per annual. The total mineable reserves of 712.134 MT have been estimated as on 01.04.2020 within the proposed quarry boundaries. With these mineable reserves, the life of the proposed Balaram Expansion OCP has been estimated as 49 years for a rated capacity of 15.0 MTPA. There are 09 nos. of villages affected by the Expansion project (excluding villages affected by Balaram OCP 8 MTPA and its expansion) as per the revised approved mining plan. Those villages are Banabaspur, Telipur, Solada, Satyabadipur, Gopalprasad Khamar, Birabarpur and Khuringa.

Pattern	Existing 8 MTY OCP	Additional Increment	Proposed 15 MTY OCP
Capacity	8 MTY	7 MTPA	15 MTPA
Total project Area	1380 Ha	1399 Ha	2779 MTPA
Mining Lease Area	1309 Ha	1265 Ha	2574 Ha
Forest Area	85.01 Ha	193.845 Ha	278.855 Ha
Non-forest Area	1223.99 Ha	1071.155 Ha	2295.145 Ha

The total extractable Coal reserve of this project is about 712.21 million tons including 111.261 million tons in forest land of 193.845 ha. The annual production of the project is around 15 million tonnes. There is total 19 nos. seams including splits with the thickness of Coal seams ranging from 0.3m to 22m and located at a depth between 10.0 m to 270 m.

8. Compensatory afforestation:

As reported by the State Govt., double degraded forest land of 387.332 ha has been identified in Mahavir Road Range of Dhenkanal Forest Division in Dhenkanal District. Out of which, 270.452 ha DFL identified in Dolia R.F and 116.88 ha DFL identified in Anantapur R.F. The entire identified land comes under open forest category. The total area of DFL 387.332 ha for CA scheme shall be covered under AR plantation with 1000 plants per hectare.

The details of the model adopted for planting, fencing, watering, and SMC works are provided in the scheme as per the one-time cost norm circulated from the O/o the PCCF & HoFF, Odisha. Species chosen for plantation are Khair (*Acacia catechu*), Amla (*Emblica officinalis*), Bahada (*Terminalia bellerica*), Asan (*Terminalia tomentosa*), Amba (*Mangifera indica*), Karanja (*Pongamia pinnata*), Tentuli (*Terminalia indica*), Aswastha (*Reus religiosa*), Kusum (*Schleichera oleose*), Kaitha (*Limonia acidissima*), Chhatian (*Alstonia scholaris*), Bara (*Ficus bengalensis*), Ambeda (*spondias pinnata*), Mundi (*Mitragyna paraviflora*), Kumbhi (*Careya arborea*), Pahadi sissoo (*Dalbergia latifolia*), Bela (*Aegel marmar/ous*), Arjun (*Terminail arjuna*) etc.

The DFO, Dhenkanal Division vide memo dated 11.07.2023 has intimated that no plantation has been taken up in the identified DFL area in Anantapur R.F. & Delia R.F during last 10 years.

The MoEF&CC, GoI while granting Stage-I approval for Utkal-E Coal Block of M/s NALCO in Angul District dt. 12.03.2021 has laid some conditions to be fulfilled by NALCO as well as the other user agencies applying for coal mines in Talcher tract. Twice notified degraded forest land can be accepted for CA on the following conditions:

- a. State Government issues a certificate that degraded forest land outside notified forests is not available for CA purpose, and
- b. Nodal officer certifies that no afforestation/ plantation have been taken u under any plan/ programme in the degraded notified forest areas proposed for CA in the last 10 years.

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

The site suitability certificate for raising CA over 387.332 ha degraded forest land has been furnished by DFO, Dhenkanal.

The compensatory afforestation site is found to be suitable for plantation.

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

-

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

It has been reported that the land for CA is not important from Religious/Archaeological point of view.

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

The identified 387.332 ha degraded forest land (270.452 ha DFL identified in Dolia R.F and 116.88 ha DFL identified in Anantapur R.F) under Dhenkanal Forest Division is in 2 nos. of patches.

(e) **Map with details:**

The DGPS map and SoI Toposheet indicating location of identified degraded forest land for C.A. has been submitted by the State Govt.

(f) Total financial outlay:

The PCCF (Nodal), Odisha has technically approved the C.A. Scheme over 387.332 ha degraded forest land for financial outlay of Rs.16,24,37,900/- as per approved onetime cost norms with 10 years maintenance.

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, Angul, no violation has been committed by the user agency under 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 :

Yes. The State Govt. reported that total 3715 families will be displaced due to implementation of the project, out of which 03 nos. of SC families, 267 nos. of ST families and 3445 nos. of other families. However, no displacement is required from the forest area involved in the project.

11. Reclamation plan:

As reported, the Mining plan including mining closer plan has been approved. Subsequently mining plan has been modified and one corrigendum in this regard has been passed on 17.11.2020. The mining plan and mining closure plan has been approved by the Ministry of Coal vide letter No. 34012/(04)/2011-CPAM dt.09.03.2016.

A detailed scheme to reclaim and stabilize the mined out undulating areas and the saturated dumps, management of waste, Top soil management, water quality management etc. by adopting different physical and technical measures are proposed in the mining closure plan with financial outlay. The user agency has furnished implementation schedule of mining closure plan of the Balaram expansion OPC with the proposal.

State Govt. reported that 8MTY Kalinga (Balram OCP) the maximum RL of the internal dump was planned to be + 125 meter, however, in the Balram OC extension 15 MTY mining plan, the planned RL was increased to + 205 meter. Till now the project has achieved max RL of + 165 meters. The plantation in the above said will be taken up once the planned RL is achieved. As reported that user agency has technically reclaimed 175.17 ha as on 31.03.2023 and Biologically reclaimed 89.02 ha of internal OB dump and 26.52 ha of external OB dump.

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

NA.

Catchment area treatment plan to prevent siltation of reservoir:

NA.

13. Cost benefit ratio:

The cost of forest Diversion is assessed as Rs. 51872.2133 lakhs and Benefit of the project is estimated at Rs. 92,73,616.5098 lakhs. The Cost Benefit ratio comes to **1:178.778**.

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

The forest area proposed for diversion has been duly recommended by PCCF.

15. Utility of the project:

As reported by the user agency, the project will generate permanent employment to 1157 persons and temporary employment of 15000 mandays.

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:

The Hingula temple is located 350 mtr from the proposed mine boundary.

(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.

17. Situation with respect to any Protected Area:

As reported by the DFO, Angul, the ML area of Balaram OCP is at a distance of 8.04 Km from Kanheipur-Anantapur Elephant Corridor and 29.1 Km for Satkosia (WL)/ Tiger Reserve.

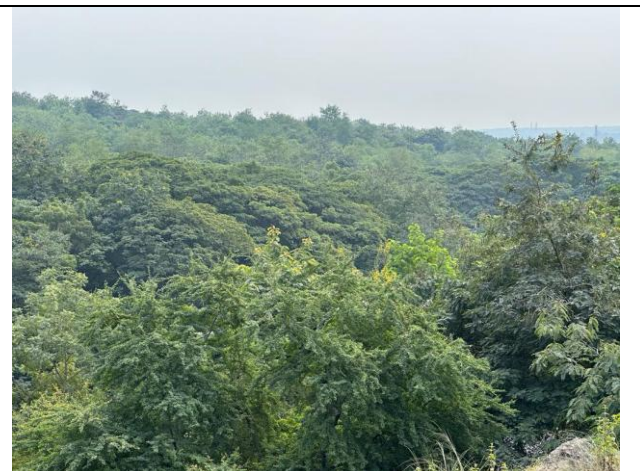
18. Any other information relating to the project:



Proposed site for diversion



Proposed CA Site



Biologically Reclaimed area

19. Recommendations of Dy. Director General of Forests (Central) along with detailed reasons:

1. The instant proposal is for diversion of 193.845 Ha of forest land. The total project area is 1265.000 Ha comprising of 193.845 Ha of forest land and 1071.155 Ha of non-forest land.
2. The proposed site does not come under any Protected Area or within the Eco-Sensitive Zone of any Protected Area. The nearest P.A. is Satkosia (WL)/ Tiger Reserve, which is about 29.1 Km kms from the project and 8.04 Km from Kanheipur-Anantapur Elephant Corridor. To mitigate the impact of mining on wild animals, Wildlife Conservation Plan has been recommended by the State Govt.
3. The State Govt. reported that total 3715 families will be displaced due to implementation of the project, out of which 03 nos. of SC families, 267 nos. of ST families and 3445 nos. of other families. However, no displacement is required from the forest area involved in the project.
4. The number of trees to be felled is large. To minimize the adverse ecological impact, trees should be felled in a phased manner and when become absolutely necessary. Further, as reported by DFO, Angul, felling of trees outside forest area will adversely impact air and hydrology in the area. To mitigate the impact of the felling of trees outside forest, ten times numbers of trees is recommended to be planted at the time of felling of trees as Angul- Talcher is one of the 43 critically polluted areas identified by the CPCB.
5. State Govt. has identified 387.332 ha degraded forest land (270.452 ha DFL identified in Dolia R.F and 116.88 ha DFL identified in Anantapur R.F) under Dhenkanal Forest Division is in 2 patches. in lieu of diversion of 193.845 Ha of forest land. (The proposal was submitted prior to issue of letter No.FC-11/118/2021-FC dated 29.06.2022 of Ministry where for C.A. non-forest land has been mandated for such diversion proposal.)
6. During inspection some of the de-coaled land found to be biologically reclaimed. The user agency said that about 115.54 ha of land has been biologically reclaimed.

But the reclaimed land has not been handed over to the Forest Department. The biologically reclaimed land should be handed over to Forest Department.

7. State Govt. reported that 8MTY Kalinga (Balram OCP) the maximum RL of the internal dump was planned to be + 125 meter, however, in the Balram OC extension 15 MTY mining plan, the planned RL was increased to + 205 meter. Till now the project has achieved max RL of + 165 meters. The plantation in the above said will be taken up once the planned RL is achieved. As reported that user agency has technically reclaimed 175.17 ha as on 31.03.2023 and Biologically reclaimed 89.02 ha of internal OB dump and 26.52 ha of external OB dump.
8. In the year 1990, approval for diversion of 85.201 ha of forest land was given in favour of Kalinga OPC of M/s MCL.

The Board of Director of MCL in its 81st meeting held on 26.06.2006 has changed the name of Kalinga OCP to Balram OCP. But, the transfer of forest clearance in favour of Balram OCP of M/s MCL has not been done so far.

9. The Mining Plan has been approved by the Ministry of Coal vide letter No.34012/(04)/2011-CPAM dated 09.03.2016.
10. Bangaru Jhor flows from South West to North East and another Singada Jhor flows in adjacent to north-western boundary of the block. The mining project will affect the catchment of two rivulets. So there is a need for soil and moisture conservation measures in the catchment of this river and the forest lands in and around the proposed site. No excavated materials/mine water shall be discharged into the natural rivulets/rivers.

11. Detail study on impact of mining and water abstraction and mine water discharge in mine on the hydrogeology and ground water regime within the core zone and 10 Km buffer zone including long-term modelling studies on the impact of mining on the ground water regime shall be carried out.
12. The top soil should be removed and placed at a designated protected place with due care to protect the fertile component of the soil. The grasses or other annual species may be planted to ensure intactness of minerals and germ plasm of the top soil.
13. The DFO, Rourkela has been requested to give the detailed updated status of C.A. raised in Panpose Range in lieu of 85.201 ha of forest land earlier diverted. The DFO has not yet submitted the required information.

Mining of coal is a site specific activity. In view of the above, the proposal is recommended with standard general conditions and observation made during site inspection. The user agency should hand over the already biologically reclaimed area to the Forest Department and also biological reclamation should be done in a phased manner as per the Mining Plan and after reclamation it should also be handed over to the Forest Department.



(A. T. Mishra)
Dy. Director General of Forests (Central)