

1399

29/07
04



Letter No. 11036/OMC/F&E/2021
28th July, 2021

To

The Divisional Forest Officer
Bonai Division

Sub: Proposal seeking prior approval under the Forest (Conservation) Act, 1980 for non-forestry use of 86.479 ha of forest land, comprising of 85.175 ha of fresh forest land and 1.304 ha re-diversion of Forest land (which is a part of 11.912 ha forest land, granted Stage-II approval by ERO, MoEF & CC on 29.05.2020) in favour of M/s Odisha Mining Corporation Limited for construction of overhead piped conveyor belt from Kurmitar ML Boundary to proposed Railway Siding in Tahasil Lahunipara, District Sundargarh (Odisha)-reg.

Ref: (i) Letter No.8-113/2000-FC (Vol-III) dt 04.02.2021 by MoEF & CC.
(ii) Letter No.8-113/2000-FC (Vol-III) dt 08.02.2021 by MoEF & CC.
(iii) Letter No.1431/6F-(Mg.) dt 04.03.2021 by DFO, Bonai.

Sir,

The point wise compliance to the conditions stipulated in the stage-I Forest Clearance granted MoEF & CC, Govt of India vide letter under reference (i) and subsequent corrigendum issued by MoEF & CC, Govt. of India vide letter under reference (ii) pertaining to construction of pipe conveyor for transportation of iron ore from Kurmitar mining lease boundary to proposed new Railway siding near Barsuan over an area of 86.479 ha (including 1.304 ha re-diversion) is given as under:

A. Conditions which need to be complied prior to handing over of forest land by the State Forest Department and compliance is to be submitted prior to Stage-II approval.

1. Compensatory Afforestation

i. Compensatory Afforestation, in lieu of forest land being diverted, shall be raised over 85.175 ha of non-forest land by the State Forest Department at the cost of User Agency; and

In compliance, it is submitted that a scheme for raising compensatory afforestation over 85.175 ha of non-forest Govt. land in lieu of the forest land diverted in village Champachuan under Thuamul Rampur Tahasil of Kalahandi district has been technically approved by APCCF (FD & NO, FC Act) to be executed by the State Forest Department by utilising the funds deposited by OMC. The copy of the approved CA scheme is enclosed as Annexure-I.

ii. The cost of compensatory afforestation at the prevailing wage rates as per compensatory afforestation scheme and the cost of survey, demarcation and erection of permanent pillars if required on the CA land shall be deposited in advance with the Forest Department by the project authority. The CA will be maintained for 10 years. The scheme may include appropriate provision for anticipated cost increase for works scheduled for subsequent years

The Odisha Mining Corporation Ltd.
(A Gold Category State PSU)

Registered Office : OMC House, Bhubaneswar-751001, India
Tel: 0674-2377400/2377401, Fax: 0674-2396889, 2391629, www.omcltd.in
CIN : U13100OR1956SGC000313

0/10

In compliance, it is submitted that DFO, Bonai had raised a demand to pay Rs 4, 47, 92,000/- vide letter No.3186/6F-(MG.) dt 30.03.2021 towards the approved cost of CA (including the cost of survey, demarcation and erection of permanent pillars) over 85.175 ha of non-forest Govt. land in village Champachuan under Thuamul Rampur Tahasil of Kalahandi district, estimated @ Rs 308/- per manday. OMC has transferred the said amount through RTGS vide UTR No. UBINJ 21102281985 dt 07.04.2021 in the ORISSA CAMPA account No. 1508219944967534 in Union Bank of India, Lodhi Complex Branch, Block-11, CGO Complex, Phase-I, Lodhi Road, New Delhi - 110003. The scheme shall be maintained for 10 years and includes escalation @ 20% towards anticipated cost increase for works scheduled for subsequent years. Due to revision in the wage rate, the scheme has been revised @Rs 311/- per manday and obtained approval of APCCF (FD & NO FC Act) for a total financial outlay of Rs 4, 51, 43, 600/-. The demand raised by DFO, Bonai vide letter No.5759/6F-(Mg.) dt 22.07.2021 to deposit the differential amount of Rs 3,51,600/- was vetted online by APCCF (FD & NO, FC Act) and as per the challan generated through PARIVESH portal. OMC transferred Rs 70506100/- vide UTR No. UBINJ 21209864503 dt 28.07.2021 in the ORISSA CAMPA account No. 1508219944967481 in Union Bank of India, Lodhi Complex Branch, Block-11, CGO Complex, Phase-I, Lodhi Road, New Delhi-110003 which includes the differential cost of Rs 3,51,600/- towards CA. The copy of the demand letters by DFO and RTGS receipts in support of the proof of the deposit by OMC is enclosed as **Annexure-II Series**.

The CA land so allotted has been alienated in favour of the State Forest Department as per the RoR issued by the Tahasildar, Thuamul Rampur. The said area over 85.175 ha or 210.47 Acr has been notified by the State Government as “**Champachuan Protected Forests**” vide letter No.10485 dt 11.06.2021. The copy of RoR and the PF Notification is enclosed as **Annexure-III Series**.

2. The State Government shall charge the Net Present Value (NPV) for the 162.394 ha forest area to be diverted under this proposal from the User Agency as per the orders of the Hon'ble Supreme Court of India dated 30/10/2002, 01/08/2003, 28/03/2008, 24/04/2008 and 09/05/2008 in IA No. 566 in WP (C) No. 202/1995 and as per the guidelines issued by the Ministry vide letters No. 5-1/1998-FC (Pt.II) dated 18/09/2003, as well as letter No. 5-2/2006-FC dated 03/10/2006 and 5-3/2007-FC dated 05/02/2009 in this regard;

In compliance, MoEF & CC vide letter under reference (ii) has revised the area proposed for diversion to 85.175 ha instead of 162.394 ha. Accordingly, DFO, Bonai vide letter No.3335/6F-(Mg.) dt 06.04.2021 has raised a demand of Rs 7, 99, 79,325/- towards NPV over 85.175 ha. The demand was vetted online by APCCF (FD & NO, F C Act) and as per the challan generated through PARIVESH portal, the amount of Rs 8,69,74,089/- has been transferred vide UTR No. UBINJ21109634976 dt 16.04.2021 in the ORISSA CAMPA account No. 1508219944967465 in Union Bank of India, Lodhi Complex Branch, Block-11, CGO Complex, Phase-I, Lodhi Road, New Delhi-110003 which includes Rs 7,99,79,325/- towards NPV over 85.175 ha. The copy of the demand letter by DFO and RTGS receipt in support of the proof of the deposit by OMC is enclosed as **Annexure-IV**.

3. Compensatory levies to be realized from the User Agency under the project shall be transferred/deposited, through e-challan, in to the account of CAMPA pertaining to the State concerned through e-portal (<https://parivesh.nic.in/>);

In compliance, it is submitted that all the compensatory levies for this project has been transferred through e-challan in to the account of ORISSA CAMPA pertaining to the State of Odisha through e-portal (<https://parivesh.nic.in/>). The details are given in the CAMPA format enclosed as **Annexure-V**.

4. On analysis on DSS it was observed that a seasonal water stream/nalah exists on South-west boundary of the proposed dispatch area-2 is adjoining a seasonal water stream/nalah. The area between the banks of this seasonal stream/nalah and the proposed dispatch area-2 shall be mapped and a green belt with native species shall be raised and maintained at the cost of user agency to protect the seasonal stream/nalah. Soil and moisture conservation measures in the dispatch area shall be planned and implemented at the cost of the user agency and effective measures shall be used by the user agency to prevent Iron ore leaching from the dispatch areas.

In compliance, it is submitted that the area between the banks of the seasonal stream/nalah and the proposed dispatch area-2 has been mapped and an area over 14.499 ha has been considered in the scheme to develop a green belt in the said area with native species and adequate soil and moisture conservation measures in Despatch area-1 & 2. The scheme has been prepared and approved by RCCF, Rourkela [Letter No.1577/3F (Misc.) 756/2021 dt 24.06.2021] with a financial outlay of Rs 3, 32, 84,200/- at the current wage rate with a maintenance period of 10 years to protect the seasonal stream/nalah. An undertaking by OMC to raise and maintain the green belt with SMC by OMC is given at Sl.No.1 of Annexure-UT. The above scheme includes adequate soil and moisture conservation measures. An undertaking by OMC to take effective measures to prevent iron ore leaching from the despatch areas to the stream is given at same serial number as above. The copy of the scheme duly approved by RCCF, Rourkela is enclosed as Annexure-VI.

5. It shall be ensured that the trestles (pillars) of proposed conveyer belt are sufficiently high so that the movement of wildlife particularly elephant in the area is not hampered. A Site-Specific Wildlife Conservation Plan shall be prepared and approved by the competent authority and the cost of its preparation and implementation shall be borne by the user agency. The user agency shall also make proportionate contribution towards the cost of the Regional Wildlife Management Plan prepared and approved by the competent authority.

In compliance, it is submitted that the height of the trestles (pillars) of proposed conveyer belt has been designed in such a way that the movement of wildlife particularly elephant in the area is not affected. A Site Specific Wildlife Conservation Plan (SSWLCP) has been prepared and approved by PCCF (WL) & Chief Wildlife Warden, Odisha vide letter No.6963/7WL-FD&WLC-182/2020 dt 23.07.2021 with a total financial outlay of Rs 5, 88, 51,600/-. Accordingly, DFO, Bonai has raised a demand vide letter No. 5807/6F-(Mg.) dt 23.07.2021 which was vetted by APCCF (FD & NO FC Act). OMC transferred the amount of Rs70506100/- as per the challan generated through PARIVESH portal vide UTR No. UBINJ 21209864503 dt 28.07.2021 in the ORISSA CAMPA account No. 1508219944967481 in Union Bank of India, Lodhi Complex Branch, Block-11, CGO Complex, Phase-I, Lodhi Road, New Delhi-110003 which includes Rs 5, 88, 51,600/- towards the mitigative measures. The copy of the approved & approval of SSWCP, the demand letter by DFO, Bonai and the copy of RTGS receipt in support of proof of the deposit by OMC is enclosed as Annexure-VII series.

In compliance to the second part of the condition, it is submitted that DFO, Bonai has raised a demand of Rs 69, 94,764/- vide letter No. 3335/6F-(Mg.) dt 06.04.2021 towards proportionate contribution of the cost of Regional Wildlife Management Plan prepared for Bonai-Keonjhar Region @ Rs 82000/- per ha. OMC has transferred the total amount of Rs 8, 69, 74,089/- vide UTR No. UBINJ21109634976 dt 16.04.2021 in the ORISSA CAMPA account No. 1508219944967465 in Union Bank of India, Lodhi Complex Branch, Block-11, CGO Complex, Phase-I, Lodhi Road, New Delhi-110003 which includes Rs

69,94,764/- towards Regional Wildlife Management Plan over 85.302 ha. The copy of the demand letter by DFO, Bonai and the copy of RTGS receipt in support of proof of the deposit by OMC is enclosed as Annexure-VIII Series.

6. The state Forest Department shall also prepare a scheme of Assisted Natural Regeneration of the forest in 500 meter perimeter of the dispatch areas with a view to create dense green cover so as to minimise dust and other pollution on rest of the forest, and implement it at the cost of the user agency.

In compliance, it is submitted that a scheme of Assisted Natural Regeneration of the forest in 500 meter perimeter of the dispatch area-1 & 2 over 141.60 ha (500 mtr on outer perimeter of despatch area-1: 48.643 ha + 500 mtr on outer perimeter of despatch area-2: 127.379 ha, excluding 50 mtr of green belt already considered against condition No.4) has been prepared with a view to create dense green cover so as to minimise dust and other pollution on rest of the forest and got the approval of RCCF, Rourkela [Letter No.1577/3F (Misc.) 756/2021 dt 24.06.2021] with a financial outlay of Rs 1,13,02,900/- at the current wage rate to be executed by the State Forest Department.

Accordingly, DFO, Bonai has raised a demand of Rs 1, 13, 02,900/- vide letter No. 4966/6F-(Mg) dt 25.06.2021 towards ANR plantation. The demand letter was vetted by APCCF (FD & NO FC Act) online and as per the generated challan, OMC has transferred Rs 70506100/- vide UTR No. UBINJ 21209864503 dt 28.07.2021 in the ORISSA CAMPA account No. 1508219944967481 in Union Bank of India, Lodhi Complex Branch, Block-11, CGO Complex, Phase-I, Lodhi Road, New Delhi-110003 for implementation by the State Forest Department which includes Rs 1, 13, 02,900/-. The copy of the demand letter by DFO, Bonai and the copy of RTGS receipt in support of proof of the deposit by OMC is enclosed as Annexure-IX.

7. The User agency will undertake comprehensive soil conservation measures at the project cost in consultation with the State Forest Department in the forest area being diverted. A scheme of the same shall be submitted along with compliance of Stage-I approval;

In compliance, OMC has prepared a comprehensive soil conservation measures in consultation with the State Forest Department at the financial outlay of Rs 15, 20, 800/- in the forest area being diverted and got the approval from RCCF, Rourkela [Letter No.1577/3F (Misc.) 756/2021 dt 24.06.2021] for implementation by OMC. An undertaking by OMC to implement the scheme at project cost is given at **Sl.No.2 of Annexure-UT**. The copy of the approved scheme is enclosed herewith as **Annexure-X**.

8. The User agency in consultation with the State Forest Department shall prepare a detailed scheme for creation and maintenance of plantation of dwarf species (preferably medicinal plants) for its implementation in right of way under the conveyor belt at the project cost;

In compliance, it is submitted that OMC, in consultation with the State Forest Department has prepared and got the approval of RCCF, Rourkela [Letter No.1577/3F (Misc.) 756/2021 dt 24.06.2021] regarding a detailed scheme for creation and maintenance of plantation of dwarf species (preferably medicinal plants) for its implementation in right of way under the conveyor belt at the financial outlay of Rs 21, 67,600/- at the current wage rate. The copy of the scheme is enclosed herewith as **Annexure-XI**. An undertaking by OMC to implement the scheme at project cost is given at **Sl.No.3 of Annexure-UT**.

9. The cost of felling of trees shall be deposited by the User Agency with the State Forest Department; and

In compliance, OMC has submitted an undertaking to deposit the cost of tree felling to OFDC, on receiving the demand at Sl.No.4 of Annexure-UT.

10. The State Government shall ensure that User Agency obtains clearance under the provisions of Scheduled tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 in accordance with the relevant guidelines issued by the MoEF & CC in this regard and a report on the same is submitted to the Ministry along with compliance of Stage-I approval.

In compliance, it is submitted that the copy of the certificate issued by the Collector, Sundargarh over 85.175 ha of forest land included within the project area under Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 along with the copy of the resolutions is enclosed as Annexure-XII Series.

11. The KML files of diverted area and CA areas shall be uploaded on E- green watch portal with all requisite details prior to Stage II approval

In compliance, OMC has submitted the KML file (in a CD) of diverted forest area and CA land for necessary uploading in e-green watch by DFO, Bonai before grant of stage-II approval.

B. Conditions which need to be complied on field after handing over of forest land to the user agency by the State Forest Department but the compliance in form of undertaking shall be submitted prior to Stage-II approval.

1. Legal status of the diverted forest land shall remain unchanged;

In compliance, OMC has submitted an undertaking at Sl.No.5 of Annexure-UT to pursue the matter with State Govt. to ensure that the legal status of the diverted forest land shall remain unchanged.

2. Additional amount of the NPV of the diverted forest land, if any, becoming due after finalization of the same by the Hon'ble Supreme Court of India on receipt of the report from the Expert Committee, shall be charged by the State Government from the User Agency;

In compliance, OMC has submitted an undertaking at Sl.No.6 of Annexure-UT to deposit the additional amount of the NPV of the diverted forest land, if any, becoming due after finalization of the same by the Hon'ble Supreme Court of India.

3. After construction of the proposed overhead conveyer belt, State government will ensure that transportation of ore from the mines through existing road gets discontinued in a phased and time bound manner. To maximize utilization of the conveyer belt facility user agency shall not transport any ore material through road beyond a permissible quantity as specified by the State Government from time to time;

In compliance, OMC has submitted an undertaking at Sl.No.7 of Annexure-UT to discontinue transport of ore from the mines through existing road in a phased and time bound manner to maximize utilization of the conveyer belt facility and shall not transport any ore material through road beyond a permissible quantity as specified by the State Government from time to time.

4. It was noticed during DSS analysis that 0.983 ha forest area is proposed to be used for infrastructure purpose adjoining the dispatch area-1. Since this is an isolated area, use of forest land for non-forestry purpose was not allowed considering larger impact it will have on remaining forest. Moreover, the user

agency has sufficient area available, for this purpose in the land which had already been diverted in its favour;

..1 compliance, it is submitted that 0.983 ha forest area proposed to be used for infrastructure purpose adjoining the dispatch area-1 shall not be used by OMC as per the undertaking enclosed at Sl.No.8 of Annexure-UT.

5. Earlier approval was accorded for the parent proposal, i.e. use of forest area for mining in Kurmitar Iron and Manganese Mines vide this Ministry letter no 8-113/2000-FC (Vol.II) dated 29th November 2018. Compliance of the conditions specified in the approval shall be submitted by the State Government;

In compliance, it is submitted that OMC has complied all the conditions stipulated in the approval order no. 8-113/2000-FC (Vol.II) dt 29.11.2018. The copy of the compliance report is enclosed herewith as Annexure-XIII.

6. Besides, it is also to be ensured that title of the proposal should get changed as it also includes 1.304 ha of forest area is for re-diversion. The title of the proposal stands modified as under to avoid any confusion for future reference: Proposal for diversion of 85.175 ha of fresh forest land and 1.304 ha re-diversion of Forest land (which is a part of 11.912 ha forest land, for which Stage-II approval has already been accorded by ERO, MoEF & CC on 29.05.2020) for construction of overhead piped conveyor belt from Kurmitar ML Boundary of OMC Ltd to new proposed Railway siding at Barsuan for transportation of mineral with provision for one dispatch area in between the route and the other at terminal point at Barsuan.

In compliance, OMC has submitted an undertaking at Sl.No.9 of Annexure-UT to refer the title of the proposal as "Proposal for diversion of 85.175 ha of fresh forest land and 1.304 ha re-diversion of Forest land (which is a part of 11.912 ha forest land, for which Stage-II approval has already been accorded by ERO, MoEF & CC on 29.05.2020) for construction of overhead piped conveyor belt from Kurmitar ML Boundary of OMC Ltd to new proposed Railway siding at Barsuan for transportation of mineral with provision for one dispatch area in between the route and the other at terminal point at Barsuan".

7. No additional or new path will be constructed inside the forest area for transportation of construction materials for execution of the project work;

In compliance, OMC has submitted an undertaking at Sl.No.10 of Annexure-UT that no additional or new path shall be constructed inside the forest area for transportation of construction materials for execution of the project work.

8. Overburden, if any to be generated from the project, shall not be dumped outside the width of the proposed conveyor corridor. The muck generated in the earth cuttings will be disposed of at the designated dumping sites and in no case the muck/debris will be allowed to roll down the hill slopes;

In compliance, OMC has submitted an undertaking at Sl.No.11 of Annexure-UT to dispose the excavated earth on the earmarked dump site so as to prevent rolling down the hill slope.

9. The boundary of the diverted forest land, mining lease and safety zone, as applicable, shall be demarcated on ground at the project cost, by erecting four feet high reinforced cement concrete pillars, each inscribed with its serial number, distance from pillar to pillar and GPS co-ordinates;

In compliance, OMC has submitted an undertaking at Sl.No.12 of Annexure-UT to demarcate the boundary of the diverted forest land on ground at the project cost, by erecting four feet high

reinforced cement concrete pillars, each inscribed with its serial number, distance from pillar to pillar and GPS co-ordinates. The photographs of the RCC pillars are given at Annexure-XIV.

10. The User Agency shall obtain the Environment Clearance as per the provisions of the Environmental (Protection) Act, 1986, if required.

In compliance, it is submitted that this item of work does not find place in the list of projects/activities that require EC under EP Act 1986. The relevant pages of EIA Notification are enclosed as Annexure-XV.

11. No labour camp shall be established on the forest land and the User Agency shall provide fuels preferably alternate fuels to the labourers and the staff working at the site so as to avoid any damage and pressure on the nearby forest areas;

In compliance, OMC has submitted an undertaking at Sl.No.13 of Annexure-UT that no labour camp shall be established on the forest land and OMC shall provide fuels preferably alternate fuels to the labourers and the staff working at the site so as to avoid any damage and pressure on the nearby forest areas.

12. The layout plan of the proposal shall not be changed without the prior approval of the Central Government;

In compliance, OMC has submitted an undertaking at Sl. No.14 of Annexure-UT that the layout plan of the proposal shall not be changed without the prior approval of the Central Government.

13. The forest land shall not be used for any purpose other than that specified in the proposal;

In compliance, OMC has submitted an undertaking at Sl. No.15 of Annexure-UT that the forest land shall not be used for any purpose other than that specified in the proposal.

14. The forest land proposed to be diverted shall under no circumstances be transferred to any other agency, department or person without prior approval of the Central Government;

In compliance, OMC has submitted an undertaking at Sl. No.16 of Annexure-UT that the forest land proposed to be diverted shall under no circumstances be transferred to any other agency, department or person without prior approval of the Central Government.

15. No damage to the flora and fauna of the adjoining area shall be caused;

In compliance, OMC has submitted an undertaking at Sl. No.17 of Annexure-UT that no damage to the flora and fauna of the adjoining area shall be caused.

16. The user agency shall explore the possibility of translocation of maximum number of trees identified to be felled and shall ensure that any tree felling shall be done only when it is unavoidable and that too under strict supervision of the State Forest Department;

In compliance, OMC has submitted an undertaking at Sl. No.18 of Annexure-UT to explore the possibility of translocation of maximum number of trees identified to be felled and shall ensure that any tree felling shall be done only when it is unavoidable and that too under strict supervision of the State Forest Department.

17. The period of diversion under this approval shall be co-terminus with the period of lease to be granted in favour of the user agency or the project life, whichever is less;

In compliance, it is submitted that the period of diversion shall be maintained co-terminus with the lease period granted. An undertaking to this effect is given at Sl.No.19 of Annexure-UT.

18. The mining lease holder shall, after ceasing mining operations, undertake regressing of the mining area and any other areas which may have been disturbed due their mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna, etc.

In compliance, OMC has submitted an undertaking at Sl. No.20 of Annexure-UT to regress the area after decommissioning and restore the land to a condition which is fit for growth of fodder, flora, fauna, etc.

19. The User Agency shall submit the annual self-compliance report in respect of the above stated conditions to the State Government, concerned Regional Office and to this Ministry by the end of March every year regularly;

In compliance, OMC has submitted an undertaking at Sl. No.21 of Annexure-UT to submit the annual self-compliance report in respect of the above stated conditions to the State Government, concerned Regional Office and to this Ministry by the end of March every year regularly.

20. The user agency shall comply all the provisions of the all Acts, Rules, Regulations, Guidelines, Hon'ble Court Order (s) and NGT Order (s) pertaining to this project, if any, for the time being in force, as applicable to the project;

In compliance, OMC has submitted an undertaking at Sl. No.22 of Annexure-UT to comply all the provisions of the all Acts, Rules, Regulations, Guidelines, Hon'ble Court Order (s) and NGT Order (s) pertaining to this project, if any, for the time being in force, as applicable to the project.

21. Any other condition that the concerned Regional Office of this Ministry may stipulate, from time to time, in the interest of conservation, protection and development of forests & wildlife;

In compliance, OMC has submitted an undertaking at Sl. No.23 of Annexure-UT to comply any other condition that the concerned Regional Office of this Ministry may stipulate, from time to time, in the interest of conservation, protection and development of forests & wildlife.

22. The compliance report shall be uploaded on e-portal (<https://parivesh.nic.in/>); and

In compliance, OMC has submitted an undertaking at Sl. No.24 of Annexure-UT to upload the compliance report on e-portal (<https://parivesh.nic.in/>).

23. Violation of any of these conditions will amount to violation of Forest (Conservation) Act, 1980 and action would be taken as prescribed in para 1.21 of Chapter 1 of the Handbook of comprehensive guidelines of Forest (Conservation) Act, 1980 as issued by this Ministry's letter No. 5-2/2017-FC dated 28.03.2019

In compliance, it is submitted that OMC shall abide by the guidelines of Forest (Conservation) Act, 1980 as issued vide letter No. 5-2/2017-FC dt 28.03.2019 as per the undertaking given at Sl. No.25 of Annexure-UT.

In addition to the above conditions the State Govt. vide letter under reference (iii) has imposed three following conditions

(i) *The User Agency shall pay the evaluated royalty of trees existing over forest land before commencement of work on final forest clearance.*

In compliance, it is submitted that OMC will pay the working cost for feeling of trees before commencement of work on final forest clearance

(ii) *Tree should be felled only when it is absolutely necessary and in a phased manner.*

In compliance, It is submitted that OMC will request the State Forest Dept. before felling of trees to commence the work as per the Mining Plan approved by IBM.

(iii) *In case, CTE/CTO are required for this Infrastructure project the same shall be obtained by the User Agency from the Competent Authority.*

In compliance, It is submitted that OMC will move SPCB for grant of CTE/CTO after obtaining Stage-II Forest Clearance.

Yours faithfully,



Advisor (F&E)

Encls. as above.

Memo No.11037/OMC/F&E/2021 dt 28.07.2021.

Copy forwarded to the Regional Manager, Koira for kind information. He is requested to depute an executive exclusively to expedite early recommendation of the compliance to RCCF, Rourkela for necessary onward recommendation.



Advisor (F&E)

UNDERTAKINGS

[As per condition No. A (4, 7, 8 & 9) and Condition No. B (1, 2, 3, 4, 6, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22 & 23) of the stage-I grant order No.8-113/2000-FC (Vol.III) dt 04.02.2021 and dt 08.02.2021 issued by MoEF & CC, Govt. of India pertaining Kurmitar Conveyor Corridor area over 85.175 ha]

I, Sri Suman Krishna Sit, General Manager (Geology), Authorized Signatory of Odisha Mining Corporation Limited do hereby undertake the following for furtherance of the Forest Diversion Proposal for grant of 85.175 ha of forest land included within the conveyor corridor proposal from Kurmitar ML boundary to Barsuan proposed new Railway siding of OMC coming under Bonai Forest Division of Sundargarh district, Odisha:

Sl. No.	Condition No.	Undertakings by OMC
A. Conditions which need to be complied prior to handing over of forest land by the State Forest Department and compliance are to be submitted prior to Stage-II approval.		
1	4	To develop a green belt over 14.499 ha with native species for protection of the seasonal stream/nalah with a financial outlay of Rs 3, 32, 84,200/- approved by RCCF, Rourkela with adequate soil and moisture conservation measures in the dispatch area-1 & 2 shall be implemented at the approved financial outlay by OMC to prevent iron ore leaching from the dispatch areas.
2	7	To undertake comprehensive soil conservation measures in the forest area being diverted at a financial outlay of Rs 15, 20,800/- approved by RCCF, Rourkela in consultation with the State Forest Department.
3	8	To implement the scheme approved by RCCF, Rourkela for creation and maintenance of plantation of dwarf species (preferably medicinal plants) in right of way under the conveyor belt in consultation with the State Forest Department as per the financial outlay of Rs 21,67,600/-
4	9	To deposit the cost of felling of trees to OFDC on receiving the demand.
B. Conditions which need to be complied on field after handing over of forest land to the user agency by the State Forest Department but the compliance in form of undertaking shall be submitted prior to Stage-II approval.		
5	1	OMC shall pursue the matter with the State Govt. and ensure that the legal status of the diverted forest land shall remain unchanged.
6	2	To deposit the additional amount of the NPV of the diverted forest land, if any, becoming due after finalization of the same by the Hon'ble Supreme Court of India.
7	3	To discontinue transport of the ore from the mines through existing road in a phased and time bound manner to maximize utilization of the conveyor belt facility and shall not transport any ore material through road beyond a permissible quantity as specified by the State Government from time to time.

Sl. No.	Condition No.	Undertakings by OMC
8	4	The isolated patch of 0.983 ha of forest area shall not be used by OMC for infrastructure purpose.
9	6	To refer the title of the proposal as "Proposal for diversion of 85.175 ha of fresh forest land and 1.304 ha re-diversion of Forest land (which is a part of 11.912 ha forest land, for which Stage-II approval has already been accorded by ERO, MoEF & CC on 29.05.2020) for construction of overhead piped conveyor belt from Kurmitar ML Boundary of OMC Ltd to new proposed Railway siding at Barsuan for transportation of mineral with provision for one dispatch area in between the route and the other at terminal point at Barsuan".
10	7	No additional or new path will be constructed by OMC inside the forest area for transportation of construction materials for execution of the project work.
11	8	The generated overburden from the project shall not be dumped by OMC outside the width of the proposed conveyor corridor and the muck generated due to earth cuttings will be disposed of at the designated dumping sites to prevent roll down the hill slopes.
12	9	To demarcate the boundary of the diverted forest land, mining lease and safety zone, as applicable on ground by erecting four feet high reinforced cement concrete pillars, each inscribed with its serial number, distance from pillar to pillar and GPS co-ordinates;
13	11	No labour camp shall be established on the forest land and OMC shall provide alternate fuels to the labourers and the staff working at the site so as to avoid any damage and pressure on the nearby forest areas.
14	12	The layout plan of the proposal shall not be changed without the prior approval of the Central Government.
15	13	The forest land shall not be used by OMC for any purpose other than that specified in the proposal.
16	14	To ensure that the forest land proposed for diversion shall under no circumstances be transferred to any other agency, department or person without prior approval of the Central Government.
17	15	To ensure that no damage to the flora and fauna of the adjoining area shall be caused.
18	16	To explore the possibility of translocation of maximum number of trees identified to be felled and shall ensure that any tree felling shall be done only when it is unavoidable and that too under strict supervision of the State Forest Department.
19	17	To maintain the period of diversion co-terminus with the lease period.
20	18	To undertake regrassing of the mining area and any other areas which may have been disturbed due their mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna, etc. after the mining operation is ceased.
21	19	To submit the annual self-compliance report to the State Government, IRO, Bhubaneswar and to MoEF & CC, New Delhi by the end of March every year regularly.
22	20	To comply all the provisions of the all Acts, Rules, Regulations, Guidelines, Hon'ble Court Order (s) and NGT Order (s) pertaining to this project, if any, for the time being in force, as applicable to the project.



Sl. No.	Condition No.	Undertakings by OMC
23	21	To comply any other condition to be stipulated by IRO, Bhubaneswar from time to time, in the interest of conservation, protection and development of forests & wildlife.
24	22	To upload the compliance report on e-portal (https://parivesh.nic.in/).
25	23	OMC shall abide by the guidelines of Forest (Conservation) Act, 1980 as issued vide letter No. 5-2/2017-FC dt 28.03.2019.



(Suman Krishna Sit)
General Manager (Geo)
Authorized signatory
Suman Krishna Sit
General Manager(Geo)
Power of Attorney Holder
The Mining Corporation Ltd.
Bhubaneswar

UNDERTAKINGS

[As per additional condition No. i, ii & iii imposed by the State Government vide letter No.3805/F&E dt 22.03.2021 pertaining Kurmitar Pipe Conveyor Corridor area over 85.175 ha]

I, Sri Suman Krishna Sit, General Manager (Geology), Authorized Signatory of Odisha Mining Corporation Limited do hereby undertake the following for furtherance of the Forest Diversion Proposal for grant of 85.175 ha of forest land included within the conveyor corridor proposal from Kurmitar ML boundary to Barsuan proposed new Railway siding of OMC coming under Bonai Forest Division of Sundargarh district, Odisha:

Sl. No.	Condition No.	Undertakings by OMC
<i>Additional Conditions imposed by the State Government.</i>		
1	i	To deposit the working cost towards felling of trees on receiving the demand instead of royalty.
2	ii	To request the State Forest Department before felling of trees to commence the work as per the mining plan approved by IBM.
3	iii	To move SPCB for grant of CTE/CTO after obtaining stage-II forest clearance.


(Suman Krishna Sit)
General Manager (Geo)
Authorized signatory
Suman Krishna Sit
General Manager(Geo)
Power of Attorney Holder
Odisha Mining Corporation Ltd
Bhubaneswar

UNDERTAKINGS

[As per additional condition No. i, ii & iii imposed by the State Government vide letter No.3805/F&E dt 22.03.2021 pertaining Kurmitar Pipe Conveyor Corridor area over 85.175 ha]

I, Sri Suman Krishna Sit, General Manager (Geology), Authorized Signatory of Odisha Mining Corporation Limited do hereby undertake the following for furtherance of the Forest Diversion Proposal for grant of 85.175 ha of forest land included within the conveyor corridor proposal from Kurmitar ML boundary to Barsuan proposed new Railway siding of OMC coming under Bonai Forest Division of Sundargarh district, Odisha:

Sl. No.	Condition No.	Undertakings by OMC
<i>Additional Conditions imposed by the State Government.</i>		
1	i	The evaluated royalty of trees existing over forest land is not required as per the MoEF Guideline vide letter F. No. 5-1/2007-FC dt. 11.12.2008. However OMC will deposit the evaluated royalty of trees existing over forest land if required.
2	ii	That tree will be felled only when it is absolutely necessary and in a phased manner.
3	iii	To move SPCB for grant of CTE/CTO after obtaining stage-II forest clearance.

(Suman Krishna Sit)
General Manager (Geo)
Authorized signatory

Suman Krishna Sit
General Manager(Geo)
Power of Attorney Holder
Odisha Mining Corporation Ltd.
Bhubaneswar

Odisha Mining Corporation Ltd.

(A Gold Category State PSU)

Registered Office : OMC House, Bhubaneswar - 751001, India

Tel : 0674-2377400/2377401, Fax : 0674-2396889, 2391629, www.omcltd.in

CIN : U13100OR1956SGC000313



ANNEXURE: - I

STATE FOREST HEADQUARTERS
OFFICE OF THE PRINCIPAL CHIEF CONSERVATOR OF FORESTS, ODISHA,
BHUBANESWAR

Memo No. 12005 /9F (Misc) - 51/2020
Dated, Bhubaneswar the 22nd July' 2021

To

The DFO, Bonai Forest Division.

Sub: Proposal seeking prior approval under the Forest (Conservation) Act, 1980 for non-forestry use of 86.479 ha of forest land, comprising of 85.175 ha of fresh forest land and 1.304 ha re-diversion of forest land (which is part of 11.912 ha forest land, granted Stage-II approval by ERO, MoEF & CC on 29.05.2020) in favour of M/s OMC Ltd for construction of overhead piped conveyor belt from Kurmitar ML Boundary to proposed Railway Siding in Tahasil Lahunipara, District-Sundargarh (Odisha) - Submission of revised financial outlay of CA Scheme @ Rs 311/- per manday regarding.

Ref:- Memo No. 2205 dated 30.06.2021 of RCCF, Bhawanipatna Circle addressed to you.

In inviting a reference on the captioned subject, I am directed to enclose herewith a copy of the revised financial outlay for Compensatory Afforestation Scheme alongwith the CA Scheme over an area 85.175 ha of Govt. non-forest land identified in Champachua Village in Thuamul-Rampur Tahasil) of Kalahandi district under Kalahandi (South) Forest division against proposed diversion of the above mentioned project which has been technically approved for ₹ 4,51,43,600/- (Rupees four crores fifty one lakhs forty three thousand and six hundred) only by Addl. PCCF(Forest Diversion and Nodal Officer, FC Act) at current wage rate of ₹ 311/- per manday.

You are requested to raise demand on the user agency for payment of the amount through web portal of MoEF & CC and submit the deposit particulars of the amount paid alongwith the updated compliance.

This is urgent.

Encl- (Copy of Financial Outlay alongwith CA Scheme)


Conservator of Forests (Nodal)

Memo No. _____ Dt _____
Copy forwarded to the RCCF, Bhawanipatna Circle for information & necessary action with reference to his memo no. 2203 dated 30.06.2021.


Conservator of Forests (Nodal)

P.T.O

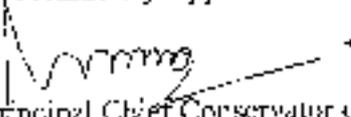
Financial Outlay for Compensatory Afforestation scheme over an area of 85.175 ha of Govt non-forest land identified in Champachua Village in Thumal-Rampur Tahsil of Kalahandi District under Kalahandi (South) Forest Division against proposed diversion of 86.479 ha of Forest land including re-diversion of 1.304 ha of forest land, i.e. fresh diversion of (86.479 ha - 1.304 ha =) 85.175 ha for construction of Conveyor Corridor from Karsitar ML to new Railway siding at Barsuan over a length of 8.315 km under Bonai Forest Division of Sundargarh District by M/s OMC Ltd

(Wage rate @Rs.311/- per MD)

Sl No.	Description	Amount (In Rs.)
1.	Cost of Bald Hill Plantation without fencing @1600 plants per ha over 85.175 ha @Rs.3,75,860.73 per ha with 10 years maintenance	3,20,13,938.00
2.	Cost of Barbed Wire fencing of 8169.41 Kmtr around plantation @Rs.6,86,185.00 per Km with provision for 3 years maintenance	56,05,727.00
	Sub-Total	3,76,19,665.00
3.	Add Escalation Cost (20%)	75,23,933.00
	Grand Total	4,51,43,598.00
		or rounded off to 4,51,43,600.00

(Rupees four crore fifty one lakh forty three thousand six hundred) only

Technically Approved


Additional Principal Chief Conservator of Forests
Forest Division & Noctal Officer, F.C. Act

Asst. Principal Chief Conservator of Forests
Forest Division & Noctal Officer, F.C. Act
Bhubaneswar, Odisha - 751 001

**SCHEME FOR
SITE SPECIFIC COMPENSATORY
AFFORESTATION**

OVER

85.175 HA OF NON-FOREST GOVT. LAND

IN VILLAGE

CHAMPACHUAN

UNDER TIJAMUL-RAMPUR TAHASIL.

IN

KALAHANDI DISTRICT

AGAINST

**CONVEYOR CORRIDOR PROPOSAL FROM KURMITAR
IRON ORE MINES TO NEW PROPOSED RAILWAY SIDING
AT BARASUAN**

IN SUNDARGARI DISTRICT, ODISHA

OF

M/s ODISHA MINING CORPORATION LTD.

(A Govt. of Odisha Undertaking)

OMC HOUSE, POST BOX-34, BILUBANESWAR-1

@ Rs. 311.00/- Per Manday

Detailed scheme for Compensatory Afforestation to be carried out over 85.175 ha. in village Champachuan of Thuamul Rampur Tahasil in Kalahandi District in lieu of forest land to be diverted towards Conveyer Corridor from Kurmitar Iron & Manganese Ore Mines to New proposed Railway siding at Barsuan of Odisha Mining Corporation Ltd. in Sundargarh District of Odisha.

The proposal for diversion of 85.175 ha of forest land under Bonal Division in Sundargarh District of Odisha by M/s Odisha Mining Corporation Ltd. (OMC) for construction of Conveyer Corridor from Kurmitar Iron Ore Mines of OMC to New proposed Railway siding at Barsuan for transportation of Iron Ore has been approved in-principle by MoEF & CC, Govt. of India. OMC had requested Collector, Kalahandi vide letter no. 4197/OMC/F&E/2020 dt. 15.03.2020 for allotment of 85.175 ha on non-forest Govt. land required for raising compensatory afforestation as per the condition No.1 (i & ii) stipulated in the stage-I forest clearance granted vide File No.8-113/2000-FC(Vol-VIII) dt. 04.02.2021.

Collector, Kalahandi has allotted 85.175 ha of non-forest Govt. land in village Champachuan under Thuamul Rampur Tahasil of Kalahandi District vide letter no. 2173/Rev dt. 03.06.2020. The allotment order by Collector, Kalahandi is enclosed as Annexure-A.

The area has been scanned through the decision support system and observed that the total area over 85.175 ha is coming non-forest category. The plantation is suggested under bald hill mode over 85.175 ha @ 1600 plants per ha.

The salient features enumerated in the CA scheme over 85.17 ha are given as under:

Name of the village	Type of Plantation	Area in ha	No. of seedlings per ha to be planted	Total no. of seedlings to be planted
Champachuan	Bald Hill	85.175	1600	136280

Total 136280 seedlings will be planted over 85.175 ha as against 1000 seedlings per hectare specified in the guidelines by MoEF & CC, dt. 28.03.2019

Consequent upon revision of the wage rate as per the notification by the Labour Commissioner of Odisha vide letter no. 2816/L.C dt. 25.05.2021, the present scheme is revised to Rs. 311.88 per man day.

1. Details of non-forest land:

District: Kalahandi; Tahasil: Thuamul Rampur; Village: Champachuan

Tahasil	Village	Khasra No.	Kissam	Plot No.	Total area of the plot (Acres)	Area considered (Acres)
Thuamul Rampur	Champachuan	114 (AAK)	Danger	1	41.73	19.39
			Danger	75	38.45	30.56
			Danger	86	27.63	21.85
			Danger	173	23.38	17.59
			Danger	186	12.35	7.68
			Danger	413	20.33	10.96
			Danger	414	21.93	15.66
			Danger	425	19.10	8.25

Dangar	581	36.83	31.60
Dangar	582	53.70	46.84
Total area considered for Compensatory Afforestation 210.48Ac. or 85.175Ha.			

The village maps showing the land details for the proposed compensatory afforestation is enclosed as **Plate No. 1**. Jointly verified non-forest land by Forest and Revenue authorities is enclosed as **Annexure-(B)**. The Key Plan of the Compensatory Afforestation site shown on topo sheet is enclosed as **Annexure-(C)**. DGPS co-ordinates of survey stations of Compensatory Afforestation area are furnished as **Annexure-(D)**.

2. Description of Area

- I. Whether the site selected for Compensatory Afforestation is a land bank or not: This identified non-forest area is under the control of Revenue Department and classified as 'Dangar'. It is not a land bank.
- II. If the CA site is other than the land bank, reasons be given: No land bank has been established yet for this purpose.
- III. In case of non forest area identified for CA, then what is the distance of CA site from the adjoining forest boundary: C.A site in Champachuar village is at a distance of 1.21 km from Udaygiri R.F.
- IV. Soil type: Lateritic soil
- V. Topography :
 - a) Hilly/Undulating/Plain: The Compensatory Afforestation sites are hilly and undulating
 - b) Slope: Steep/Medium/Gentle: The sites selected for Compensatory Afforestation have medium to gentle slope.
- VI. Whether the area is bearing any root stock of vegetation: The sites selected for Compensatory Afforestation are either barren or with weed growth like *Lantana*, *Eupatorium*, *Woodfordia fruticosa*, *Combretum decandrum*. Root stock of any principal species like Sal is not available.

3. Plantation Model:

Since the area in Champachuar village is hilly, Bald Hill plantation with 1600 plants per hectare will be raised over 85.175 ha. Maintenance of plantation for 10 years is also required as per the guidelines by MoEF vide F No. 11-168/2009-FC dt 14.02.2012. Cost estimate for Bald Hill plantation is furnished as **Annexure (E)**.

4. Schedule of Plantation Programme:

Detail of year wise break up of requirements of funds is as under:

A. Champachuan Village

Year	Area in Ha.	Bald Hill plantation	
		Rate/ Ha.	Amount
0th Year	85.175	105622.65	8996409.21
1st Year		93156.83	7960185.50
2nd Year		36499.89	3108878.13
3rd Year		18939.90	1613205.98
4th Year		17307.15	1474136.50
5th Year		17307.15	1474136.50
6th Year		17307.15	1474136.50
7th Year		17307.15	1474136.50
8th Year		17307.15	1474136.50
9th Year		17307.15	1474136.50
10th Year		17307.15	1474136.50
Total		375669.32	31997634.33

5. Technical details: Technical details of Compensatory Afforestation Scheme are as follows:

a) General Details :

Survey & Demarcation of boundary:

The identified area will be surveyed by DGPS and the area will be demarcated with RCC pillars of size 2.5 cm x 30 cm x 30 cm. This work will be done by the User Agency at Project cost.

Fencing:

To protect the plantation from grazing and other biotic interference, it will be provided with 7 strand barbed wire fencing with RCC pillars, the cost for which will be paid by the User Agency. Barbed wire fencing will be done around the entire patch, the length of barbed wire fence needed in this project is furnished below.

Village	Length of out periphery of the mtr	Length of enclosure required to be fenced	Length of common fence adjoining project which is to be fenced	Total length of mtr (3+4-5)
Chempachuan	8169.41	Nil	Nil	8169.41
Total	8169.41	0	0	8169.41

Estimate for barbed wire fencing has been provided in Annexure - (F).

Planting and post-planting:

b) Bald Hill Plantation shall be taken up with 1600 plants per hectares at spacing of 2.5 m x 2.5 m. Alignment and pit marking should be done carefully in slopes so that the horizontal distance between plants in a row remains 2.5 mtrs and not the distance measured along the slope. Size of pits will be 45 cm X 45 cm X 45 cm for Bald Hill for Block Plantation. All post planting measures like casualty replacement, soil working, manuring, fire protection etc. will be undertaken. The plantation area should be divided into 4 hectare plots. These plots should be demarcated in the field before digging of pits so that the demarcating line does not cross a plantation row. The 4 ha plots should be shown on map. Cost norm for Bald Hill plantation is furnished as Annexure-(F).

While taking up plantation, the following points shall be taken up for consideration:

- Care to be taken to raise healthy plantable seedlings of minimum 60 cm height. 10% extra seedlings are to be raised for replacement of casualty
- Pitting shall invariably be done during November-February i.e., before onset of monsoon. If possible the soil of upper portion and lower portion of pit should be placed separately in specific direction so that while planting the pits will be filled with top-soil first.
- Planting shall be done on the onset of monsoon to get full benefit of monsoon rain and planting should never be delayed.
- Basal dose of 50 grams of NPK and 5 grams of Chloropyrifos dust per plant should be applied at the time of planting carefully by mixing with top-soil so that the roots of seedlings do not come in direct contact with fertilizer.
- In case of any mortality of planted seedlings, it should be replaced with good seedlings as soon as possible for better success rate.
- Complete weeding in proper time will be done. Strip weeding will not be permitted.
- Soil-working and application of 2nd dose fertilizer of 50 gms NPK per plant should be done in time.
- Since the area is provided with barbed wire fence, watch & ward will be easier and the watchers may be engaged in weeding in problematic areas alongwith watch & ward.

c) Species: Although indigenous species are to be preferred in the plantation, considering adverse soil & moisture conditions we may go for hardy exotic species where required so that the plants are able to survive. For success of plantation in interior tribal areas, plantation of fruit and NTFP species plays a great role since economic species have a little value for local people. Considering the topography, soil and moisture availability of the plantation area, the following species will be planted.

Sl No	Name of species	Common name	Remarks
1	<i>Azadirachta indica</i>	Neem	
2	<i>Derris indica</i>	Karanja	
3	<i>Fimbricaria officinalis</i>	Aula	
4	<i>Terminalia chebula</i>	Harica	In lower areas with good soil depth
5	<i>Terminalia bellirica</i>	Bahada	In lower areas with good soil depth
6	<i>Dalbergia sissoo</i>	Sissoo	In lower areas with good soil depth
7	<i>Cordia alliodora</i>	Gambhari	In lower areas with good soil depth
8	<i>Dendrocalamus strictus</i>	Salu bamboo	In lower areas with good soil depth healthy seedlings from rhizomes may be planted
9	<i>Cassia siamea</i>	Chakunda	In lower areas with good soil depth
10	<i>Tamarindus indica</i>	Tentuli	In lower areas with good soil depth
11	<i>Adiantum species</i>	Mizul	Only two years old seedlings may be planted
12	<i>Nerium indicum</i>	Simaruba	In rocky areas with low soil depth
13	<i>Zizyphus mauritiana</i>	Ber	In rocky areas with low soil depth

14	<i>Tecoma grandis</i>	Leak	Potted seedlings from pre-sprouted healthy stumps will be planted
15	<i>Mangiferaindica</i>	Mango	In situ plantation (direct placing of mango stone on planting site) during pre monsoon may be adopted in low lower areas or where life-saving watering can be done during summer
16	<i>Caryotaurens</i>	Salaoa	
17	<i>Terminaliaarjuna</i>	Arjuna	To be planted only on tal bank or near water
18	<i>Dioscoreaopeltensis</i>	Bandhan	
19	<i>Dilleniaindica</i>	On	To be planted in area having good soil depth
20	<i>Ferrialinomia</i>	Kaitha	
21	<i>Ficusbenghalensis</i>	Bara	
22	<i>Ficusracemosa</i>	Dizin, Dunna	
23	<i>Ficusreligiosa</i>	Aswattha	
24	<i>Acacia auriculiformis</i>		
25	<i>Phoenix sylvestris</i>	Khajuri	
26	<i>Pithecolobiumdulce</i>	Simakayan	
27	<i>Acacia catechu</i>	Khair	
28	<i>Acacia mitcha</i>	Babus	
29	<i>Artocarpusheterophyllus</i>	Jack fruit	
30	<i>Sambitria variegata</i>	Kuler	
31	<i>Bosculliaerrata</i>	Salai	
32	<i>Brideliaretusa</i>	Kasi	
33	<i>Duchanmiaaltrozia</i>	Char	
34	<i>Calophylluminophyllum</i>	Polanga	
35	<i>Cassia fistula</i>	Sonari	
36	<i>Cesbipentandra</i>	White silk cotton	
37	<i>Chloroclonzumetiana</i>	Bhen	
38	<i>Cleistanthuscollinus</i>	Kanada	
39	<i>Albizialebbek</i>	Siris	
40	<i>Albiziaprocera</i>	White Siris	

d) Soil and Moisture Conservation Works :

Since most of the areas are hilly and undulating, half-moon trenches on down-hill side of plants should be constructed within cost norm.

e) Protection of the plantation: - 7 strand Barbed wire fence with RCC pillars all along the periphery of the plantation will be provided. Few watchers will also be engaged for protection of the plantation.

6. Proposed Monitoring Mechanism: The scheme shall be executed by the Divisional Forest Officer, Kalahandi South Division with his staff and all prescribed records are to be maintained. In addition to internal monitoring by Forest Officers of State Government, a Monitoring Committee under item no. 3.4 (ii) of consolidated guidelines under P.C. Act 1980 issued by

MoEF shall be established with a nominee of the Central Government to oversee that the stipulations, including those pertaining to Compensatory Afforestation are carried out.

7. Total cost of the project: The total cost of the project is Rs. 4, 51, 82,100.00 (Rupees four crore fifty one lakh eighty two thousand one hundred) only as detailed in Annexure-(G) which shall be payable by the user agency as per demand to be raised by DFO, Kounjar.

Divisional Forest Officer,
Kounjar Forest Office,
Kalahandi South Division

OFFICE OF THE COLLECTOR & DISTRICT MAGISTRAR,
KALAHANDI

No. 3/2020, Rev. 2020 Dated 07/06/2020

The Divisional Forest Officer (Soc),
Kalahandi, Bha. Division.

Subj: Admission of Govt. land for Concessory Offshoots.

Ref: Your Letter No. 24025/Leases-01/2020

I am to say that the proposed offshoots of Government land as per Ac.212/20 submitted to S.O. 5 No. of Government order for Raipur, dated as under have been identified and joint verification completed for admission of non forest Govt. land in lieu of surrender of forest land pertaining to Government Order for Raipur & Co. under Mining Lease located in Sundergarh district of the Orissa Mining Corporation Ltd.

You are therefore requested to check the necessary acquisition in Form No. 14, before the Collector, Raipur for processing of the proposal for sanction of the same in favor of Forest and Environmental Department immediately.

Name of Project	Name of Village	Khasra No.	Plot No.	Total area in Sq. plots (Acre)	Area surrendered in (Acre)	Khasra No.	Type of Provision in Hectares
Barweyer Ganga Khandra ML	Champaran	114 (AAA)	4	0	0	0	0
			1	21.02	11.84	Dungur	Part of
			75	15.40	16.00		Plantation
			54	17.60	21.20		1000
			173	29.20	17.25		Part of
			155	12.60	1.00		
			475	20.33	10.95		
			272	27.10	15.00		
425	15.10	5.95					
55	15.50	11.00					
382	10.70	40.30					
Total				114.20		Area of 55.175 ha	

(Signature)
Collector
Kalahandi

(Signature)

JOINT VERIFICATION REPORT OF NON-FOREST GOVERNMENT LAND IN VILLAGE CHAMPACHIVAN UNDER THIRUPPUR TALUK OF KALAHANDI DISTRICT FOR SUBJECT COMPENSATORY AFForestation (BALD HILL PLANTATION) IN FUD OF THE FOREST LAND PROPOSED FOR DIVERSION FOR PROMISED CONVEYOR CORRIDOR FOR RANTHA & KURMIAR ML OF M/s. GODISHA MINING CORPORATION LIMITED, LOCATED IN THE DISTRICT OF SUNDARGARH, JHARSHA.

Verified and on joint verification of Non-forest government land (Khasam - Dangar) in village Champachivan of Thiruppur Taluk of Kalahandi District, it is found that the subject (wise) land mentioned as given under is suitable for Bald Hill plantations and are free from encroachment and encumbrances. Does not comes under DLG land and FR Servient.

Name of the Project	Name of the Village	Khata No.	Plot No.	Total area of the plot (Acres)	Area considered in (Acres)	Subst.	Type of Plantation in Hectares
Conveyor Corridor for Rantha & Kurmiar ML.	Champachivan	114 (A.A.A)	1	41.73	19.39	Dangar	Bald Hill Plantation 1603 Ficus 2013
			75	38.45	30.60		
			36	17.03	21.35		
			173	25.58	17.54		
			186	17.35	7.68		
			413	20.33	10.96		
			414	21.93	35.66		
			425	19.15	11.25		
			531	36.03	31.60		
592	53.70	46.83					
TOTAL:-				200.17 Acres or 86.275 Ha.			

 Revenue Inspector
 Bodschostrang
 Revenue Ins Dept
 Bodschostrang

 Forest Officer
 Bodschostrang

 Revenue Officer
 Bodschostrang

 Tahsil Officer
 Thiruppur Taluk
 Bodschostrang

82°52'30"E 82°53'0"E 82°53'30"E 82°54'0"E 82°54'30"E 82°55'0"E 82°55'30"E 82°56'0"E 82°57'0"E

KEY PLAN

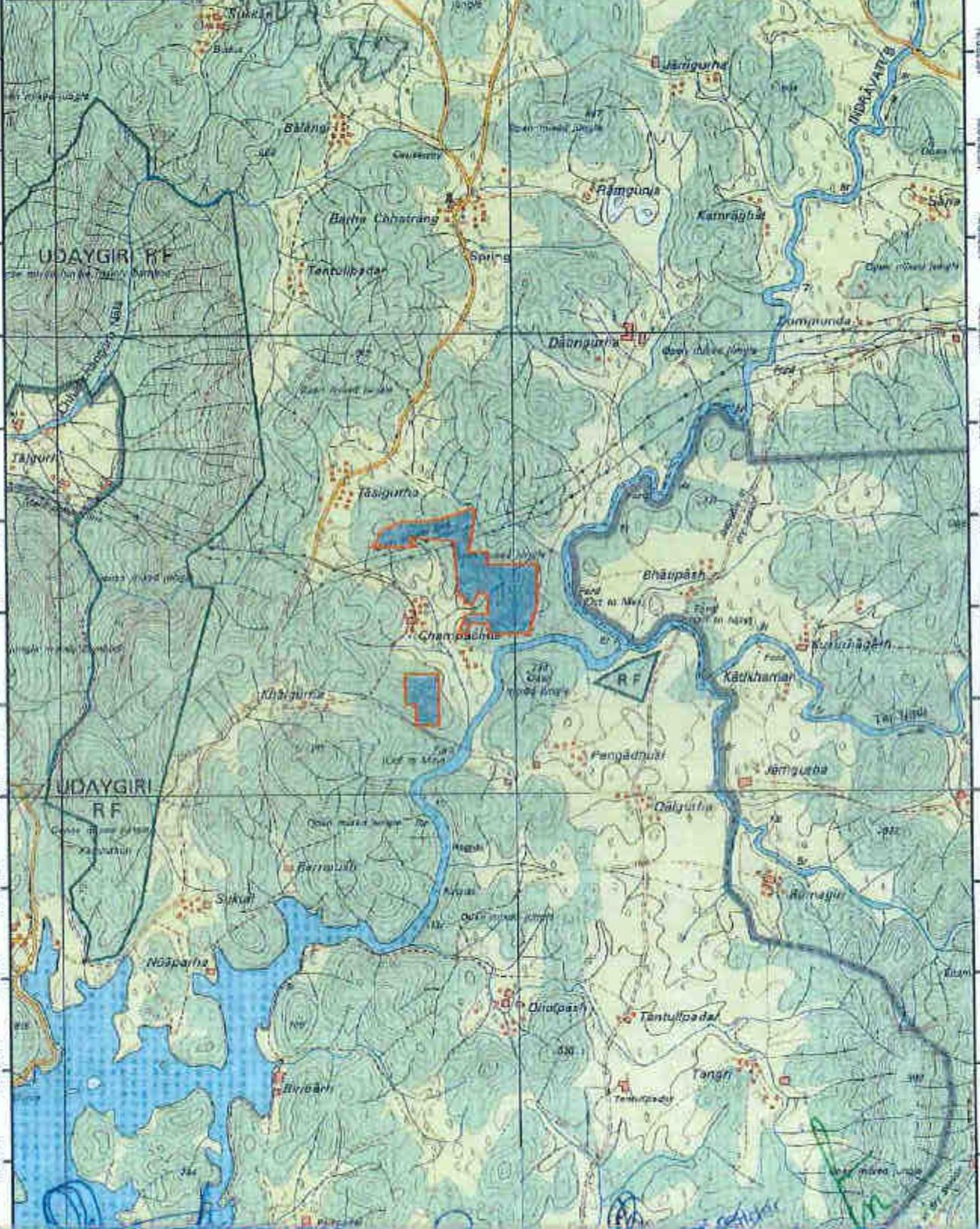
REF. TOPOSHEET - E44E15(65/15)

SCALE-1:50000

OMC LTD.



VILLAGE- CHAMPACHUAN



Revenue Inspector, Forest Range Office, Badachhama

AREA PROPOSED FOR COMPENSATORY AFFORESTATION (85.175 HA.)

Divisional Forest Officer, Kalahandi South Division

82°52'30"E 82°53'0"E 82°53'30"E 82°54'0"E 82°54'30"E 82°55'0"E 82°55'30"E 82°56'0"E 82°57'0"E

CO-ORDINATES OF CA LAND BOUNDARY PILLARS IN VILLAGE CHAMPACHUAN						
PATCH-I						
PILLARS		GEOGRAPHIC CO-ORDINATES		BEARING		DISTANCE IN
FROM	TO	LONGITUDE	LATITUDE	FORWARD	BACKWARD	METERS
1	2	82°54'17.10"	19°26'26.76"	78°44'28"	258°14'28"	79.46
2	3	82°54'19.77"	19°26'27.26"	71°46'30"	251°46'30"	13.7
3	4	82°54'20.22"	19°26'27.40"	62°47'33"	242°47'33"	107.64
4	5	82°54'23.52"	19°26'28.95"	91°49'16"	271°43'23"	73.85
5	6	82°54'26.05"	19°26'24.83"	92°10'58"	272°10'58"	75.85
5	7	82°54'28.48"	19°26'23.75"	38°31'07"	268°31'07"	55.25
7	8	82°54'30.37"	19°26'23.78"	80°32'16"	260°32'16"	84.01
8	9	82°54'33.22"	19°26'24.20"	86°05'29"	266°05'29"	25.62
9	10	82°54'34.09"	19°26'29.24"	72°22'01"	252°22'01"	116.77
10	11	82°54'37.86"	19°26'30.33"	73°39'07"	253°39'07"	74.43
11	12	82°54'40.31"	19°26'30.99"	68°35'43"	248°35'43"	140.5
12	13	82°54'41.82"	19°26'32.61"	59°44'58"	249°44'58"	52.29
13	14	82°54'46.50"	19°26'35.18"	157°36'47"	337°36'47"	67.88
14	15	82°54'47.37"	19°26'31.13"	189°26'45"	5°26'45"	377.65
15	16	82°54'45.10"	19°26'19.04"	90°19'28"	270°19'28"	167.64
16	17	82°54'51.53"	19°26'18.92"	178°57'15"	358°57'16"	125.33
17	18	82°54'51.55"	19°26'14.86"	88°51'53"	263°51'53"	200.33
18	19	82°54'53.43"	19°26'14.92"	89°30'02"	263°30'02"	266.95
19	20	82°55'07.58"	19°26'14.90"	178°38'36"	358°38'36"	403.1
20	21	82°55'07.75"	19°26'01.79"	195°46'03"	15°46'03"	312.44
21	22	82°55'04.73"	19°25'52.04"	268°12'39"	89°12'39"	136.13
22	23	82°54'58.01"	19°25'52.03"	209°55'54"	29°55'54"	186.2
23	24	82°54'51.52"	19°25'52.08"	359°15'35"	179°15'35"	100.37
24	25	82°54'51.52"	19°25'55.35"	239°28'18"	89°28'18"	201.56
25	26	82°54'44.71"	19°25'55.35"	179°06'42"	359°06'42"	102.41
26	27	82°54'44.77"	19°25'52.03"	269°37'43"	89°37'23"	48.79
27	28	82°54'41.68"	19°25'52.04"	17°52'55"	167°52'55"	208.48
28	29	82°54'43.95"	19°25'58.47"	87°44'15"	267°24'15"	222.93
29	30	82°54'51.59"	19°25'58.72"	359°07'49"	179°07'49"	180.43
30	31	82°54'51.56"	19°26'04.55"	290°51'16"	110°51'16"	98.11
31	32	82°54'48.43"	19°26'05.75"	208°24'49"	28°24'49"	135.74
32	33	82°54'46.17"	19°26'01.90"	277°46'45"	97°46'45"	78.19
33	34	82°54'43.52"	19°26'02.27"	4°53'16"	184°53'18"	54.58
34	35	82°54'43.74"	19°26'04.36"	277°04'40"	97°04'40"	65.56
35	36	82°54'41.58"	19°26'04.62"	355°49'09"	175°49'09"	551.18
36	37	82°54'40.41"	19°26'22.57"	74°25'38"	94°26'38"	397.81
37	38	82°54'26.83"	19°26'23.67"	234°46'52"	43°46'52"	43.98
38	39	82°54'25.77"	19°26'21.65"	132°11'37"	312°11'37"	95.53
39	40	82°54'28.17"	19°26'20.54"	269°54'42"	89°54'42"	436.34
40	41	82°54'23.20"	19°26'20.67"	51°32'16"	231°32'16"	22.63
41	42	82°54'24.08"	19°26'21.32"	47°20'15"	227°20'15"	72.02
42	43	82°54'14.64"	19°26'21.80"	12°07'01"	192°07'01"	28.74
43	44	82°54'14.86"	19°26'27.71"	74°19'52"	204°19'52"	20.04

PILLARS		GEOGRAPHIC CO-ORDINATES		BEARING		DISTANCE IN METERS
FROM	TO	LONGITUDE	LATITUDE	FORWARD	BACKWARD	
44	45	82°54'15.15"	19°25'23.30"	27°52'28"	207°52'28"	62.14
45	1	82°54'16.16"	19°25'25.03"	27°15'34"	207°15'34"	58.58
AREA-71.066 Ha. & PERIMETER -6510.85 Mtr.						
PATCH-II						
1	2	82°54'24.00"	19°25'38.94"	88°11'22"	208°11'22"	315.03
2	3	82°54'34.00"	19°25'39.15"	179°10'08"	353°10'08"	518.62
3	4	82°54'34.86"	19°25'27.28"	269°46'17"	89°46'37"	213.46
4	5	82°54'27.54"	19°25'22.33"	358°56'40"	178°56'40"	206.83
5	E	82°54'24.49"	19°25'29.06"	209°18'35"	89°15'35"	100.55
6	7	82°54'24.05"	19°25'20.05"	359°08'53"	179°08'53"	201.05
7	1	82°54'24.02"	19°25'35.59"	359°06'30"	179°06'30"	102.95
AREA-14.109 Ha. & PERIMETER -1658.56 Mtr.						

ANNEXURE-(E)

COST NORM FOR BALD HULL PLANTATION @ 1600 PLANTS PER HECTARE
(Labour cost @Rs 311.00 per manday)

Sl No	Item of Work	Preferable Period of execution	Manday	Labour Cost (Rs)	Material Cost (Rs)	Total Cost in (Rs)
PREPARATORY OPERATION (0TH YEAR)						
1	Survey and demarcation	June	2	622.00	0	622.00
2	Pitting (1500 per ha) each pit-45 cm ²	Nov-Dec	128	39808.00	0.00	39808.00
3	Soil and water conservation measures (a) Staggered trench along the contour @ 300 per ha (2.5m x 0.5 m x 0.5m), digging of percolation pits @ 500 per ha in lieu of staggered trenches, gully plugging and drainage line treatment, half moon trench on the uphill side of each planting pit (100 MD for staggered trench / percolation pits and 30 MD for gully plugging, drainage line treatment and half moon trench). (b) Site clearance- 8 MD, alignment and staking of contour lines on ground, planting pits, contour trenches / percolation pits and check dam sites, etc.- 2 MD	Sep-Nov July-Aug	130	40430.00	0.00	40430.00
4	Raising of seedlings in poly bags (minimum 60 cm high) @ Rs.12.67 per seedling (Rs.3.83 in 0th year + Rs.3.84) Part. (1760 seedlings to be raised for one hectare)	Oct-Mar	44	13684.00	2929.00	16613.00
TOTAL 0th year			314	97654.00	2929.00	100583.00
5	Monitoring & Supervision charge 5% of the total cost			0.00		5029.65
GRAND TOTAL			314	97654.00	2929.00	100622.65

PLANTING OPERATION (1ST YEAR)						
1	Cost of sapling (balance) from April- Faculty @Rs.2.84 per seedling for 1760 seedlings	Apr-Jun	215	6686.50	593.00	7279.50
2	Freshening of pits -64 MD, filling with fertile soil and farm yard manure (FYM)- 24 MD, application of insecticide and planting of 60 cm tall saplings including carriage of plants- 21 MD	Jun-Jul	108	21839.00	0.00	21839.00
3	Cost of Fertile Soil 0.25 cft @ Rs.8 per cft FYM 0.25 cft @ Rs.15 per cft per pit		0	0.00	9200.00	9200.00
4	Sowing of seeds on dug out earth of trench	June	5	1866.00	200.00	2066.00
5	Carriage-6MD.Planting including Casualty replacement-6 MD, fertilizer application- 5 MD, 1st weeding-7 MD, 2nd weeding -5 MD, soil working- 7 MD	Jul-Aug	36	11196.00	0.00	11196.00
6	Cost of fertilizer and insecticide (Granular insecticide @ 5 gms/plant @ Rs.80/- per kg=Rs.640.00, NPK 100 gms/plant in two doses @ Rs.24 per kg = 3840		0	0.00	4480.00	4480.00
7	Maintenance of soil and moisture Conservation measures (20% of cost)	Oct-Dec	26	8086.00	0.00	8086.00
8	Closure to grazing fire and other biotic interference by engaging watch & ward	Apr-Mar	50	9330.00	0.00	9330.00
9	Fire tracing and control, display board construction, painting / writing, other miscellaneous cost	Jan-Feb	0	3110.00	160.00	3270.00
	TOTAL (1st Year)		238.5	74173.50	1483.00	89006.50
10	Monitoring & Supervision charge 5% of the total cost			0.00		4450.53
	GRAND TOTAL		238.5	74173.50	1483.00	93456.83
MAINTENANCE OPERATION (2ND YEAR)						
1	Casualty replacement- 6 MD including seedling cost @Rs.12.67 per seedling and its transportation	Jun-Jul	10	3110.00	1988.80	5098.80
2	Soil working-7 MD, 1st weeding-6 MD, 2nd weeding 6 MD and fertilizer application -4 MD	Aug-Oct	23	7153.00	0.00	7153.00
3	Cost of fertilizer @ 50 gms NPK per plant @ Rs.24/- per kg for 1600 plants =Rs.1920.00 Insecticide @ 5 gm per plant for 160 nos. of plants @ Rs. 80 per KKG = Rs. 64.00		0	0.00	1984.00	1984.00
4	Maintenance of Soil and Moisture Conservation measures (20% of cost)	Aug-Oct	26	8086.00	0.00	8086.00
5	Fire tracing and control and other miscellaneous cost	Feb-Mar	10	3110.00	0.00	3110.00
6	Closure to grazing, fire and other biotic interference by engaging watch and ward	Apr-Mar	30	9330.00	0.00	9330.00
	TOTAL 2nd Year		99	30789.00	3972.80	34761.80

7	Monitoring & Supervision charge 5% of the total cost			0.00		1738.09
	GRAND TOTAL	99	20789.00	3972.80		36499.89

MAINTENANCE OPERATION (3RD YEAR)

1	Closure to grazing, fire and other biotic interference by engaging watch and ward	Apr-Mar	18	5598.00	0	5598.00
2	SMC Measures 26 mandays and Maintenance of plantation 14 mandays		45	12440.50	0	12440.00
	TOTAL 3rd Year		58	18038.00	0	18038.00
3	Monitoring & Supervision charge 5% of the total cost			0.00		901.90
	GRAND TOTAL		58	18038.00	0	18939.90

MAINTENANCE OPERATION (4TH YEAR)

1	Closure to grazing, fire and other biotic interference by engaging watch and ward	Apr-Mar	18	5598.00	0	5598.00
2	SMC Measures 21 mandays and Maintenance of plantation 14 mandays		35	10885.00	0	10885.00
	TOTAL 4th Year		53	16483.00	0	16483.00
3	Monitoring & Supervision charge 5% of the total cost			0.00		824.15
	GRAND TOTAL		53	16483.00	0	17307.15

MAINTENANCE OPERATION (5TH YEAR)

1	Closure to grazing, fire and other biotic interference by engaging watch and ward	Apr-Mar	18	5598.00	0	5598.00
2	SMC Measures 21 mandays and Maintenance of plantation 14 mandays		35	10885.00	0	10885.00
	TOTAL 4th Year		53	16483.00	0	16483.00
3	Monitoring & Supervision charge 5% of the total cost			0.00		824.15
	GRAND TOTAL		53	16483.00	0	17307.15

MAINTENANCE OPERATION (6TH YEAR)

1	Closure to grazing, fire and other biotic interference by engaging watch and ward	Apr-Mar	18	5598.00	0	5598.00
2	SMC Measures 21 mandays and Maintenance of plantation 14 mandays		35	10885.00	0	10885.00
	TOTAL 4th Year		53	16483.00	0	16483.00
3	Monitoring & Supervision charge 5% of the total cost			0.00		824.15
	GRAND TOTAL		53	16483.00	0	17307.15

MAINTENANCE OPERATION (7TH YEAR)

1	Closure to grazing, fire and other biotic interference by engaging watch and ward	Apr-Mar	18	5598.00	0	5598.00
2	SMC Measures 21 mandays and Maintenance of plantation 14 mandays		35	10885.00	0	10885.00
	TOTAL 4th Year		53	16483.00	0	16483.00
3	Monitoring & Supervision charge 5% of the total cost			0.00		824.15
	GRAND TOTAL		53	16483.00	0	17307.15

MAINTENANCE OPERATION (8TH YEAR)

ESTIMATE FOR BARBED WIRE FENCE

7 strands straight + 2 diagonal strands of 2 ply barbed wire on RCC posts fixed at 2.5 mtr intervals.

Two strands at every 10th pillar

Fence post size Length 8ft. Bottom width 6"x6", Top width 4"x4" Reinforced with 6mm rods

Minimum wage rate Rs. 311.00 per day for unskilled labourer

ANALYSIS OF RATE

1	Earth work in hard or gravelly soil within 50m. Initial lead and 1.5m initial lift including rough dressing of sods to maximum 5 cm to 7 cm and laying in layers not exceeding 0.3 m in depth (per 100 cum)			
	Mulla	43	Rs 311.00	13273.00
	2% sundries and T & P etc.			267.46
	Total			13640.46
2	Cement concrete (1:2:4) with 4 cm hard granite metal including laying, compacting, curing with all cost, conveyance, royalty of materials etc. (per 1 cum)			
	HG metal	3.96 cum	Rs 1225.40	1174.64
	Sand	0.43 cum	Rs 445.00	212.62
	Cement	1.72 qd	Rs 530.00	1083.60
	Mason 2 nd Class	0.18	Rs 351.00	63.18
	Man mulla	1.80	Rs 311.00	559.80
	Wason mulla	1.40	Rs 311.00	435.40
	Man mulla	0.70	Rs 311.00	217.70
	Total			3746.94
3	Cement Concrete (1:2:4) with 12 mm size C.B.H.G chips including cost, carriage & royalty etc complete			
	HG chips 12 mm	0.96 cum	Rs 1581.40	1518.14
	Sand	0.45 cum	Rs 443.42	199.52
	Cement	3.23 qd	Rs 630.00	2034.90
	Mason 2 nd Class	0.60	Rs 351.00	210.60
	Mulla	4.6	Rs 311.00	1430.60
	Total			5393.77
4	Cutting, bending, binding, straightening and tying the galls and placing in position including cost of M.S Tor Steel and binding wire etc (Ref-A/R-2006 item No. 9 Page 52). Taking output for 1 quintal			
	Cost & carriage of BYSD Steel including 5% for wastage & overlapping	1.05 qd	Rs 5500.00	5775.00
	Binding wire	8 kg	Rs 80/kg	640.00
	Labour for cutting, bending, shifting to site, tying & placing in position Mate	0.44	401.00	176.44
	Blacksmith Special	4	461.00	1844.00
	Semiskilled mulla	3	351.00	2858.00
	Total			11243.44

01) 02 ply barbed wire (5 Rm. per kg)

7 straight strand x 1000 Mtr

7000Mtr

2 Diagonal strand = $2 \times \frac{1}{2} (6.5)^2 + (8.2)^2 = 2 \times 10.50$ ft.

= 21.00 ft x 400 nos = 8400 ft or

2560Mtr

-9560M;

Cost per KM=9560/5= 1912 Kg @ Rs.80/Kg

Rs.1, 52,960.00

02). Construction of RCC pillars of size-
length---8ft, Bottom width 6"x6", Top width 4"x4"
Reinforced with mm rods with proper curing
$$\frac{(8' \times 6'' - 4'' \times 6'') \times 5'}{2} = 1.34 \text{ cft or } 0.038 \text{ cum}$$

i) Cost of c.c. work 1.24 x 0.038 cum @ Rs.393.77/cum = 704.96
ii) Cost of rod including cutting, bending & binding
0.038 x 0.9 qd @ Rs. 11243.44/qd = 384.52
iii) Contingency (15%) including
Curing, stacking, provision of hooks etc = 58.42
Rs.677.90

Requirement of pillars per KM-

Spacing- 2.5m x 2.5m

Requirement=1000m/2.5m = 400

Strut pillar in every 10th pillar = (400/10)x2 = 80

180 Nos

Cost of pillars per KM net= 480 @ Rs 677.90

Rs.3, 25,392.00

03). Siting fixing of RCC pillars in position with hbg metal (4cm) in C M (1:4:8)

i) Digging of pits 1.5'x1.5'x1.5' = 3.375cft/pt

for 480 pits, 480x3, 375 = 1620 cft or 45.86 cum @ Rs. 13640.46/100cum = Rs 6255.51

ii) Fixing of pillars with 4cm hbg metals in C M 1:4:8

pit size-1.5'x1.5'x1.5' = 3.375 cft

Deduct: 1/3rd of built of pillar i.e. 3.375/3 = (-) 1.125 cft

Total c.c. work per pillar = 2.25cft

For 480 pillars=480x2.25=1080cft. or 30.577 cum @ Rs. 3746.94/cum

Rs.1, 14,570.18

04) Labour for straightening the barbed wire and fixing & clipping with pillars

70M d per km @ Rs 311.00 per manday

Rs.21, 770.00

05) Carriage of Barbed wire & pillars to work site

@Rs.1000/td and cost of loading & unloading with in 5 km distance

Approximately 10 t/d @ 800/td

Rs.18, 000.00

06). Provision of one Iron Gate of size (4' x 5') on LS

Rs. 7,500.00

Total = Rs.6, 46,447.69

Labour Cess 1% Rs. 6,464.48

Expenditure per 1 km of barbed wire fencing

Rs.6, 52,912.17

07) Expenditure towards maintenance for 3 years (3rd, 6th & 9th year)

@ 2% of cost per km = 3 x 2% x Rs. 6, 52,912.17

= Rs.39, 177.73

Expenditure per 1 km of barbed wire fencing including maintenance =

Rs.6, 92,086.90

100 say Rs.6, 92,100.00

Divisional Forest Officer
Kotahandi South Division

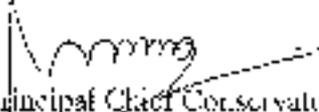
Financial Outlay for Compensatory Afforestation scheme over an area of 85.175 ha of Govt. non-forest land identified in Champachua Village in Thuamal-Rampur Tahsil of Kalahandi District under Kalahandi (South) Forest Division against proposed diversion of 86.479 ha of Forest land including re-diversion of 1.304 ha of forest land, i.e. fresh diversion of (86.479 ha - 1.304 ha =) 85.175 ha for construction of Conveyor Corridor from Kunitar ML to new Railway siding at Barsman over a length of 8.315 km under Borai Forest Division of Sundergarh District by M/s OMC Ltd

(Wage rate @Rs.311/- per MD)

Sl No.	Description	Amount (In Rs.)
1.	Cost of Baid Hill Plantation without fencing @1500 plants per ha over 85.175 ha @Rs.3,75,860.73 per ha with 10 years maintenance	3,20,13,938.00
2.	Cost of Barbed Wire fencing of 8169.71 Rmt. around plantation @Rs.6,86,185.00 per Km. with provision for 3 years maintenance	56,05,727.00
	Sub-Total	3,76,19,665.00
3.	Add Escalation Cost (20%)	75,23,933.00
	Grand Total	4,51,43,598.00 or rounded off to 4,51,43,600.00

(Rupees four crore fifty one lakh forty three thousand six hundred) only

Technically Approved


Additional Principal Chief Conservator of Forests
Forest Division & Nodal Officer, F.C. Act

Joint Forest Officer, Sundergarh
(Person in charge of the project area)
Sundergarh Forest Division



By E-mail

ବରଗଡ଼ ଅଞ୍ଚଳୀୟ ବଣାଞ୍ଚଳର, ବଣାଞ୍ଚଳ ବିଭାଗ]

OFFICE OF THE DIVISIONAL FOREST OFFICER: BONAL DIVISION.

Phone / Fax - 0676-244454 E-mail

afcf@onil.gov.in

No. 3186 JF (Mg.) Dt. 20.02.2021

The Asst. General Manager (Gen)
M/s Orissa Mining Corporation Ltd.,
OMC House, Bhubaneswar 751001.

Subject: Proposal for diversion of 85.175 ha of fresh forest land and 1304 ha re-diversion of Forest land (which is a part of 1312 ha forest land for which Stage-II approval has already been accorded by ERO, MoEF&CC on 29.05.2020) for construction of overhead piped conveyor bed from Kurmbar MI Boundary of OMC Ltd to new proposed Railway siding at Barsuan for transportation of mineral with provision for one dispatch area in between the route and the mineral terminal point at Barsuan.

- Reference:
1. Letter No. 14317003-FC (VI-III) dt. 1.2.2021 of the MoEF & CC, Govt.
 2. Letter No. 3305/F&E dt. 22.2.2021 of the H&L Deptt. addressed to the PCCF, Odisha, and copy endorsed to all concerned.
 3. Memo No. 6539 dt. 21.3.2021 of the PCCF (FD & NO FC Act), Bhubaneswar addressed to this office.

With reference to above, this is to inform you that the Scheme for Compensatory Afforestation over 85.175 ha. of non-forest Govt. land identified in village Jajpetha, under Therotha-Rampur Tehasil in Kalahandi District of Kalahandi (South) Division in lieu of above said diversion proposal as approved by the Principal Chief Conservator of Forests, Forest Division & National Office, P.O. Adl/O/O the P.C.C.F., Bhubaneswar for ₹ 4,47,92,000/- at the wage rate of ₹325/- per MD vide his Memo dt. 18.02.2021 under reference (3).

Hence you are requested to deposit ₹ 4,47,92,000/- (Rupees Four crore Forty Seven Lakh Ninety Two Thousand) only through a-c/c of MoEF & CC as provided in the <http://pawesth.in> and submit the original proof with seal and signature of the Banking Bank to this office for receipt.

Yours faithfully

Divisional Forest Officer
Bona Division

Reference: 3187 JF-Dt. 20.02.2021

Copy forwarded to The Divisional Forest Officer, Kalahandi (South) Forest Division for information and necessary action with reference to Memo No. 6602 dt. 4.3.2021 of the PCCF (FD & NO FC Act), Bhubaneswar.

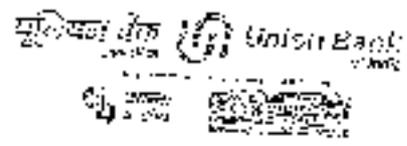
Divisional Forest Officer
Bona Division

Reference: 3188 JF-Dt. 20.02.2021

Copy forwarded to the Regional Manager, M/s Orissa Mining Corporation Ltd. AtPO-Kona, Dist Sincargadh for information and necessary action.

Divisional Forest Officer
Bona Division

AGENCY COPY



NEFT/RTGS CHALLAN for CAMPA Funds

Date: 07-04-2021

Agency Name.	ODISHA MINERALS CORPORATION LTD
Application No.	19041907534
NEFT/RTGS File No.	0-11302000-FC VOL-III
Location.	OREISA
Address.	UVC House Kharaha
Amount (in Rs.)	44792000/-

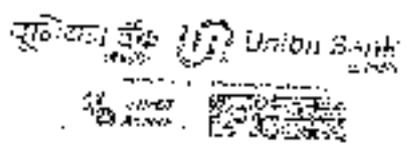
Amount in Words (in a Gross Forty-Seven Lakh Ninety-Two thousand Rupees Only)

NEFT/RTGS to be made as per following details:

Beneficiary Name	ORISSA CAMPA
PSU Code	11141000713
Pay to Account No.	1508219074987554 Valid only for this challan amount.
Bank Name & Address.	Union Bank Of India Luthi Complex Branch, Block 11, LUGI Complex, Phase I, Luthi Road, New Delhi-110002

This Challan is strictly to be used for making payment to CAMPA by NEFT/RTGS only

BANK COPY



NEFT/RTGS CHALLAN for CAMPA Funds

Date: 07-04-2021

Agency Name.	ODISHA MINERALS CORPORATION LTD
Application No.	19041907534
NEFT/RTGS File No.	0-11302000-FC VOL-III
Location.	OREISA
Address.	UVC House Kharaha
Amount (in Rs.)	44792000/-

Amount in Words (in a Gross Forty-Seven Lakh Ninety-Two thousand Rupees Only)

NEFT/RTGS to be made as per following details:

Beneficiary Name	ORISSA CAMPA
PSU Code	11141000713
Pay to Account No.	1508219074987554 Valid only for this challan amount.
Bank Name & Address.	Union Bank Of India Luthi Complex Branch, Block 11, LUGI Complex, Phase I, Luthi Road, New Delhi-110002

This Challan is strictly to be used for making payment to CAMPA by NEFT/RTGS only

After making successful payment, User Agencies may send a line of confirmation through Email: helpdeskcampa@mbank.co.in

Note: After making the required payment through challan, if the payment status has not been updated even after 7 working days, then kindly mail a copy of your challan with transaction date to Email: 050371@unionbankofindia.com

Handwritten signature: 07/04/2021



Generated from 21/04/2021
10:11:05 (A) / 2021 F & C

Handwritten signature and date: 07/04/2021

S. MOHANTY
General Manager (IT)



ବିଭାଗୀୟ ଅଧିକାରୀଙ୍କ କାର୍ଯ୍ୟାଳୟ : ବଣାଳି ବନଖଣ୍ଡ ।

OFFICE OF THE DIVISIONAL FOREST OFFICER: BONAI DIVISION.

Phone / Fax - 06626-244134; E-mail:

At- dfobonai.od@gov.in

No. 5799/6F (Mg.) Dt. 22.07.2021

To The Addl. General Manager. (Gen)
M/s Orissa Mining Corporation Ltd.,
OMC House, Bhubaneswar-751001.

Sub - Proposal for diversion of 85.175 ha of fresh forest land and 1.304 ha re-diversion of Forest land (which is a part of 11.912 ha forest land for which Stage-II approval has already been accorded by ERC, MoEF&CC on 29.05.2020) for construction of overhead piped conveyor belt from Kuntitar ML Boundary of OMC Ltd to new proposed Railway siding at Barsuan for transportation of mineral with provision for one dispatch area in between the route and the line: at terminal point at Barsuan.

Ref:- 1 Letter No.8-113/2000-FC (Vol-III) dt.4.2.2021 of the MoEF & CC, Govt.
2. Letter No.8-113/2000-FC (Vol-III) dt.8.7.2021 of the MoEF & CC, Govt.
3. Memo No.12005 dt.22.7.2021 of the DF (Nodal), Bhubaneswar addressed to this office.
1 Your Letter No.10718 dt.22.7.2021.

Sir,

With reference to above, this is to inform you that the Scheme for Compensatory Afforestation over 85.175 ha. of non forest (Givi) land identified in village Champashua under Thuamul-Rampur Tahasil in Kalahandi District of Kalahandi (South) Forest Division in lieu of above said diversion proposal has approved by the Addl. Principal Chief Conservator of Forests, Forest Division & Nodal Officer, F.C. Ac/ D/O the P.C.C.F. Odisha, Bhubaneswar for ₹4,51,43,600/- at the wage rate of ₹311/- per MD vide his Memo No. under reference (3)

Further, vide Letter No.13718 dt.22.7.2021, you have intimated the undersigned that you have already deposited ₹4,47,92,000/- towards cost of Compensatory Afforestation at the wage rate of ₹308/- per MD through e-portal of MoEF & CC as provided in the <http://parlyashua.in>

Hence, you are requested to deposit the differential amount of ₹3,61,600/- (₹4,51,43,600/- (-) ₹4,47,92,000/-) (Rupees Three Lakh Fifty One Thousand Six hundred) only through e-portal of MoEF & CC as provided in the <http://parlyashua.in>, and submit the original proof with seal and signature of the issuing Bank to this office for needful

Yours faithfully,


Divisional Forest Officer,
Bonai Division

Contd.2..

Memo No. 5760 JGF-Dt: 22.07.2021

Copy forwarded to the Addl. Principal Chief Conservator of Forests, Forest Division & Nodal Officer, F.C. Act O/O the P.C.C.F., Odisha Bhubaneswar to favour of kind information and necessary action with reference to his Memo No.12005 dt.22.7.2021.


Divisional Forest Officer,
Boni Division.

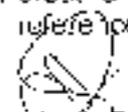
Memo No. 5761 JGF-Dt: 22.07.2021

Copy forwarded to the Regional Chief Conservator of Forests, Kourkela Circle for favour of kind information and necessary action with reference to Memo No.12006 dt.22.7.2021 of the CF (Nodal), Bhubaneswar


Divisional Forest Officer,
Boni Division.

Memo No. 5762 JGF-Dt: 22.07.2021

Copy forwarded to the Divisional Forest Officer, Kalahandi (South) Division for information and necessary action with reference to Memo No.12008 dt.22.7.2021 of the CF (Nodal), Bhubaneswar.


Divisional Forest Officer,
Boni Division.

Effective Available Balance INR 4,93,13,867.93 (Cr)

Primary Account: Y

Final Balance:
INR 2,002.95

[+ More Details](#)

[View Statement](#) 

Tran Id	Date	Remarks	Instrument ID	UTR Number	Amount (INR)	Balance (INR)
574714647	28/07/2021	NRE FD-CRENSA CAMPA 000328655539	02001496	-	7,05,00,100 Cr (Dr)	3,21,25,854.88
574714647	28/07/2021	Charges for NRE Customer Payment to BIN(71209201503			79.50 (Dr)	10,25,31,904.88
AA724062	28/07/2021	By DD Num 48852144 PAID			1,850.00 (Cr)	10,26,31,994.38
AA724062	28/07/2021	By DD Num 48862144 Paid			2,000.00 (Cr)	10,26,30,744.38
AA447190	28/07/2021	TRF 101-50418			10,00,00,000 Cr (Cr)	10,26,26,144.38

Viewing 1 to 5 of 86

Page 1

Download As: Select

No More Records Available.

OFFICE OF THE TAHASILDAR, TH.RAMPUR

No. _____ / Date 09.03.2021

To,

The Divisional Forest Office,
Kalahandi South Division,
BhawanipatnaSub - Transmission of ROR of Mouza Champachuan measuring an area of
Ac.210.47.

Sir,

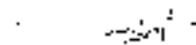
In inviting a reference to the subject cited above, I am to send herewith 01 no. of ROR of Mouza Champachuan as mentioned below in respect of non-forest Govt. land alienated in favour of Forest and Environment Department, Odisha, Bhubaneswar, C/o DFO, Kalahandi, South Division, Bhawanipatna for raising Compensatory Afforestation against Conveyor Corridor of Rantha & Kumtilar Mining Lease of Odisha Mining Corporation Limited.

Sl. No.	Mouza	Name of the Project	Area (Ac.)
01	Champachuan	Conveyor Corridor of Rantha & Kumtilar Mining Lease	210.47
Total			210.47

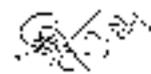
Receipt of the ROR may kindly be acknowledged.

Yours faithfully,

encl: As above


Tahasildar, Th.Rampur
Memo No. 3518 / Date 09.03.2021

Copy submitted to the Managing Director, OMC Ltd., Bhubaneswar / Collector, Kalahandi / Sub-Collector, Bhawanipatna for favour of kind information.


Tahasildar, Th.Rampur



Serial No. Form No. 30-A (Revised)

କ୍ଷେତ୍ର: ବାଲିଆପୁର
 ଥାନା: ପୁରୀ ମୁକାଦ୍ଦମା
 ଥାନା ନମ୍ବର: ୪୭

କ୍ଷେତ୍ର: ପୁରୀ ମୁକାଦ୍ଦମା
 ଥାନା ନମ୍ବର: ୪୭
 ଚିଠି ନମ୍ବର: ୧୫୫

କୌଣସି କାର୍ଯ୍ୟ: } ପୁରୀ ମୁକାଦ୍ଦମା
 ଶ୍ରେଣୀକରଣ ବିଭାଗ ନମ୍ବର: }

କୌଣସି ଅନ୍ୟ କାର୍ଯ୍ୟ: } ୧୫୫/୧

କୌଣସି ଅନ୍ୟ କାର୍ଯ୍ୟ ନାମ: } ଦାବୀ ଓ ପ୍ରମାଣ ଦାବୀ କରାଯାଇଥିବା
 କାର୍ଯ୍ୟ: } ମୂଲ୍ୟାଙ୍କନ କରାଯାଇଥିବା

Binding Space

କ୍ର. ସଂଖ୍ୟା	କାର୍ଯ୍ୟ	କାର୍ଯ୍ୟ	କାର୍ଯ୍ୟ	କାର୍ଯ୍ୟ	କାର୍ଯ୍ୟ
୧					

କୌଣସି ଅନ୍ୟ କାର୍ଯ୍ୟ ନାମ: }
 କାର୍ଯ୍ୟ: }

BLANK SPACE FOR STAMPING

GOVERNMENT OF ODISHA
FOREST & ENVIRONMENT DEPARTMENT

NOTIFICATION

No. FE-DI-PFD-3049-2629- 10485 / 1987 Date 11-06-2021
167 (Cons) 1922/2020

In exercise of the powers conferred under Section 33 of the Odisha Forest Act 1972 (Odisha Act 34 of 1972), the State Government do hereby declare that the following land situated in Village-Champachuar under Thumal Kumpal Tahsil in the District of Kalahandi reserved and transferred in favour of Forest & Environment Department for the purpose of raising compensatory afforestation thereon against the proposed use of 85.479 ha of forest land, comprising of 85.175 ha of fresh forest land and 1.304 ha re-division of forest land in favour of M/s Odisha Mining Corporation Limited for construction of overhead piped conveyer belt from Karaiter ML Boundary to proposed Railway Siding in Tahsil Lahanipara of Sonebargarh District, Odisha vide in-principle approval order No.9 112/2000-FC (Vol-III) dtl.04.02.2021 of Government of India, Ministry of Environment, Forests & Climate Change (FC Division) under Section 2 of the Forest (Conservation) Act, 1980, the limits of which are specified below and the area of which is 85.175ha (210.47 acres), shall be Protected Forests with effect from the date of issue of the Notification and shall be known as "Champachuar Protected Forest".

Forest Block:

Name of the Protected Forest	:	Champachuar Protected Forest
Area in Hs	:	85.175 ha
Area in acres	:	210.47 acres
Name of the Village	:	Champachuar
Name of the Police Station	:	Thumal Kumpal
Name of the Tahsil	:	Thumal Kumpal
Name of the Sub-Division	:	Bhawanipatna
Name of the District	:	Kalahandi

Land Schedule:

Village	Khasra No.	Plot No.	Khasra	Total area in Ac.	Boundary Description				
					Nor/Ch	South	East	West	
Champachuar	1167	1/806	Patta	19.79	Village-Tasigada	Plot No. 1 (P)	Plot No. 1 (P), 75/807	Village-Tasigada	
		75/807		30.66		Plot No. 75 (P), 86 (P), 85/808	Plot No. 75 (P)		
		85/808		21.55		Plot No. 75/807, 1/1/809	Plot No. 86 (P), 882/815, 883		Plot No. 86 (P)
		173/807		17.59		Plot No. 86/808	Plot No. 173 (P), 175		Plot No. 807 (P)

388/814	7.68	Plot No. 186 (P)	Plot No. 576, 580	Plot No. 581/814	Plot No. 186 (P)
581/814	31.60	Plot No. 582/814	Plot No. 642, 643, 645	Plot No. 881 (P)	Plot No. 186 (P), 186/814, 586
582/814	45.83	Plot No. 583, 586	Plot No. 581/814	Plot No. 532 (P)	Plot No. 85/808, 173/807, 175 (P), 188 (P)
Patch-II					
4.3/811	10.96	Plot No. 414/811	Plot No. 391, 411 (P)	Plot No. 413 (P)	Plot No. 387
4.4/811	15.66	Plot No. 426/811	Plot No. 367, 413/811	Plot No. 414 (P)	Plot No. 383
4.25/811	8.25	Plot No. 425 (P)	Plot No. 414/811	Plot No. 425 (P)	Plot No. 379
Total		246.87 ac (35.172ha)			

By Order of the Governor

(Signature)

(DR. MONA SHARMA)

Additional Chief Secretary to Government

By email: deputysecretary@odisha.nic.in

Memo No. 10469 /2024 Date 11-06-2024

Copy with soft copy (in CD form) forwarded to the Director of Printing, Stationery and Publication, Odisha Contact for publication in an extra-ordinary issue of the Odisha Gazette and supply 10 copies of printer notification, each to P2 (Deputy Director of Land Records and Surveys, Odisha, Cuttack/Collector, Kalahandi D.S.O), Kalahandi South Division/ DFO, Sundargarh Forest Division/ Talukdara, Titarenji Rampur, Dist. Kalahandi.

2. The Notification is clerical and may be assigned SRO number.

(Signature)

Special Secretary to Government

Memo No. 10469 /2024 Date 11-06-2024

Copy forwarded to the Assistant Inspector General of Forests, Govt. of India, Ministry of Environment & Forest and Climate Change, (F.C. Division), Indira Park, Connaught Place, New Delhi-110002/ Deputy Director General of Forests (Central), Govt. of India, MoEF&CC, Integrated Regional Office, A/3, Chasidraschhapur, Bhubaneswar-75 for information and necessary action.

(Signature)

Special Secretary to Government

Memo No. 10488 F&B Date 11.06.2016

Copy forwarded to the Revenue & District Management Deptt. Director of Land Records and Survey, Odisha, Cuttack/ R.D.C.(S.D) Berahampur, Dist- Gannam/ Collector, Kalahandi/ Tahasildar-Tilamal Rampur, Dist-Kalahandi for information and necessary action.

[Signature]

Special Secretary to Government

Memo No. 10489 F&B Date 11.06.2016

Copy forwarded to the Principal Chief Conservator of Forests Odisha, Bhubaneswar/ Principal Chief Conservator of Forests (Forest Division) & Model Officer, FC Act O/o the PCCF, Odisha/ Regional Chief Conservator of Forests, Bhubaneswar/ Regional Chief Conservator of Forests, Rourkela Circle/ D.F.O., Kalahandi (South) Division/ D.F.O., Sundargarh, Forest Division for information and necessary action.

[Signature]

Special Secretary to Government

Memo No. 10490 F&B Date 11.06.2016

Copy forwarded to the Head, State Portal, I.T. Centre, Odisha Secretariat, Bhubaneswar for information and necessary action/ (3 spare copies for C.P).

[Signature]

Special Secretary to Government

Memo No. 10491 F&B Date 11.06.2016

Copy forwarded to the Under Secretary to Government, Office Establishment Section, F&B Department for information and necessary action with reference to their letter No.21646/F&B 23.27.31.2016.

[Signature]

Special Secretary to Government.



ବନରଖ ଅଧିକାରୀଙ୍କ ଦାୟିତ୍ଵ: ବଣାଇ ବିଭାଗୀୟ 1

OFFICE OF THE DIVISIONAL FOREST OFFICER, BONAI DIVISION,

Phone / Fax – 06526-244434; E-mail

At- dtfbonai.od@gov.inNo. 3335 /SF-(Mg.) Dt. 6.1.2021

- To: The Addl. General Manager, (Geol),
M/s Orissa Mining Corporation Ltd,
OMC House, Bhubaneswar-751001.
- Sub:- Proposal for diversion of 85.175 ha of fresh forest land and 1.304 ha re- diversion of Forest land (which is a part of 1.312 ha forest land, for which Stage-II approval has already been accorded by MO, MoEF&CC on 29.05.2020) for construction of overhead piped conveyor belt from Kurmitar Mt. Boundary of OMC Ltd to new proposed Railway siding at Barsuan for transportation of mineral with provision for one dispatch area in between the route and the other at terminal point at Barsuan.
- X-Sub:- Stage-I approval accorded vide Letter No.8-113/2000-FC (Vol-III) dt.4.2.2021 of the MoEF & CC, Govt.
- Ref:- 1. Letter No.8-113/2000-FC (Vol III) dt.4.2.2021 of the MoEF & CC, Govt.
2. Letter No.8-113/2000-FC (Vol-III) dt.8.2.2021 of the MoEF & CC, Govt.
3. Letter No.3805/F&E dt.22.2.2021 of the F&E Deptt. addressed to the PCCF, Odisha, and copy endorsed to all concerned.
4. Memo No.0777 dt.25.3.2021 of the CGF (FC & NO), O/o the PCCF, Odisha, Bhubaneswar
5. This Office Memo No.1663 dt. 6.3.2021.

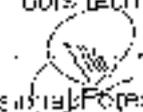
Sir

Vide the reference (4) cited above, the demand of NPV raised with reference to the above said project issued vide reference (5) is hereby modified as follows.

1. The User Agency is requested to deposit ₹ 7,99,79,325/- (₹ 8,39,000/- (X) 85.175 ha) (Rupees Seven Crore Ninety Nine Lakh Seventy Nine Thousand Three Hundred Twenty Five) only towards Net Present Value (NPV) as per Condition No.A.2 of the Stage-I approval and concordum Letter No.8-113/2000-FC (Vol-I) dt.6.2.2021 within 30 days from the issue of this letter.
2. The User Agency is requested to deposit ₹ 69,94,764/- (₹ 72,000/- (X) 85.300 ha.) (Rupees Sixty Nine Lakh Ninety Four Thousand Seven Hundred Sixty-four) only towards Regional Wildlife Management Plan fund as per Condition No.6 of the Stage-I approval order.

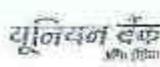
Hence, you are requested to forward the above said amount separately through e-portal of MoEF & CC as provided in the <http://na.ivesh.in> and submit the original proof with seal and signature of the issuing Bank to this office for needful.

Yours faithfully,


Divisional Forest Officer,
Bonai Division.

8_231/2021/F & E

AGENCY COPY



Union Bank of India




NEFT / RTGS CHALLAN for CAMPA Funds

Date : 15-04-2021

Agency Name.	ODISHA MINING CORPORATION LTD
Application No.	19944967465
MoEF/SG File No.	8-113/2000-FC VOL-III
Location.	ORRISA
Address.	OMC House Khordha
Amount(in Rs)	86974089/-

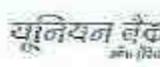
Amount in Words : Eight Crore Sixty-Nine Lakh Seventy-Four Thousand and Eighty-Nine Rupees Only

NEFT/RTGS to be made as per following details;

Beneficiary Name:	ORRISA CAMPA
IFSC Code:	UBIN0903710
Pay to Account No.	1508219944967465 Valid only for this challan amount.
Bank Name & Address:	Union Bank Of India Lodhi Complex Branch, Block 11,CGO Complex, Phase I, Lodhi Road, New Delhi -110003

* This Challan is strictly to be used for making payment to CAMPA by NEFT/RTGS only

BANK COPY



Union Bank of India




NEFT / RTGS CHALLAN for CAMPA Funds

Date : 16-04-2021

Agency Name.	ODISHA MINING CORPORATION LTD
Application No.	19944967465
MoEF/SG File No.	8-113/2000-FC VOL-III
Location.	ORRISA
Address:	QMC House Khordha
Amount(in Rs)	86974089/-

Amount in Words : Eight Crore Sixty-Nine Lakh Seventy-Four Thousand and Eighty-Nine Rupees Only

NEFT/RTGS to be made as per following details;

Beneficiary Name:	ORRISA CAMPA
IFSC Code:	UBIN0903710
Pay to Account No.	1508219944967465 Valid only for this challan amount.
Bank Name & Address:	Union Bank Of India Lodhi Complex Branch, Block 11,CGO Complex, Phase I, Lodhi Road, New Delhi -110003

* This Challan is strictly to be used for making payment to CAMPA by NEFT/RTGS only

After making successful payment, User Agencies may send a line of confirmation through Email: helpdeskcampa@corpbank.co.in

Note: After making the required payment through challan, if the payment status has not been updated even after 7 working days, then kindly mail a copy of your challan with transaction date to Email: cb0371@unionbankofindia.com

NPV - ₹ 7,99,79,325/-

RWLMP - ₹ 69,94,764/-

Total - ₹ 8,69,74,089/-

UBINJ21109634976



Challan as Per E-office

S. Mohapatra
14/04/21

S. Mohapatra
Dy. General Manager (Fin)

PROFORMA FOR VERIFICATION OF DEPOSITS IN COMPENSATORY AFFORESTATION FUND

1.	Name of Office	Bhubaneswar
2.	State/District/Forest Division to which the proposal relates	Odisha/Sundargaraj/Borail Forest Division
3.	Name of User Agency, nature of proposal	M/s. Culsia Mining Corporation Limited (A Govt of Odisha Undertaking),
4.	Nature and category of proposal	Mining of Iron Ore
5.	Proposal number	SP/OR/2018/4487/2129 (Luminter Conveyor Corridor),
6.	Extent of forest area involved	56.479 ha
7.	Whether original or extension	Original
8.	If extension of lease, please clarify if proposal involves additional area and if so, specify	NA
9.	Date of Stage clearance	F.No. 87/13/2000-FC(Vol-III), Dated 04.02.2021 for 66.479 ha.
10.	Extent of CAMPA charges, head wise viz.:	
(a)	Compensatory Afforestation	Rs. 4,01,43,000/- (Rs. 4,47,32,000/- - Rs. 3,51,800/-)
(b)	Additional Compensatory Afforestation	Nil
(c)	Partial Compensatory Afforestation	Nil
(d)	Catchment Area Treatment	Nil
(e)	Wildlife Management Plan	Rs. 5,88,51,800/-
(f)	Site Specific Wildlife Conservation Plan	Rs. 88,84,764/-
(g)	Regional Wildlife Management Plan	Nil
(h)	Additional charges for diversion of area falling under notified/protected areas	Nil
(i)	Net Present Value	Rs. 7,00,79,325/-
(j)	Any other charges/levies (Please specify)	
i)	Penal NPV	Nil
ii)	Safety Zone	Nil
iii)	1.5 times Safety Zone	Nil
iv)	Scheme for Gap plantation and soil moisture conservation activities within 100 mtr from ML boundary	Nil
v)	Scheme for ANR plantation in 500 meter perimeter of catchment area	Rs. 1,3,07,600/-
	Total	Rs. 20,22,72,189/-
11.	Whether payment made through challan or otherwise in case of online payment, details of challan.	
12.	Details of deposits	
Sl No.	Type of deposit (NPV/CAF/WWPI/ Others (specify))	Whether by RTGS/ODD/ NEFT (Specify) Online payment
	UTR/ DD No.	
i)		
	Amount deposited (Rs.)	Date of deposit
	Bank Account of CAMPA in which fund deposited	Name of Bank from which amount transferred to account of CAF
	Bank Account of CAF managed by CAMPA in which fund deposited	
	7,99,79,325/-	19/04/2021
	Rs. 7,99,79,325/-	Avc. No. 105311011000001, Andhra Bank, OMC Campus Branch, Bhubaneswar, Odisha.
	Rs. 3,59,74,080/-	Avc. No. 503219914887485, Union Bank of India, Lathi Complex Branch Block-11, CGO Complex, Phase-1, Lathi Road, New Delhi-110003.
	Rs. 1,30,76,225/-	
	Rs. 7,99,79,325/-	

ii)	Compensatory Afforestation Scheme	Online payment	UBINJ21102 281985	44792000/-	12.04.2021	A/c No. 105911011000001, Andhra Bank, OMC Campus Branch, Bhubaneswar, Odisha.	A/c No. 1508219944967534, Union Bank of India, Lodhi Complex Branch, Block-11, CGO Complex, Phase-I, Lodhi Road, New Delhi-110003.
			UBINJ21208 864503	3,51,600/- (An amount of Rs. 7,05,06,100/- has been deposited which includes Rs. 3,51,600/-)	28.07.2021	A/c No. 105911011000001, Andhra Bank, OMC Campus Branch, Bhubaneswar, Odisha	A/c No. 1508219944967481, Union Bank of India, Lodhi Complex Branch, Block-11, CGO Complex, Phase-I, Lodhi Road, New Delhi-110003.
iii)	Site Specific Wildlife Conservation Plan	Online payment	UBINJ21208 864503	5,88,51,600/- (An amount of Rs. 7,05,06,100/- has been deposited which includes Rs. 5,88,51,600/-)	28.07.2021	A/c No. 105911011000001, Andhra Bank, OMC Campus Branch, Bhubaneswar, Odisha	A/c No. 1508219944967481, Union Bank of India, Lodhi Complex Branch, Block-11, CGO Complex, Phase-I, Lodhi Road, New Delhi-110003.
iv)	Regional Wildlife Management Plan	Online payment	UBINJ21109 634976	69,94,764/- (An amount of Rs. 8,69,74,089/- has been deposited which includes Rs. 69,94,764/-)	19.04.2021	A/c No. 105911011000001, Andhra Bank, OMC Campus Branch, Bhubaneswar, Odisha.	A/c No. 1508219944967465, A/c No. 1508219944967481, Union Bank of India, Lodhi Complex Branch, Block-11, CGO Complex, Phase-I, Lodhi Road, New Delhi-110003.
ix)	Scheme for ANR Plantation in 500 meter perimeter of the dispatch area	Online payment	UBINJ21209 864503	1,13,02,900/- (An amount of Rs. 7,05,06,100/- has been deposited which includes Rs. 1,13,02,900/-)	28.07.2021	A/c No. 105911011000001, Andhra Bank, OMC Campus Branch, Bhubaneswar, Odisha	A/c No. 1508219944967481, Union Bank of India, Lodhi Complex Branch, Block-11, CGO Complex, Phase-I, Lodhi Road, New Delhi-110003.

Date: . . .
Place: . . .

Divisional Forest Officer
Bonai Forest Division

Principal Chief Conservator of Forests (Nodal)
Odisha



OFFICE OF THE REGIONAL CHIEF CONSERVATOR OF FORESTS, ROURKELA CIRCLE,
AT/P.O. PANPOSH, ROURKELA-769 004.

Memo No. 1577/3F(Misc)756/2021 Date: 24.6.2021

To

The Divisional Forest Officer,
Bonai Forest Division.

Sub:-

Proposal for diversion of 85.175 ha of fresh forest land and 1.304 ha re-diversion of Forest Land (which is a part of 11.912 ha forest land for which Stage-II approval has already been accorded by ERO, MoEF & CC on 29.05.2020) for construction of overhead piped conveyor belt Railway siding at Barsuan for transportation of mineral with provision for one dispatch area in between the route and the other at terminal point at Barsuan.

X-Sub:-

Submission of 4 Nos. of revised financial outlay of Schemes.

Ref:-

Your Memo No.4552 Dtd.11.06.2021.

The revised financial outlay of the following schemes prepared in compliance with the conditions stipulated in the Stage-I approval accorded vide Letter No.8-113/2000-FC (VoI-III) dt.4.2.2021 of the MoEF & CC, GoI in respect of the above diversion proposal at the current wage rate of Rs.311/- per man day and submitted vide your Memo under reference are hereby technically approved for the amount as indicated against each.

Sl. No.	Name of the scheme	Technical approval by the RCCF, Rourkela Circle.
01	Revised financial outlay of scheme for plantation between the banks of seasonal nala and the proposed dispatch area-2 for the development of green belt and soil and moisture conservation in the dispatch area to prevent Iron ore leaching from the dispatch areas in compliance with Condition No. A.4 with a total financial outlay of Rs.3,32,84,200/-	Technically approved for Rs.3,32,84,200/- (Rupees three crore thirty-two lakh eighty-four thousand two hundred) only
02	Revised financial outlay of Scheme for Assisted Natural Regeneration of the forest in 500 meter perimeter of dispatch areas with a view to create dense green cover so as to minimize dust and other pollution on rest of the forest in compliance with Condition No. A.6 with a total financial outlay of Rs.1,13,02,900/-	Technically approved for Rs.1,13,02,900/- (Rupees one crore thirteen lakh two thousand nine hundred) only
03	Revised financial outlay of Scheme for comprehensive soil conservation measures in compliance with Condition No. A.7 with a total financial outlay of Rs.15,20,800/-	Technically approved for Rs.15,20,800/- (Rupees fifteen lakh twenty thousand eight hundred) only

This is a copy of the original document.

04	Revised financial outlay of Scheme for creation and maintenance of plantation of dwarf species (preferably medicinal plants) in the right of way under the conveyor belt in compliance with Condition No. A.6 with a total financial outlay of Rs.21,67,600/-	Technically approved for Rs.21,67,600/- (Rupees twenty-one lakh sixty-seven thousand six hundred) only
----	---	--

The technically approved financial outlays each in duplicate are returned herewith for taking further necessary action at your end, the receipt of which may please be acknowledged.

Encl: As above.

Regional Chief Conservator of Forests,
Rourkela Circle

Memo No. _____ Date: _____

Copy forwarded to the Chief Conservator of Forests (Forest Diversion & Modal Officer, FC Act), O/o the Pr.CCF, Odisha for favour of kind information and necessary action with reference to Memo No.42/8 dtd.24.05.2023 of the DFO, Barabadi Division.

Regional Chief Conservator of Forests,
Rourkela Circle

SCHEME FOR

PLANTATION BETWEEN THE BANKS OF THE
SEASONAL NALAI AND THE PROPOSED DISPATCH
AREA-2 FOR DEVELOPMENT OF GREEN BELT AND
SOIL AND MOISTURE CONSERVATION MEASURES IN
THE DISPATCH AREA TO PREVENT IRON ORE
LEACHING FROM THE DISPATCH AREAS.

FOR

DIVERSION OF 36 479 HA OF FOREST LAND FOR
CONSTRUCTION OF OVERHEAD PIPED CONVEYOR
BELT FROM KURMITAR M.L. BOUNDARY TO
PROPOSED RAILWAY SIDING

UNDER BONAI FOREST DIVISION

OF

M/s ODISHA MINING CORPORATION LTD.

(A GOVT OF ODISHA UNDERTAKING)

OMC HOUSE, B. JUBANESWAR-751001

As per condition No. 3 of the lease of forest clearance granted by Hoaf & CC, Govt. of India vide F.No. 8
1332900-FC (Vol-III) dt. 04.11.2011

(@ Rs 308.00 per manday)

SCHEME FOR PLANTATION BETWEEN THE BANKS OF THE SEASONAL NALAH AND THE PROPOSED DISPATCH AREA 2 FOR DEVELOPMENT OF GREEN BELT AND SOIL AND MOISTURE CONSERVATION MEASURES IN THE DISPATCH AREA TO PREVENT IRON ORE LEACHING FROM THE DISPATCH AREAS FOR DIVERSION OF 25.479 HA OF FOREST LAND FOR CONSTRUCTION OF OVERHEAD PIPED CONVEYOR BELT FROM KURMUR MI. BOUNDARY TO PROPOSED RAILWAY SIDING OF 66% ODISHA MINING CORPORATION LTD.

1. INTRODUCTION

Odisha Mining Corporation Ltd had submitted a proposal for diversion of 25.479 ha of forest land, comprising of 85.175 ha of fresh forest land and 1.304 ha re-diversion of Forest land (which is a part of 11.912 ha forest land, granted Stage-II approval by ERO, MoEF&CC on 29.05.2020) for construction of overhead piped conveyor belt from Kurmur MI. Boundary to proposed Railway Siding in Tahsil Laturipara, District Sundergarh. The proposal was placed before Forest Advisory Committee on 22nd December, 2020. As per the recommendation of FAC, Stage-I FC has been granted by MoEF & CC vide letter F. No. 8-1.3/2000-FC (Vol III) dt. 04.02.2021. Condition n. A.4 of the Stage-I FC is used as under:

"On analysis on DSS it was observed that a seasonal water stream/nalah exists on South-west boundary of the proposed dispatch area-3 is adjoining a seasonal water stream/nalah. The area between the banks of this seasonal stream/nalah and the proposed dispatch area-2 shall be mapped and a green belt with native species shall be raised and maintained at the cost of user agency to protect the seasonal stream/nalah. Soil and moisture conservation measures in the dispatch area shall be planned and implemented at the cost of the user agency and effective measures shall be used by the user agency to prevent iron ore leaching from the dispatch areas."

In view of this, a comprehensive scheme is prepared @ Rs. 308.00 per man day for implementation of the same by the OMC.

2. LOCATION OF THE AREA

The project comes under Laturipara Tahsil and Bona Forest Division of Sundergarh District, Odisha. The entire stretch of proposed conveyor belt & Railway siding is bounded by Latitude: 21° 45' 31.31" - 21° 50' 08.16" N and Longitude: 85° 07' 0.46" - 85° 09' 12.48" E of Survey of India Topo sheet No. F43N. The area exhibits an undulating topography with varying elevations from 105 mtr (Min) to 927 mtr (Max.) above Mean Sea Level (AMSL). The proposed conveyor corridor comprises of two conveyor corridor and two dispatch area. Dispatch area-1 comprises of 14.602 ha of forest land and Dispatch area-2 comprises of 26.548 ha of forest land. In order to comply with the provision of Stage-I FC plantation has been proposed between Dispatch Area-2 and seasonal nalah and soil and moisture conservation measures has been proposed both in Dispatch Area-1 and Dispatch Area-2 to prevent iron ore leaching from the Dispatch areas.

3. PLANTATION MODULES-

There is some vegetation cover in the proposed plantation area between Haryana State-2 and seasonal NVA's. So ANR plantation will be taken up with 200 plants per ha. Cost norm for ANR plantation is furnished as Annexure-1. Total three numbers of patches has been identified for plantation.

Sl No.	Plantation Patches	Area in Ha
1	Nala Bank 1	7.059
2	Nala Bank 2	6.221
3	Nala Bank 3	1.209
Total		14.499

All works mentioned in the cost norm will be executed in time as per specification. While taking up plantation, the following points shall be taken up for consideration:-

1. Care to be taken to use healthy plantable seedlings of minimum 60 cm height. 10% extra seedlings are to be raised for replacement of wastage.
2. Planting shall invariably be done during November-February i.e., before onset of monsoon. If possible the soil of upper portion and lower portion of pit should be placed separately in specific direction so that while planting the pits will be filled with top soil first.
3. Planting shall be done on the onset of monsoon to get full benefit of monsoon rain and planting should never be delayed.
4. Basal dose of fertilizer and insecticides should be applied at the time of planting carefully by mixing with top soil so that the roots of seedlings do not come in direct contact with fertilizer.
5. In case of any mortality of planted seedlings, it should be replaced with good seedlings as soon as possible for better success rate.
6. Complete weeding till 1 year time will be done. Strip weeding will not be permitted.
7. Soil-working and application of 2nd dose fertilizer should be done in time.
8. Since the area is provided with barbed wire fence, watch & ward will be easier and the watchers may be engaged in weeding in problem areas alongwith watch & ward.

Species:

Although indigenous species are to be preferred in the plantation, considering adverse soil & moisture conditions we may go for hardy exotic species where required so that the plants are able to survive. For success of plantation in local forest area, plantation of fruit and NTFP species plays a great role since economic species have a little value for local people. Considering the topography, soil and moisture availability of the plantation area, the following species will be planted.

Sl No	Name of species	Common name	Remarks
1	<i>Azadirachta indica</i>	Neem	
2	<i>Derris indica</i>	Karanja	
3	<i>Emblicoefficialis</i>	Amla	
4	<i>Terminalia chebula</i>	Harida	In lower areas with good soil depth
5	<i>Terminalia bellirica</i>	Bahada	In lower areas with good soil depth
6	<i>Dalbergiasissoo</i>	Sissoo	In lower areas with good soil depth
7	<i>Gmelinaarborea</i>	Gambhari	In lower areas with good soil depth
8	<i>Dendrocalamusstrictus</i>	Salia bamboo	In lower areas with good soil depth healthy seedlings from rhizomes may be planted
9	<i>Cassia siamea</i>	Chakunda	In lower areas with good soil depth
10	<i>Tamarindusindica</i>	Tentuli	In lower areas with good soil depth
11	<i>Madhucaindica</i>	Mahul	Two years old seedlings may be planted
12	<i>Simarubaglauca</i>	Simaruba	In rocky areas with low soil depth
13	<i>Zizyphusmauritania</i>	Ber	In rocky areas with low soil depth
14	<i>Tectonagrundis</i>	Teak	Potted seedlings from pre-sprouted healthy stumps will be planted
15	<i>Mangiferaindica</i>	Mango	In situ plantation (direct placing of mango stone in planting site) during pre-monsoon may be adopted in few lower areas or where life-saving watering can be done during summer
16	<i>Caryotaurens</i>	Salapa	
17	<i>Terminalia arjuna</i>	Arjuna	Planted only on nala bank or near water.
18	<i>Desmodiumoojemensis</i>	Bandhan	
19	<i>Dilleniaindica</i>	Ou	Planted in area having good soil depth
20	<i>Feronia limonia</i>	Kaifha	
21	<i>Ficusbenghalensis</i>	Bara	
22	<i>Ficusracemosa</i>	Dimiri, Dumer	
23	<i>Ficusreligiosa</i>	Aswartha	
24	<i>Acacia aciculiformis</i>		
25	<i>Phoenix sylvestris</i>	Khajuri	
26	<i>Pithecolobiumdulce</i>	Simakayan	
27	<i>Acacia catechu</i>	Khair	
28	<i>Acacia nilotica</i>	Babul	
29	<i>Artocarpusheterophyllus</i>	Jack fruit	
30	<i>Bauhinia variegata</i>	Kuler	
31	<i>Boswelliaserrata</i>	Salai	
32	<i>Brideliaretusa</i>	Kasi	
33	<i>Buchanania lanzan</i>	Chai	
34	<i>Calophylluminophyllum</i>	Polanga	
35	<i>Cassia fistula</i>	Sunari	
36	<i>Ceibapentandra</i>	White silk cotton	
37	<i>Chloroxylonswietiana</i>	Bheru	
38	<i>Cleistanthuscollinus</i>	Karada	
39	<i>Albizialebbek</i>	Siris	
40	<i>Albiziaprocera</i>	White Siris	

1. SOIL & MOISTURE CONSERVATION MEASURES:

In order to prevent the leaching of Inoc. Org. from Dispatch area construction of retaining wall, against drainage a string pond has been proposed all around the Dispatch Area-1 and Dispatch Area-2.

(i) It has been proposed to construct 1500 mtr of raised boulder masonry around the proposed Dispatch Area-1 and 1210 mtr of raised boulder masonry around the proposed Dispatch Area-2. The masonry will be constructed by using wire mesh and small size R.R. Stones. The height of the masonry structure will be 1m, and the width 1m. The work will be executed as per cost estimate enclosed as Annexure-II. This will prevent pollution of water flowing in the area.

(ii) It is proposed to construct gulland drains of 1500 mtr around the proposed Dispatch Area-1 and 4210 mtr of raised boulder masonry around the proposed Dispatch Area-2. The size of the drain will be of size 2.00 x 1.00 mtr. The work will be executed as per cost estimate enclosed as Annexure-III.

(iii) It is proposed to construct six numbers of settling ponds around Dispatch Area-1 and eight numbers of settling ponds around Dispatch Area-2 with dry masonry walls to receive the silt laden water from the gulland drains for sedimentation of residues and percolation of water to the ground. The size of the pond will be 2 m long, 1 m width and 1 m is in depth. These ponds are proposed to be cleared once annually. The proposed ponds are to be dug out by the side of gulland drains. The cost estimate for the work is enclosed as Annexure-IV.

2. EXECUTING AGENCY

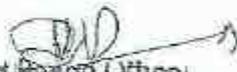
The work in the present scheme shall be executed by M/s OMC Ltd.

3. REQUIREMENT OF FUNDS

The cost of the implementation of the project will be Rs. 3,23,63,603.34 (Rupees Three Crore twenty nine lakhs sixty three thousand six hundred) only. This budget will be subject to increase or amount considering the increase in materials and labour charges.

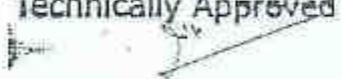
Sl. No.	Description of the work	Funds Required
1	Area plantation @ 200 Plants/ Ha for 14459 ha @ Rs. 46/18.10/Ha (Annexure-I)	Rs. 6,68,666.00
2	Cost of crete boulder masonry wall over a length of 3770 meter (Annexure-II)	Rs. 2,22,33,700.00
3	Cost of gulland drains over a length of 5710 meter (Annexure-III)	Rs. 9,76,200.00
4	Excavation of 14 numbers settling ponds (Annexure-IV)	Rs. 12,000.00

	Sub-total	2,38,86,666.33
6	Inspection, monitoring & evaluation @15% of the total project cost	35,82,999.94
	Total	2,74,69,666.27
7	Price escalation @20%	54,93,933.25
	Grand Total	3,29,63,599.52 Or Say 3,29,63,600.00


 Forest Range Officer
 Borsuan Range


 Divisional Forest Officer
 Divisional Forest Officer
 Bonai Forest Division

Technically Approved


 Regional Chief Conservator of Forests
 Rourkela Circle

Annexure-7

COST ESTIMATE FOR NITROGENATED NATURAL REGENERATION (NAR) @ 100 PLANTS PER HECTARE
 Wage rate Rs. 303.00/Day.

S. No.	Item of Work	Preferable period of Execution	Labour in Mandays	Labour Cost (Rs)	Material Cost (Rs)	Total Cost in (Rs)
0TH YEAR						
1	Survey, Demarcation and Plotting (GIS) including with	Nov/Dec	2	616.00	0	616.00
2	Site Preparation	Nov/Dec	2	616.00	0	616.00
3	Site clearance including clearance of weed, scrubber cutting, high stems cutting, weeding of plots etc.	Jan/Feb	3	1540.00	0	1540.00
4	Nursery cost (6 months old seedling year @ Rs 12.40/- seedling (Rs 8.57 in 0th year) Rs 3.75 in 1st year; for 200 seedlings (200 @ 20)	Jan-March	3.5	1894.00	367	2261.00
	Contingency and Unforeseen Expenditure		0	0	133	133
	(SUB TOTAL)		11.5	4166.00	500	4956.00
0	Monitoring & Supervision charge @ 5% of the total cost					247.80
	GRAND TOTAL					5203.80
1ST YEAR OPERATION						
1	Nursery cost (6 months old seedling) balance of Rs 2.60 for 200 seedlings	Apr-June	2.5	757.50	128	885.50
2	Fencing as per sub-lot	Feb/Mar	3	1540.00	0	1540.00
3	Planting and phasing including transport and maintenance	Jan/Apr	3	1540.00	0	1540.00
4	Complete weeding & Soil working including	Aug/Nov	6	3036.00	3	3039.00
5	Cost of Vermo compost @ 200 gm/plant @ Rs 20/- per kg = Rs. 800.00 and Granular Insecticide @ 5 gm/plant @ Rs. 80/- per kg = Rs. 80.00	Apr/Sep	0	0	880	880
6	Cost of Urea @ 10 gm/plant @ Rs. 10/- per kg = Rs. 100.00 and subsequent doses @ Rs. 60/- per kg = Rs. 34.00	Jul/Aug	0	0	134	134
7	Cost of NPK @ 50 gm/plant @ Rs. 240/- per kg = Rs. 210.00 as per sub-lot	Apr/Oct	3	909.00	0	909.00
8	Site material Operation involving clearance of weeds, cutting of tall branches, weeding of plots etc.	May/Oct	20	6060.00	0	6060.00
	Soil Conservation Measures suggested (traces of plantation @ 2 m X 2.5 m X 1.5 m @ 60 nos @	May/Oct	20	6060.00	0	6060.00

Operations						
SUB TOTAL		5	924.00	1	934.00	
Monitoring & Supervision charge 5% of the total cost					46.2	
GRAND TOTAL					970.20	
5TH YEAR OPERATION						
1 Pipeline Tracing and Inspection Park		Feb-Mar	1	308.00	0	308.00
2 Watch & ward and cultural operations		Apr-Mar	2	616.00	0	616.00
SUB TOTAL			3	924.00	0	924.00
3 Monitoring & Supervision charge 5% of the total cost						46.2
GRAND TOTAL			3	970.20	0	970.20
6TH YEAR OPERATION						
1 Pipeline Tracing and Inspection Park		Feb-Mar	1	308.00	0	308.00
2 Watch & ward and cultural operations		Apr-Mar	2	616.00	0	616.00
SUB TOTAL			3	924.00	0	924.00
3 Monitoring & Supervision charge 5% of the total cost						46.2
GRAND TOTAL						970.20
7TH YEAR OPERATION						
1 Pipeline Tracing and Inspection Park		Feb-Mar	1	308.00	0	308.00
2 Watch & ward and cultural operations		Apr-Mar	2	616.00	0	616.00
SUB TOTAL			3	924.00	0	924.00
3 Monitoring & Supervision charge 5% of the total cost						46.2
GRAND TOTAL						970.20
8TH YEAR OPERATIONS						
1 Pipeline Tracing and Inspection Park		Feb-Mar	1	308.00	0	308.00
2 Watch & ward and cultural operations		Apr-Mar	2	616.00	0	616.00
SUB TOTAL			3	924.00	0	924.00
3 Monitoring & Supervision charge 5% of the total cost						46.2
GRAND TOTAL						970.20
9TH YEAR OPERATION						
1 Pipeline Tracing and Inspection Park		Feb-Mar	1	308.00	0	308.00
2 Watch & ward and cultural operations		Apr-Mar	2	616.00	0	616.00
SUB TOTAL			3	924.00	0	924.00
3 Monitoring & Supervision charge 5% of the total cost						46.2
GRAND TOTAL						970.20
10TH YEAR OPERATION						
1 Pipeline Tracing and Inspection Park		Feb-Mar	1	308.00	0	308.00

Part						
2	Watch & ward are continued operations	Apr-Mar	3	618.00	0	618.00
SUB TOTAL			3	924.00	0	924.00
3	Monitoring & Supervision charge 5% of the total cost					46.2
GRAND TOTAL						970.20

ABSTRACT

SL. No.	Item of Work	No. Person Day	Labour cost (Rs 308.00/- per day)	Material cost (Rs)	Monitoring & Supervision charge 5% of the total cost	Total cost in (Rs)
1	0th Year operation	14.5	4466.00	500	248.30	5214.30
2	1st Year operation	64.5	19866.00	636	1075.10	21577.10
3	2nd Year operation	21	6468.00	1238	385.30	8091.30
4	3rd Year operation	10	3080.00	200	164.00	3444.00
5	4th Year operation	3	924	0	46.2	970.20
6	5th Year operation	3	924	0	46.2	970.20
7	6th Year operation	3	924	0	46.2	970.20
8	7th Year operation	3	924	0	46.2	970.20
9	8th Year operation	3	924	0	46.2	970.20
10	9th Year operation	3	924	0	46.2	970.20
11	10th Year operation	3	924	0	46.2	970.20
TOTAL		131	40346	3574.00	2196.10	46118.10


 Director
 District Health Office
 District Hospital

Annexure-II

Development of concrete boulder masonry wall (Length of the wall = 1560 + 4210 metre)

1) E/W excavation by mechanical means.

Qty. 5770 m³ x 2m x 0.3 = 3462 Cum @ Rs. 60.00 = Rs. 2,07,934.00

2) Dressing of the boulder.

Bottom layer: 5770m³ x 1.0m x 1.00 = 5770.00 Cum

Second layer: 5770m³ x 1.00m x 1.00m = 5770.00 Cum

14425.00 Cum

@ Rs. 125.32/Cum :

= Rs. 1,800,274.00

Rs. 2,22,29,673.00

Qty Rs. 2,22,29,710.00

Annexure-III

Excavation of Earthen drain (Backland drain) Length of the wall = 1560 + 4210 metre)

1) E/W excavation by mechanical means.

5770 m³ x 2.00 x 1.5 = 17310.00 Cum @ Rs. 56.40/m³

= Rs. 9,76,284.00

Qty Rs. 9,76,300.00

Annexure-IV

Excavation of settling ponds

1) E/W excavation by mechanical means

2m x 1 m x 1 m = 200 Cum @ Rs. 56.40/m³

= Rs. 11,280

2) Dry masonry wall 1 nos x 2.00 x (1.00 + 1.00) x 2 = 8 Cum

@ Rs. 538.68/Cum

= Rs. 4,309.44

Rs. 1,37.37

Qty Rs. 1596.81

4) Total (1+2+3) numbers of settling ponds = 8 : 1596.81 = Rs. 12,000.00


Assistant Engineer
Bengaluru Region


Assistant Engineer
Bengaluru Region

COST NORM FOR AIDED NATURAL REGENERATION (ANR) @ 200 PLANTS PER HECTARE
Wage rate Rs. 311.00/Day.

Sl. No.	Item of Work	Preferable period of Execution	Labour in Mandays	Labour Cost (Rs)	Material Cost (Rs)	Total Cost in (Rs)
0TH YEAR						
1	Survey, Delineation and Piler Posting, GPS Reading with mapping	Nov/Dec	2	622.00	0	622.00
2	Site Preparation	Nov/Dec	2	622.00	0	622.00
3	Silvicultural Operation including clearance of weed, climber cutting, high stump cutting, singling of shoots etc.	Jan/Feb	5	1555.00	0	1555.00
4	Nursery cost (6 months old seedling) part @ Rs.12.42/- seedling (Rs.8.67 in 0th year + Rs.3.76 in 1st year) for 200 seedlings (200/20)	Jan-March	5.5	1710.50	367	3077.50
5	Contingency and Unforeseen Expenditures		0	0	133	133
	SUB TOTAL		14.5	4509.50	500	5009.50
6	Monitoring & Supervisor charge 5% of the total cost					250.48
	GRAND TOTAL		14.5	4509.50	500	5259.98
1ST YEAR OPERATION						
1	Nursery cost (6 months old seedling) balance @ Rs.3.75 for 200 seedlings	Apr-June	2.5	777.50	128	905.50
2	Fixing 30 cm cube size	Feb/Mar	6	1866.00	0	1866.00
3	Carriage and planting including canopy replacement	Jul/Aug	5	1555.00	0	1555.00
4	Complete weeding, Soil working, Manuring	Aug/Sep	6	1866.00	0	1866.00
5	Cost of Vermi compost @200 gms/plant @ Rs.20/- per kg - Rs.400.00 and Granular Insecticide 2 gms/plant @ Rs.80/- per kg -Rs.160.00	Aug/Sep	0	0	560	560
6	Cost of Chemical fertilizer (a) Urea 70 gms/plant in two sub-plant doses @ Rs.6/- per kg =Rs.84.00 (b) NPK 50 gms/plant @ Rs 20/- per kg=Rs.240.00 as basal dose	Jul/Aug	0	0	324	324
7	Silvicultural Operation involving clearance of weeds, cutting of climbers, singling of shoots etc.	Sep/Oct	15	4665.00	0	4665.00
8	Soil Conservation Measures (Staggered trenches of dimension 3 m X 0.5 m X 0.5 m @ 60 nos per	Sep/Oct	20	6220.00	0	6220.00

	(ha) or its equivalent					
9	Fireline Tracing and Inspection Path	Feb/Mar	3	933.00	0	933.00
10	Watch & ward	Apr-Mar	7	2177.00	0	2177.00
11	Contingency and Unforeseen Expenditures		0	0	304	304
	SUB TOTAL		64.5	20059.50	1636	21695.50
12	Monitoring & Supervision charge 7% of the total cost					1084.78
	GRAND TOTAL		64.5	20059.50	1636	22780.28

2ND YEAR OPERATION

1	Casualty Replacement including cost of seedling, cartage and planting	Jul/Aug	1	311.00	268.60	579.60
2	Complete weeding and cultural operations	Sep/Oct	2	622.00	0	622.00
3	Soil working and manuring	Sep/Oct	2	622.00	0	622.00
4	Cost of Fertiliser and insecticide (i) Vermicompost 200gms/plant @ Rs.20/- per kg=Rs.800.00 (ii) Granular Insecticides 5 gms/plant for 20 plants 100 gms @ Rs.80/- per kg=Rs.8.00	Sep/Oct	0	0	808	808
5	Soil Conservation Measures (Renovation of staggered trenches etc.)	Sep/Oct	8	2488.00	0	2488.00
6	Fireline Tracing and Inspection Path	Feb/Mar	1	311.00	0	311.00
7	Watch & ward (whole year)	Apr-Mar	7	2177.00	0	2177.00
8	Contingency and Unforeseen Expenditures		0	0	181	181
	SUB TOTAL		21	6531.00	1238	7769.00
9	Monitoring & Supervision charge 5% of the total cost					388.45
	GRAND TOTAL		21	6531.00	1238	8157.45

3RD YEAR OPERATION

1	Complete weeding and cultural operations	Aug/Sep	1	311.00	0	311.00
2	Soil working	Aug/Sep	1	311.00	0	311.00
3	Fireline Tracing and Inspection Path	Feb/Mar	1	311.00	0	311.00
4	Watch & ward (whole year)	Apr-Mar	7	2177.00	0	2177.00
5	Contingency		0	0	300	300.00
	SUB TOTAL		10	3110.00	260	3370.00
6	Monitoring & Supervision charge 5% of the total cost					168.50
	GRAND TOTAL		10	3110.00	260	3478.50

4TH YEAR OPERATION

1	Fireline Tracing and Inspection Path	Feb/Mar	1	311.00	0	311.00
2	Watch & ward and cultural	Apr-Mar	2	622.00	0	622.00

operations						
SUB TOTAL						
Monitoring & Supervision charge 5% of the total cost		3	933.00	0	933.00	
GRAND TOTAL						
		3	933.00	0	979.65	
5TH YEAR OPERATION						
1	Pipeline Tracing and Inspection Path	Feb/Mar	1	311.00	0	311.00
2	Watch & ward and cultural operations	Apr-Mar	2	622.00	0	622.00
SUB TOTAL						
		3	933.00	0	933.00	
Monitoring & Supervision charge 5% of the total cost					46.65	
GRAND TOTAL						
		3	933.00	0	979.65	
6TH YEAR OPERATION						
1	Pipeline Tracing and Inspection Path	Feb/Mar	1	311.00	0	311.00
2	Watch & ward and cultural operations	Apr-Mar	2	622.00	0	622.00
SUB TOTAL						
		3	933.00	0	933.00	
Monitoring & Supervision charge 5% of the total cost					46.65	
GRAND TOTAL						
		3	933.00	0	979.65	
7TH YEAR OPERATION						
1	Pipeline Tracing and Inspection Path	Feb/Mar	1	311.00	0	311.00
2	Watch & ward and cultural operations	Apr-Mar	2	622.00	0	622.00
SUB TOTAL						
		3	933.00	0	933.00	
Monitoring & Supervision charge 5% of the total cost					46.65	
GRAND TOTAL						
		3	933.00	0	979.65	
8TH YEAR OPERATION						
1	Pipeline Tracing and Inspection Path	Feb/Mar	1	311.00	0	311.00
2	Watch & ward and cultural operations	Apr-Mar	2	622.00	0	622.00
SUB TOTAL						
		3	933.00	0	933.00	
Monitoring & Supervision charge 5% of the total cost					46.65	
GRAND TOTAL						
		3	933.00	0	979.65	
9TH YEAR OPERATION						
1	Pipeline Tracing and Inspection Path	Feb/Mar	1	311.00	0	311.00
2	Watch & ward and cultural operations	Apr-Mar	2	622.00	0	622.00
SUB TOTAL						
		3	933.00	0	933.00	
Monitoring & Supervision charge 5% of the total cost					46.65	
GRAND TOTAL						
		3	933.00	0	979.65	
10TH YEAR OPERATION						
1	Pipeline Tracing and Inspection Path	Feb/Mar	1	311.00	0	311.00

1	Part					
2	Watch & care and critical operations	Apr-Mar	2	622.00	0	622.00
	SUBTOTAL		3	933.00	0	933.00
3	Monitoring & Supervision charge 5% of the total cost					46.65
	GRAND TOTAL		3	933.00	0	979.65

ABSTRACT

Sl. No.	Item of Work	No. Person Day	Labour cost @ Rs 311.00 ⁰⁰ per day	Material cost (Rs)	Monitoring & Supervision charge 5% of the total cost	Total cost in (Rs)
1	0th Year operation	135	4509.90	500	250.48	5259.98
2	1st Year operation	64.5	20059.50	1636	1084.78	22740.28
3	2nd Year operation	23	6331.00	1258	388.45	8157.45
4	3rd Year operation	10	3110.00	203	155.50	3475.50
5	4th Year operation	3	933.00	0	46.65	979.65
6	5th Year operation	3	933.00	0	46.65	979.65
7	6th Year operation	3	933.00	0	46.65	979.65
8	7th Year operation	3	933.00	0	46.65	979.65
9	8th Year operation	3	933.00	0	46.65	979.65
10	9th Year operation	3	933.00	0	46.65	979.65
11	10th Year operation	3	933.00	0	16.65	979.65
	TOTAL	131	40744.00	3574.00	3215.76	46530.76


 Forest Officer
 Forest Division

Department of Forest, Environment & Climate Change, Government of Odisha

PRAKRUTI BHAWAN, PLOT NO.1459, SAHEED NAGAR, BHUBANESWAR- 751007
Phone: 0674-2602250, Website: www.wildlife.odisha.gov.in, Email: odishawildlife@gmail.com

No. 6963 /TWL-FD&WLC-182/2020

Dated, Bhubaneswar the 23 July, 2021

To

The Additional General Manager (Geo),

M/s OMC Ltd., OMC House, Bhubaneswar - 751001

Sub: Proposal seeking prior approval under the Forest (Conservation) Act, 1980 for non-forestry use of 86.749 ha of forest land, comprising of 85.175 ha of fresh forest land and 1.304 ha re-diversion of forest land (which is a part of 11.912 ha of forest land, granted Stage-II approval by ERO, MoEF&CC on 29.05.2020) in favour of M/s Odisha Mining Corporation Ltd. for construction of overhead piped conveyor belt from Kurmitar ML boundary to proposed Railway siding in Tahasil Lahuni para, District Sundargarh (Odisha)-reg. - Approval of Site Specific Wildlife Conservation Plan

Sir,

It is to intimate that you have to implement a Site Specific Wildlife Conservation Plan for the above project in compliance to condition No.A5 of the Stage-I approval accorded by Government of India, MoEF&CC, New Delhi vide their letter in File No.8-113/2000-FC (Vol-III) with respect to the aforementioned diversion proposal.

The Site Specific Wildlife Conservation Plan in respect of the above project has been approved by the undersigned with financial forecast of Rs.588.516 lakh (Rupees five crore eighty-eight lakh fifty-one thousand six hundred) only for implementation of activities in project as well as impact zone as detailed in the

Site Specific Wildlife Conservation Plan,

P.T.O.



The total cost of Rs.368.516 lakh only may kindly be deposited in State CAMPA fund for implementation of activities in project/impact area by the DFO, Bonai Division. It is further requested to take note of the following conditions for future compliance

- The Plan may be revisited after 5 years and the user agency will give undertaking to contribute towards the revised cost of the conservation plan till the project period, if any.
- Should there be need for Site Specific Wildlife Conservation Plan after expiry of the present plan period, the user agency shall submit another such plan at least one year before the expiry of the present Conservation Plan and deposit the outlay amount upon its approval. In case of delay, it will be dealt as per law for violations of Forest (Conservation) Act, 1980 and Environment (Protection) Act, 1986.
- The user agency shall give an undertaking to bear the differential cost in case of enhancement of wage rate during implementation of the plan.

Yours faithfully

Encl: 2 copies of approved SSWLCP

Principal CCF (WL) & CWLW, Odisha

Memo No. 6964 dt 23/07/2021

Copy forwarded for information and necessary action to the

1. Special Secretary to Government of Odisha, I & B Department with reference to that department memo No. L. O. I. D. U. 49 2020 3506/F&P dt 22.02.2021
2. Principle Chief Conservator of Forests, Odisha
3. Regional Chief Conservator of Forests, Rourkela Circle
4. Divisional Forest Officer, Bonai Division with reference to his memo No. 1959 dt 25.06.2021 alongwith a copy of approved SSWLCP

Principal CCF (WL) & CWLW, Odisha

SITE SPECIFIC WILDLIFE CONSERVATION PLAN

FOR

OVERHEAD PIPE CONVEYOR BELT

FOR

**TRANSPORTATION OF IRON ORE FROM
KURMITARMI TO BARSUAN RAILWAY SIDING**

BONAI FOREST DIVISION

OF

SUNDERGARH DISTRICT, ODISHA

Submitted By



M/s ODISHA MINING CORPORATION LIMITED

(A Government of Odisha Undertaking)

A Gold category State PSU

OMC House, Bhubaneswar-751001

CONTENTS

Sl. No.	Particulars	Page Nos.
1	PREFACE	1
2	EXECUTIVE SUMMARY	2-6
3	CHAPTER-1 INTRODUCTION AND METHODOLOGY	7-30
4	CHAPTER-2 THE PERCEIVED IMPACTS OF THE PROJECT ON THE ENVIRONMENT.	40-47
5	CHAPTER-3 OBJECTIVES OF MANAGEMENT AND MITIGATION STRATEGIES.	48-52
6	CHAPTER-3A DESIGN OF THE TRESTLES OF THE PIPE CONVEYOR BELT WITHOUT OBSTRUCTING THE FREE MOVEMENT OF ELEPHANTS IN THE PROJECT AREA	53-60
8	CHAPTER-4 MANAGEMENT STRATEGIES WITHIN THE PROJECT AREA WITH FINANCIAL FORECAST.	61-62
9	CHAPTER-5 MANAGEMENT STRATEGIES WITHIN ZON WITH FINANCIAL FORECAST.	63-66
9	CHAPTER-6. ANNEXURE AND MAPS.	67
	COPY OF STAGE-I FOREST CLEARANCE BY MDEF & CC DT. 04.02.2021.	Annexure-I
	ESTIMATE OF SOLAR FENCING.	Annexure-II
	RELEVANT PAGES OF NEERI REPORT	Annexure-III
	TRESTLE DETAILS OF PIPE CONVEYOR	Annexure-IV
	MAP INDICATING PROJECT AREA ON THE TOPO SHEET WITH 10 K.M. RADIUS	PLATE I
10	MAP SHOWING THE PIPE CONVEYOR BELT ORIGINATING FROM KURMIAR ML THROUGH RANTHA ML	PLATE-II
	PLAN SHOWING THE ELEPHANT PASSAGE (LP8 TO LP9)	PLATE-III
	SECTIONAL VIEW SHOWING THE ENTIRE TRESTLE FROM TR 1 TO TR-121	DRNG. NO. 1,2,3 &4
	PLAN SHOWING THE ELEPHANT PASSAGE (EP4 TO EP9)	PLATE-IV
	SECTIONAL VIEW SHOWING THE ENTIRE TRESTLE FROM TR 1 TO TR 219	DRNG. NO. 5 TO 14
	MAP INDICATING THE DISTANCE OF THE PROTECTED AREAS FROM THE PROJECT AREA	PLATE V

LIST OF TABLES

Sl.No.	Table Number	Description	Page No
1	1	Proposed land use pattern of 86,479 ha.	8
2	2	Village wise break up of land involved in the project	8
3	3	Component wise break up the total forest land of this project.	9-10
4	4	Villages coming under 1.0 km buffer from Kunniltar Conveyor Corridor	11
5	5	Demographic and occupational Profile of villages in the PIA	12
6	6	List of flora in core zone	17-18
7	7	List of fauna in core zone	18-19
8	8	List of flora in zone of influence	19-22
9	9	List of fauna in zone of influence	24-25
10	10	List of fishes in Buffer Zone	26
11	11	House damage by Elephants	33
12	12	Human Death by Wild Animal	34
13	13	Human Injury by Wild Animal	34
14	14	Details of death of wild animals	34-35
15	15	Crop damage by Elephants	35
16	16	Cattle kill by Wild Animal.	35
17	17	List Of Projects In Buffer Zone	37
18	18	Name Of The Experts Involved In The Study	38
19	19	Financial provision of works in the project area (Wage rate @ Rs.311.00)	61
20	20	Annual Work Programme in the core zone.	62
21	21	Financial provision of works in Zone of Influence.	63-64
22	22	Annual Work Programme in the zone of influence.	65-66
23	23	Abstract of cost (Core and Buffer)	66

LIST OF FIGURES

Sl. No.	Figure Number	Description	Page No
1		Proposed Conveyor or Google image	57

PREFACE

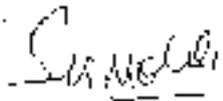
M/s Orissa Mining Corporation Ltd, has proposed to set up a new Conveyor Corridor from its Kurnitar Mining lease boundary to a new Railway siding proposed to be developed at Barzuan for transport of Iron Ore (fines and lumps) to be generated from the Crushing and screening unit to be installed within Kurnitar Mining Lease area. This Projected is located in Lalapikada Taluk of Boudi Forest Division.

There exists only one concrete road (Seroikela-Barzuan) connectd in Barzuan Town over a length of 12 K.M. maintained by OMC for transportation of ore from Kurnitar mines. This road is also used by Villagers. Daily nearly 2,000 trucks are plying on this road and hence very often become congested. In order to overcome these shortcomings OMC has planned to establish the conveyor belt. In-addition to adhere to the suggested ore transport mode applicable to Kurnitar mines by MHRM i.e., 5 mtpa ore to be transported 100% by private railway siding or conveyor belt upto public Railway siding or pipeline.

This Project involves diversion of 86.479 ha of forest land for which MoEF&CC has conveyed Stage I approval vide letter Dt.04.02.2021 with 34 conditions (Part A with 12 conditions and 23 in part B). In condition no.5 of Part A, it has been envisaged for preparation of a Site-specific wildlife conservation plan to be implemented at Project level and approved by competent authority. M/s OMC Ltd has entrusted us for preparation of the Plan being an accredited consultant as per approval letter of PCCF(Wildlife) and CWLP, Odisha vide his letter No.7798/WL-FD&WL/O-58/2020Dt.11.03.2021.

We feel obliged to DFO, Boudi Division for guiding us in preparation of this Plan. We are also obliged to Range Officer, Kakra and Unit Bala staff for providing us field data for strengthening this Plan. We are thankful to the management of M/s OMC Ltd., for providing us documents relating to this mine and approval orders issued by various quarters and accompanying during field visit which has given fruitful inputs to this Plan.

We would like to convey our sincere thanks to Mr. Balwant Singh, IAS, ML, OMC Ltd., Dr. Samrat Gouda, IFS, SO(I&E), OMC and Dr.D.K.Pattanaiik, Adviser (F&F), OMC Ltd. for their keen interest in this project. We extend our thanks to Sri Anandkanta Pradhan, Regional Manager, Mr. B.C. Malik, Manager, Kurnitar and Sri Guna Ram Singh, Surveyor, OMC Ltd. for their assistance during our field visit.


S.K.Mohanty, OFS (Retd.)

Dt.05.06.2021

EXECUTIVE SUMMARY

1. Kurmitar proposed fully covered, overhead, piped, conveyor corridor will be located in the Lanunipada Tahasil of Bonai Civil Sub-Division, of Sundergarh District, is under the jurisdiction of Barsuan Forest Range of Bonai Forest Division. The Survey of India Topo Sheet No. is F45N1. The rail head of this project is Barsuan for transporting Iron ore from Kurmitar Mines.
2. The Project proponent is Odisha Mining Corporation Limited (OMC), which is a Gold Category, State PSU of Govt. of Odisha, with working experience on mining for more than 60 years i.e., since 1956.
3. The proposed conveyer system with two dispatch locations involves 86.606 ha of land, of which 86.479 ha is forest land and 0.127 ha is non-forest Govt. land.
4. The Central Government has accorded "in-principle" approval under Section-2 of the Forest Conservation Act, 1980 for non-forestry use of 86.479 ha of forest land, comprising of 85.175 ha of fresh forest land and 1.304 ha re-diverted forest land.
5. Environmental clearance for the project being Piped Conveyor System to transport iron ore will not be required (MoEF & CC, vide circular No.J-11013/56/2004-IA(II) (i) Dated 14.09.2006 is silent on the need of EC for such project). However, the user agency has furnished an undertaking to obtain Consent to Establish (NOC) from State Pollution Control Board after grant of Stage-II approval.
5. As many as four villages are located on the way of the conveyor line. These are Damaku village, Rantha village, Sarcikala village and Silguda village. But, no habitation is going to be displaced due to the laying of this overhead conveyor corridor.
7. Around 30 revenue villages are located around the project area within the zone of influence. In all the villages there are basically two types of land use, one is settlements and other is agricultural land. The demographic data shows, majority of the people belongs to ST and SC community and practice their traditional ways of cultivation. The rearing of cattle in the

influence zone is a common practice, for grazing the cattle on fringe of forest areas and meadows. The village economy is supported by NTFP collection.

8. The topography around the project area is undulating hilly ranges with interspersed of narrow valleys of level lands.

9. The zone of influence has dendritic pattern of drainage due to the hilly topography of the area. Many nalas like Khandadhar nala, Amsarl nala, Paikuncha nala, Malde nala, Prulamallani nala, Garhgi nala, Kola nala, Kotapani nala, Deojar nala Gagar nala Baranamala nala, Burghar and KorapaniNadi etc. are located in the zone of influence. There are three waterfalls located in the zone of influence, namely Chhatapara falls (94m), Khandadhar (158m) and Mirigiata fall(38m). One contour dam has been constructed on fringe of the Barsuan town. The influence zone does not contain any other major water body.

10. National highway 215 is running within the influence zone and the Biramitrapur ~ Rourkela- Barsuan railway line of the S.E. Railway terminal station is located at Barsuan station. These two are linear infrastructure present in the zone of influence.

11. The survey conducted for enlisting the flora and fauna both in the core as well as in the zone of influence, indicates 43 species of trees, 11 species of shrubs, 07 species of climbers, 05 species of grasses and herbs, 2 species of mammals, 2 species of reptiles, 4 species of insects and butterflies, 10 species of birds are found from the core zone and 67 species of trees, 17 species of shrubs and herbs, 10 species of climbers, 05 species of grasses, 77 species of mammals, 11 species of reptiles, 03 species of amphibians, 36 species of birds, 07 species of fishes from the ZoI. As per the field observation, there is no endemic species found either in the Core or in the ZoI. But Schedule-I species like Elephant, Sloth Bear, Indian Wolf, Python and Monitor lizard were noticed. Based upon the elephant census report 2017, there are 59 elephants present in the Dora Forest Division, which includes 14 male, 38 female and 07 young.

12. In the influence zone the movement of elephant is recorded between Toda and Sarkunda RF connecting Odisha and Jharkhand.
13. There is no National park/Wildlife Sanctuary/Biosphere Reserve and elephant habitat for migratory birds etc. exists within the project impact area. No eco-sensitive zone exists in the locality.
14. The forests mostly belong to North Indian Tropical Moist Deciduous Type-Sub group 3C; and Northern Tropical semi-Evergreen type - Sub group 2B. Sal is the dominant species of the area with density of high-level Sal, low level Sal, valley Sal mixed with Terminalia alata and Anogeisus latifolia sp. The total forest area on the influence zone is 4881.343 ha.
15. The elephant is the only mega wildlife present in the area. They move in and around the forest of the influence zone. However, there is no designated wildlife or elephant corridor present within the zone of influence.
16. The elephant depredation data of Barsuan Range under Bonai Forest Division during last 10 years (2010-2021) indicate that there are 1/ House damage, two human deaths, no human injury and six animal death including two elephants. Not a single case reported in the project area. Human-animal conflict has been reported from the zone of influence.
17. The last working plan was prepared by Mr. S. C. Partha, IFS (1997-98 to 2016-17). The same is in application till date. The plan has prescribed creation of seven working circles. These are 1) Selection working circle, 2) Rehabilitation cum plantation working circle, 3) Bamboo (over lapping) working circle, 4) Protection working circle, 5) Wildlife (over lapping) working circle, 6) NTFP (over lapping) working circle, and 7) Miscellaneous (over lapping) working circle.
18. Within the zone of influence 11 numbers of other leases are in working condition.
19. The 8.315 km long fully covered, overhead, piped, conveyor corridor will transport Iron ore lumps and fines mines from Kunitar to Barsuan Railway siding at a tune of present production of 2.4 MTPA to future target of 6.0MTPA. This will permanently stop plying of approximately 2000

trucks/day at present and 5000 numbers of Trucks /day in future, over 12.0 km distance.

20. With the investment of approximately Rs. 713.92 crores will provide direct employment to 50 persons during construction phase and 50 persons for operation in completion of project will be created on a regular basis. Apart from this an indirect employment of around 5000 people will be generated on a regular basis. The cost benefit ratio is 1:20.

21. The pipe conveyor will greatly reduce the traffic and increase the quantity of transportation. The effect of vehicular pollution on the local environment will reduce. The piped conveyor transportation of ore will completely stop the fall of ore on the forest floor and dust release into the ambient air.

22. Two downhill pipe conveyors (PC) are envisaged for Kurnilur mining project. The first pipe conveyor PC-1 is having 2.92 km length and the second pipe conveyor PC-2 is 5.55 Km long.

23. 345 nos. of pillars/trestles are proposed to be constructed along the conveyor corridor to support the pipe conveyor with the spacing of 18 m each.

24. Height of PC-1 & PC-2 pipe conveyor varies from 4.5 m (Average) to 29 m (Maximum).

25. During construction phase, to some extent, soil erosion will take place. Total 1447 number of trees has been enumerated from the proposed project area for removal.

26. As the conveyor is overhead, it will not obstruct the movement of any wildlife including elephant of the area. The height of trestles near existing passagecrossing the proposed corridor has been planned more than 7.0 mtr. The conveyor is piped, as such it will not create any air or ater pollution. Only sound pollution is expected. The generated sound will be a fraction of sound that could be produced by the movement of 5000 numbers of tracks could require for transport of 6.0MTPA ore.

27. Sufficient declination angle of PC has been fixed based on the material flow characteristics and dynamic analysis. This declination can't be

increased further as it will create the material flowability issues and structural instability due to hilly terrain.

28. There will be no increase of vehicular traffic in the area, rather it will reduce the traffic.

29. Only noise pollution will take place and the generated sound will be maintained below 60dB.

30. The technique adapted for the study is random sampling from the project area as well as impact area, by laying sampling plots of 50m X 30m in every 10 sq km. All tree, shrubs and herbs were recorded in details. Animal such as mammals, birds, reptiles were recorded from direct sighting as well as from their droppings, dungs, footprints and grazing marks in the forest.

31. The main objectives of this plan are to address the issues stipulated by the MoEF&CC in their letter No. 8-113/2000 FC(Vol-II), dated 4th February 2021, on section 15. The endangered wildlife recorded from the project impact area is Elephant, Sloth bear, Wolf, Peacock, Python and Monitor lizard. The objective of this plan is to maintain a viable population of wildlife and in particular elephant population. Conservation of wildlife corridors including the habitat around the corridor also given emphasis.

32. Stage II FC over 85.175 ha of forest land has been approved vide letter no.8-113/2000-FC(Vol.III) dt 04.02.2021 by MoEF&CC.

33. The total budget of this plan is **Rs 514.02 lakh**. The user agency will implement by spending **Rs 12.00 lakh** and deposit in CAMPA **Rs 502.02 lakh** to forest department for implementation by DFO, Bonai Division.

CHAPTER-1

INTRODUCTION AND METHODOLOGY

INTRODUCTION

1.A) i) Location of the project

The proposed fully covered, overhead piped, conveyor corridor starts from the boundary of Kurmitar Mining lease of M/s OMC Ltd to the new Railway siding at Barsuan. The entire project area is coming under the Lahunipada Tahasil of Bonai Civil Sub-Division, of Sundergarh Civil District and is under the jurisdiction of Barsuan Forest Range of Bonai Forest Division. The entire stretch of the proposed Kurmitar- Barsuan piped overhead conveyor belt up to Barsuan Railway siding is 8.315 km long, and located between Latitude N 21° 45' 31.31" to 21° 50' 33.16" and Longitude E 85° 07' 0.40" to 85° 09' 12.48". The reference Survey of India Open Series Topo map number is F45N1 (1:50,000 scale). This rail head of the project is at Barsuan, located on Rourkela-Barsuan railway line of S.F. Railway. Barsuan is located on NH 715, which is about 27 km from Koira and 35 km from Rajamunda. Environmental clearance is not required for overhead piped, conveyor corridor. However, Environmental clearance was granted by MoEF, Govt. of India vide their letter No. J 11,015/1080/2007-IA, II(M) Dt.02.09.2008 for expansion of Kurmitar Iron Ore Project.

This Project is located in Barsuan beat, Barsuan Section, Barsuan Range of Bonai Forest Division. The total project area is 86.606 ha which includes 86.479 ha of forest land and 0.127 ha of non-forest land. The land schedule has duly been authenticated by Tahasildar, Bonai.

1.A) ii) Proposed Land Use Pattern

The proposed conveyor system with two dispatch areas involves 86.606 ha of land, of which 86.479 ha is forest land and 0.127 ha is non-forest Govt. land. The details break-up of the land is furnished below

Table No.1: Proposed land use pattern of 86.479 ha.

Forest Division	Forest land involved (in Ha.)					Non-forest land involved (in Ha.)			Grand Total (in Ha)
	RF	PRF	DLC	Rev. forest	Total	Govt. land	Pvt. Land	Total	
Bonal	60.825- (Khandadhar RF-2.164 & Tohra RF-58.611)	25.654	0	0	86.479	0.127	0	0.127	86.606
Grand Total (Ha)	60.825	25.654	0	0	86.479	0.127	0	0.127	86.606

The village wise break-up of total forest and non-forest land involved in this project under Bonal forest division is given below:

Table No.2: Village wise break up of forest and non-forest land involved in the project.

Sl. No.	Name of District	Name of the Tahasil	Name of village / Forest Block	Forest land involved (InHa.)			Non-forest land involved (InHa.)			Grand Total (in Ha)
				RF	PRF	Total	Govt. land	Pvt. Land	Total	
1	Sundergarh	Lalpurpada	Danuli	0	2.258	2.258	0.127	0	0.127	2.385
2			Rartha	0	20.983	20.983	0	0	0	20.983
3			Sareikala	0	0.290	0.290	0	0	0	0.290
4			Siliguda	0	2.123	2.123	0	0	0	2.123
Sub-Total					25.654	25.654	0.127	0	0.127	25.781
5	Sundergarh	Lalpurpada	Khandadhar RF	2.164	0	0	0	0	0	2.164
7			Tohra RF	0	58.641	0	0	0	0	58.641
8	Sub Total			60.825	0	0	0	0	0	60.825
Grand Total				60.825	25.654	86.479	0.127	0	0.127	86.606

The component wise break-up of the total forest and non-forest land involved in this project under Bonal forest division is given below (land use pattern details):

Table No.3: Component wise break up the total forest land involved in this project

Sl. No.	Pattern of utilization	Forest Land involved	Category of Forest in ha			Non-Forest land in ha			Grand Total in ha
			RF	PRF	Total	Govt.	Pvt.	Total	
1	Conveyer corridor-1 including 0.532 ha for construction of 127 no. of trestle pillars (Khandadhar RF-63 & Khandadhar PRF-64)	Virgin Forest land	1.018	1.142	2.160	0	0	0	2.160
		Re- diversion	0	0.031	0.031	0	0	0	0.031
2	Inspection path	Virgin forest	1.166	1.273	2.439	0	0	0	2.439
		Re- diversion	0	0	0	0	0	0	0
Sub-Total			2.184	2.446	4.630	0	0	0	4.630
3	Dispatch area-1(part of conveyer corridor, stack-yard, parking area, Weigh bridge, Workshop, Rest shelter, canteen, Fire-station, Electric sub-station and first Aid centre)	Virgin Forest land	0	13.329	13.329	0	0	0	13.239
		Re- diversion	0	1.273	1.273	0	0	0	1.273
			RF	PRF	Total	Govt.	Pvt.	Total	Grand Total in ha
4	Dispatch area-1 Infrastructure	Virgin forest	0	0.983	0.983	0	0	0	0.983
Sub-Total			0	15.585	15.585	0	0	0	15.585
5	Inspection Path		Virgin forest	0.060	4.066	4.126	0	0	0
6	Conveyer corridor -2 including 1.073 ha for construction of 219 no.s of trestle pillars (Torha RF-01 & Khandadhar PRF-216, non-Forest land-02)	Virgin forest) and	0.033	3.557	3.590	0.127	0	0.127	3.717
Sub-Total			0.093	7.623	7.716	0.127	0	0.127	7.843

7	Discharge area -2 (Part of conveyor corridor, stack- yard, parking area, Weigh bridge, Workshop, Rest shelter, canteen, Fire station, Electric sub- station and First Aid centre, Rail infrastructure & Road	Virgin Forest Land	58.548	0	58.548	0	0	0	58.548
Grand Total			60.825	25.684	86.479	0.127	0	0.127	86.606

1.A) iii) Status of Forest Diversion Proposal and Environmental Clearance

The Central Government accorded "in-principle" approval under Section -2 of the Forest Conservation Act,1980 for non-forestry use of 86.479 ha of forest land, comprising of 85.175 ha of fresh forest land and 1.304 ha re-diverted forest land (which is a part of 11.912 ha of forest land, granted Stage -II approval by MoEF& CC on dt29.05.2020 in favour of M/s OMC Limited for construction of overhead piped conveyor belt from Kurmitar ML Boundary to proposed Railway Siding at Barsuan In Laxmipara Tehsil of Sundergarh district under certain conditions mentioned therein. In condition No.5 of Part A, it has been mentioned that,

"It shall be ensured that, the trestles (Pillars) of Proposed Conveyor Belt are sufficiently high so that the movement of wildlife particularly elephant in the area is not hampered. A Site-Specific Wildlife Conservation Plan be prepared and approved by the competent authority and the cost of preparation and implementation shall be borne by the User Agency. The User Agency shall also make proportionate contribution towards the cost of the Regional Wildlife Management Plan prepared and approved by competent authority."

Environmental Clearance: Environmental clearance is not required for overhead pipe conveyor.

1. B) VILLAGES LOCATED WITHIN THE STUDY AREA, THEIR DEMOGRAPHIC AND OCCUPATIONAL PROFILE:

As many as four villages are located on the way of the conveyor line. These are Damalu, Rantha, Sareikalae and Sil'guda village. However, no habitation is going to be displaced due to the laying of this over head, piped, conveyor corridor. Detail list of the villages located within 1.0km radius is given below:

Table No.4: Villages coming under 1.0km buffer from Kurmitar Conveyor Corridor.

Sl. No.	Name of village	GP Name	Name of Tahasil	District
1	Damalu	Saskela	Bonai	Sundargarh
2	Randa	Bhatuda	Bonai	Sundargarh
3	Ranta	Bhatuda	Bonai	Sundargarh
4	Sareikela	Bhatuda	Bonai	Sundargarh
5	Saskela	Saskela	Bonai	Sundargarh
6	Sil'guda	Bhatuda	Bonai	Sundargarh
7	Uskuda	Fuljhar	Bonai	Sundargarh
8	Tohra Rr	Forest	Bonai	Sundargarh
9	Knancadhar RF	Forest	Bonai	Sundargarh

The project Impact Area-Villages and habitations within Project impact area of 10km radius:

30 Villages coming within 10km radius along with their demographic details is given in Table No.5.

Table No.5: DEMOGRAPHIC AND OCCUPATIONAL PROFILE OF VILLAGES IN THE PROJECT IMPACT AREA

Sl. No.	Village	No. of house hold	Total population	Total male	Total female	SC	ST	Literates	Total cattle	Machinery	Kanichhator	Main Agriculture	Public school/college	Health centre	Murg. No/No. (moo)	Non-Voting population
1	Hategaon	33	141	78	63	0	141	3	41	37	33	0	0	5	4	100
2	Belthi	370	583	859	783	213	862	653	887	751	112	55	5	578	235	796
3	Damau	85	405	196	209	13	272	129	132	21	0	0	0	20	113	274
4	Deogaon	20	83	36	44	0	97	27	51	47	12	35	0	0	4	32
5	Jamjodhi	235	1062	530	532	2	933	441	448	299	347	43	0	111	113	614
6	Kanjanell	109	638	302	336	57	519	367	231	195	51	54	0	64	62	407
7	Kansara	28	145	75	70	0	139	5	49	49	45	0	0	5	0	96
8	Keta	13	56	30	26	0	56	0	0	0	0	0	0	0	0	56
9	Ladapani	26	191	96	95	0	191	61	107	106	25	60	0	5	1	84
10	Lasi	127	596	287	242	12	451	68	197	155	66	7	0	121	2	312
11	Nagana	77	377	194	193	7	236	100	226	27	22	2	0	3	134	151
12	Palamur	72	349	174	175	3	349	35	213	75	70	3	0	2	138	136
13	Phuljar	111	655	342	311	3	291	242	263	50	10	2	0	38	313	290
14	Saisuan	50	222	123	106	10	186	23	60	52	48	0	0	4	8	162
15	Katabasa	216	1052	532	499	11	902	477	608	229	108	69	4	48	179	422
16	Rehla	52	189	99	90	5	165	34	98	96	1	0	1	0	2	91
17	Santala	193	917	466	451	4	853	295	403	154	148	7	0	3	249	514
18	Sankhara	90	381	178	202	0	357	29	96	54	70	10	0	8	1	285
19	Taladonia	105	499	255	244	0	499	35	266	112	107	2	0	2	155	233
20	Tantabaha	38	190	80	104	13	152	60	64	49	27	10	4	8	35	126
21	Tiluka	19	95	38	57	0	87	7	20	20	16	2	0	0	0	68
22	Uargonia	115	607	281	316	0	579	96	369	174	112	6	0	6	144	239
23	Ustuka	119	507	290	277	0	540	57	304	122	20	0	0	0	172	263
24	Arbadali	78	371	167	204	0	369	72	223	145	139	2	1	4	77	148
25	Dei	73	325	163	192	0	328	20	187	151	143	0	4	1	96	158
26	Gajpur	126	530	257	279	0	457	43	342	42	33	5	0	4	299	194
27	Mundasati	9	39	20	19	0	32	16	20	6	2	0	0	1	17	16
28	Narasingpur	52	800	402	398	127	0	525	220	123	21	0	5	37	107	580
29	Singpur(kha)	158	615	400	415	40	766	161	464	173	128	37	5	5	294	353
30	Talabarda	37	197	86	111	0	193	37	95	29	25	1	0	3	57	101

1.B) i) Demography occupational profile and dependency on forests:

Around 30 revenue villages are located in the ZoI. The demographic profile of these villages has been given in the table above. In all the villages there are basically two types of land use, one is settlements and other is agricultural land. The demographic distribution of the Influence zone shows, majority of the people belongs to ST and SC community and practice their traditional ways of cultivation. They are gradually leaving their traditional shifting cultivation to settle cultivation. In the slope areas they cultivate Maize, Jaw, Ragi, and various type of pulses-beans, while in the plain lands in valley they grow paddy.

The rearing of cattle around the project area in the influence zone is a common practice. In the influence zone around 15000 numbers of cattle present; those are mostly freely grazing round the forests and in available meadows.

The poor background of village economy majority of the villagers reliant on the collection of different NTFP collection, like mohua flower and seed, Sal and Sial leaves, Kendu leaf, Myraholans, fruits, edible tubers etc. In many cases these collections create a clear competition with wildlife.

1.B) ii) Existing Cropping Pattern:

Kharif is the main crop season of this area. From interaction with local inhabitants, it appears that the main crop is paddy, which is widely cultivated in this area. Paddy is grown over 75% of the gross shown area and the rest by other cereal crops. Total land holdings are not utilized for cultivation because of the rain fed condition. As such agriculture is not intensive and mostly cultivated for getting crops for own consumption. Considering the total agricultural land divided by household indicates that mostly tribal are coming under the group of marginal/small farmers. Since the extent of land is not compatible for improved scientific farming using tractors etc. and due to non availability of irrigation system, mostly the tribal raise paddy during kharif and harvest depend upon the quantum of rain fall experienced in the corresponding year. Where there is the facility of water harvesting structures, during Rabi, farmers harvest cereals like Green Gram, Black Gram, Peanut, Cowpea, Barseem, Maize, Palua (*Curcuma angustifolia*), Bajra, sunflower, Horse gram and also raise Kitchen Garden to a limited extent especially for their domestic use; but where the harvest is

surplus and conveyance is available, they market it.

1.B) iii) Extent of biotic pressure of villages on forest resources:

The local people are mostly tribal. They do not have their own wood-lot. The majority of forest blocks of Bonai Forest Division are dominated with plants like Sal and its associates i.e., Asan, Kusum, Char, Mahua, Myrabolans etc. tribals collect Sal seeds, Sal leaves, Sal resin, Char seeds, Kusum seeds, Myrabolans, mahua flower and Karanja seeds, babul seeds, Siaileaves and fibers, Dhatuki flower, Bananaladi, Bana Kultri, Jangli Mango, Kantabandhuni, Bhul neem, Ambada, Tamarind, Phulbandhuni, Banatalsi, gums and resins etc. Kendu leaf is another important NTFP in Sundargarh Dist. In the leisure period, tribal prefer to go inside the forest in a group for poaching of small game like hare, civet, mongoose, monitor lizard, Quail, etc. Besides, in seasonal naa, tribal also practice fishing by draining the water and share the collection mostly for their house consumption. In addition, they are in the practice of collecting climbers for basket making (Atundl), rope from Murga (Agave sp.) and Salifiber for house roof thatching. They also collect bamboo twigs for fishing-rod and green bamboo for basket making.

The local inhabitants also depend on forests for grazing their cattle and at places for shifting cultivation. The village cattle herd normally visits the adjoining forest area. The cattle those visit the forest for grazing every morning, at times suffer from seasonal diseases like FYM. This disease possibly may contaminate to Wildlife like Chital, Sambar, Wild bear, etc. (hooved animal).

1.B) iv) Number of families depending on NTFP collection:

This is a tribal belt. Tribals are the nomadic inhabitants of the forest. The tribal are in habit of collecting fruits and nuts, bamboo, thatching grass, Mahua, Myrabolans, Root tubers (Dioscoreaceae), neem seeds, Char, Be., Kaitha (*Coronis elephantum*), babul (*Acacia nilotica*), Bana Bhalia (*Semecarpus anacardium*), Rohini (*Soymida febrifuga*), Medicinal plants, Wax, broom stick, resin, Mango Kernel etc. from the forest. They are also in the practice of collecting tender Sal leaves for plate making. Honey and lacuna (resin from Sal tree) collection are infrequent in the study area. However, during our survey,

we did not find any family entirely dependent on NTFP collection. The left-over family members of the main workforce (old age people and women) are mostly engaged in NTFP collection. They collect their fencing materials and material required for preparing agricultural tools from timber from the adjoining forests.

Tribal are still in the practice of hand-picking of NTFP like Mahua flower, Sal seeds etc. Self - help group formulated in these areas are in practice of preparing pampad, pickle, Juice, incense stick etc. but still more emphasis needs to be given for the commercial collection of NTFP and marketing by ORMAS. The tribal of this area find exposure only during District level Fair, or during the tribal fair held at Bhubaneswar every year from January 26th for a month.

1. B) v) Method of NTFP collection:

Tribal follow the age-old practice of sweeping the surrounding of the forest floor from where fruits, nuts etc. are to be collected for the commercial purpose and set fire to the debris. Various methods are there for the collection of NTFP such as kendu leaf by hand plucking, mahua flower and Sal seed by hand plucking, medicinal plants various parts are collected according to their use pattern. Mostly by hand-picking to fruits and nuts or cutting the climbers, burrowing the suckers, cutting branches of palm leaf for mat making etc. are practiced. The local tribal do not follow scientific method for collection of NTFP rather apply crude method which is the main cause of fire incidence in the forest. They should be appraised to collect NTFP without causing damage to plants in particular and the forest in general.

Now Gram Panchayat is empowered to deal with NTFP and they are not aware of its sustainability. A calendar of collection of NTFP and process should be supplied to the Gram Panchayat Office, Range Office and Beat Office. For collecting NTFP from the ground, villagers clear the forest floor by igniting fire, which destroys the ground vegetation, as well as restricts the regeneration of tree species. Repeated use of fire adversely affects the ground nesting mammals, birds and reptile population. Due to the impact of this unscientific cleaning process, the ground becomes completely barren at places to infiltrate the rain water flow resulting in reduced sub-soil water table and accelerating the process of soil erosion.

1.B) vi) Cattle Population and Grazing Habit:

As per the latest livestock census report (2012) of the district, Sundargarh has 579692 numbers of cattle, 32933 buffalo, 563586 goats, 32192 sheep, 48688 pigs and 1106437 poultry. Among these livestock, most of them depend on forest for their fodder.

1. C) Description of Topography, Natural Drainage Lines

Topography: The topography around the project area is undulating hilly ranges with interspersed of narrow valleys of level lands. The nearby principal hills with their peaks (in metre MSL) in the influence zone are Kumrital Pahar (1065 to 790), Korkota (478), Khandadhar (1015), Dhongra (730), Mankarnacha (1117), Dholta (730), Sindriapat (838), Chelliatoka (1015) etc.

Drainage: The zone of influence has dendritic pattern of drainage due to the hilly topography of the area. Many seasonal drainage channels originate from Khandadhar Pahar and forms Khandadhar nala, which drains to Ansari nala on the western side. On the eastern side Palkuncha nala drains to Ma'da nala. On the south-west side Burgharna nala drains to Korapani Nadi. In addition to the above mentioned nalas, other prominent nalas flowing in the influence zone are; Silgapani nala, Phulamailani nala, Garhgi nala, Kola nala, Kotapani nala, Deojar nala Gagar nala Baranamala nala, and Poundanadi etc. There are three waterfalls located in the zone of influence, namely Bahatapara Falls (94 m), Khandadhar (158 m) and Mirigilata fall (38 m). One contour dam has been constructed on fringe of the Barsuan town. The influence zone does not contain any other major water body.

1. D) Details of linear infrastructures

N.H.215 is passing through Barsuan town which is 27.0 KM to the west of Kolra and 35.0 K.M. east of Rajamunda. The nearest rail head is at Barsuan on Barsuan-Kourkela Railway line of South-eastern railway. The Project area and ZoI do not contain any major roads. No Canal, water reservoirs or unguarded dug wells are noticed in the ZoI.

1.E) Description of Flora and Fauna:

As per the field study, the list of flora and fauna available in the area is as detailed below:

CORE ZONE**Table No.6: LIST OF FLORA**

Sl. No.	Local Name	Scientific Name	Family
TREES			
1.	Australian Wattle	<i>Acacia auriculiformis</i>	Mimosaceae
2.	Khair	<i>Acacia catechu</i>	Mimosaceae
3.	Mangium	<i>Acacia mangium</i>	Mimosaceae
4.	Babul/Bamur	<i>Acacia nilotica</i>	Mimosaceae
5.	Bel/Bela	<i>Aegle marmelos</i>	Rutaceae
6.	Mahua	<i>Ailanthus excelsa</i>	Simarubaceae
7.	Siris	<i>Albizia lebbek</i>	Mimosaceae
8.	Chhatian	<i>Aistonia scholaris</i>	Apocynaceae
9.	Cashew/Kut	<i>Anacardium occidentale</i>	Anacardiaceae
10.	Kadamb	<i>Anthocephalus cadamba</i>	Rubiaceae
11.	Jackfruit	<i>Artocarpus heterophyllus</i>	Moraceae
12.	Neem/Nim	<i>Azadirachta indica</i>	Meliaceae
13.	Mahua/Mairul	<i>Madhuca indica</i>	Sapotaceae
14.	Koolar	<i>Bauhinia purpurca</i>	Caesalpinaceae
15.	Asta	<i>Bauhinia racemosa</i>	Caesalpinaceae
16.	Kachnar	<i>Bauhinia variegata</i>	Caesalpinaceae
17.	Tal	<i>Borassus flabellifer</i>	Araceae
18.	Palas	<i>Butea monosperma</i>	Fabaceae
19.	Fishtallpalm	<i>Caryota urens</i>	Araceae
20.	Sunari	<i>Cassia fistula</i>	Samydaceae
21.	Siamese Cassia	<i>Cassia siamea</i>	Caesalpinaceae
22.	Sissoo	<i>Dalbergia sissoo</i>	Fabaceae
23.	Pangra	<i>Erythrina suberosa</i>	Fabaceae
24.	Eucalyptus	<i>Eucalyptus tereticornis</i>	Myrtaceae
25.	Bar/Bara	<i>Ficus bengalensis</i>	Moraceae
26.	Pipal	<i>Ficus religiosa</i>	Moraceae
27.	Gambhari	<i>Gmelina arborea</i>	Verbenaceae
28.	Pridcotinca	<i>Lagerstroemia indica</i>	Lythraceae
29.	Seja	<i>Lagerstroemia parviflora</i>	Lythraceae
30.	Subabul	<i>Leucaena leucocephala</i>	Mimosaceae
31.	Aam/Amha	<i>Mangifera indica</i>	Anacardiaceae
32.	Baula	<i>Mimusops elengi</i>	Sapotaceae
33.	Copperpod	<i>Peltapherum pterocarpum</i>	Caesalpinaceae
34.	Aunla	<i>Fmhlica officinalis</i>	Phyllanthaceae
35.	Karanj/Karanjo	<i>Pongamia pinnata</i>	Fabaceae
36.	Khejra	<i>Prosopis juliflora</i>	Mimosaceae
37.	Sal	<i>Shorea robusta</i>	Dipterocarpaceae
38.	Jamu	<i>Syzygium cumini</i>	Myrtaceae
39.	Tinetuli	<i>Tamarindus indica</i>	Caesalpinaceae
40.	Saguan	<i>Tectona grandis</i>	Verbenaceae

41.	Arjun	<i>Terminalia arjuna</i>	Combretaceae
42.	Ber	<i>Zizyphus jujuba</i>	Rhamnaceae
43.	Ghontol	<i>Zizyphus xylopyra</i>	Rhamnaceae
SHRUBS			
1.	Ramphal	<i>Annona reticulata</i>	Annonaceae
2.	Seethaphal	<i>Annona squamosa</i>	Annonaceae
3.	Aak	<i>Calotropis gigantea</i>	Asclepiadaceae
4.	Arakh	<i>Calotropis procera</i>	Asclepiadaceae
5.	Karonda/Ankhu-Kolt	<i>Cariss spinarum</i>	Apocynaceae
6.	Yellowoleander	<i>Cascabelathevetia</i>	Apocynaceae
7.	Tarwar	<i>Cassiaauriculata</i>	Caesalpiaceae
8.	SiamWeed	<i>Chromolaenaodorata</i>	Asteraceae
9.	GloryBower	<i>Clerodendruminerve</i>	Verbenaceae
10.	Bushmorning Glory	<i>Ipomoeacarnea</i>	Convolvulaceae
11.	Raimunia	<i>Lantana camara</i>	Verbenaceae
CLIMBERS			
1.	Gunja/Runjo	<i>Abrusprecatorius</i>	Mimosaceae
2.	Ananta-mul	<i>Hemidesmusindicus</i>	Apocynaceae
3.	Mali(bura)	<i>Hiptagebengalensis</i>	Malpighiaceae
4.	Utharana	<i>Pergulariadaemia</i>	Apocynaceae
5.	RangoonCreeper	<i>Quisqualisindica</i>	Combretaceae
6.	Giloy	<i>Tinosporacordifolia</i>	Menispermaceae
7.	GreenMilkWeed Climber	<i>Wattakakavolubilis</i>	Asclepiadaceae
GRASSES & HERBS			
1.	KhadGrass	<i>Heteropogon contortus</i>	Poaceae
2.	Bermudagrass	<i>Cynodon dactylon</i>	Poaceae
3.	Nutgrass	<i>Cyperus rotundus</i>	Poaceae
4.	MexicanDaisy	<i>Tridax procumbens</i>	Asteraceae
5.	Dudhi	<i>Euphorbia hirta</i>	Euphorbiaceae
OTHERS			
1.	Khajur	<i>Phoenix sylvestris</i>	Arecaceae
2.	Bamboo	<i>Dendrocalamusstrictus</i>	Poaceae

Table No.7: LIST OF FAUNA

MAMMALS			
Sl. No.	English Name	Scientific Name	Schedule as per WPA
1.	Threestriped Palmsquirrel	<i>Funambulus palmarum</i>	IV
2.	Rat	<i>Rattus rattus</i>	V
REPTILES			
Sl. No.	English Name	Scientific Name	Schedule as per WPA
1.	GardenLizard	<i>Calotes versicolor</i>	IV

2.	Chameleon	<i>Chameleon zeylanicus</i>	II
INSECTS & BUTTERFLIES			
Sl. No.	English Name	Scientific Name	Schedule
1.	Lime Butterfly	<i>Papilio demoleus</i>	IV
2.	Common Crow Butterfly	<i>Euploea core</i>	IV
3.	Black Garden Ant	<i>Lasius niger</i>	
4.	Red Emperor Dragonfly	<i>Anas guttatus</i>	
BIRDS			
1.	Eurasian Collared Dove	<i>Streptopelia decaocto</i>	IV
2.	House crow	<i>Corvus splendens</i>	IV
3.	Crow pheasant	<i>Centropus sinensis</i>	IV
4.	Black Drongo	<i>Dicrurus macrocercus</i>	IV
5.	Cattle egret	<i>Egretta alba</i>	IV
6.	Blue Rock-Pigeon	<i>Columba livia</i>	IV
7.	House Sparrow	<i>Passer domesticus</i>	IV
8.	Ashy-rinla	<i>Prinia socialis</i>	IV
9.	Red-vented Bulbul	<i>Pycnonotus cafer</i>	IV
10.	Purple Sunbird	<i>Nectarina asiatica</i>	IV

ZONE OF INFLUENCE

Table No.8: LIST OF FORA

TREES			
Sl. No.	Common Name	Scientific name	Family
1.	Aam/Aamba	<i>Mangifera indica</i>	Anacardiaceae
2.	Ana/Amara/ Ambada	<i>Spondias pinnata</i>	Anacardiaceae
3.	Anla	<i>Emblica officinalis</i>	Euphorbiaceae
4.	Arjuna	<i>Terminalia arjuna</i>	Combretaceae
5.	Asana	<i>Terminalia tomentosa</i>	Combretaceae
6.	Bahada	<i>Terminalia bellerica</i>	Combretaceae
7.	Bardhan	<i>Ougeinia ojeinensis</i>	Papilionaceae
TREES			
8.	Bara	<i>Ficus bengalensis</i>	Moraceae
9.	Baranga/Bhenta	<i>Lemonia acisissima</i>	Rutaceae
10.	Bela	<i>Aegle marmelos</i>	Rutaceae
11.	Shalia	<i>Semecarpus anacardium</i>	Anacardiaceae

Sl. No.	Common Name	Scientific name	Family
12.	Bheru	<i>Chloroxylon swietenia</i>	Meliaceae
13.	Bija/piasal	<i>Pterocarpus marsupium</i>	Papilionaceae
14.	Barada	<i>Bauhinia mauritiana</i>	Caesalpiniaceae
15.	Borakuli/bara kull	<i>Zizyphus mauritiana</i>	Rhamnaceae
16.	Cassia	<i>Cassia siamla</i>	Caesalpiniaceae
17.	Chakunda	<i>Cassia florida</i>	Caesalpiniaceae
18.	Chhatian	<i>Alstonia scholaris</i>	Apocynaceae
19.	Champa	<i>Michelia champaca</i>	Magnoliaceae
20.	Char	<i>Bucan anialanzan</i>	Anacardiaceae
21.	Chauli	<i>Cassia glauca</i>	Verbenaceae
22.	Dhaura	<i>Anogeissus latifolia</i>	Combretaceae
23.	Dumkurud	<i>Gardeniagumifera</i>	Rubiaceae
24.	Garnihar	<i>Gardeniaarborea</i>	Verbenaceae
25.	Gangasituli/K harkhari	<i>Nyctanthes arbotristis</i>	Oleaceae
26.	Halca	<i>Dispyrus montana</i>	Fbenaceae
27.	Harida	<i>Terminalia chebula</i>	Combretaceae
28.	Jambuj/Jamul	<i>Syzygiumcumuni</i>	Myrtaceae
29.	Jari/aswastna	<i>Ficus religiosa</i>	Moraceae
30.	Kadamba	<i>Anthocephalus casamba</i>	Rubiaceae
31.	Kanchana/ Barada	<i>Bahunia purpuria</i>	Caesalpiniaceae
32.	Kandior/ Kenkat	<i>Garuga pinnata</i>	Burseraceae
33.	Makarkendu/ karakendu	<i>Diospyrus malabarica</i>	Ebenaceae
34.	Karam/mundi	<i>Mitragyana parviflora</i>	Rubaceae
35.	Karanja	<i>Derris indica</i>	Papilionaceae
36.	Kasi	<i>Bridelia retusa</i>	Euphorbiaceae
37.	Kathasilai	<i>Xylin xylocarpa</i>	Mimosaceae
38.	Kendu	<i>Diospyros melanoxylon</i>	Benaceae
39.	Khajur	<i>Phoenix acaulia</i>	Palmaeae
40.	Kharada	<i>Casaria elliptica</i>	Samydaceae
41.	Khaira	<i>Acaciacatechu</i>	Mimosaceae
42.	Korehein/ Kurchi	<i>Holarifianaantidysenterica</i>	Apocynaceae
43.	Kumbhi	<i>Careya arborea</i>	Myrtaceae
44.	Kurum	<i>Adina cordifolia</i>	Rubiaceae
45.	Kusum	<i>Schlochora oleosa</i>	Sapindaceae
46.	Lothe	<i>Symplocos racemose</i>	Styracae
47.	Dimiri	<i>Ficus glomerata</i>	Moraceae
48.	Mahul	<i>Madhuca indica</i>	Scapotaceae
49.	Mat/Moi	<i>Lannea coromandela</i>	Anacardiaceae
50.	Neemi/Limba	<i>Azadirachta indica</i>	Meliaceae

Sl. No.	Common Name	Scientific name	Family
51.	Panasa	<i>Artocarpus integrifolia</i>	Moraceae
52.	PaniGamhari	<i>Trewia nudiflora</i>	Euphorbiaceae
53.	Karla/Pusa/Karada	<i>Cleistanthus collinus</i>	Euphorbiaceae
54.	Patuli	<i>Stereospermum chelonoidis</i>	Bignoniaceae
55.	Rai/Karengila	<i>Dillenia pentagyna</i>	Dilleniaceae
56.	Rohini	<i>Soyyida febrifuga</i>	Meliaceae
57.	Sajna	<i>Moringa pterygosperma</i>	Moringaceae
58.	Sai/Sargi/Rengal	<i>Shorea robusta</i>	Dipterocarpaceae
59.	Salai/Doka	<i>Bosweliaserota</i>	Burseraceae
60.	Sena	<i>Lagerstroemia pudagya</i>	Lythraceae
61.	Sidha/Senta	<i>Lagerstroemia parviflora</i>	Lythraceae
62.	Simli/Semul	<i>Bombax ceiba</i>	Bombaceae
63.	Siris/Sersuan	<i>Albizia lebbak</i>	Mimosaceae
64.	Sissoo	<i>Dalbergia latifolia</i>	Papilionaceae
65.	Sunari	<i>Cassia fistula</i>	Caesalpiniaceae
66.	Tentra	<i>Albizia procera</i>	Mimosaceae
67.	Tentuli/Tetel	<i>Tamarindus indica</i>	Caesalpiniaceae
49.	Mal/Mol	<i>Lannea coromandelica</i>	Anacardiaceae
50.	Neem/Limba	<i>Azadirachta indica</i>	Meliaceae
51.	Panasa	<i>Artocarpus integrifolia</i>	Moraceae
52.	PaniGamhari	<i>Trewia nudiflora</i>	Euphorbiaceae
53.	Karla/Pusa/Karada	<i>Cleistanthus collinus</i>	Euphorbiaceae
54.	Patuli	<i>Stereospermum chelonoidis</i>	Bignoniaceae
55.	Rai/Karengila	<i>Dillenia pentagyna</i>	Dilleniaceae
56.	Rohini	<i>Soyyida febrifuga</i>	Meliaceae
57.	Sajna	<i>Moringa pterygosperma</i>	Moringaceae
58.	Sai/Sargi/Rengal	<i>Shorea robusta</i>	Dipterocarpaceae
59.	Salai/Doka	<i>Bosweliaserota</i>	Burseraceae
60.	Sena	<i>Lagerstroemia pudagya</i>	Lythraceae
61.	Sidha/Senta	<i>Lagerstroemia parviflora</i>	Lythraceae
62.	Simli/Semul	<i>Bombax ceiba</i>	Bombaceae
63.	Siris/Sersuan	<i>Albizia lebbak</i>	Mimosaceae
64.	Sissoo	<i>Dalbergia latifolia</i>	Papilionaceae
65.	Sunari	<i>Cassia fistula</i>	Caesalpiniaceae
66.	Tentra	<i>Albizia procera</i>	Mimosaceae
67.	Tentuli/Tetel	<i>Tamarindus indica</i>	Caesalpiniaceae
SHRUBS/HERBS			
1.	Arakha	<i>Calotropis gigantea</i>	Asclepidaceae
2.	Anantamula	<i>Hemidesmus indicus</i>	Asclepidaceae
3.	Ata	<i>Annona squamosa</i>	Annonaceae
4.	Agnijhal	<i>Clausena excavate</i>	Rutaceae

5.	Antia	<i>Halecteris isora</i>	Sterculiaceae
6.	BanaKapasi	<i>Thespesia lamas</i>	Malvaceae
7.	Basanga	<i>Adhatoda vasica</i>	Acanthaceae
8.	Ranikalhl	<i>Flemingia chapper</i>	Papilionaceae
9.	Dhatki	<i>Woodfordia fruticosa</i>	Myrtaceae
10.	Girephool	<i>Indigofera pulchella</i>	Papilionaceae
11.	Koli	<i>Carissa carandas</i>	Apocynaceae
12.	Kamni	<i>Murraya exotica</i>	
13.	Begonia	<i>Vitex negundo</i>	Verbenaceae
14.	Putusspp	<i>Lantana camara</i>	Verbenaceae
15.	Putusspp	<i>Lantana indica</i>	Verbenaceae
16.	Tilai	<i>Wendlandia exserta</i>	Rubiaceae
17.	Kurei	<i>Holarrhona antidysentric</i>	Apocynaceae

CLIMBERS

1.	Atundi	<i>Combretum decadrum</i>	Combretaceae
2.	Baldanka	<i>Maranapuriens</i>	Papilionaceae
3.	Bichhuati	<i>Tragiaplukenetii</i>	Euphorbiaceae
4.	Dantari	<i>Accacia pinata</i>	Mimosaceae
5.	Pitaalu	<i>Dioscorea bulbisera</i>	Dioscoreaceae
6.	Kantakuil	<i>Zizyphu socnopia</i>	Rhamnaceae
7.	Stall	<i>Bauhinia vahlic</i>	Papilionaceae
8.	Latapalas	<i>Butea superba</i>	Papilionaceae
9.	Muturi	<i>Smilax zeylanica</i>	Liliaceae
10.	Salabari	<i>Asparagus racemosus</i>	Liliaceae

GRASSES

1.	Sinkulagrass	<i>Plectropogon contortus</i>	Gramineae
2.	Kharagrass	<i>Imperata cylindrica</i>	Gramineae
3.	Phulabandhu ni	<i>Thysanotanca maxima</i>	Gramineae
4.	Sabai	<i>Eulaliopsis binata</i>	Gramineae
5.	Imperta	<i>Imperta cylindrical</i>	Gramineae
6.	Salabambo	<i>Dendrocalamus strictus</i>	Gramineae

AQUATIC FLORA

Micro aquatic flora of the area is mainly represented Phytoplankton belongs to the groups of diatoms (Bacillariophyceae), cyanobacteria (Euglenophyceae), dinoflagellates and greenalgae (Chlorophyceae). Aquatic macrophytes belong to the families-Poaceae, Liliaceae, Characeae etc. are common.

FAUNA:

The zone of influence including the linear conveyor corridor structure falls under-decan peninsula Biographic-zone and the forested tracts mainly falls in tropical deciduous forests biogeographical province of Indo-Malaya realm

which is very susceptible to degradation.

The landscape is hilly and undulating with ridges, deep valleys, narrow flat lands and good number of perennial nallas and streams. The floral cover of the area is very suitable for the wildlife habitat. The agricultural land, waste land, water bodies, riparian zone and forest cover of the influence zone indicates suitability for the sustenance of wildlife. The steep hills range with ridges, cliffs, talus, caves, cracks & crevices represent a sort of altitudinal transition zone for some transitional community of fauna. The zone of influence of the project comes within the elephant habitat. A part of the buffer zone near to Toda and Sarkunda RF, also constitute the movement path of elephants, through which they move from Saranda forest of Jharkhand.

There is no National Park/Wildlife Sanctuary/Biosphere Reserve/Tiger Reserve/Elephant Reserve and habitat for migratory birds etc. existed within the project impact area. The area does not fall in seismic active and land slide prone zone. No eco-sensitive zone exists in the locality. A list of various types of fauna is furnished below.

Status of Vertebrates and distribution:

Commonly seen animals in the zone of influence are wild pig, bear, jackal, elephants, spotted deer, barking deer, mongoose, bats, rats and monkeys. Species like leopard, striped hyaena, hare, small Indian civet, Porcupine, Giant squirrel are sporadically sighted. Common sighted birds are Crow, Peasant, Cuckoo, Partridge, Parakeet, Black winged kite, Black drongo, Common myna, Red Whiskered bulbul, Common Iora, Magpie robin, Sun bird, House sparrow etc. Pea fowl, Owl, Jungle fowl, Babbler, Jungle Myna, Golden oriole, Ring Dove, etc. are also sighted sporadically. Among reptile Common krait, Cobra, Banded krait, Indian chameleon, Indian python, etc. are reported. Amphibians like frogs are very common. This wildlife is widely distributed in the Reserved Forests of the influence zone.

Table No.9: LIST OF FAUNA

MAMMALS			
Sl. No.	English Name	Scientific Name	Schedule
1.	Indian Elephant	<i>Elephas maximus</i>	I
2.	Sloth Bear	<i>Melursus ursinus</i>	I
3.	Indian Wolf	<i>Canis lupus pallipes</i>	I
4.	Giant Squirrel	<i>Ratufa indica</i>	II
5.	Jackle	<i>Canis aureus Linnaeus</i>	II
6.	Common Fox	<i>Vulpes bengalensis</i>	II
7.	Rhesus Macaque	<i>Macaca mulata</i>	II
8.	Hanuman Langur	<i>Presbytis entellus</i>	II
9.	Small Indian Civet	<i>Viverricula indica</i>	II
10.	Spotted Deer	<i>Axis axis</i>	II
11.	Otter	<i>Lutra lutra</i>	II
12.	Jungle cat	<i>Felis chaus</i>	II
13.	Wild Pig	<i>Sus scrofa</i>	III
14.	Striped Hyena	<i>Hyena hyena</i>	III
15.	Barking deer	<i>Muntia cumuntjak</i>	III
16.	Toodycat/common palm civet	<i>Paradoxurus hermaphroditus</i>	IV
17.	Porcupine	<i>Hystrix indica</i>	IV
18.	Rufoustailedhare	<i>Lepus nigricollis ruficaudatus</i>	IV
19.	Three Stripped Palm Squirrel	<i>Funambulus palmarum</i>	IV
20.	Mongoose	<i>Herpestes edwardsi</i>	IV
22.	Indian mole rat	<i>Bandicota bengalensis</i>	IV
23.	House Rat	<i>Rattus rattus</i>	V
24.	House Mouse	<i>Mus musculus Linnaeus</i>	V
25.	Little Indian Field mouse	<i>Mus bosduga</i>	V
26.	Short nosed fruit Bat	<i>Cynopterus sphinx vahl</i>	V
27.	Greater Yellow Bat	<i>Scotophilus heathii</i>	V
REPTILES			
1.	Indian Python	<i>Python molurus</i>	I
2.	Monitor lizard	<i>Varanus bengalensis</i>	I
3.	Rat Snake	<i>Ptyas mucosus</i>	II
4.	Cobra	<i>Naja naja</i>	II
5.	Monitor lizard	<i>Varanus bengalensis</i>	II
6.	Banded krait	<i>Bungarus fasciatus</i>	IV
7.	Common krait	<i>Bungarus caeruleus</i>	IV
8.	House gecko	<i>Hemidactylus flaviviridis</i>	IV
9.	Garden lizard	<i>Calotes versicolor</i>	IV
10.	Common skink	<i>Mabuya carinata</i>	IV
11.	Indian Chameleon	<i>Chamaeleo zeylanicus</i>	IV
AMPHIBIANS			
1.	Paddy field frog	<i>Rana limocokeris</i>	IV

2.	Indianbullfrog	<i>Rana tigrina</i>	IV
3.	Treerog	<i>Racophorusleucoumystax</i>	IV
BIRDS			
1.	JungleFowl	<i>Gallusgallus</i>	IV
2.	Ring Dove	<i>Streptopelia decacotta</i>	IV
3.	Cuckoo	<i>Eudynamis scolopacea</i>	IV
4.	Crow Pheasant	<i>Centropus sinensis</i>	IV
5.	Partridge	<i>Arthenebra ma</i>	IV
6.	Catt e Egret	<i>Bubulcus ibis</i>	IV
7.	Rose Ringed Parakeet	<i>Psittacula krameri</i>	IV
8.	Black Drongo	<i>Dicrurus macrocercus</i>	IV
9.	Common Myna	<i>Acridotheres tristis</i>	IV
10.	Pied Myna	<i>Strus contra</i>	IV
11.	Jungle Crow	<i>Corvus macrorhynchos</i>	IV
12.	Red Vented Bulbul	<i>Pycnonotus cafer</i>	IV
13.	Tailor Bird	<i>Orthotomus sutorius</i>	IV
14.	Magpie Robin	<i>Copsychus saularis</i>	IV
15.	Sunbird	<i>Nectarinia asiatica</i>	IV
16.	House Sparrow	<i>Passer domesticus</i>	IV
17.	Golden Oriole	<i>Oriolus oriolus</i>	IV
18.	Peregrine Falcon	<i>Falco peregrinus</i>	IV
19.	Common Crow	<i>Corvus splendens</i>	IV
20.	Little Egret	<i>Egretta garzetta</i>	IV
21.	Indian Roller	<i>Coracias bengalensis</i>	IV
22.	Whitebreasted kingfisher	<i>Halcyon smyrenensis</i>	V
23.	Chestnut Headed Beeeater	<i>Meropetes chani</i>	IV
24.	Weaver Bird	<i>Ploceus spp</i>	IV
25.	House Swift	<i>Micropus affinis</i>	IV
26.	Tree Pigeon	<i>Dendrocitta vagabunda</i>	IV
27.	Partridge	<i>Francolinus pondicerianus</i>	IV
28.	White Breasted Water Hen	<i>Amaurornis phoenicurus</i>	IV
29.	Shikra	<i>Accipiter badius</i>	IV
30.	Painted spur-fowl	<i>Callinix kuhlii</i>	IV
31.	Blackbis	<i>Pseudibis papillosa</i>	IV
32.	Bank Myna	<i>Acridotheres ginginianus</i>	IV
33.	Blue Rock Pigeon	<i>Columba livia</i>	IV
34.	Jungle Bush Quail	<i>Perdix asiatica</i>	IV
35.	White necked Stork	<i>Ciconia episcopus</i>	IV
36.	Pied Crested Cuckoo	<i>Clamator jacobinus</i>	IV

Invertebrates are represented by Butterflies, wasps and bees, spiders, grass hoppers, mollusks. There is no endemic species found in the influence

zone, as they are widely distributed in other areas also.

Table No.10: List of Fishes with English and Local Name (Buffer Zone)

Sl.No.	Local Name	English Name	Scientific Name
1	Chenga	Giltthead	<i>Ophiocephalus gachua</i>
2	Gacisa	Gudgeon	<i>Ophiocephalus punctatus</i>
3	Kartia	Naiifish	<i>Myrius cavatus</i>
4	Kerandi	Minnow	<i>Barbus ambasis</i>
5	Kou	Climbing perch	<i>Anabas testudineus</i>
6	Soula	Biggudgeon	<i>Heteremphystes fossilis</i>
7	Todi	eel	<i>Mastacembelus armatus.</i>

1.F) i) Description of Forest and habitat condition

Tobra, Sarkaroda, Khandadhar, Amrothi Reserve Forests are existing in Zol in Bonai Forest Division. The forests mostly belong to North Indian Tropical Moist Deciduous Type-Subgroup 3C; and Northern Tropical Semi Evergreen type - Sub group 2B. Sal is the dominant species of the area with density of high-level Sal, low level Sal, valley Sal mixed with *Terminalia alata* and *Anogeissus latifolia* spp. which are being included in the forest type-3c/C2e (i) Moist Peninsular High-Level Sal. This sub type is confined to the upper slopes, ridges and flat tops of the forest block in like Toda, Lunga and Khajurdihi. The quality of Sal is usually IV but the crop is somewhat open. In these areas, the patches of mixed forests with predominance of *Anogeissus latifolia* are also found within the Sal belts. The common associates of Sal in the top canopy are *Terminalia alata* (Asan), *Anogeissus latifolia* (Dhaura), *Syzygium cumini* (Jamun), *Lagerstroemia parviflora* (Patuli), *Pterocarpus marsupium* (Bija). The middle storey contains *Careya arborea* (Kumoh), *Bauhinia purpurea* (Kanchan), *Bridelia retusa* (Kasi), *Cugeinia ogeinensis* (Bandhan), *Weddandia excelsa*, *Hefectoris isora* (Modaphal) and *Indigofera pulchra* are commonly found as under growth. The common species of climbers available are *Bauhinia vahii* (Sial) and *Smytox macrophylla* (Muturl). Themida and Imperata are the common grasses. Bamboo species like *Dendrocalamus strictus* (Salla) does not occur in this sub-type.

Forest Condition According to FSI Report:

As per FSI Report 2019, Sundargarh Dist. has a Geographical area over 9712 Sq. K. Total Forest Area is 4273.37 ha (44% of Geographical area) which include 1020.87 Sq.K.M. of Very Dense Forest (Canopy Density above 70%), 1858.39 Sq.K.M. of Moderate Dense Forest (Canopy density 40% to 70%), Open Forest 1394.12 Sq.K.M. (Canopy Density 10 to 40%). Within last two years (2017 to 2019) forest in this district has increased over 937 Sq.K.M.

1. F) ii) Wildlife habitat and prevailing wildlife scenario:

From the Data Collected from villagers of 701 and Field executives of Forest Dept. it appears the presence of Elephants in the area and from the wildlife-human conflict data, presence of bear is confirmed. Presence of other wildlife's mentioned in the list of fauna. The habit and habitats of particularly Schedule-I species are narrated below:

Elephant (*Elephas maximus*):

Habit: Elephants are social animals and live in herds, which vary between 3-5. The Elephants are matriarchal and the herd is led by the oldest female. Herd usually breaks into clans and rejoins again. For long-distance movement some time a few herd mixes and form a big group which is coordinated by the oldest



female for searching for better habitat-food and water. Several herds maintain contact through sub-sonic vocalization according to findings on work with African Elephants. Adult males remain away from the herd and occasionally join with the herd when females are in oestrus. They are polygamous. Only dominant males have the chance to mate with females. Old males usually lead a solitary life, while sub-adult males some time form an unstable group of 2 to 7 animals. Such a group is known as Muljuria group. Elephants are very sensitive to hot and prefer shady moist areas during noon time. The matriarch herds, as well as males, are long ranging. Their Home Range varies between

150 and 1200 sq km, depending on the habitat condition. An Elephant may run at a speed of 45 km per hour for a short distance for two to five minutes. Their average life span is the same as human beings, and around 70 years. In Elephant there is no seasonality in oestrous cycle, and the interbirth interval varies from 3 to 5 years, depending on the habitat quality. The gestation period is 18 to 22 months and the suckling period is around one and a half years. Young calves start taking grass from 6 months onwards. Mother continues to bestow maternal care to their offspring for several years after weaning. The sense of touch and hearing is well developed in Elephant but its eyesight is poor. Most males have prominent tusks, while some time females have tusks which are hardly visible from outside. Male Elephants sometime have only one tusk (known as Ganesh), or even without tusk (known as Makhaa). They have 6 sets of molar teeth, of which only one set is in use at a given time. With the loss of the last set of molar teeth they are deprived of taking any food and eventually do not survive. The unique identity of Elephant is his trunk with a single finger like tip at the end and it has versatile utility, used in eating, drinking, smelling, breathing, touching, washing & dusting of the body, fighting, and vocalizing. Mud wallowing is fun for the Elephants, though it protects them from insects and sun.

Habitat: The body size and food requirement of this non-ruminant "mega-herbivore" have made the Elephant a generalist vegetarian to feed on a variety of plant species. Even within one region, they feed on well over a hundred species of plants. They not only depend on leaves, fruits & twigs but also consume barks, roots, stem pith, flowers, grasses and soil with soil. Though, depending on seasons they select distinctly different plant parts depending on their availability. In the dry deciduous Forest region, their dietary habit usually alternates between predominantly grazing during the wet season and browsing during the dry season. In quantitative terms, they prefer grasses, reeds, and sedges (Poaceae and Cyperaceae). Their preferred tree families are Combretaceae, Euphorbiaceae, Moraceae, Malvaceae, and Legumes. They cannot survive entirely as grazers. Thus, browser species are extremely important in the nutrition of Elephant. On average, take 150 kg of vegetation

and 100 liters of water per day. The efficiency of digestion is poor (40 to 45%) with the symbiotic bacteria in the stomach. They are in constant motion while feeding and generally cover 15 to 20 km in a day. Elephants are well established in dry deciduous Forests to moist evergreen Forest.

Human activities like agriculture (cultivation of crop, irrigation system); development works (Roads, Railways, Townships, Dams, Industries, and Mines etc.) are fragmenting their habitat and creating obstructions to their movement which they traditionally follow. They are in conflict with human when they move through that fragmented area and also damage various cultivated crops (like paddy, ragi, banana, sugar cane etc).

Sloth Bear (*Melursus ursinus*):

Distributed throughout the Odisha, except a few areas of the coastal Districts and is an endangered species.

Habit: Sloth Bear has a long snout and lips are detached from the gum and are well adapted to the forceful intake and expulsion of air. The absence of a middle pair of incisors in the upper jaw permits the passage of air freely. The tongue is large protractible. Long claws of the forelimbs (longer than hind limbs) are good instruments of digging. The animal produces enough suction force to suck out termites from mounds.

Bears are nocturnal in habit, their sense of smell is well developed than their sight and hearing. During an accidental encounter with a human being, they cause severe damage to the human or even death. When they have cubs, they move with them, otherwise, they are solitary or



are in pair with the opposite sex. They have a specific breeding season. Mating takes place in June or July and they give birth to cubs in caves during December and January. Litter varies between 1 and 3 cubs. Parental care is with mother only. Their average life span is around 10 years.

Habitat: They are in good number in drier and secondary forests are also found in dense forests. They are omnivorous in nature. They feed on tubers, roots, grubs, various fruits, various insects, honey, termites, flowers (mahua, simul, etc.). It also damages sugar cane crop, maize, etc. Their home range is limited and restricted. In the quest of food, they may travel several kilometres. It is believed that their gall bladder and bile have medicinal properties and hence they are exposed to poaching, particularly due to the demand of these parts in China and other south east Asian countries.

Indian Wolf (*Canis indica*):

For a long time, it was believed that the Indian Wolf was a Gray Wolf sub species and was recognized as the *Canis lupus pallipes*, the same as Iranian Wolf. However, recent genetic research suggests that the Indian Wolf has not cross-bred with any other sub-species in over 400, 000 years which would make it a separate species of its own, i.e. The



Canis lupus pallipes would then refer to the wolves from the Arabian Peninsula, Afghanistan, and Pakistan, but not India.

Characteristics: An Indian Wolf can be one of the smallest subspecies of wolves, though their sizes vary in height from 60 to 95 cm and in weight from 18 kg to 27 kg, and have a short, dense coat that is usually of a reddish, tawny colour.

The Indian Wolf (*Canis indica*) is relatively smaller in size and genetically distinct from the Iranian Wolf (*Canis lupus pallipes*).

Status: Although it is supposedly protected as an endangered species in India under schedule 1 of the Indian Wildlife Act of 1972, the Indian Wolf is still hunted because of its attacks on children and livestock. The greatest threat to the Indian Wolf's survival is persecution by poison, and habitat loss due to intensive agriculture, development, and industry.

A study released in 2004 estimated between 2000 and 3000 Indian Wolves remaining in the wild.

Habit: They live in packs, and are common in bare and open forest regions.

Diet: Because of its smaller size, the Indian Wolf can sometimes survive on smaller ungulates, rabbits, hares, and rodents it finds. However, much of the wildlife that the Indian Wolf used to prey on has been hunted to extinction by humans. The Indian Wolf is, therefore, often forced to prey on livestock. This draws them closer to people, including unattended children which the wolves see as fair game.

Breeding: The Indian Wolf's breeding season is usually around October after the rains. Only the alpha male and female of the pack reproduce. Usually, a litter of 3 to 5 pups is born in December or January in an underground den. The mother and father look after the pups until they are 6 months of age.

Habitat: The Indian Wolf is adapted to scrub lands, grasslands, and semi-arid pastoral environments. It is found mainly in the Indian states of Gujarat, Rajasthan, Haryana, Uttar Pradesh, Madhya Pradesh, Maharashtra, Karnataka and Andhra Pradesh. Its territories range from 100 to 150 sq. are miles. Much of the Indian Wolf's habitat overlaps that of the Himalayan Wolf, and because of this, it is a wonder why the two do not interbreed.

Indian Python (*Python molurus*):

Habit: This is a non-venomous snake and can grow up to 4m and weigh 45 kg. The colour is dark brown to yellowish-white in a blotched pattern. They are very good swimmers and take to water when disturbed. On land, they hiss and remain motionless. The species is oviparous and lay up to 100 eggs in a clutch protected and incubated by the female. Being ectothermic, python basks in open but can also raise body temperature by muscular contraction.



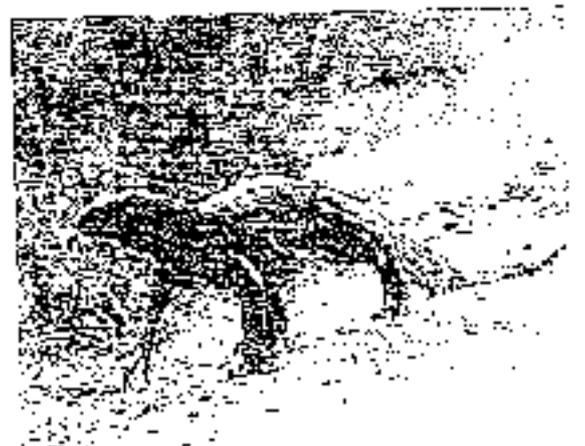
Habitat: Python occurs in wide range of habitats viz. rocky foothills, grasslands, marshes, swamps, woodlands, open jungle. At times, they take refuge in mammal burrows, hollow trees etc. It has also been reported close to habitation and crop fields. The snake feeds on small mammals, birds, and reptiles but prefers the first. Chital deer, fawns, hares, mouse deer, jungle fowl are natural food.

It can swallow prey bigger than its size as the jaw bones are not hinged. The prey is constricted to death by muscular movement and swallows headfirst. Once held at the jaw, prey cannot escape because of inward bent teeth.

It is listed as one of the Lower Risk /Near Threatened species according to IUCN Red List.

Common Indian Monitor (*Varanus bengalensis*)

Distinctive Character: The monitor has a compressed tail and nostril is nearer to the eye than the tip of the snout. The adult is olive, grey or brownish above with sparse black spots, yellowish below, uniform or flecked with black. It is widely distributed and can be found from evergreen forests to the fringes of the deserts.



Habitat: It is a diurnal lizard, though more active in the morning and evening. It is also said to occupy the space between the roof and ceiling of the less frequented forest rest house. Normally, it is a burrow-dweller, often going head first into its bolt holes and remains in that position till it needs to come out again.

Habit: When out in foraging, it moves slowly along the forest floor with the tongue flickering in and out of the mouth like a snake's tongue. When necessary, they can run at a good speed and they are also agile climbers. They can swim well and can remain submerged for a considerable time. A concerned monitor will demonstrate by raising on itself on legs, hissing and

lashing its tail. A captive if handled carelessly can inflict a painful bite with the curved teeth which are difficult to dislodge.

WildLife Census Result:

- According to Wildlife Census 2017, Elephant Population in Bonai Division is 59 (14 male, 38 females, 7 young.).
- According to Leopard estimation 2018 there is only one male leopard.

1.G) Movement of mega Wildlife

Elephant is the flagship species of this area and the only mega herbivore (wildlife) with long ranging movement behaviour, present in the study area. Elephants follow streams but move in valleys and unless hard pressed try to avoid hilly terrain to conserve energy. There was movement of elephant between:

Raitarani Siddhamath-Karo-Mendhamaruni-Khajuridini and vice versa.

1.H) Man-animal conflict and Depredation caused by the wild animals:

As per the record available in Bonai Forest Division 17 house damage cases have yet been recorded, 1 during 2010-11, 02 in 2017-18 and 07 each in 2019-20 and 2020-21. So far human kill is concerned, 02 cases have been reported in 2017-18. So far human injury is concerned, no case has been reported.

From 2015-16 to 2020-21, 02 elephants and 02 Barking deer and one Bear have died due to Human Animal conflict.

As per the Divisional record found 68.62 acre of crops were damaged by the elephant have yet been recorded, 40.30 acre in 2016-17-18, followed by 5.44 acre in 2017-18 and 22.88 acre in 2018-19. In all the cases compensation has been paid to the victims.

Table No.11: House damage by Elephants

Year	No. of House Damage	Name of Villages	GPS Location
2010-11			

2011-12	1	Nuatantre	-
2012-13 to 2016-17	NIL	-	-
2017-18	2	Manchabeda	-
2018-19	-	-	-
2019-20	7	Chordhara (2), Manchabeda (2), Kulla (2), Dengula (1), Tantigram (1)	-
2020-21	7	Ranta (1), Randa (3), Manchabeda (2), Taldih (1)	-

Table No.12: Human Death by Wild Animal

Year	Human Death	Animal Causing Human Death	Name of Village with GPS reading
2010-11 to 2016-17	Nil -	-	-
2017-18	2	Wild Elephant	Choradhara (N 21 56 56.4, E 85 03 18.4) Kamanda (N 21 55 30.0, E 85 13 28.3)
2018-19 to 2020-21	Nil -	-	-

Table No.13: Human Injury by Wild Animal

Year	No. of Human Involved	Animal Causing Injury	Name of village with GPS reading
2010-11 to 2020-21	Nil -	-	-

Table No.14: Details of death of wild animals

Year	Date	Animal Killed	Location with GPS reading	Cause of Death
------	------	---------------	---------------------------	----------------

2010-11	01.11.2010	Wild Pig	Near Range Office, Barsuan Range	Poaching
2011-12 to 2014-15	Nil	Nil	Nil	Nil
2015-16	19.08.2015	Barking Deer	Rango Office Campus Barsuan	Attacked by street dog
2016-17	26.05.2016	Bear	Toda R.F. Barsuan Range	Accident by unknown vehicle at the time of road crossing
2017-18	Nil	Nil	Nil	Nil
2018-19	24.12.2018	Elephant Male	Toda RF Taldih (Mahurama Hamlet) N21 54 58.8 E85 08 23.7	Circulatory failure by severe dehydration resulting from enteritis
2019-20	23.04.2019	Barking Deer	Near Range Office, Barsuan Range	Accidental
2020-21	28.02.2020	Elephant Female	Sarkunda PRF N21 47 43 E85 07 47	May be due to Septicemia and Severe degree of dehydration and anaemia

Table No.15: Crop damage by Elephants

Year	Crop area damaged in Ac	Compensation paid in Rs.
2016-17	40.30	4,03,000
2017-18	5.44	54,400
2018-19	22.88	2,28,800

Table No.16: Cattle kill by Wild Animal

Year	Name of Human Kill	Date & place of occurrence	Location
2016-17 to 2018-19		- NIL -	

1. I) Working Plan Prescription

However, Tohra, Sarkanda, Khandadhar and Amrudhi Reserve Forest exists in the Zol. The total area of Tohra R.F. (Part) 1070.884 ha and allotted to Selection Working Circle, Sarkanda RF (Part) 1138.666 ha allotted to Selection Working Circle, Khandadhar R.F. 927.560 allotted to Selection Working Circle, Amrudhi Reserve Forests 1744.233 Ha allotted to Rehabilitation Working Circle-4881.343 ha.

Special Objects of Management (Selection Working Circle)

1. To improve the density and composition of forest crop and to encourage the natural regeneration and establishment of principal species by taking suitable silvicultural operation with due emphasis on soil and water conservation. To resort to artificial regeneration wherever necessary.
2. Inconsistence with primary objectives, removal of mature and silvicultural available trees before they become unsound on sustained yield basis.
3. Removal of unsound and defective trees under improvement felling so as to improve and increase the stocking of principal species.
4. Rehabilitation Working Circle.
5. To tend and improve the existing growing stock through suitable silvicultural measures.
6. To regenerate the barren and blank patches by planting suitable site exacting hardy species.
7. To rehabilitate and improve the productivity of the depleted and degraded forest through enrichment plantation and other suitable measures.
8. To tend the existing plantation so as to get maximum annual increment.
9. To raise block plantation preferably of economically important species in the large gaps having extent more than 4.0ha.
10. To improve micro-edaphic condition, especially in dry and open patches by taking suitable soil and water conservation measures.
11. To provide effective protection against illicit felling, encroachment, shifting cultivation, over grazing and fire hazards so as to check further

retrogression of site.

12. To meet the bonafied needs and requirements of local inhabitants in regards of fire wood, small timber and fodder etc.

1.3) Location of Other project in the Zone of Impact of the current project

In the buffer zone of this project site, another 13 industries exist. The list of projects is furnished below:

Table No.17: LIST OF PROJECTS IN BUFFER ZONE.

Sl. No.	Name of the lessee	Location	Area in Ha	M.L./P.L. granted	Mineral
1	M/s OMC Ltd	Kurnatar	651.00	ML	Iron & Manganese
2	M/s OMC Ltd	Ranlha	258.8731	ML	Iron Ore
3	M/s OMC Ltd	Uskuda	500.520	ML	Iron Ore
4	M/S AMIC	Ranlha	399.838	ML	Manganese
5	M/s P.K.Agarwal	Kansara	98.92	PI	Iron & Manganese
6	M/s M.M.Chemicals	Lusi	28.583	PL	Iron & Manganese
7	M/s Baksi Singh	Lusi	44.153	PL	Iron & Manganese
8	M/s F.P.Minerals	Lusi & Bhutuda	40.469	ML	Lusi & Bhutuda
9	M/s B.L.Newatia	Raisuan	20.0	PL	M/s B.L.Newatia
10	M/s Mayur Potteries	Raisuan	46.00	PL	M/s Mayur Potteries
11	M/s Basudev Das	Raisuan	27.728	PL	Iron Ore
12	M/s P T & Agencies Ltd	Kelanda	287.448	PI	Iron & Manganese
13	M/s Bijay Ku. Ojha	Raisuan	14.000	ML	Iron & Manganese

Details of the mitigative measures suggested in Other Conservation Plans of the Surrounding mines:

In general habitat improvement, fire protection, soil conservation measures, anti-depredation squad, creation of water holes, bio-diversity study, awareness promotion, compassionate fund, income generating activities,

provision of salt lick, provision for GPS, computer, vehicle, elephant search light, monitoring and evaluation has been furnished in the conservation plans prepared for the adjoining leases.

This plan provides mitigative measures which are not in sharp variance with such measures provided in conservation plan of other mines in the locality.

1. K) Experts involved in the study

Table No. 1B: NAME OF THE EXPERTS INVOLVED IN THE STUDY.

Sl.No.	Name	Expertise
1.	Mr.L.K. Das, IFS (Retd.)	Forest, Biodiversity&Wildlife
2.	Dr. C.K. Sar	Elephant Expert
2.	Mr. Siba Kumar Mohanty, OFS (Retd.)	Forest & Wildlife
3.	Dr. Bidyut Kumar Patra	Environment
4.	Mr. Debasis Mohanty	Coordination
5.	Miss.Swetagni Mohanty	Wildlife & Biodiversity

The above personnel conducted the study being assisted by local Forest Officers of Borai forest division. The site was visited during March, 2021 and April, 2021 and the flora and fauna available in the study area was listed through field observations synchronizing with the list given in the Working Plan. In the course of study, dropping of wild animals, pug marks, burrows, nests, scratching, scat/dung and physical presence on ground, trees bushes were recorded.

METHODOLOGY

- The study is based on Survey of India Topo Map #45N1.
- The Village list and demographic composition has been collected from 2011 Census Report.
- A model questionnaire has been prepared with our own developed model for the survey of the surrounding Villages and collection of data.
- Human-animal Conflict data has been collected from the Keonjhar Forest Division.
- Active search method applied for listing of the flora and fauna. Villagers

were shown photographs from a book compiled by Sri A.C. Mohanty, IFS (Retd.) to identify the faunal species for confirmation.

•For Socio-economic study and environmental impact study, random sampling method was followed.

Findings:

In the Project area the Scheduled (I) species like **Asiatic Elephant, Sloth Bear, Monitor Lizard, Indian Wolf and Indian Python** are notice.

CHAPTER-2

THE PERCEIVED IMPACTS OF THE PROJECT ON THE ENVIRONMENT

A. Impact of the Project on the environment in general:

The proposed 8.315 km long fully covered, overhead, piped, conveyor corridor requires diversion of 36.606 ha of land, of which 86.479 ha is forested area. This conveyor corridor Iron ore will be transported from Kurmitar Iron ore mines to Barsuan Railway siding at a tune of present production of 2.4 MTPA to future target of 6.0MTPA. This will permanently stopplying of 12.0 km distance by approximately 2000 trucks / day at present and 5000 numbers of trucks /day in future, when full production will start, through public utility road between Kurmitar and Barsuan. With the investment of approximately Rs. 713.92 crores for the construction of the conveyor corridor, direct employment of about 50 persons during construction phase and 50 persons for operation in completion of project will be created on a regular basis. Apart from this an indirect employment of around 5000 people will be generated on a regular basis. The cost benefit ratio is as estimated by competent authority id1:20.

a) Quantum of pollutants that may be generated by the project

This project (conveyor corridor) will greatly reduce the traffic of the area and increase the quantity of transportation of ore. The effect of vehicular pollution on the local environment including flora and fauna of the area will reduce. Due to the use of piped conveyor transportation of ore will completely stop the fall of ore on the forest floor and dust release into the ambient air.

b) Degradation anticipated.

During construction phase, to some extent, soil erosion will take place.

i) Impact on soil

The construction activities will result in loss of vegetation cover and topsoil to some extent in the overhead pipeline area. Apart from localized construction impacts at the Project site, no adverse impact on soil in the surrounding area is anticipated.

Mitigation:

The following mitigation measures will be adopted to minimize the impact as mentioned below;

- The top-soil will be extracted, stored and shall be reused for green belt

development and landscaping;

- Care will be taken to minimize the clearance of natural vegetation.

ii) Geomorphic changes:

The overhead conveyor Pipeline will pass through Tohra R.F., Khandachar R.F., Sarkunda and R.F., Amrudhi R.Fs. This is an overhead conveyor belt which will involve felling of 7447 trees while undertaking the construction work.

iii) Moisture loss:

Moisture loss will be occurred in both the core and the buffer zone of the project due to release of sound. Cutting of 7447 no. Of trees will also result moisture loss. Under such circumstances, protection to the area will rejuvenate the forest condition.

iv) Impact on Vegetation:

There are four Reserve forests in the ZoI i.e., Tohra, Sarkunda, Khandachar and Amrudhi in the ZoI. In total 7447 no. of trees will be felled which will be replenished by Compensatory afforestation. Besides, during construction some herbs and shrubs will be damaged which will be recovered due to protection to the area.

v) Habitat loss:

As there is no further forest area is diversion involved in this Project, direct habitat loss due to this project is not anticipated. However due to implementation of the project development of infrastructure, establishment of township and the subsequent population pressure may cause loss of habitat at the periphery of the Plant.

vi) Impact on Water Regime:

No ground water source will be tapped for meeting the water requirements during operation of existing plants and proposed expansion of aluminium smelter plant. The necessary permission was obtained for water drawl. The Existing water requirement is 3, 933 m³/hr. The water consumption for the proposed expansion project will be 576 m³/day (24 m³/hr). The total waste water generation from the proposed expansion of aluminium smelter plant will be 438 m³/hr which will be recycled or used in the process. The waste water will be generated from blow down, cooling towers, DM plant and service

water tank in the smelter plant. Besides, domestic waste water from canteen and employees wash area will be generated.

Dust Pollution

Due to close Conveyor belt very negligible dust pollution will take place.

Mitigative measures

This can be controlled by sprinkling of water.

Pollution due to noise and vibration

Due to operating of the conveyor very negligible noise and vibration will occur i.e., below 60db.

Mitigative measures

Machineries can be lubricated regularly to reduce the noise and vibration.

Pollution due to Light

Light from high masks, moving vehicles will affect wildlife which are acquainted with tranquility and darkness.

Mitigative measures

In case of moving vehicles, upper half of the headlight can be covered with black paint.

B. Quantum of pollutants that may be produced by the project and effect on soil, water, air, vegetation and animals.

As this is an overhead closed pipeline Project not much of pollution will take place.

C. Degradation Anticipate done account of the project implementation in quantified terms on appropriate models to be explained. Qualitative change in the wildlife habitat pattern in the study area due to project implementation should also be detailed in the plan.

Direct degradation is observed in the form of loss of forest growth over 86.4/9 ha area of the Project. This complete erase of forest will displace the wildlife of that area the consequence of the trees on forest are discussed below:

Habitat fragmentation:

This is the result of clearance of native vegetation either by erection of overhead pipeline or by allied development activities in the midst of hilly

forested area. Habitats, once contiguous, become divided into separate fragments. After clearance, separate fragments tend to be small units or islands isolated spatially. Habitat fragmentation involves some habitat impairment of the island units as well. Fragmentation involves increase in edge habitats and decrease in interior habitats. Biodiversity of each of the fragments get reduced for the above reason. Habitat fragments are rarely representative samples of the initial landscape. Species like elephants, deer, move between the fragments and make use of both. Small species having no ability to move between fragments must make do with what is available in the single isolated habitat. Habitat fragmentation leads to edge effect. Micro climate changes alter ecology of interior and exterior habitats. Species adapted to interior habitats are less likely to survive in an edge habitat of smaller units. Smaller units support smaller population with reduced carrying capacity. Small population face decreased heterozygosity, increase in inbreeding and possibly in breeding depression. If there is no migration between populations and genetic exchange, genetic drift sets in. This means, directional selection for advantageous alleles can cause certain alleles to become fixed in a population, thereby decreasing variation. Such loss of diversity, however, will not affect elephants, as movement path of elephant changes with available alternatives. But, species with low cruising radius will be affected. No elephant movement path from one habitat to another is located in this area, but this area forms a part of the larger habitat of Keonjhar elephants, within the buffer zone.

Loss of biodiversity:

In this mature ecosystem of the buffer zone of this mining lease area, only a few species, e.g., Sai, Dhaura, Asan, Chara, Mohul etc. represent dominance in number and height growth in the Rebena RF. Majority of other species are represented by lesser number of individuals, and covering middle storey, field and ground level. The latter gives rise to species diversity. More the species diversity more is the interaction between species and development in complex food chains. Animals are adapted to different layers of vegetation different trophic levels and micro habitats and a large number of

niches develop. Populations vary as each is best owed with number of variations. There are variations in genetic level also. This diversity is life and blood of sustenance and long-term viability of the ecosystem and gives stability to it. Such a system is less affected by external perturbations. The habitat losses in the heart of the forest area induce fragmentation, pollution, fire, grazing etc. and the resultant affect is biodiversity loss. It has been found world over that population level biodiversity is disappearing at a greater rate than that of the species level, threatening disruption of ecological services and closing all options for future utilization of this unique gift of nature.

Habitat destruction by Grazing and transmission of disease:

Triba households have average 3-5 cattle which are let loose in the forest unaccompanied by a cow herd. Cattle are reared for dung in local villages. They return to the village after grazing themselves. Cattle are considered a sign of wealth by a triba. Uncontrolled grazing has created sub-optimal habitats around habitations and has introduced agricultural weeds in forest areas. The field and ground level vegetation has thinned out. Movement of cattle deep inside the forest has another threat of transmitting cattle borne disease pathogens to water holes and ground level vegetation. Wild animals like chital and barking deer are susceptible to pathogens of FMD (Foot and mouth Disease), R.P.(Rinderpest) & B. Q (Black Quarter - Septicaemia) transmitted by grazing cattle.

Forest fire Within ML area:

Very few workers will work in the area from the OMC as this is a closed Pipe Convey or Project. Besides, many outside entries and exits will certainly happen. These small intrusions of labour force may pose minor threat of forest fire. Slight undisciplined behaviour on the part of labourers may result in serious conflagration. Such fires can cause irreversible damage to plants and animals that may choose to colonize the area. Ground nesting birds, their broods, slow moving reptiles and animals like porcupine which cannot move fast, are destroyed. If not controlled, it can spread to adjoining buffer area, fanned by wind. Fires usually char to death small animals and young ones who

cannot escape as fast as its spread. Fire not only destroys plants and displaces animals; it also impacts the soil properties and increases run-off and soil erosion and moisture content. Post fire scenario usually shows temporary increase in forage of fire hardy coarse material. Repeated fires of high intensity, however, change the species composition of ground flora, lower the browse and forage volume, destroy tender plants. These affect grazing food chain. Ultimately, if a support system gets damaged and there appears a definite sign of site impoverishment.

Forest fire in buffer Zone:

Forest fire is common in this belt. Some accidental but large, deliberate for shikar (for directional driving of animals), for collection of NTFP like Mahua flowers, Sal seeds and honey. Fires, year after year, lit a multiple number of times every year, has brought about some changes in species of plants and animals. Fire tolerant species have increased in number at the expense of species tender to fire. Extent of change in habitat structure & composition is likely to impact wildlife communities. Species like elephant, sloth bear, python, peafowl and jungle fowl are all affected by fire. They suffer emigration and injury. Fires favour raptors by destruction of ground cover. Post fire scenario always has increase in number of insects and insect eating birds. Fires do permanent & irreversible damage by altering physical properties of soil, such as structure, texture, permeability, wettability and water holding capacity. High intensity fires usually decrease nutrient pools that lowers site productivity. Restoration of vegetation in severely burnt sites is slow. Repeated fires create perfect ground condition for invasion of exotic weeds like *Chromolaena odorata* and *Lantana camara*. These degradations and repeated fire will change the 3C/C2e (ii) Moist Peninsular Valley Sal forests to 5B/C1c Dry Peninsular Sal Forest and further to 5B/C2 Northern Dry Mixed Deciduous Forest to finally degrade down with 5/DS1 Moist Mixed Shrub Deciduous Forest.

D. Nature of threats to the flora and fauna

Habitat loss, habitat fragmentation, fire, discussed above, there are other threats also which emerges due to degradation of forests and are mentioned below.

2. Champion H G. and Seth S K. (1968). A revised survey of forest types of India. Govt.of India: New Delhi. Flora of Orissa-Bihar, Saxena & Brahman.
3. Working Plan of Bonal Division.
4. Mining Plan of Kurmitar Iron Ore mines.
5. Right of Passage-elephant corridors of India -Wildlife Trust of India.
6. Sar, C. K. and Lahiri-Choudhury, D.K. (2009). Project: Elephant – Human Conflict in Asia, Report on Orissa, India (Part-I), State Report. Education Centre, Kolkata.
7. Sar C K & Lahiri-Choudhury D K. (1999). Project: Elephant - Human Conflict in Asia, Report on Orissa - India (Pt.-II-a), Athgarh Forest Division, Cuttack and Jajpur District (1992- July 1997). Asian Elephant Research and Conservation Centre, Bangalore.
8. Sar C K & Lahiri-Choudhury D K. (2002). Project: Elephant - Human Conflict in Asia, Report on Orissa - India (Pt.-II-e), Keonjhar Forest Division, Keonjhar District (1992-April 2000). Kolkata.
9. State of India's Forest Report-2019; Forest Survey of India. Dehradun.
10. Sukumar R. (1989). The Asian Elephant: Ecology and Management. Cambridge: Cambridge University Press.
11. Swain D. (2004). Asian Elephants–Past, Present and Future. Dehra Dun: International Book Distributors.

Sampling Method adopted:

This is presented in Chapter-1, Section-(k).

Justification in Extrapolation:

We are not in a position to measure the details and hence we relied on extrapolation of our observation.

CHAPTER-3**OBJECTIVE OF MANAGEMENT AND MITIGATION STRATEGIES****A. Objective of Management:**

The main objectives of this plan are to address the issues stipulated by the MoEF in the letter File No. 8-113/2000-FC(Vol-III), dated 4th February 2021, on condition No.A.5., with respect to conservation and protection of flora and fauna of the project area as well as the project-impact area.

1. So far, the endangered animal recorded from the project impact area is Elephant, Bear, Wolf and Python.
2. The objective of this plan is to maintain viable population of wildlife and in particular elephant population.
3. Conservation of wildlife corridors including the habitat around the corridor also given emphasis.
4. Habitat improvement includes the conservation of flora of the area.

I) Strategies for Core Zone:**I.1) Public Awareness Programme:**

Strong awareness will be built up among Conveyor Belt workers and villagers about working ethics in the Project area. They will be told to keep the noise levels to the barest minimum, take all precaution against fire, damage to trees etc. Drivers will be told to control speed so as not to run over slow-moving creatures. Behavioural change will be expected from each worker on the above points and use of garbage bins. Any sick and injured animal will have to be rescued and given first-aid and water. Such animal is to be subsequently handed over to the nearest forest official and released after healing the wound. No worker shall get involved in crime against animals & forests.

I.2) Sinage (Sign Boards):

To promote co existence with wildlife and to aware people good quality sign boards with display of wildlife features should be placed along the road, railway line etc., in sensitive wildlife crossing points. Fluorescent Sign Boards with good write ups about movement of wild animals will be provided on in order to make aware the passers-by about occurrence of accident if they

development of Bamboo Ball plantation will divert elephant movement towards east where contiguity of forest areas here. The other major aspect of seed ball plantation method is to enhance bamboo percentage in Tohra RF, which will restrict elephants going out of the forest area in search of food and thus reduce the human-elephant conflict in the locality. This will be done @10,000 seed ball per year for 10 years.

1.3) Provision to create waterholes in the Sarkunda RF

To meet the water requirements of wildlife, particularly in the summer season, it is proposed to excavate two water holes in the Sarkunda RF. The site location is to be selected in consultation with the Range Forest Officer of Barsuan Range. The water bodies will help meeting the water requirements to the wildlife present in Tohra and Sarkunda RF in summer season.

Protection and Surveillance

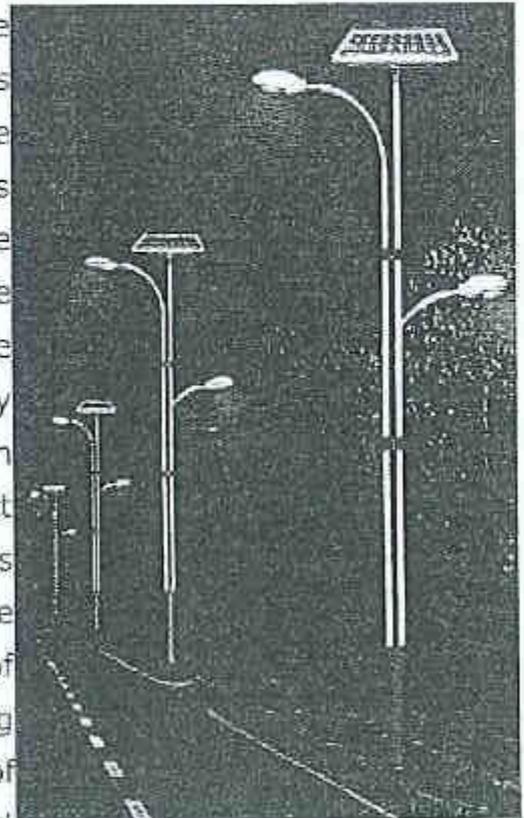
1.4) Elephant Squad

This will be headed by Range Officer, Barsuan as per requirement with their Forest staff along with ten trackers. They will be engaged during crop (Paddy) raiding period over a length of six months i.e., from October to March and also for the rest period of the year for depredating elephants if they invade for crop damage like sugar cane, vegetables, mango etc. The trackers will be selected from local villages through out the area well conversant with animal behaviors, particularly, elephants. The job of the trackers will be primarily to gather data on number of elephants, their location, their line of movement and the quantum and nature of depredation being done. Such data can be collected by pursuing elephants in morning hours along their spoor, when animals are on retreat to secluded spots (deep valleys, close to water or dense woods). Information obtained can be soon relayed to the Range officer, area Forester and concerned villagers. Trackers will be provided with mobile phones/VHF handsets, haversack, water bottle, note book, pencil, Khukri, measuring tape etc. to record their observations. Regular tracking will help to map movement routes, identify intensity of depredation from which the nature of movement, whether benign or deliberate can be inferred. If the depredation is repetitive, a drive will be organized. The safety of people and animals are prime concern of the

anti-depredation squad.

1.5) Solar lighting system

From the study, it was evident that in the Zone of Influence (ZOI), the main problem is man-animal conflict, particularly with the mega herbivore i.e., elephant. Elephants make their frequent depredation to the nearby villages located in the ZOI of the project area, while they make their routine move from Barsuan RF towards nearby streams especially from dusk to dawn in search of water and food, accidental conflict occurs with human beings. One of the causes of conflict occur in the wee hours when the whole area become darker, due to absence of a regular stretch of lighted areas crop raiding around the villages, because of lack of electric supply. It results in direct



confrontation between the people and the elephant, which usually hide itself in dark and bushy areas. Hence, taking into account the whole scenario of conflict, there is a provision to install solar street lights, most preferably at 10 strategic locations around the elephant affected village areas.

As these lights can work even without electricity, it will help the villagers to get rid of elephant attack. The solar lights will be provided at the required locations in the ZOI of the project area as would be decided by the DFO, Bonai in consultation with Range Officer, Barsuan.

1.6) Strengthening VHF Station

The existing VHF network needs to be strengthened for quick collection of data on elephant movement, fire hazard, poaching and illicit felling etc. It is proposed to provide two Nos. of VHF stations (locations to be decided by DFO, Bonai), one number of repeater station with 10 No. of hand sets. Provision for annual repair and maintenance has also been made.

annually. It will be better that the fire watchers should either be linked earlier with poaching/illegal collection of forest produce or they have working knowledge of forest tracts, path and routes, willingness to work in forest, ability to move on foot /cycle. The involved personnel deployed should be well trained by the forest Staff for prevention of fire.

1.8) Solar Fencing

Wild Elephants move around ~~Kanals~~ R.F. in general and in the Project area occasionally. The height of the overhead conveyor has been kept at a height of 2.5 mtr and gradually raising to collect lump ore and fines from mine head to railway siding at Barsuan. In order to prevent their entry through the conveyor belt, provision of solar fencing with RCC Pillar with 5 strands with Energiser machine with Contract for Annual Maintenance contract for 10 Years has been provided over 6.52 K.Ms the conveyor belt.

1.9) Watch Tower

Four watch towers have been proposed in the project impact area to have close watch on forest fire, movement of wild animals, poaching etc. as per the location decided by DFO, Bonai.

Technical support

1.10) Formation/Re-constitution of VSS/EPA/Income generation/ livelihood promotion of local forest dependant community through convergence with line dept.

It has been suggested to re-constitute the existing Van Surakhya Samities (VSS) to include various ages of villagers so that the working efficiency of the VSS can keep pace with the need of the day. It has also been thought of providing Entry Point Activities to Villagers to gain their confidence on forest field executives so that the time of need like fire hazard, illicit felling, poaching depredation of wild elephants etc. their support can be obtained. To strengthen the financial backbone of local forest dependent community through convergence with line departments it has been proposed to provide them support for Vegetable and Mushroom Cultivation, Poultry farming, honey bee farming, hare farming, Piggery, Goatery, preparation of Siali leaf plates (eco-friendly), preparation of plates of maize leaf and stem etc.

CHAPTER – 3A**DESIGN OF THE TRESTLES OF THE PIPE CONVEYOR BELT WITHOUT OBSTRUCTING THE FREE MOVEMENT OF ELEPHANTS IN THE PROJECT AREA****4.0. INTRODUCTION**

Kurmitar Iron and Manganese ore mining lease of OMC Ltd in Bonai Forest Division of Sundargarh district over 651.0 ha is an ongoing mines with an approved production capacity of 6.0 million tons per annum. CSIR-NEERI, Nagpur in their Carrying Capacity Study Report, approved by MoEF & CC dt 13.02.2018 have recommended transportation @ 70% of the ore produced through conveyor belt up to public Railway siding to reduce the high dust pollution and noise generation due to road transport. In order to comply the recommendation, OMC submitted a diversion proposal for installation of a pipe conveyor from Kurmitar ML through Rantha ML to Barsuan New Railway siding over 86.479 ha of forest land. MoEF & CC granted stage-I forest clearance vide F.No.8-113/2000-FC (Vol-III) dt 04.02.2021 with 11 conditions under category A. The condition No.5 is read as under:

"5. It shall be ensured that the trestles (pillars) of proposed conveyer belt are sufficiently high so that the movement of wildlife particularly elephant in the area is not hampered. A Site-Specific Wildlife Conservation Plan shall be prepared and approved by the competent authority and the cost of its preparation and implementation shall be borne by the user agency. The user agency shall also make proportionate contribution towards the cost of the Regional Wildlife Management Plan prepared and approved by the competent authority."

Pursuant to the above condition, OMC has prepared this site specific wildlife conservation plan and discussed the details of pipe conveyor alignment. Final forest clearance can be granted by MoEF & CC on submission of approved copy of Site Specific Conservation Plan.

The condition stipulated in the in-principle approval granted by MoEF & CC, Govt. of India focuses on the free movement of wildlife with particular reference to elephant. Therefore, in the following few sections the brief regarding elephant and its movement has been reflected.

confront with wildlife.



I) Strategies Wildlife Habitat Improvement to mitigate and minimize the adverse impacts observed in the Zone of Influence (ZoI):

I.1) Due to introduction of Golden Quadrilateral Project, expansion of N.H. is going on due to which age-old trees of Ficus, Neem, Mango, Tamarind species are being sacrificed. To compensate the same, it has been provisioned to Plant at least 100 Ficus Species in Tohra R.F. of Barsuan Range.

I.2) Seed Ball Technology for Bamboo Propagation

Elephants are the flagship species of this area. Hence to mitigate any of the adverse impact due to the expansion of this project, there is a provision of habitat improvement of elephants through Bamboo ball Plantation. The forest experts are of the opinion that shortage of fodder in the forest is one of the major reasons for which the elephants venture into the huma habitation. Therefore, with forestation the elephants would not be deprived of food and also it will improve the condition of the forest vis-à-vis environment.

A packed mixture of fertile soil, water and cow dung is first made and shaped for germination of the seed. This seed ball is thrown by Forest field executives to far away and in accessible places where the seeds can germinate and develop into bamboo clumps. Elephants are fond of eating bamboo. Therefore, the seed ball technology can compensate bamboo percentage in Barsuan RF and in the long run elephants may not like to go outside the RF. Besides,

4.1. Elephant Population of the area:

Elephant Census 2019 depicts availability of 59 elephants in Bonai Division which includes 14 male, 38 female and 7 young. The scenario for the Bonai Forest Division is much problematic due to having well stocked forest with a few compact patches of quite large extent Blocks like Karo, Tohra, Sakunda, Khajuridihi etc. vis-a-vis quite a good number of Iron Ore, Manganese Ore Mines are in operation. Elephants do not have permanent abode in this Division and they mainly migrate from neighbouring Bamra Forest Division and Saranda forest of Jharkhand. Following are the three main tract routes of the elephant movement within this Division.

1. From Saranda forest of Jharkhand-Silkuta (I) R.F.--Jharbeda R.F.--Mahura R.F.--Dhanghar R.F.--Cross river Brahmani at Deodhar--Dhenkiam R.F.--Kusumduhi R.F.--Rusimath R.F.--Kunjar R.F. and go back following the same route to Saranda Forest.
2. From Saranda Forest of Jharkhand -Toda R.F.--Sarkunda R.F.--Sarkunda PRF.
3. From Bamra Forest Division- Sirigida R.F.--Balai R.F.--Jada R.F.--Suluguda R.F. - Kunjar R.F.--Raipiri R.F.--Manjurdima R.F.--Kelo R.F.

Besides, Karo-Karmpada Inter State Corridor over 15 km also exists in this Division. It is a fact that, elephants migrate from Saranda Forests of Jharkhand seasonally via Karo-Karmpada corridor to Toda and Sarkunda Forests under ZoI of this Project in groups varying from 15 to 20 in number. After crossing the border of Keonjhar Forest Division, they move inside Ganua, Mandajora, Gidei, Jodipada, panposhi, Sargigarh, Ranisal, Sonua, Baldihi and Khajuridihi PRF which are just outside the zone of influence of this Project. However, two elephants have become resident to Toda RF who move at time to adjoining villages like Langalkanta, Siligura, Damalu, Suskala etc. and again come back to Toda RF.

It reveals from the discussion we had with Range Forest Officer, Barsuan on 11.05.2021, that one group of elephants of 5 to 6 in number visit this Project area during crop harvest, mango harvest (May-June) and during dropping of ripe Mahua flower (November-December). They are migrants from Bhutuda area. Another group of 7-8 coming from Kuleiposi also visit the Project area during crop harvest and Mohul harvest time. But both groups have not yet caused large scale damage to human being. The

Statement of elephant depredation of Barsuan Range for last ten years (2010-11 to 2020-21) is given at Table No.19 to 22 envisages that they have not caused intensive damage excepting house damage in Village Manchabeda consecutively in 2019-20 and 2020-21.

This chapter seeks to install adequate harmonious measures to natural conditions to ensure safe passage and unhindered migration of elephant of the region along its traditional movement routes and also undertake pipe conveyor line. On the contrary, by erecting the over head pipe conveyor, traffic over 12.0 K.M. road from Kurmitar to Bonai will be free from congestion and can be used safely by the villagers and wildlife. It will reduce the pollution load and noise due to transportation shall be minimised. Hence, the problem should be mitigated for the purpose of conveyor pipeline, both in the interest of human and elephant. Accordingly, the following mitigation measures are proposed:

4.2. Downhill pipe conveyor & Trestle Height:

The alignment of proposed pipe conveyor from Kurmitar ML to Proposed Railway siding near to Barsuan covers 86.479 ha of forest land (60.825 ha RF + 25.654 ha PRF) and 0.127 ha of non-forest land. The entire area of pipe conveyor is indicated on the Topo sheet with its buffer zone and enclosed as **Plate No.I**. The enlarged view of the pipe conveyor belt originating from Kurmitar ML through Rantha ML has been shown in the **Plate No. II**, enclosed herewith for reference.

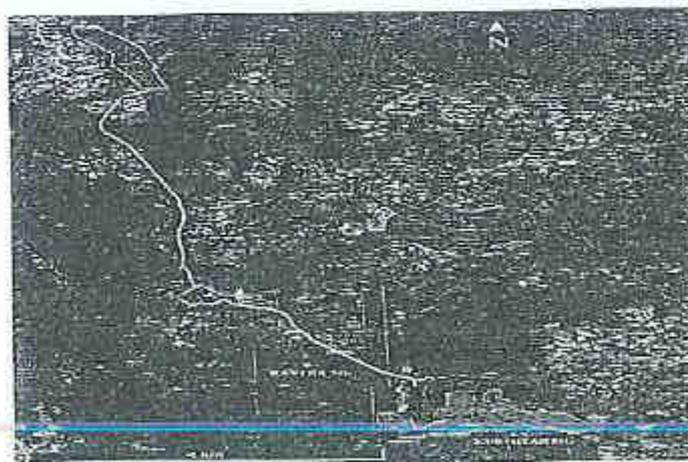


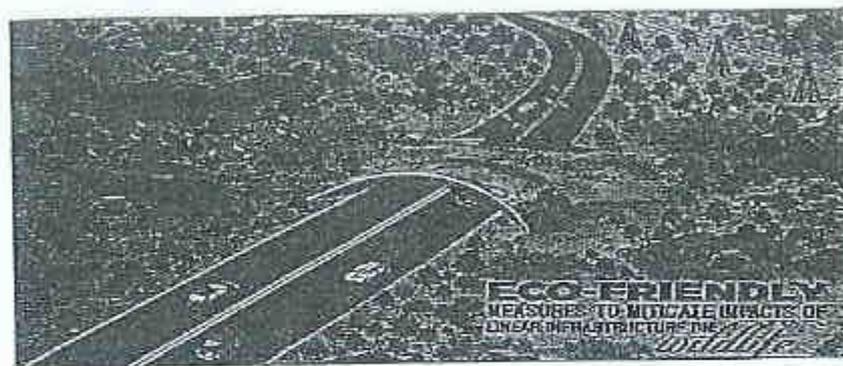
Fig. No.1: Proposed Conveyor on Google image

The total distance of the conveyor corridor comes to 8.47 km. The minimum elevation is 403 MRL and maximum elevation near Kurmitar ML boundary from where the pipe conveyor is starting is 927 MRL. The proposed conveyor has been shown on the Google image at **Fig. No.1**. It is considered as a linear diversion which comprises the following:

1. Pipe Conveyor-1 (PC-1): 4.63 ha (Length = 2.92 km)
2. Despatch area 1: 14.602 ha
3. Pipe conveyor-2 (PC-2): 7.843 ha (Length = 5.55 km)
4. Despatch area-2: 58.548 ha

Out of the above four structural components of the proposed project, Despatch Area-1 and Despatch Area-2 are on nearly flat land for use as stock yard dispatch points in addition to other machineries for loading in to conveyor belt and Railway wagons.

During the planning and designing stage the height of the trestles near the Elephant Passages have been considered to be +7.0mt in line with the information provided in "ECO-FRIENDLY MEASURES TO MITIGATE IMPACTS OF LINEAR INFRASTRUCTURE ON WILDLIFE". The extracts of the pages relevant to the trestle height is given as under:



SPECIES-SPECIFIC MEASURES

It is proposed to establish and design wildlife corridors and wildlife passages to provide safe passage for wildlife across the linear infrastructure. To mitigate the ecological and wilderness values of the area, the following measures are proposed to be implemented:

- To provide a minimum width of 100m and a minimum height of 7.0m for the wildlife passages.
- To provide a minimum width of 100m and a minimum height of 7.0m for the wildlife passages.
- To provide a minimum width of 100m and a minimum height of 7.0m for the wildlife passages.

Guidelines for terrestrial plants

The following guidelines are recommended for the selection of plants for the linear infrastructure project:

- The plants should be native to the area.
- The plants should be hardy and able to withstand the local climate.
- The plants should be able to grow in the soil conditions of the area.
- The plants should be able to provide shade and shelter for wildlife.

The plants should be able to provide shade and shelter for wildlife. The plants should be able to provide shade and shelter for wildlife. The plants should be able to provide shade and shelter for wildlife.

The design of the linear infrastructure project should take into account the following factors:

- The width of the linear infrastructure project.
- The height of the linear infrastructure project.
- The location of the linear infrastructure project.
- The surrounding environment.



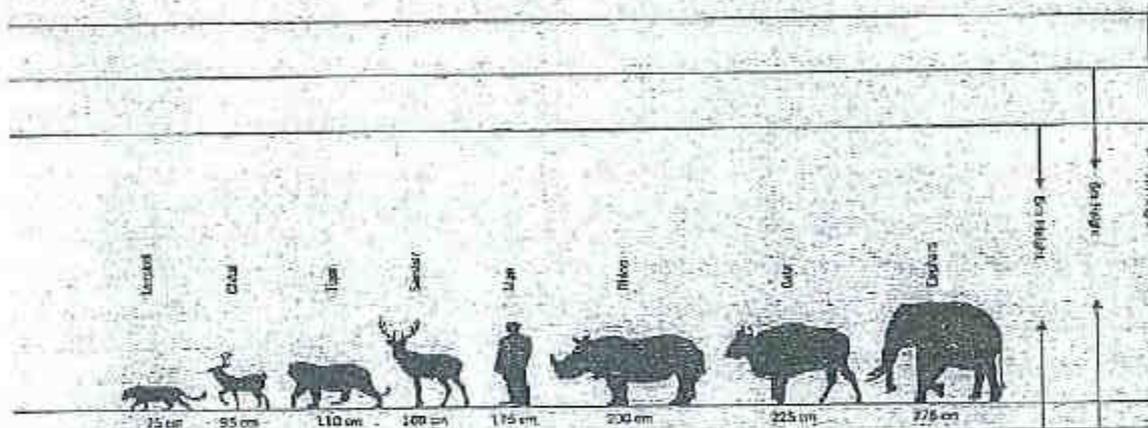


Figure 8.2: Underpass heights as they should relate to animals.

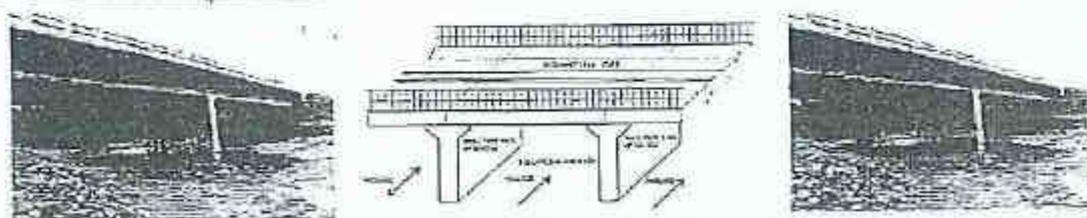


Figure 8.3: Diagrammatic representation of girder and well type post. Source: Adnan Khan Sagar et al. 2010. *Journal of Wildlife Science*.

ELEPHANT LANDSCAPES

Roads and railways impact elephants in multiple ways. Loss and fragmentation of elephant habitat is the most severe problem arising from linear infrastructure development. It alters the elephants' home range and, consequently, may lead to an escalation of human-elephant conflict where these animals are forced into new areas. In addition, it may lead to elephant populations becoming isolated, resulting in a loss of their genetic diversity. To aggravate these impacts, elephants trapped in isolated areas rapidly destroy their own habitats.

Poorly planned roads and railway lines in elephant landscapes result in loss of both elephant and human life due to accidents. However, these critical problems can be addressed by appropriate mitigation measures. The principal mitigation measures proposed to minimize the impact of linear infrastructure in elephant landscapes are set out below.

Elevated linear infrastructure

Raising the linear infrastructure (road and railway line) on pillars above the ground is the best solution in elephant landscapes. A major consideration while elevating the linear infrastructure is height (the height of the pillars should be at minimum 8-10 m (twice the height of an adult bull elephant) above-ground, so as to provide safe passage for elephants. In the event that the costs of elevating infrastructure would be prohibitively expensive, other measures created below should be considered.

Underpasses

The height of the underpass, to allow elephant movement, should be the major consideration. A minimum span of 50 m with a height of 6-8 m

and a width of 10-12 m is desirable for movement of elephants.

The selection of sites for elephant underpasses should be carefully planned before road or railway design is finalized. Elephants tend to use fairly regular paths/trails and drainage lines in the forest. Such trails and drainage lines need to be identified by specialists trained specifically for this task (i.e. an unbiased staff), following a thorough survey of the area. Underpasses should be located where the linear infrastructure neither intersects with these paths/trails and drainage lines. Girder bridges are one of the best forms of underpass that can be provided for elephants' passage. Physical barriers should be erected along the remaining length of road or railways in order to funnel elephant movement through these underpasses.

Overpasses

Construction of overpasses in elephant landscapes is not desirable in elephant landscapes. Overpasses can be considered as a mitigation measure only when the linear infrastructure passes through a stretch with steep terrain on both sides; the steep terrain on both sides of the road or railway can be connected with an overpass of at least 10-12 m in width.

Creating level crossings (for railway tracks)

The presence of embankments to raise the track level, and even ballast (1 or 2 feet) in flat areas, makes it difficult for elephants to get off the track quickly when a train approaches. Level-crossing type approaches including ramps are advisable in places where elephant trails regularly cross railway tracks. The identification of locations for these types of level crossings requires well-trained teams who

understand elephant movement and have the ability to evaluate elephant paths. However, level crossings should not be considered as a stand alone option; this form of mitigation is not a replacement for elevated tracks, underpasses and overpasses. Level crossings should be created in addition to the above mentioned structures, because they are less safe than the latter.

Density of mitigation structures

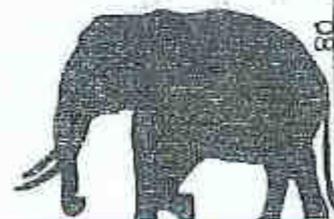
The density and numbers of mitigation structures is an important consideration for addressing the impacts of linear infrastructure in elephant landscapes. If elevating the linear infrastructure above the ground on pillars is not possible due to prohibitive costs, at least 100 m of passageway per 1 km length of linear infrastructure in elephant landscapes would ensure habitat connectivity.

Visual barriers

Visual barriers as proposed in tiger landscapes are applicable for elephant landscapes.

Sound barriers

Since elephants are sensitive to sound, all mitigation measures such as elevated structures, underpasses and overpasses need to be fortified with sound barriers. Details of the design and construction of sound barriers are provided in chapter 11.



The PC-1, over a length of 2.92 km, comprises 121 number of trestles of different heights and spacing depending on the topography and flowability of the iron ore. This conveyor intersects the existing road at three places. It has been planned in such a way that the height of the trestle at such intersection is 8.0 mtr each for free passage of the elephants. The plan showing the Elephant Passage (EP) between trestle No.TR-4 and TR-5 (24m), TR-69 and TR-70 (24m) and TR-96 and TR-97 (24m) is indicated as EP-1, EP2 and EP-3 (Shaded with green) respectively is enclosed as **Plate No.III**. The sectional view showing the entire trestle from TR-1 to TR-121 is enclosed as **Drng.No.1, 2, 3 and 4** for clarity. The details of the EP-1 are given below:

Sl. No.	Elephant passage Tag No.	Height	Co-ordinates	Height above MSL
1	Elephant passage - EP1	8.0 m	85° 09' 08.48" E 21° 45' 37.17" N	921.00 m
2	Elephant passage - EP2	8.0 m	85° 08' 29.69" E 21° 46' 11.34" N	832.70 m
3	Elephant passage - EP3	8.0 m	85° 08' 17.96" E 21° 46' 28.92" N	846.40 m

The PC-2, over a length of 5.55 km, comprises 219 number of trestles of different heights and spacing depending on the topography and flowability of the iron ore. This conveyor intersects the existing passage at seven places. The initial design has been revised in such a manner that the height of the trestle at such intersection points is more than 7.0 mtr for free passage of the elephants. The plan showing the Elephant Passage (EP) between trestle No.TR-87 and TR-88 (24m), TR-92 and TR-93 (24m), TR-97 and TR-98 (24m), TR-113 and TR-114(24m), TR-129 and TR-130 (24m) and TR-185 and TR-186 (24m) respectively is indicated as EP-4, EP-5, EP-6, EP-7, EP-8 and EP-9 (Shaded with green) is enclosed as **Plate No. IV**. The sectional view showing the entire trestle from TR-1 to TR-219 is enclosed as **Drng.No.5 to Drng. No.14** for clarity. The details of the EP-4 to EP-9 on PC-2 are given as below:

Sl. No.	Elephant passage Tag No.	Height	Co-ordinates	Height above MSL
1	Elephant passage - EP4	10.2 m	85° 07' 37.89" E 21° 48' 01.71" N	627.70 m
2	Elephant passage - EP5	8.6 m	85° 07' 36.04" E 21° 48' 05.47" N	632.50 m
3	Elephant passage - EP6	10.7 m	85° 07' 34.07" E 21° 48' 09.56" N	635.00 m
4	Elephant passage - EP7	9.2 m	85° 07' 28.90" E 21° 48' 21.20" N	615.50 m
5	Elephant passage - EP8	8.2 m	85° 07' 24.10" E 21° 48' 31.60" N	612.50 m
6	Elephant passage - EP9	8.0 m	85° 07' 17.83" E 21° 49' 10.18" N	430.00 m

The declination angle of pipe conveyor has been fixed based on the material flow characteristics and dynamic analysis done by well renowned consultant M/s CDI USA. So, sufficient conveyor declination has been provided in the present conveyor alignment. The declination can't be increased further as it will create the material flowability issues and unnecessary increase in height will prone to structural instability due to hilly terrain.

Although, there are nine crossing points on ground (3 along PC-1 and 6 along PC-2), actually the possible movement of elephant as per the data obtained from Barsuan Range and subsequent discussion with the Range Officer, Barsuan there are five passages. All these five Elephant Passages i.e. EP-I to EP-V are shown on the map enclosed as **Plate No.VI**. These passages are also shown in the longitudinal sections enclosed as **Drng. No. 4 to Drng.No.14**. The details are given as below:

Sl. No.	Elephant passage Tag No.	Height In mtr	Co-ordinates	Height above MSL	Remarks
1	Elephant passage : EP - I	10.2	85° 09' 08.48" E 21° 45' 37.17" N	627.70 m	This coincides with EP1 of PC-1
2	Elephant passage : EP - II	8.6	85° 08' 17.96" E 21° 46' 28.92" N	632.50 m	This coincides with EP3 of PC-1
3	Elephant passage : EP - III	10.7	85° 07' 37.89" E 21° 48' 01.71" N	635.00 m	This coincides with EP4 of PC-2
4	Elephant passage : EP - IV	9.2	85° 07' 24.10" E 21° 48' 31.60" N	615.50 m	This coincides with EP8 of PC-2
5	Elephant passage : EP - V	8.2	85° 07' 20.44" E 21° 49' 47.65" N	612.50 m	Crossing the Despatch Area-2

The length of the total pipe conveyor covers a distance of 8.47 km (PC-1: 2.92 km + PC-2: 5.55 km) with 340 no of trestle support (121 nos. in PC-1 and 219 nos. in PC-2). In the total stretch of the pipe conveyor, 09 passages (03 nos in PC-1 and 06 nos in PC-2) have been proposed with trestle height more than 7.0 mtr which includes 05 passages found to be utilised occasionally by elephants at different point of time as per the record available under Bonai Division during last 10 years.

Out of 8.47 km of the pipe conveyor, 451 meter in PC-1 and 1504 meter in PC-2 total amounting 1955 meter of pipe conveyor will be above 6.0 meter and over and above 323 meter (TR-7 to TR-8) length in PC-1 within gorund. So in total 2.278 Km (1.955 Km above 6 feet height and 0.323 Km below ground) out of the total length of 8.47 Km of pipe conveyor is the stretch that does not pose any hindrance to wildlife movement including elephants and covers all identified and probable passage routes. The details of the identified and anticipated passage for unhindered movement of Elephant are given as below:

Pipe Conveyor	Distance between the Trestle			Pipe Conveyor	Distance between the Trestle		
	From	To	Length (mtr)		From	To	Length (mtr)
PC-1	TR-2	TR-5	72.00	PC-2	TR-9	TR-14	120.00
	TR-67	TR-73	144.00		TR-71	TR-73	48.00
	TR-95	TR-104	216.00		TR-85	TR-101	336.00
	TR-120	TR-121	19.00		TR-111	TR-119	192.00
	Sub-total		451.00		TR-128	TR-136	192.00
Total length of pipe conveyor: 8.47 km Total passage provided: 1955.0 mtr Percentage of space: 23%					TR-150	TR-152	48.00
					TR-172	TR-178	144.00
					TR-194	TR-210	418.00
					TR-218	TR-219	6.00
					Sub-total		1504.0
					TOTAL		1955.00

During construction at site, numbers and dimension may vary to some extent depending on the strata and local site conditions.

CHAPTER-4**MANAGEMENT STRATEGIES WITHIN THE PROJECT AREA WITH
FINANCIAL FORECAST****A. Interventions with Justification:**

All measures for protection of bio-diversity of the site as well as wildlife have been discussed in **Chapter-3**. The financial requirement of various interventions suggested in the plan as per current costs of Rs.308/- day is given in the following table for the plan period of 10 years i.e 2021-22 to 2029-30 and annual cash flow there-of. All activities within the project area will be implemented by the project proponent.

B. Location of the proposed intervention

The map showing the intervention implemented inside the project area by the project authority has been furnished in **Chapter 6** of this plan.

Table No.19: Financial provision of works in the project area (Wage rate @ Rs.311.00)

Sl. No.	Para Ref.	Management Interventions	Amount in lakh
1.	3.B.I. i)	To create awareness among the mine workers regarding operation of the overhead pipe conveyor corridor	5.00
2.	3.B.I. ii)	Displaying sign boards in the Project area about safety measures to be undertaken to avoid accident.	5.00
Total			10.00
20% Escalation			2.00
Grand Total			12.00

(Rupees Twelve Lakh Only)

Countersigned
Regional Chief Conservator of Forests
Rourkela Circle, Rourkela

Suman Krishna Sit
General Manager(Ged)
Power of Attorney Holder
Utsah Mining Corporation Ltd.
Bhubaneswar



Countersigned
Divisional Forest Officer
& Wildlife Warden
BONAI DIVISION

SITE SPECIFIC WILDLIFE MANAGEMENT PLAN

By OMC Limited

Table No. 20

Plan period preferably for 10 years with suitable provision for interim review and suitable modification Table
No.20: Annual Work Programme:

Details of the flow of funds for different years of the plan for project area are given below: (Rs. in Lakh)

Sl. No.	Para Ref	Type of intervention	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Total
1.	3.B.I. i)	Awareness Programme	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	5.00
2.	3.B.I. ii)	Placing of Sign Boards	2.5	2.5	-	-	-	-	-	-	-	-	5.00
												Total	10.00
												20 % escalation	2.00
												Grand Total	12.00

Countersigned.

Divisional Forest Officer
& Wildlife Warden
BONAI DIVISION



Suman Krishna Sit
General Manager(Geo)
Power of Attorney Holder
Orissa Mining Corporation Ltd.
Bhubaneswar

CHAPTER-5

MANAGEMENT STRATEGIES WITHIN THE ZONE OF INFLUENCE OF THE PROJECT WITH FINANCIAL FORECAST

A. Financial Provision of Works in Zone of Influence (ZoI):

The financial requirement of various interventions suggested in the conservation plan as per current costs is given in following table for a plan period of 10 years and annual cash flow for the buffer zone of the project area. All activities in the buffer zone will be implemented by the respective Divisional Forest Officer.

Table No.21: Financial provision of works in Zone of Influence (Wage rate @Rs.311.00)

Sl. No.	Para Ref.	Description of work	Amount in lakh
Wildlife Habitat Improvement			
1.	3.B. II. 1)	1. To Plant 100 Nos. of Ficus Species @ Rs.4,000/- each (Rs.1,000/- for Planting, Rs.2,000/- for brick gabion + Rs.1,000/- for after care) = Rs.4.0 lac 2. Bamboo/Fodder development by seed ball Technology in Barsuan R.F of Bonal Range @ Rs.15/- each ball X 1000 No.s / Year x 10 years = Rs. 1.50 lakhs	17.50
2.	3.B. II. 2)	Provision to create two water body of size 40m x 30m x 3m in Barsuan R.F of Bonal Range @ Rs. 06.00 lakhs each = Rs. 12.00 lakhs	
Protection and Surveillance			
3.	3.B. II. 4)	a. One No. Elephant Squad consisting of 10 members Rs.12,600/- x 10 members x 12 months x 10 years = Rs 151.20 lakhs b. Hired Vehicle Rs. 31,000/- x 12 months x 10 years = Rs. 37.20 lakhs c. POL for vehicle Rs. 15000/- x 12 months x 10 years = Rs. 18.00 lakhs d. Recharge of Mobile Phone @ Rs.1000/- PM per Squad x 12 months x 10 years = Rs. 1.20 lakhs e. Medicinal Expenses Rs.20,000/- per Squad per year x 10 years = Rs. 2.00 lakh f. Contingencies expenses Rs. 0.40lakhs	210.00

4.	3.B. II. 5)	Solar lighting system. Solar Street Light having high HEC at 10 strategic Elephant movement prone locations@ Rs. 1.9 lakh per light x 10 no.s = Rs. 19.00 Lakhs (Locations to be decided by DFO)	19.00
5.	3.B. II. 6)	Strengthening of VHF Network by providing two no. of VHF stations @ 4.00 lac each, 1 no. of repeater station @ 2.00 each, handset 10 nos @ 25,000 each and repair and maintenance 15.00 lac,	27.50
Fire Protection			
6.	3.B. II. 7)	10 nos. of Fire watchers will be engaged a period of 5 months (February to June) for 10 years @ Rs.9,330/- per month/watcher x 10 no.s x 5 months x 10 years = Rs. 46.65 Lakhs b. Hired Vehicle Rs. 31000/- x 5 months x 10 years = Rs. 15.50 lakhs c. POL for vehicle Rs. 15000/- x 5 months x 10 years = Rs. 7.50 lakhs d. Recharge of Mobile Phone @ Rs.1000/- PM per Squad x 12 months x 10 years = Rs. 1.20 lakhs e. Medicinal Expenses Rs.20,000/- per Squad per year x 10 years = Rs. 2.00 lakh Contingencies expenses Rs. 35000 x 10 = Rs 3.5 lakhs	76.35
7.	3.B. II. 8)	Solar Fencing of conveyor belt (where the elevation is below 6.0 m above ground level), over 6.2kms @ Rs. 04.00 Lakhs per KM with annual maintenance contract for 09 years @ 1.0 lakh / KM Cost of Fencing for 6.52 Km @ Rs.4 Lakhs = Rs. 26.08 Lakhs Annual Maintenance for 6.52 Kms = 1.0 X 09 Years = Rs. 09 Lakhs	35.08
8.	3.B. II. 9)	04 nos of watch tower @ Rs10.0 lakh each as per the location to be decided by DFO, Bonai.	40.00
9.	3.B. II. 10)	Formation/ Re-constitution of VSS /EPA/ Income generation/livelihood promotion of local forest dependant community through convergence with line dept.	10.00
		Drone camera with night vision and other wildlife monitoring equipments.	5.00
10.	3.B.II.9)	Deployment of Elephant trackers 5 Nos. @Rs.10, 000/- Pm to provide information to Forest staff as well as villagers about elephant preence for 4 months in each year during harvest period (November to February).	20.00

11	3.B.II.10	Cost towards establishment of one GIS Cell with accessories and other office contingencies in the RCCP's Office.	20.00
Total			480.43
Escalation @ 20%			96.086
Grand Total			576.516
(Rupees five hundred seventy six lakhs fifty one thousand six hundred only)			


Suman Krishna Sit
General Manager(Geo)
Power of Attorney Holder
Isha Mining Corporation Ltd.
Bhubaneswar

Countersigned


Regional Chief Conservator of Forests
Rourkela Circle, Rourkela

Countersigned

Divisional Forest Officer
& Wildlife Warden
BONAI DIVISION

Table No. 22: Annual Work Programme:

Details of the flow of funds for different years of the plan for Zol area are given below (Rs. in Lakh)

Sl. No	Para Ref	Type of interventions	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Total
1.	3.B.(I.1)	Planting Ficus Species Bar 100 Nos Bamboo Ball plantation	1.00 0.15	2.00 0.15	0.125 0.15	4.00 1.50							
2.	3.B.(I.2)	Provision to create two waterholes in Katkela RF	6.00	6.00	-	-	-	-	-	-	-	-	12.00
3.	3.B.(I.3)	Elephant squad	21.00	21.00	21.00	21.00	21.00	21.00	21.00	21.00	21.00	21.00	210.00
4.	3.B.(I.4)	Solar lightning system	19.00	-	-	-	-	-	-	-	-	-	19.00
5.	3.B.(I.5)	Strengthening of VHF network	27.50	-	-	-	-	-	-	-	-	-	27.50
6.	3.B.(I.6)	Fire watcher 10 nos	7.635	7.635	7.635	7.635	7.635	7.635	7.635	7.635	7.635	7.635	76.35
7.	3.B.(I.9)	Watch Tower	40.00	-	-	-	-	-	-	-	-	-	40.00
8.	3.B.(I.7)	Solar Fencing Income generation activities	26.08 1.0	1.00 1.0	1.00 1.0	1.00 1.0	1.00 1.0	1.00 1.0	1.00 1.0	1.00 1.0	1.00 1.0	1.00 1.0	35.08 10.00
9.	3.B.(I.8)	Drone camera with night vision binocular and monitoring system	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	5.00
10	3.B.(I.10)	Elephants Trackers	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	20.00
11	3.B.(I.10)	Formation of GIS Cell	5.00	3.0	3.0	2.0	2.0	1.0	1.0	1.0	1.0	1.0	20.00
Total			161.365	43.785	35.91	34.91	34.91	33.91	33.91	33.91	33.91	33.91	480.43
Cost escalation 20%												96.086	
Grand total												576.516	

Countersigned

Divisional Forest Officer
& Wildlife Warden
BONAI DIVISION

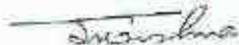
SITE SPECIFIC WILDLIFE MANAGEMENT PLAN

By OMC Limited

Table No. 23: ABSTRACT OF COST

Category	Amount in lakh(s)
Core Area	12.00
Zone of Influence	576.516
Total	588.516

(Rupees Five Hundred eighty eight lakhs ^{one} fifty _A Thousand six hundred Only)


Suman Krishna Sit
 General Manager(Geo)
 Power of Attorney Holder
 OMC Mining Corporation Ltd
 Bhubaneswar

Countersigned

 Regional Chief Conservator of Forests
 Rourkela Circle, Rourkela

Countersigned

 Divisional Forest Officer
 & Wildlife Warden
BONAI DIVISION


 The Principal C.C.F (Wildlife) &
 CWLW, Odisha, Bhubaneswar

CHAPTER- 6

ANNEXURE AND MAPS

1. Map indicating Project area on the Topo sheet with 10 K.M. radius
(Plate-I)
2. Map showing the pipe conveyor belt originating from Kurmitar ML through Rantha ML **(Plate-II)**
3. Plan showing the Elephant Passage (EP1 to EP3) **(Plate-III)**
4. Sectional view showing the entire trestle from TR-1 to TR-121
(Drng. No. 1,2,3 &4)
5. Plan showing the Elephant Passage (EP4 to EP9) **(Plate-IV)**
6. Sectional view showing the entire trestle from TR-1 to TR-219
(Drng. No. 5 to 14)
7. Map indicating the distance of the protected areas from the project area **(Plate V).**
8. Copy of Stage I Order of MoEF & CC Dt.04.02.2021. **(Annexure-I)**
9. Estimate of solar fencing **(Annexure – II)**
10. Relevant Pages of NEERI Report **(Annexure-III)**
11. Trestle details of pipe conveyor **(Annexure-IV)**

Government of India
Ministry of Environment, Forests and Climate Change
(Forest Conservation Division)

Indira Paryavaran Bhawan,
Aliganj, Jor Bag Road,
New Delhi - 110003.

Dated: 4th February 2021

To

The Principal Secretary (Forests),
Government of Odisha,
Bhubaneswar

Sub: Proposal seeking prior approval under the Forest (Conservation) Act, 1980 for non-forestry use of 86.479 ha of forest land, comprising of 85.175 ha of fresh forest land and 1.304 ha re-diversion of Forest land (which is a part of 11.912 ha forest land, granted Stage-II approval by ERO, MoEF&CC on 29.05.2020) in favour of M/s Odisha Mining Corporation Limited for construction of overhead piped conveyor belt from Kurmitar ML Boundary to proposed Railway Siding in Tahsil Lahuni para, District Sundergarh (Odisha) - reg.

Sir,

I am directed to refer to the Government of Odisha's letter No. FE-DIV-FLD-0049-2020-17053/F & E dated 02.11.2020 on the above mentioned subject seeking prior approval of the Central Government under Section-2 of the Forest (Conservation) Act, 1980 and to say that the proposal has been examined by the Forest Advisory Committee constituted by the Central Government under Section-3 of the aforesaid Act.

After careful examination of the proposal of the State Government and on the basis of the recommendations of the Forest Advisory Committee and approval of the same by the competent authority of the MoEF&CC, New Delhi, the Central Government hereby accords 'in-principle' approval under Section - 2 of the Forest (Conservation) Act, 1980 for non-forestry use of 86.479 ha of forest land, comprising of 85.175 ha of fresh forest land and 1.304 ha re-diverted forest land (part of 11.912 ha forest land, granted Stage-II approval by ERO, MoEF&CC on 29.05.2020) in favour of M/s Odisha Mining Corporation Limited for construction of overhead piped conveyor belt from Kurmitar ML Boundary to proposed Railway Siding in Tahsil Lahuni para, District Sundergarh (Odisha) subject to fulfilment of the following conditions:

- A. Conditions which need to be complied prior to handing over of forest land by the State Forest Department and compliance is to be submitted prior to Stage-II approval
 1. Compensatory Afforestation
 - i. Compensatory Afforestation, in lieu of forest land being diverted, shall be raised over 85.175 ha of non-forest land by the State Forest Department at the cost of User Agency, and
 - ii. The cost of compensatory afforestation at the prevailing wage rates as per

- compensatory afforestation scheme and the cost of survey, demarcation and erection of permanent pillars if required on the CA land shall be deposited in advance with the Forest Department by the project authority. The CA will be maintained for 10 years. The scheme may include appropriate provision for anticipated cost increase for works scheduled for subsequent years.
2. The State Government shall charge the Net Present Value(NPV) for the 162.394 ha forest area to be diverted under this proposal from the User Agency as per the orders of the Hon'ble Supreme Court of India dated 30/10/2002, 01/08/2003, 28/03/2008, 24/04/2008 and 08/05/2008 in IA No. 566 in WP (C) No. 202/1995 and as per the guidelines issued by the Ministry vide letters No. 5-1/1998-FC (Pt.II) dated 18/09/2003, as well as letter No. 5-2/2006-FC dated 03/10/2006 and 5-3/2007-FC dated 05/02/2009 in this regard;
 3. Compensatory levies to be realized from the User Agency under the project shall be transferred/ deposited, through e-challan, in to the account of CAMPA pertaining to the State concerned through e-portal (<https://parivesh.nic.in/>);
 4. On analysis on DSS it was observed that a seasonal water stream/nalah exists on South-west boundary of the proposed dispatch area-2 is adjoining a seasonal water stream/nalah. The area between the banks of this seasonal stream/ nalah and the proposed dispatch area-2 shall be mapped and a green belt with native species shall be raised and maintained at the cost of user agency to protect the seasonal stream/nalah. Soil and moisture conservation measures in the dispatch area shall be planned and implemented at the cost of the user agency and effective measures shall be used by the user agency to prevent Iron ore leaching from the dispatch areas.
 5. It shall be ensured that the trestles (pillars) of proposed conveyer belt are sufficiently high so that the movement of wildlife particularly elephant in the area is not hampered. A Site-Specific Wildlife Conservation Plan shall be prepared and approved by the competent authority and the cost of its preparation and implementation shall be borne by the user agency. The user agency shall also make proportionate contribution towards the cost of the Regional Wildlife Management Plan prepared and approved by the competent authority.
 6. The state Forest Department shall also prepare a scheme of Assisted Natural Regeneration of the forest in 500 meter perimeter of the dispatch areas with a view to create dense green cover so as to minimise dust and other pollution on rest of the forest, and implement it at the cost of the user agency.
 7. The User agency will undertake comprehensive soil conservation measures at the project cost in consultation with the State Forest Department in the forest area being diverted. A scheme of the same shall be submitted along with compliance of Stage-I approval;
 8. The User agency in consultation with the State Forest Department shall prepare a detailed scheme for creation and maintenance of plantation of dwarf species (preferably medicinal plants) for its implementation in right of way under the conveyor belt at the project cost;
 9. The cost of felling of trees shall be deposited by the User Agency with the State Forest Department; and
 10. The State Government shall ensure that User Agency obtains clearance under the provisions of Scheduled tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 in accordance with the relevant

guidelines issued by the MoEF&CC in this regard and a report on the same is submitted to the Ministry along with compliance of Stage-I approval.

11. The KML files of diverted area and GA areas shall be uploaded on E green watch portal with all requisite details prior to Stage II approval
- B. Conditions which need to be complied on field after handing over of forest land to the user agency by the State Forest Department but the compliance in form of undertaking shall be submitted prior to Stage-II approval
 1. Legal status of the diverted forest land shall remain unchanged;
 2. Additional amount of the NPV of the diverted forest land, if any, becoming due after finalization of the same by the Hon'ble Supreme Court of India on receipt of the report from the Expert Committee, shall be charged by the State Government from the User Agency;
 3. After construction of the proposed overhead conveyer belt, State government will ensure that transportation of ore from the mines through existing road gets discontinued in a phased and time bound manner. To maximize utilization of the conveyor belt facility user agency shall not transport any ore material through road beyond a permissible quantity as specified by the State Government from time to time;
 4. It was noticed during DSS analysis that 0.983 ha forest area is proposed to be used for infrastructure purpose adjoining the dispatch area-1. Since this is an isolated area, use of forest land for non-forestry purpose was not allowed considering larger impact it will have on remaining forest. Moreover, the user agency has sufficient area available, for this purpose in the land which had already been diverted in its favour;
 5. Earlier approval was accorded for the parent proposal, i.e. use of forest area for mining in Kurmitar Iron and Manganese Mines vide this Ministry letter no 8-113/2000-FC (Vol.II) dated 29th November 2018. Compliance of the conditions specified in the approval shall be submitted by the State Government;
 6. Besides, it is also to be ensured that title of the proposal should get changed as it also includes 1.304 ha of forest area is for re-diversion. The title of the proposal stands modified as under to avoid any confusion for future reference:

Proposal for diversion of 85.175 ha of fresh forest land and 1.304 ha re-diversion of Forest land (which is a part of 11.912 ha forest land, for which Stage-II approval has already been accorded by ERO, MoEF&CC on 29.05.2020) for construction of overhead piped conveyor belt from Kurmitar ML Boundary of OMC Ltd to new proposed Railway siding at Barsuan for transportation of mineral with provision for one dispatch area in between the route and the other at terminal point at Barsuan.

7. No additional or new path will be constructed inside the forest area for transportation of construction materials for execution of the project work;
8. Overburden, if any to be generated from the project, shall not be dumped outside the width of the proposed conveyor corridor. The muck generated in the earth cuttings will be disposed of at the designated dumping sites and in no case the muck/debris will be allowed to roll down the hill slopes;
9. The boundary of the diverted forest land, mining lease and safety zone, as applicable, shall be demarcated on ground at the project cost, by erecting four feet high reinforced cement concrete pillars, each inscribed with its serial number, distance from pillar to pillar and GPS co-ordinates;

10. The User Agency shall obtain the Environment Clearance as per the provisions of the Environmental (Protection) Act, 1986, if required;
11. No labour camp shall be established on the forest land and the User Agency shall provide fuels preferably alternate fuels to the labourers and the staff working at the site so as to avoid any damage and pressure on the nearby forest areas;
12. The layout plan of the proposal shall not be changed without the prior approval of the Central Government;
13. The forest land shall not be used for any purpose other than that specified in the proposal;
14. The forest land proposed to be diverted shall under no circumstances be transferred to any other agency, department or person without prior approval of the Central Government;
15. No damage to the flora and fauna of the adjoining area shall be caused;
16. The user agency shall explore the possibility of translocation of maximum number of trees identified to be felled and shall ensure that any tree felling shall be done only when it is unavoidable and that too under strict supervision of the State Forest Department;
17. The period of diversion under this approval shall be co-terminus with the period of lease to be granted in favour of the user agency or the project life, whichever is less;
18. The mining lease holder shall, after ceasing mining operations, undertake re-grassing of the mining area and any other areas which may have been disturbed due their mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna, etc.
19. The User Agency shall submit the annual self-compliance report in respect of the above stated conditions to the State Government, concerned Regional Office and to this Ministry by the end of March every year regularly;
20. The user agency shall comply all the provisions of the all Acts, Rules, Regulations, Guidelines, Hon'ble Court Order (s) and NGT Order (s) pertaining to this project, if any, for the time being in force, as applicable to the project;
21. Any other condition that the concerned Regional Office of this Ministry may stipulate, from time to time, in the interest of conservation, protection and development of forests & wildlife;
22. The compliance report shall be uploaded on e-portal (<https://parivesh.nic.in/>); and
23. Violation of any of these conditions will amount to violation of Forest (Conservation) Act, 1980 and action would be taken as prescribed in para 1.21 of Chapter 1 of the Handbook of comprehensive guidelines of Forest (Conservation) Act, 1980 as issued by this Ministry's letter No. 5-2/2017-FC dated 28.03.2019.

After receipt of the compliance report on the fulfilment of the above mentioned conditions from the State Government, formal approval will be considered in this regard under Section - 2 of the Forest (Conservation) Act, 1980. The transfer of forest land to the User Agency shall not be affected by the State Government till formal orders approving the diversion of forest land are issued by the Central Government.

Yours faithfully,

Sd/-

(Sandeep Sharma)

Assistant Inspector General of Forests

Copy to:

1. The Principal Chief Conservator Forests, Government of Odisha,
Bhubaneswar
2. Regional Officer, Integrated Regional Office of the MoEF&CC at Bhubaneswar
3. The Nodal Officer (FCA), O/o the PCCF, Government of Odisha,
Bhubaneswar
4. User Agency
5. Monitoring Cell of FC Division, MoEF&CC
6. Guard file



AN ISO CERTIFIED 9001:2015 CIN:310210005

M.P. 135, BDA Colony, Bikaner, Phase-I, Rajasthan, 334 123

Ph: +91-2252176, Mob: 9437465866, 982873544

E-mail: ran solar, ranr@gmail.com

Estimate cost of materials for 1 km solar power fencing system (RCC Pillar 400 nos including corner & supporting pole)

Sl.no	Particulars	Amount
1	Earth excavation of foundation in hard soil initial of 50 mtr and finishing of 1.5 mtr and finishing the base = 400 nos x 0.45 mtr length x 40 mtr depth x 0.25 mtr width = 18.00 cum @Rs-120.40 per cum	Rs-2167.20
2	Fixing of pillar with 4 cm Hg metal in cm 1:4:8 Pit size 400 nos x 0.45 mtr x 0.40 mtr x 0.25 mtr = 18.00 cum Deduct 1/3 rd of butt of pillars i.e 6 cum 18 cum - 6 cum = 12 cum x 36.29 = 46 per cum	Rs-43553.52
3	Construction of pillar of size (1:2:4) cement concrete works of 400 nos (i) Base of the pillar of size (under ground) 0.35m length x 0.075 m width x 0.2 m height x 400 nos = 2.1 cum (ii) Pillar above ground of size = 400 x 15 mtr (0.025mtr/2) x 0.075 mtr = 3.94 cum Total = 6.04 cum Cost of 400 nos pillars = 6.04 cum x @5362.57/cum	Rs-31785.92
4	Cost of rods including cutting bending & binding of 6.04 cum x 0.90 quimals mtr rod = 5.436 quimals @Rs-10595.80 per quimal	Rs-57553.77
5	Contingency including curing stacking and provision of insulators hook etc On 1.5	Rs-14800/-
6	Stand wire 5 Steps 1000 x 5 = 3000 mtr 3000mtr x 0.375 kg = 1875 kg 1875 kg x Rs-85 per kg	Rs-1,59,375/-
7	Labour for straightening of the stand wire Fixing and clipping with pillar 45 mud per km @ Rs-280/- per mud	Rs-13,440/-
8	Carriage of RCC pillar & stand wire from range office campus to work site @ Rs-900 per TLD & cost of loading & unloading with 5 km distance approximately 8 TLD @Rs-750 per TLD	Rs-13200/-
Total Amount -Rs-3,35,920.41		

Besides above one energizer is required for each site with maximum periphery of 2.5 km length

M.O. 928
RTI

Gyanesh Bharti, I.A.S.
Joint Secretary
Tel: 24695268
Gyanesh.bharti@ias.nic.in



भारत सरकार
पर्यावरण वन एवं जलवायु परिवर्तन मंत्रालय
GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE
इंदिरा पर्यावरण भवन, जोर बाग रोड,
नई दिल्ली-110 003
INDIRA PARYAVARAN BHAVAN, JOR BAGH ROAD,
NEW DELHI-110 003
Website: moef.nic.in

D.O. Z-11013/36/2014-IA-II (M)

4628/2018
19/2/18

13th February, 2018

Dear Sir,

As you are aware, Ministry of Mines, vide Notification dated 22nd November, 2010, had appointed a Commission headed by Justice Shri M.B. Shah, for the purpose of making an inquiry into mining of iron and manganese ore in contravention of the provisions of various statutes and the rules and regulations in various States including Goa, Odisha and Jharkhand. This Commission made several observations and *inter-alia* recommended that a regional Carrying Capacity study should be undertaken keeping in mind the principles of sustainable development and inter-generational equity and all other relevant factors.

2. The Ministry of Environment, Forest and Climate Change, Government of India has entrusted Council of Scientific & Industrial Research-National Environmental Engineering Research Institute (CSIR-NEERI) to carry out Carrying Capacity study for mining of iron and manganese ore in the State of Odisha. The report of CSIR-NEERI, duly approved by the Competent Authority, is enclosed herewith. The recommendations in this regard are in Chapter 12 of the report for carrying out sustainable mining in the State of Odisha.

3. You are requested to follow the recommendations given in this report for carrying out iron and manganese ore mining in the State of Odisha.

Link with
holding

With regards,

Yours sincerely,

Encl: as above

Bharti
(Gyanesh Bharti)

Shri Aditya Prasad Padhi
Chief Secretary,
General Administration Department,
Secretariat,
Bhubaneswar,
Odisha - 751001

~~Pr. Secretary, SDM~~
Please share with all concerned

19/2/18
Chief Secretary,
Odisha

SS
Pl take follow
up action
expeditiously

19/2/18



ASCMC
urgent
19/2

12.5 Pre-requisites for Implementation of Suggested Sustainable Annual Production

12.5.1 Continuous monitoring of different environmental quality parameters as per EC and CTE/CTO conditions with respect to air, noise, water (surface & ground water) and soil quality in each region shall be done. The environmental quality parameters should not indicate any adverse impact on the environment. Monitoring within the mines should be done by individual mine lease holders, whereas outside the mine lease area, monitoring should be done by the Govt. of Odisha through various concerned departments/ authorized agencies. Various monitoring/ studies should be conducted through national reputed institutes, NABET/ MoEF&CC accredited laboratories/organizations.

The reports submitted by individual mine lease holders and study reports prepared by other concerned departments/agency for each of the regions should be evaluated and examined by SPCB/ MoEF&CC.

12.5.2 Construction of cement concrete road from mine entrance and exit to the main road with proper drainage system and green belt development along the roads and also construction of road minimum 300 m inside the mine should be done. This should be done within one year for existing mines and new mine should have since beginning. The concerned departments should extend full support, wherever the land does not belong to the respective mine lease holders.

The Department of Steel & Mines, Govt. of Odisha should ensure the compliance and should not issue the Mining Permits, if mine lease holder has not constructed proper cement concrete road as suggested above.

12.5.3 In view of high dust pollution and noise generation due to road transport, it is proposed to regulate/guide the movement of iron and manganese ore material based on the EC capacity of the mines. Accordingly, ore transport mode has been suggested, as given below in Table 12.5.

Table 12.5: EC Capacity based Suggested Ore Transport Mode (SOTM)

Code	EC Capacity	Suggested Ore Transport Mode
SOTM 1	≥ 5 MTPA	100% by private railway siding or conveyor belt up to public railway siding or pipeline for captive mines and 70% for non-captive mines.
SOTM 2	Between 3 and <5 MTPA	Minimum 70% by public railway siding, through conveyor belt and maximum 30% by road - direct to destination or other public railway siding or above option.
SOTM 3	Between 1 and <3 MTPA	Minimum 70% by public railway siding and maximum 30% by road - direct to destination or by other public railway siding or above options
SOTM 4	<1 MTPA	100 % by 10/17 Ton Trucks or above options

TRESTLE DETAILS OF THE PIPE CONVEYOR

A. PIPE CONVEYOR-1 (PC-1)

Sl. No.	Trestle No.	Trestle height (m)	Distance between trestles	Height AMSL	Longitude	Latitude
1	TR-1	4.7	38	918	85°09'10.94"	21°45'35.85"
2	TR-2	6.8	24	919	85°09'10.20"	21°45'36.21"
3	TR-3	8.4	24	919.7	85°09'09.47"	21°45'36.57"
4	TR-4	8.0	24	920.6	85°09'08.73"	21°45'36.93"
5	TR-5	6.8	24	921.4	85°09'07.99"	21°45'37.30"
6	TR-6	4.8	24	922	85°09'07.25"	21°45'37.65"
7	TR-7	3.8	24	923.6	85°09'06.51"	21°45'38.02"
8	TR-8	3.0	24	926.8	85°09'05.78"	21°45'38.38"
9	TR-9	3.0	24	930	85°09'05.04"	21°45'38.74"
10	TR-10	3.0	24	934	85°09'04.31"	21°45'39.10"
11	TR-11	3.0	24	938	85°09'03.58"	21°45'39.46"
12	TR-12	2.5	24	942	85°09'02.85"	21°45'39.82"
13	TR-13	2.5	24	944	85°09'02.11"	21°45'40.18"
14	TR-14	2.7	24	943.5	85°09'01.38"	21°45'40.54"
15	TR-15	2.5	24	942.5	85°09'00.64"	21°45'40.91"
16	TR-16	2.5	24	941	85°08'59.93"	21°45'41.32"
17	TR-17	2.5	24	940	85°08'59.24"	21°45'41.75"
18	TR-18	2.5	24	938.5	85°08'58.57"	21°45'42.22"
19	TR-19	2.5	24	937	85°08'57.93"	21°45'42.71"
20	TR-20	2.5	24	935	85°08'57.31"	21°45'43.23"
21	TR-21	2.5	24	933.6	85°08'56.72"	21°45'43.78"
22	TR-22	2.5	24	932	85°08'56.12"	21°45'44.33"
23	TR-23	2.5	24	930	85°08'55.53"	21°45'44.87"
24	TR-24	2.5	24	928.7	85°08'54.94"	21°45'45.42"
25	TR-25	2.5	24	927	85°08'54.35"	21°45'45.96"
26	TR-26	2.5	24	924	85°08'53.77"	21°45'46.50"
27	TR-27	3.0	24	919	85°08'53.18"	21°45'47.04"
28	TR-28	2.8	24	915.6	85°08'52.59"	21°45'47.59"
29	TR-29	2.8	24	912.7	85°08'52.00"	21°45'48.13"
30	TR-30	2.8	24	909.7	85°08'51.41"	21°45'48.68"
31	TR-31	2.8	24	906.7	85°08'50.82"	21°45'49.22"
32	TR-32	2.8	24	903.7	85°08'50.23"	21°45'49.77"
33	TR-33	2.8	24	900.7	85°08'49.64"	21°45'50.31"
34	TR-34	2.8	24	897.8	85°08'49.06"	21°45'50.86"
35	TR-35	2.8	24	894.8	85°08'48.47"	21°45'51.40"
36	TR-36	2.7	24	891.8	85°08'47.88"	21°45'51.94"
37	TR-37	2.7	24	888.8	85°08'47.29"	21°45'52.49"
38	TR-38	2.7	24	886	85°08'46.70"	21°45'53.03"
39	TR-39	2.5	24	883	85°08'46.11"	21°45'53.58"
40	TR-40	2.5	24	880	85°08'45.52"	21°45'54.12"
41	TR-41	2.5	24	877	85°08'44.93"	21°45'54.66"
42	TR-42	2.5	24	873	85°08'44.35"	21°45'55.20"
43	TR-43	2.5	24	869	85°08'43.77"	21°45'55.74"
44	TR-44	2.5	24	864.5	85°08'43.18"	21°45'56.28"
45	TR-45	2.5	24	860	85°08'42.60"	21°45'56.82"
46	TR-46	2.5	24	855.7	85°08'42.01"	21°45'57.36"
47	TR-47	3.2	24	851	85°08'41.42"	21°45'57.91"

Sl. No.	Trestle No.	Trestle height (m)	Distance between trestles	Height AMSL	Longitude	Latitude
48	TR-48	2.6	24	850	85°08'40.82"	21°45'58.46"
49	TR-49	2.8	24	849	85°08'40.23"	21°45'59.01"
50	TR-50	2.8	24	849	85°08'39.64"	21°45'59.56"
51	TR-51	2.7	24	849	85°08'39.04"	21°46'00.11"
52	TR-52	2.5	24	849	85°08'38.45"	21°46'00.65"
53	TR-53	2.5	24	848.8	85°08'37.86"	21°46'01.20"
54	TR-54	2.5	24	848.6	85°08'37.26"	21°46'01.75"
55	TR-55	2.5	24	848	85°08'36.67"	21°46'02.30"
56	TR-56	2.6	24	848	85°08'36.07"	21°46'02.85"
57	TR-57	2.6	24	848	85°08'35.48"	21°46'03.40"
58	TR-58	2.6	24	847.6	85°08'34.89"	21°46'03.95"
59	TR-59	2.6	24	847.5	85°08'34.33"	21°46'04.53"
60	TR-60	2.5	24	847.5	85°08'33.80"	21°46'05.13"
61	TR-61	2.5	24	846	85°08'33.30"	21°46'05.75"
62	TR-62	2.5	24	845	85°08'32.83"	21°46'06.40"
63	TR-63	2.5	24	844	85°08'32.38"	21°46'07.05"
64	TR-64	2.5	24	842.5	85°08'31.93"	21°46'07.71"
65	TR-65	2.6	24	841	85°08'31.48"	21°46'08.37"
66	TR-66	4.5	24	839.7	85°08'31.03"	21°46'09.02"
67	TR-67	7.3	24	838	85°08'30.58"	21°46'09.68"
68	TR-68	8.4	24	836	85°08'30.13"	21°46'10.33"
69	TR-69	7.7	24	834.5	85°08'29.69"	21°46'10.98"
70	TR-70	7.3	24	831.7	85°08'29.24"	21°46'11.63"
71	TR-71	8.0	24	827.8	85°08'28.79"	21°46'12.28"
72	TR-72	8.3	24	824.5	85°08'28.35"	21°46'12.94"
73	TR-73	8.3	24	821.5	85°08'27.90"	21°46'13.59"
74	TR-74	5.6	24	821	85°08'27.45"	21°46'14.25"
75	TR-75	2.8	24	822	85°08'27.01"	21°46'14.91"
76	TR-76	2.5	24	822	85°08'26.61"	21°46'15.60"
77	TR-77	2.5	24	822	85°08'26.25"	21°46'16.30"
78	TR-78	2.5	24	822.4	85°08'25.92"	21°46'17.02"
79	TR-79	2.5	24	822	85°08'25.63"	21°46'17.75"
80	TR-80	3.4	24	821.8	85°08'25.37"	21°46'18.50"
81	TR-81	2.5	24	824.8	85°08'25.14"	21°46'19.24"
82	TR-82	2.5	24	827.8	85°08'24.91"	21°46'19.98"
83	TR-83	2.6	24	831	85°08'24.68"	21°46'20.72"
84	TR-84	2.5	24	834	85°08'24.45"	21°46'21.47"
85	TR-85	2.5	24	837	85°08'24.22"	21°46'22.21"
86	TR-86	2.6	24	840	85°08'23.98"	21°46'22.95"
87	TR-87	2.5	24	845	85°08'23.67"	21°46'23.66"
88	TR-88	2.5	24	849.6	85°08'23.32"	21°46'24.35"
89	TR-89	2.5	24	853.5	85°08'22.89"	21°46'25.01"
90	TR-90	2.5	24	855.5	85°08'22.41"	21°46'25.65"
91	TR-91	2.5	24	855.6	85°08'21.88"	21°46'26.25"
92	TR-92	2.5	24	854	85°08'21.30"	21°46'26.81"
93	TR-93	2.5	24	853	85°08'20.67"	21°46'27.32"
94	TR-94	5.4	24	850.7	85°08'20.00"	21°46'27.79"
95	TR-95	7.7	24	848	85°08'19.29"	21°46'28.20"
96	TR-96	8.0	24	846.7	85°08'18.55"	21°46'28.56"
97	TR-97	8.0	24	845.4	85°08'17.79"	21°46'28.86"
98	TR-98	8.0	23	844	85°08'17.00"	21°46'29.10"

99	TR-99	6.8	24	841.6	85°08'16.21"	21°46'29.29"
100	TR-100	7.6	24	836	85°08'15.42"	21°46'29.47"
101	TR-101	7.2	24	832	85°08'14.62"	21°46'29.66"
102	TR-102	6.2	24	828.5	85°08'13.81"	21°46'29.84"
103	TR-103	6.0	24	825	85°08'13.00"	21°46'30.03"
104	TR-104	7.0	24	823	85°08'12.18"	21°46'30.22"
105	TR-105	3.7	24	827	85°08'11.37"	21°46'30.41"
106	TR-106	2.5	24	830.8	85°08'10.57"	21°46'30.59"
107	TR-107	3.5	24	833.8	85°08'09.77"	21°46'30.77"
108	TR-108	2.5	24	839.6	85°08'08.98"	21°46'30.96"
109	TR-109	2.5	24	843.8	85°08'08.19"	21°46'31.14"
110	TR-110	3.0	24	845.6	85°08'07.38"	21°46'31.33"
111	TR-111	3.0	24	846.4	85°08'06.57"	21°46'31.51"
112	TR-112	2.5	24	847.5	85°08'05.77"	21°46'31.74"
113	TR-113	2.5	24	848	85°08'05.00"	21°46'32.02"
114	TR-114	2.5	24	848	85°08'04.25"	21°46'32.37"
115	TR-115	2.5	24	846.7	85°08'03.53"	21°46'32.76"
116	TR-116	2.5	24	845	85°08'02.85"	21°46'33.21"
117	TR-117	2.6	24	843.8	85°08'02.21"	21°46'33.71"
118	TR-118	2.6	24	842.8	85°08'01.61"	21°46'34.25"
119	TR-119	3.5	24	841.5	85°08'01.05"	21°46'34.84"
120	TR-120	6.0	19	840.6	85°08'00.51"	21°46'35.43"
121	TR-121	8.4		840	85°08'00.07"	21°46'35.91"

Six sub-trestles have not been taken in the above list.

B. PIPE CONVEYOR-2 (PC-2)

1	TR-01	2.5	12	824	85°07'47.87"	21°46'47.34"
2	TR-02	2.5	24	823	85°07'47.77"	21°46'47.71"
3	TR-03	2.5	24	820	85°07'47.58"	21°46'48.46"
4	TR-04	2.5	24	818	85°07'47.38"	21°46'49.22"
5	TR-05	2.5	24	817	85°07'47.19"	21°46'49.98"
6	TR-06	2.5	19	816	85°07'46.99"	21°46'50.73"
7	TR-07	3.8	20	816.50	85°07'46.84"	21°46'51.33"
8	TR-08	4.0	22	755	85°07'44.09"	21°47'01.74"
9	TR-09	16.0	24	737	85°07'43.88"	21°47'02.43"
10	TR-10	26.0	24	722.5	85°07'43.72"	21°47'03.18"
11	TR-11	29.0	24	714.7	85°07'43.62"	21°47'03.94"
12	TR-12	23.0	24	716.5	85°07'43.58"	21°47'04.71"
13	TR-13	16.5	24	718.6	85°07'43.60"	21°47'05.47"
14	TR-14	10.5	24	720	85°07'43.69"	21°47'06.24"
15	TR-15	2.5	24	723.7	85°07'43.82"	21°47'06.99"
16	TR-16	2.5	24	719	85°07'43.91"	21°47'07.75"
17	TR-17	2.5	24	714.9	85°07'43.97"	21°47'08.52"
18	TR-18	2.5	24	710.4	85°07'43.99"	21°47'09.29"
19	TR-19	2.5	24	706	85°07'43.97"	21°47'10.05"
20	TR-20	2.5	24	701.6	85°07'43.91"	21°47'10.82"
21	TR-21	2.5	24	697	85°07'43.81"	21°47'11.58"
22	TR-22	2.5	24	692.8	85°07'43.72"	21°47'12.34"
23	TR-23	2.5	24	688.4	85°07'43.62"	21°47'13.10"
24	TR-24	2.5	24	684	85°07'43.52"	21°47'13.86"
25	TR-25	2.5	24	679.5	85°07'43.42"	21°47'14.63"
26	TR-26	2.5	24	675	85°07'43.32"	21°47'15.39"
27	TR-27	2.5	24	670.7	85°07'43.22"	21°47'16.15"
28	TR-28	2.5	24	666	85°07'43.12"	21°47'16.91"

Sl. No.	Trestle No.	Trestle height (m)	Distance between trestles	Height AMSL	Longitude	Latitude
29	TR-29	2.5	24	661.9	85°07'43.02"	21°47'17.67"
30	TR-30	2.5	24	657.5	85°07'42.92"	21°47'18.43"
31	TR-31	2.5	24	653	85°07'42.82"	21°47'19.19"
32	TR-32	2.5	24	648.7	85°07'42.72"	21°47'19.95"
33	TR-33	3.0	24	643.7	85°07'42.63"	21°47'20.72"
34	TR-34	3.5	24	638.8	85°07'42.53"	21°47'21.48"
35	TR-35	4.0	24	633.9	85°07'42.43"	21°47'22.24"
36	TR-36	4.5	24	629	85°07'42.33"	21°47'23.00"
37	TR-37	5.5	24	625.5	85°07'42.23"	21°47'23.78"
38	TR-38	4.7	24	625.4	85°07'42.13"	21°47'24.55"
39	TR-39	3.7	24	627	85°07'42.08"	21°47'25.33"
40	TR-40	2.5	24	629.6	85°07'42.06"	21°47'26.11"
41	TR-41	2.5	24	630.8	85°07'42.09"	21°47'26.89"
42	TR-42	2.5	24	631.7	85°07'42.16"	21°47'27.67"
43	TR-43	2.5	24	633	85°07'42.26"	21°47'28.44"
44	TR-44	2.5	24	633.8	85°07'42.41"	21°47'29.21"
45	TR-45	2.5	24	634	85°07'42.59"	21°47'29.97"
46	TR-46	2.5	24	632.9	85°07'42.78"	21°47'30.73"
47	TR-47	2.5	24	631.5	85°07'42.97"	21°47'31.48"
48	TR-48	2.5	24	630	85°07'43.17"	21°47'32.24"
49	TR-49	3.0	24	629	85°07'43.36"	21°47'33.00"
50	TR-50	3.4	24	629.6	85°07'43.56"	21°47'33.77"
51	TR-51	2.5	24	633.4	85°07'43.75"	21°47'34.52"
52	TR-52	2.5	24	637	85°07'43.94"	21°47'35.27"
53	TR-53	2.5	24	640.5	85°07'44.13"	21°47'36.02"
54	TR-54	2.5	24	644	85°07'44.29"	21°47'36.78"
55	TR-55	2.5	24	646.7	85°07'44.41"	21°47'37.55"
56	TR-56	2.5	24	647.6	85°07'44.49"	21°47'38.32"
57	TR-57	2.5	24	646.6	85°07'44.53"	21°47'39.09"
58	TR-58	2.5	24	643.5	85°07'44.53"	21°47'39.86"
59	TR-59	2.5	24	639	85°07'44.49"	21°47'40.63"
60	TR-60	2.5	24	635	85°07'44.41"	21°47'41.40"
61	TR-61	2.5	24	632.5	85°07'44.30"	21°47'42.17"
62	TR-62	3.8	24	630	85°07'44.14"	21°47'42.94"
63	TR-63	4.3	24	631	85°07'43.96"	21°47'43.70"
64	TR-64	5.0	24	633	85°07'43.77"	21°47'44.46"
65	TR-65	5.0	24	637.4	85°07'43.59"	21°47'45.21"
66	TR-66	4.7	24	642	85°07'43.41"	21°47'45.96"
67	TR-67	2.5	24	647.6	85°07'43.23"	21°47'46.71"
68	TR-68	2.5	24	649	85°07'43.05"	21°47'47.47"
69	TR-69	2.5	24	648.7	85°07'42.87"	21°47'48.23"
70	TR-70	5.3	24	643.5	85°07'42.69"	21°47'48.98"
71	TR-71	9.2	24	635.6	85°07'42.51"	21°47'49.73"
72	TR-72	12.8	24	627.4	85°07'42.33"	21°47'50.47"
73	TR-73	10.0	24	625.5	85°07'42.15"	21°47'51.22"
74	TR-74	5.0	24	626	85°07'41.97"	21°47'51.97"
75	TR-75	3.5	24	624	85°07'41.78"	21°47'52.73"
76	TR-76	5.0	24	621	85°07'41.55"	21°47'53.48"
77	TR-77	4.5	24	622.8	85°07'41.29"	21°47'54.22"
78	TR-78	4.3	24	624	85°07'40.98"	21°47'54.95"
79	TR-79	4.0	24	626	85°07'40.66"	21°47'55.66"

Sl. No.	Trestle No.	Trestle height (m)	Distance between trestles	Height AMSL	Longitude	Latitude
80	TR-80	3.5	24	627.7	85°07'40.33"	21°47'56.38"
81	TR-81	3.2	24	629.5	85°07'40.00"	21°47'57.10"
82	TR-82	2.7	24	631	85°07'39.67"	21°47'57.81"
83	TR-83	3.5	24	631.8	85°07'39.34"	21°47'58.53"
84	TR-84	4.7	24	631	85°07'39.01"	21°47'59.24"
85	TR-85	6.8	24	629.7	85°07'38.68"	21°47'59.96"
86	TR-86	8.6	24	627.5	85°07'38.35"	21°48'00.68"
87	TR-87	10.2	24	628.6	85°07'38.02"	21°48'01.39"
88	TR-88	9.7	24	629.8	85°07'37.69"	21°48'02.11"
89	TR-89	9.2	24	631	85°07'37.36"	21°48'02.82"
90	TR-90	8.5	24	632	85°07'37.03"	21°48'03.54"
91	TR-91	8.3	24	632	85°07'36.70"	21°48'04.26"
92	TR-92	8.6	24	832	85°07'36.37"	21°48'04.97"
93	TR-93	8.9	24	632.7	85°07'36.04"	21°48'05.69"
94	TR-94	9.5	24	633	85°07'35.71"	21°48'06.41"
95	TR-95	10.2	24	633.6	85°07'35.38"	21°48'07.12"
96	TR-96	10.8	24	634	85°07'35.05"	21°48'07.84"
97	TR-97	10.7	24	634.6	85°07'34.72"	21°48'08.55"
98	TR-98	9.0	24	634.6	85°07'34.39"	21°48'09.27"
99	TR-99	9.0	24	631	85°07'34.06"	21°48'09.97"
100	TR-100	8.3	24	628	85°07'33.74"	21°48'10.68"
101	TR-101	6.8	24	625	85°07'33.41"	21°48'11.38"
102	TR-102	4.0	24	624.4	85°07'33.09"	21°48'12.09"
103	TR-103	3.0	24	623.8	85°07'32.76"	21°48'12.81"
104	TR-104	2.6	24	623	85°07'32.43"	21°48'13.53"
105	TR-105	3.0	24	622.7	85°07'32.09"	21°48'14.25"
106	TR-106	3.5	24	623.8	85°07'31.76"	21°48'14.97"
107	TR-107	2.5	24	628	85°07'31.44"	21°48'15.68"
108	TR-108	2.5	24	629.4	85°07'31.11"	21°48'16.39"
109	TR-109	2.5	24	629	85°07'30.78"	21°48'17.10"
110	TR-110	3.7	24	626.5	85°07'30.45"	21°48'17.82"
111	TR-111	6.4	24	622.8	85°07'30.12"	21°48'18.53"
112	TR-112	8.0	24	619.8	85°07'29.79"	21°48'19.25"
113	TR-113	9.2	24	616.9	85°07'29.46"	21°48'19.96"
114	TR-114	8.8	24	615.4	85°07'29.13"	21°48'20.68"
115	TR-115	8.4	24	614	85°07'28.80"	21°48'21.39"
116	TR-116	7.9	24	612.7	85°07'28.47"	21°48'22.11"
117	TR-117	8.2	24	610.6	85°07'28.14"	21°48'22.82"
118	TR-118	8.4	24	607.7	85°07'27.82"	21°48'23.53"
119	TR-119	6.3	24	606	85°07'27.49"	21°48'24.24"
120	TR-120	4.0	24	604.9	85°07'27.16"	21°48'24.95"
121	TR-121	3.3	24	603.6	85°07'26.83"	21°48'25.67"
122	TR-122	3.0	24	602	85°07'26.50"	21°48'26.38"
123	TR-123	2.8	24	601	85°07'26.17"	21°48'27.10"
124	TR-124	3.0	24	599.8	85°07'25.84"	21°48'27.82"
125	TR-125	3.5	24	600	85°07'25.51"	21°48'28.54"
126	TR-126	3.3	24	603	85°07'25.18"	21°48'29.25"
127	TR-127	4.8	24	606	85°07'24.85"	21°48'29.95"
128	TR-128	6.5	24	609	85°07'24.53"	21°48'30.66"
129	TR-129	8.3	24	611.7	85°07'24.21"	21°48'31.36"
130	TR-130	10.0	24	614.6	85°07'23.88"	21°48'32.07"

Sl. No.	Trestle No.	Trestle height (m)	Distance between trestles	Height AMSL	Longitude	Latitude
131	TR-131	10.2	24	617.5	85°07'23.56"	21°48'32.77"
132	TR-132	8.0	24	621	85°07'23.22"	21°48'33.48"
133	TR-133	8.7	24	619.7	85°07'22.85"	21°48'34.18"
134	TR-134	8.7	24	617	85°07'22.45"	21°48'34.85"
135	TR-135	7.5	24	614	85°07'22.02"	21°48'35.51"
136	TR-136	6.0	24	611	85°07'21.56"	21°48'36.14"
137	TR-137	4.8	24	608	85°07'21.06"	21°48'36.75"
138	TR-138	3.5	24	605	85°07'20.54"	21°48'37.34"
139	TR-139	3.8	24	600	85°07'20.02"	21°48'37.94"
140	TR-140	4.6	24	595	85°07'19.50"	21°48'38.53"
141	TR-141	5.4	24	589.8	85°07'18.98"	21°48'39.12"
142	TR-142	6.2	24	584.7	85°07'18.46"	21°48'39.72"
143	TR-143	4.5	24	581.8	85°07'17.94"	21°48'40.31"
144	TR-144	2.5	24	579.5	85°07'17.42"	21°48'40.90"
145	TR-145	2.5	24	575	85°07'16.90"	21°48'41.50"
146	TR-146	2.5	24	570.7	85°07'16.38"	21°48'42.09"
147	TR-147	2.5	24	566	85°07'15.86"	21°48'42.68"
148	TR-148	2.5	24	562	85°07'15.34"	21°48'43.28"
149	TR-149	4.0	24	556	85°07'14.82"	21°48'43.87"
150	TR-150	7.7	24	548	85°07'14.30"	21°48'44.46"
151	TR-151	10.0	24	541	85°07'13.78"	21°48'45.06"
152	TR-152	8.8	24	538	85°07'13.26"	21°48'45.65"
153	TR-153	5.7	24	537.8	85°07'12.78"	21°48'46.29"
154	TR-154	4.0	24	537	85°07'12.35"	21°48'46.95"
155	TR-155	3.0	24	535	85°07'11.99"	21°48'47.65"
156	TR-156	2.9	24	532	85°07'11.68"	21°48'48.37"
157	TR-157	3.6	24	528.8	85°07'11.44"	21°48'49.11"
158	TR-158	3.5	24	536	85°07'11.25"	21°48'49.86"
159	TR-159	3.0	24	528.8	85°07'11.14"	21°48'50.63"
160	TR-160	2.0	24	521.5	85°07'11.09"	21°48'51.41"
161	TR-161	1.3	24	518.7	85°07'11.10"	21°48'52.18"
162	TR-162	1.6	24	516	85°07'11.19"	21°48'52.95"
163	TR-163	3.9	24	511.4	85°07'11.33"	21°48'53.71"
164	TR-164	2.0	24	508	85°07'11.54"	21°48'54.45"
165	TR-165	2.5	23	503.7	85°07'11.81"	21°48'55.17"
166	TR-166	2.5	24	498.6	85°07'12.09"	21°48'55.89"
167	TR-167	3.4	24	493.4	85°07'12.37"	21°48'56.61"
168	TR-168	3.8	24	488	85°07'12.66"	21°48'57.33"
169	TR-169	4.4	24	483	85°07'12.94"	21°48'58.05"
170	TR-170	4.8	24	478	85°07'13.23"	21°48'58.76"
171	TR-171	5.3	24	473	85°07'13.51"	21°48'59.48"
172	TR-172	6.0	24	467.8	85°07'13.79"	21°49'00.20"
173	TR-173	6.3	24	462.7	85°07'14.08"	21°49'00.92"
174	TR-174	6.7	24	457.5	85°07'14.36"	21°49'01.64"
175	TR-175	7.3	24	452.4	85°07'14.65"	21°49'02.36"
176	TR-176	7.7	24	447	85°07'14.93"	21°49'03.07"
177	TR-177	8.2	24	442	85°07'15.21"	21°49'03.79"
178	TR-178	7.5	24	438.5	85°07'15.50"	21°49'04.52"
179	TR-179	4.8	24	439	85°07'15.79"	21°49'05.25"
180	TR-180	3.8	24	438.6	85°07'16.08"	21°49'05.98"
181	TR-181	4.0	24	437	85°07'16.37"	21°49'06.71"

Sl. No.	Trestle No.	Trestle height (m)	Distance between trestles	Height AMSL	Longitude	Latitude
182	TR-182	4.5	24	435.6	85°07'16.65"	21°49'07.44"
183	TR-183	4.4	24	434.5	85°07'16.94"	21°49'08.17"
184	TR-184	5.2	24	432.5	85°07'17.23"	21°49'08.90"
185	TR-185	6.4	24	430	85°07'17.54"	21°49'09.62"
186	TR-186	5.6	24	428.6	85°07'17.91"	21°49'10.32"
187	TR-187	3.5	24	428	85°07'18.34"	21°49'10.98"
188	TR-188	2.5	24	426.5	85°07'18.82"	21°49'11.62"
189	TR-189	2.5	24	424	85°07'19.35"	21°49'12.21"
190	TR-190	2.5	24	421	85°07'19.94"	21°49'12.76"
191	TR-191	2.5	24	418.7	85°07'20.57"	21°49'13.27"
192	TR-192	2.5	24	417.5	85°07'21.24"	21°49'13.74"
193	TR-193	4.8	24	416	85°07'21.95"	21°49'14.14"
194	TR-194	6.6	24	415.7	85°07'22.70"	21°49'14.50"
195	TR-195	6.8	24	417	85°07'23.45"	21°49'14.84"
196	TR-196	8.2	24	417	85°07'24.95"	21°49'15.51"
197	TR-197	10.0	24	417	85°07'24.20"	21°49'15.18"
198	TR-198	11.3	24	416.6	85°07'25.70"	21°49'15.85"
199	TR-199	13.7	28	413.5	85°07'26.45"	21°49'16.19"
200	TR-200	14.0	28	412.6	85°07'27.46"	21°49'16.64"
201	TR-201	12.8	26	414.4	85°07'29.21"	21°49'17.56"
202	TR-202	12.0	24	411.0	85°07'30.09"	21°49'18.26"
203	TR-203	9.8	24	414.0	85°07'22.80"	21°49'14.70"
204	TR-204	5.4	24	420.0	85°07'23.85"	21°49'14.64"
205	TR-205	7.2	24	418.0	85°07'22.40"	21°49'14.60"
206	TR-206	7.5	24	421.0	85°07'23.55"	21°49'14.74"
207	TR-207	7.2	24	423.0	85°07'23.85"	21°49'14.84"
208	TR-208	6.1	24	425.0	85°07'23.95"	21°49'14.94"
209	TR-208	7.2	24	424.0	85°07'24.50"	21°49'15.50"
210	TR-210	6.9	24	428.0	85°07'28.65"	21°49'16.74"
211	TR-211	5.4	24	429.0	85°07'28.85"	21°49'16.84"
212	TR-212	3.6	24	431.0	85°07'28.85"	21°49'16.84"
213	TR-213	2.9	24	432.0	85°07'28.75"	21°49'16.84"
214	TR-214	2.6	24	435.0	85°07'29.80"	21°49'16.20"
215	TR-215	2.6	24	437.0	85°07'29.65"	21°49'16.24"
216	TR-216	2.4	20	439.0	85°07'30.55"	21°49'17.64"
217	TR-217	2.4	19	441.0	85°07'30.65"	21°49'17.74"
218	TR-218	10.2	6	437.0	85°07'30.65"	21°49'17.74"
219	TR-219	10.4	-	435.0	85°07'30.36"	21°49'18.53"

LAYOUT PLAN



SCALE - 1:50,000

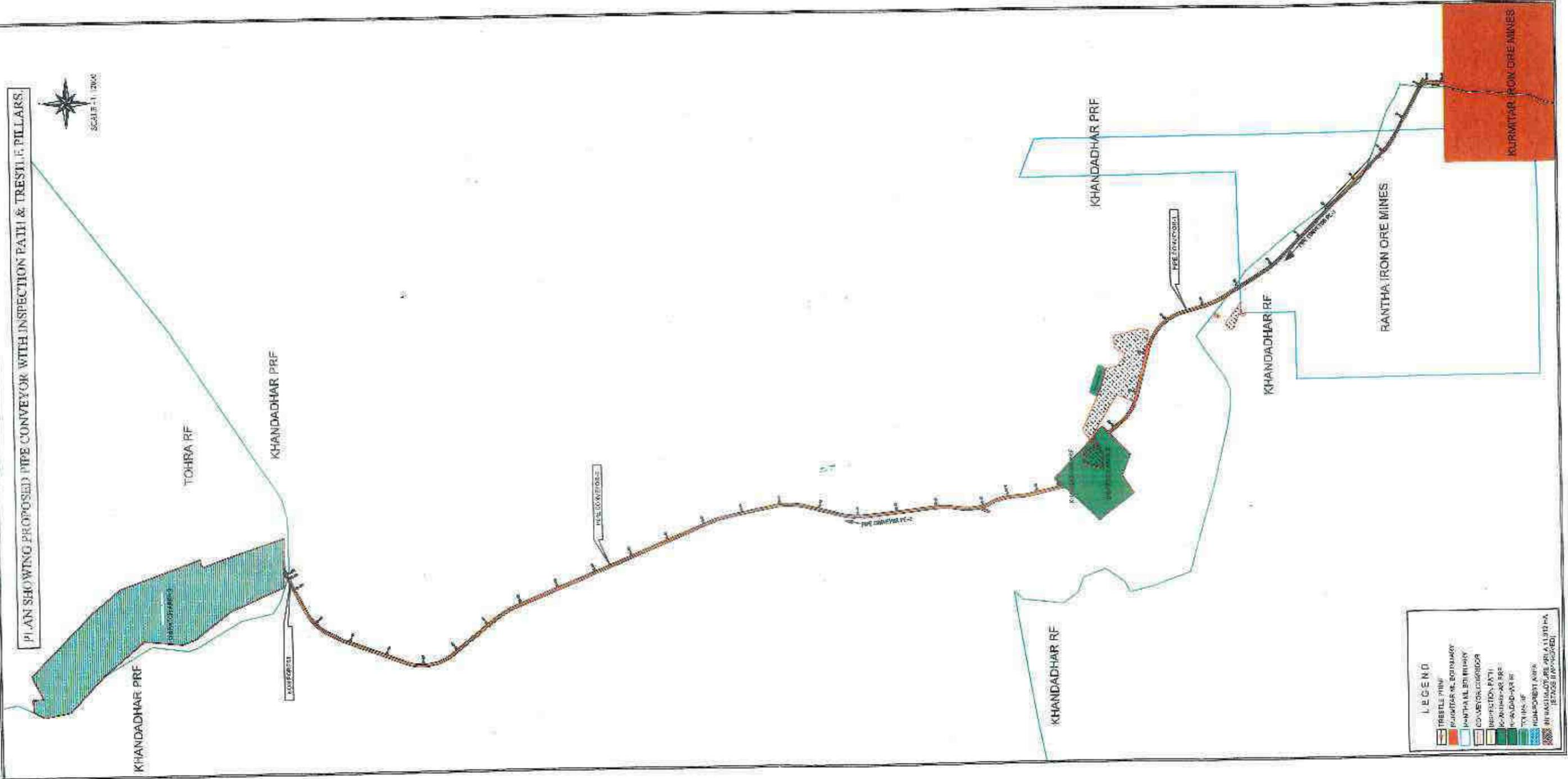


Legend

Black dot	Station	Blue circle	ELSV AREA
Red dot	Yr-2018	Red circle	ELSV AREA
Green dot	Yr-2019	Red square	ELSV AREA
Blue dot	Yr-2020	Red diamond	ELSV AREA
Black line	RANGE BOUNDARY	Red star	ELSV AREA
Black line	DIVISION BOUNDARY	Red cross	ELSV AREA

J. K. Mishra
J. K. Mishra
 Asst. Manager (Survey)

Countersigned
[Signature]
Divisional Forest Officer & Wildlife Warden
BUXAR DIVISION



J. K. Mishra
 J. K. Mishra
 Manager (Survey)

Countersigned
[Signature]
 Divisional Forest Officer,
 Wildlife Warden
 BONAI DIVISION



DESPATCH AREA-I

EP3
(EP-II)

EP2

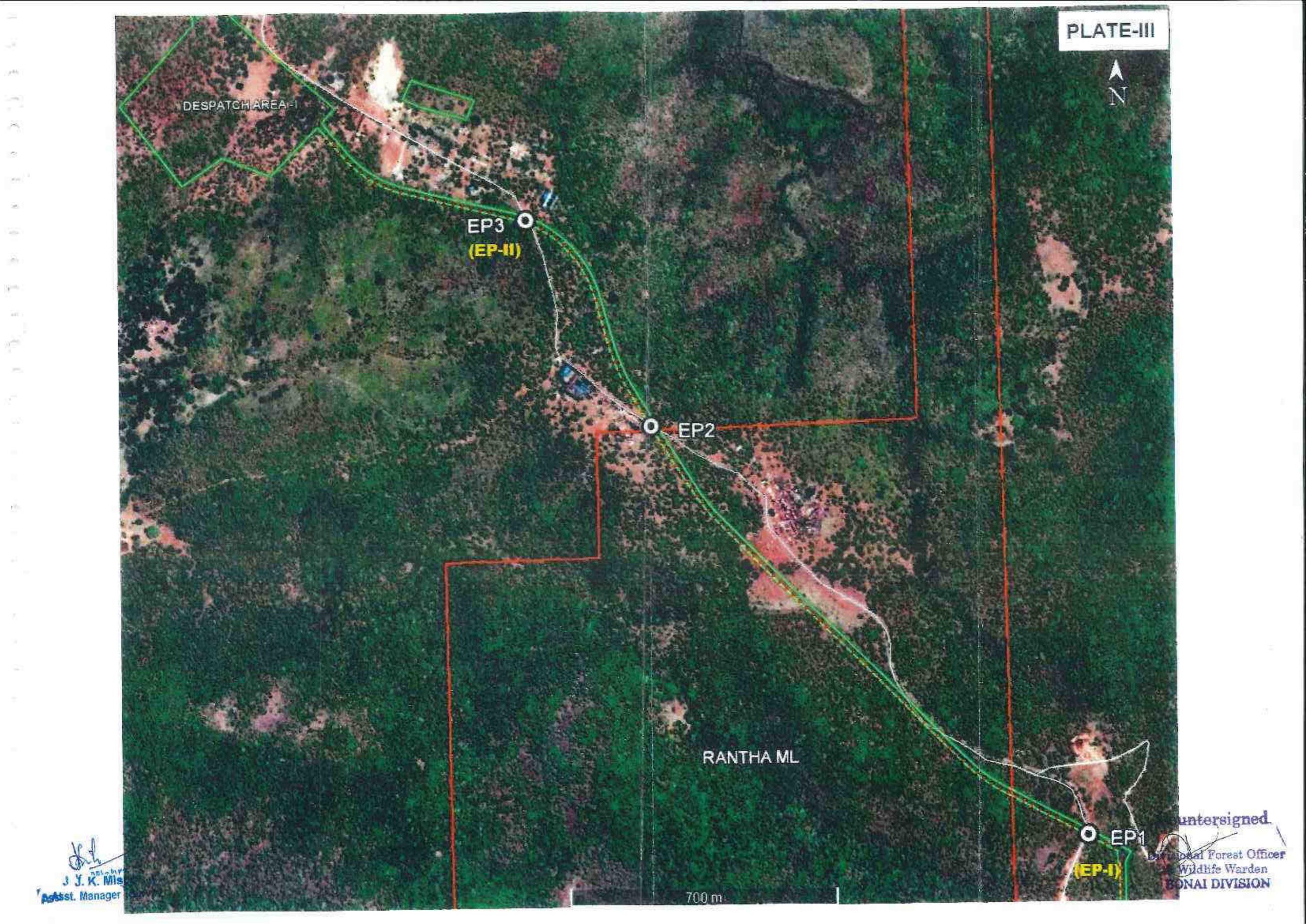
RANTHA ML

EP1
(EP-I)

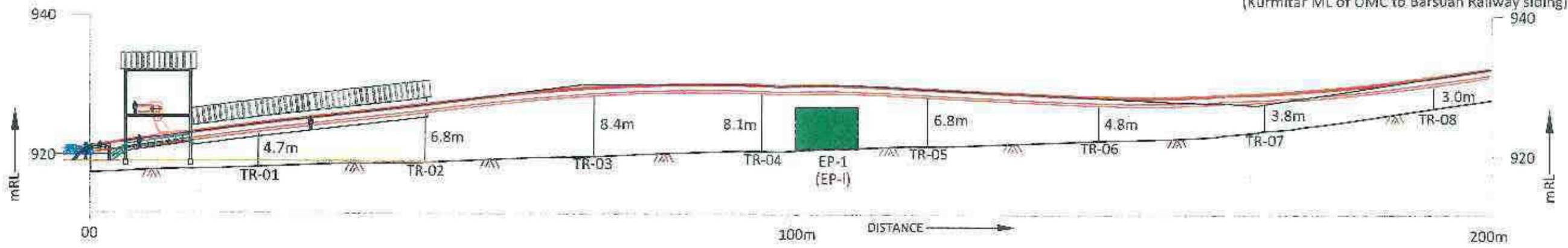
700 m

J. J. K. Misra
J. J. K. Misra
Asstt. Manager

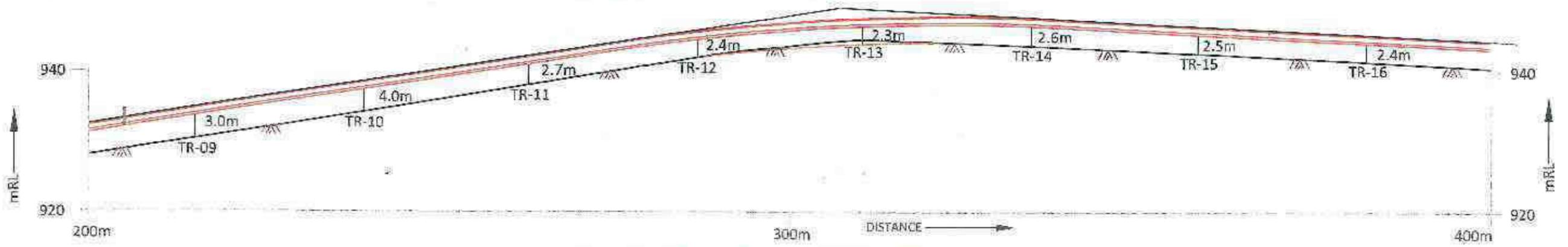
[Signature]
undersigned
Wildlife Warden
BONAI DIVISION



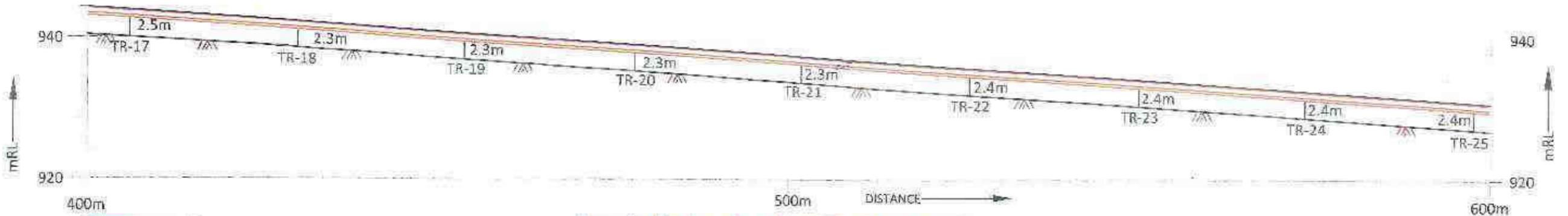
PIPE CONVEYOR - 1
(Kurmitar ML of OMC to Barsuan Railway siding)



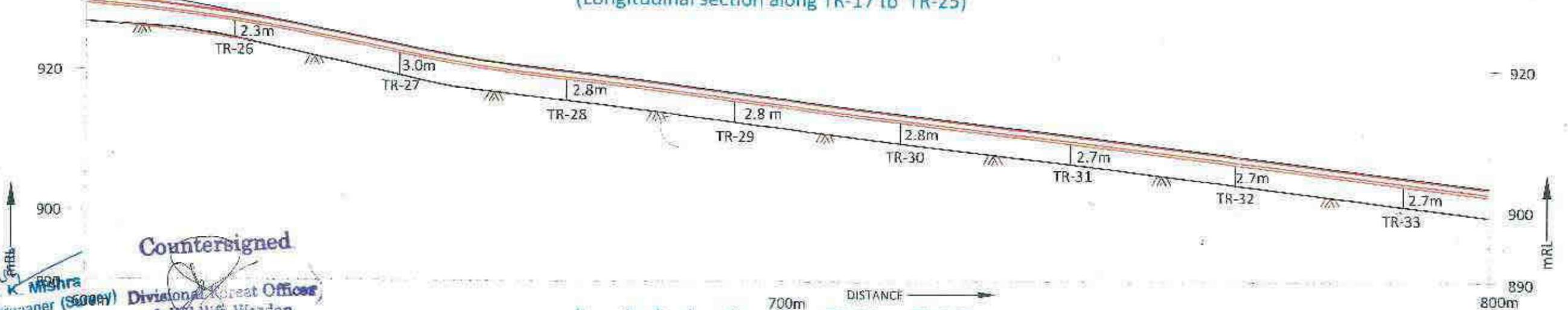
(Longitudinal section along TR-1 to TR-8)



(Longitudinal section along TR-9 to TR-16)



(Longitudinal section along TR-17 to TR-25)

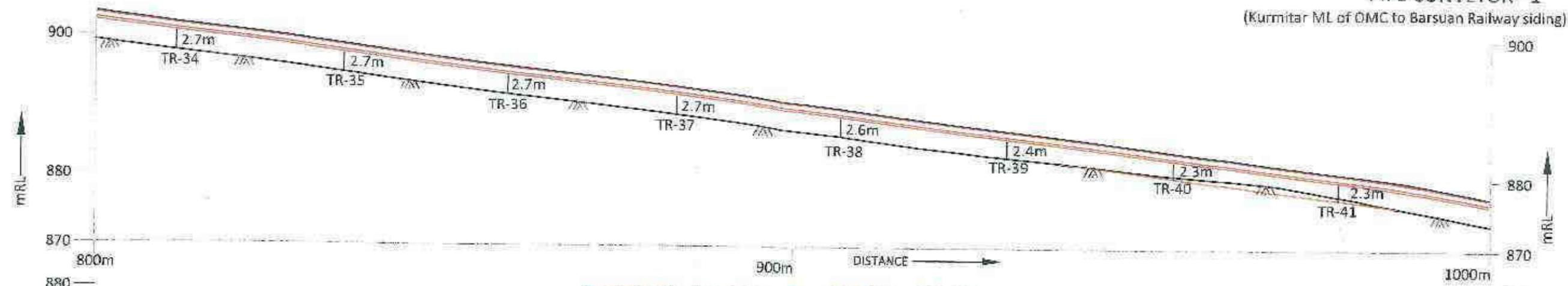


(Longitudinal section along TR-26 to TR-33)

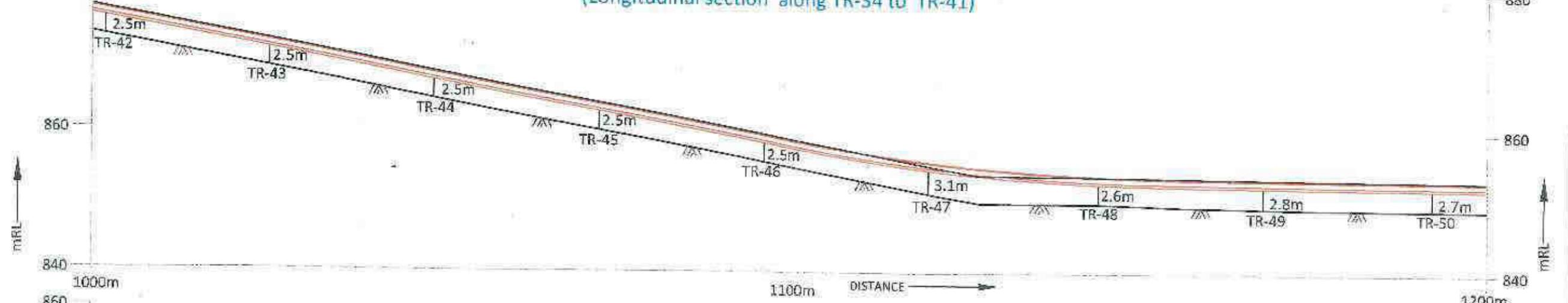
Countersigned

 I. K. Mishra
 Asst. Manager (Stores)
 Divisional Forest Officer & Wildlife Warden
 BONAI DIVISION

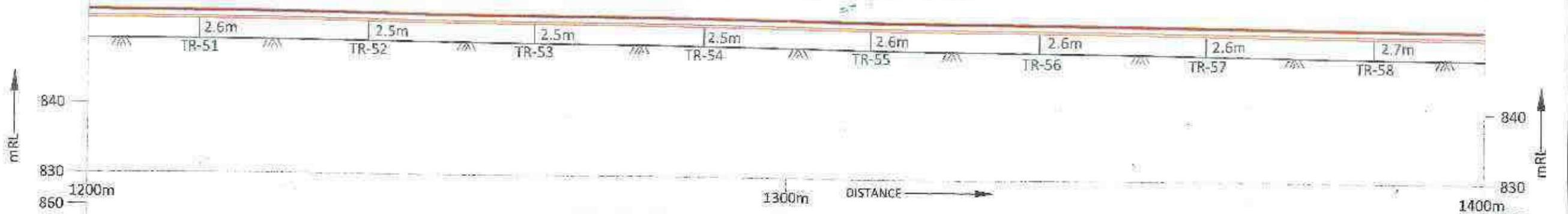
PIPE CONVEYOR - 1
(Kurmitar ML of OMC to Barsuan Railway siding)



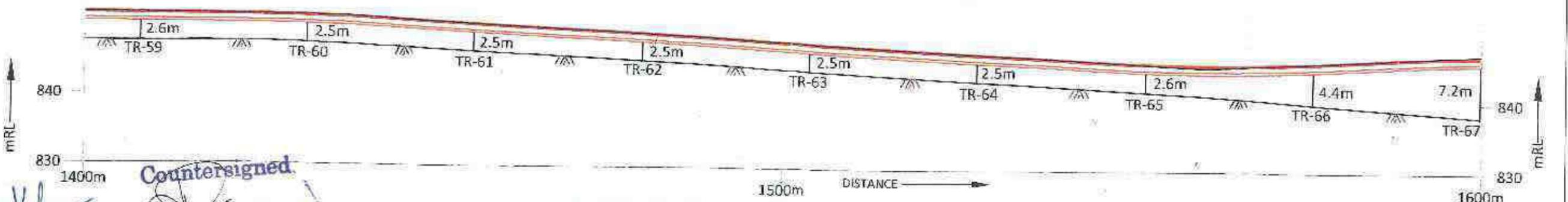
(Longitudinal section along TR-34 to TR-41)



(Longitudinal section along TR-42 to TR-50)



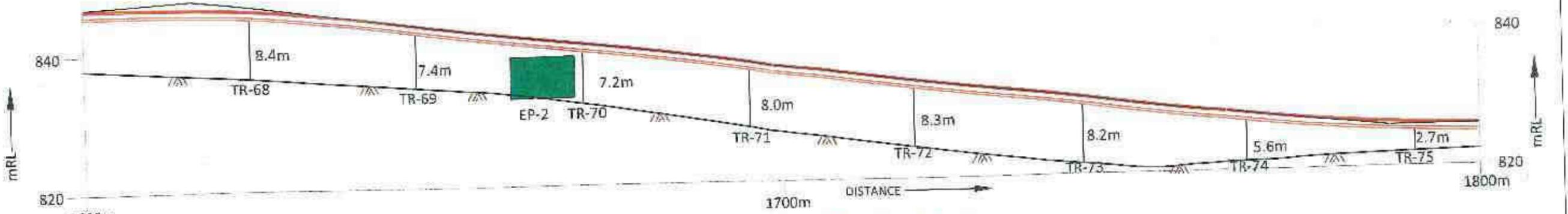
(Longitudinal section along TR-51 to TR-58)



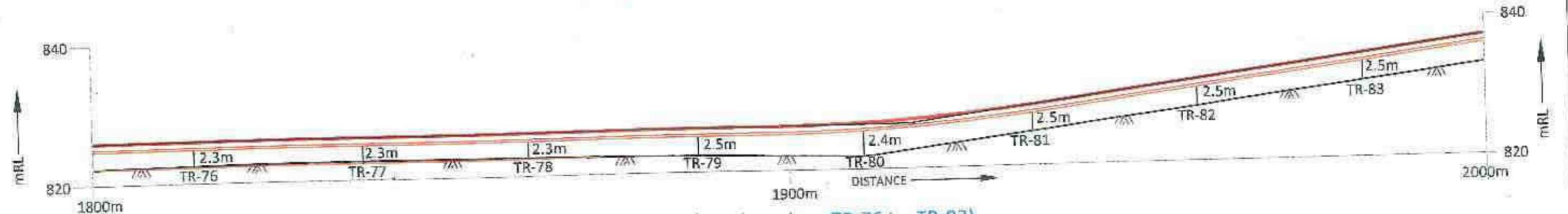
(Longitudinal section along TR-59 to TR-67)

J. K. Mishra
Asst. Manager (Survey)
Countersigned
[Signature]
Divisional Forest Officer
Wildlife Warden
RONAI DIVISION

PIPE CONVEYOR - 1
(Kurmitar ML of OMC to Barsuan Railway siding)



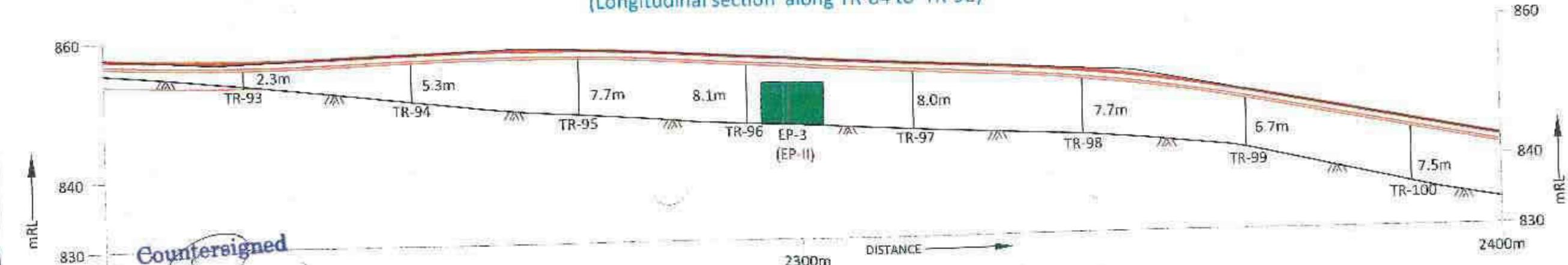
(Longitudinal section along TR-68 to TR-75)



(Longitudinal section along TR-76 to TR-83)



(Longitudinal section along TR-84 to TR-92)

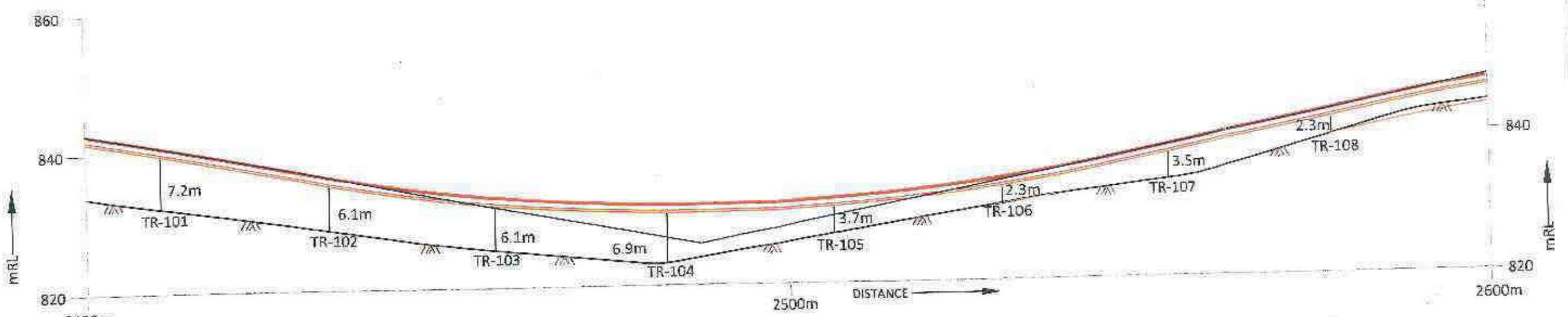


(Longitudinal section along TR-93 to TR-100)

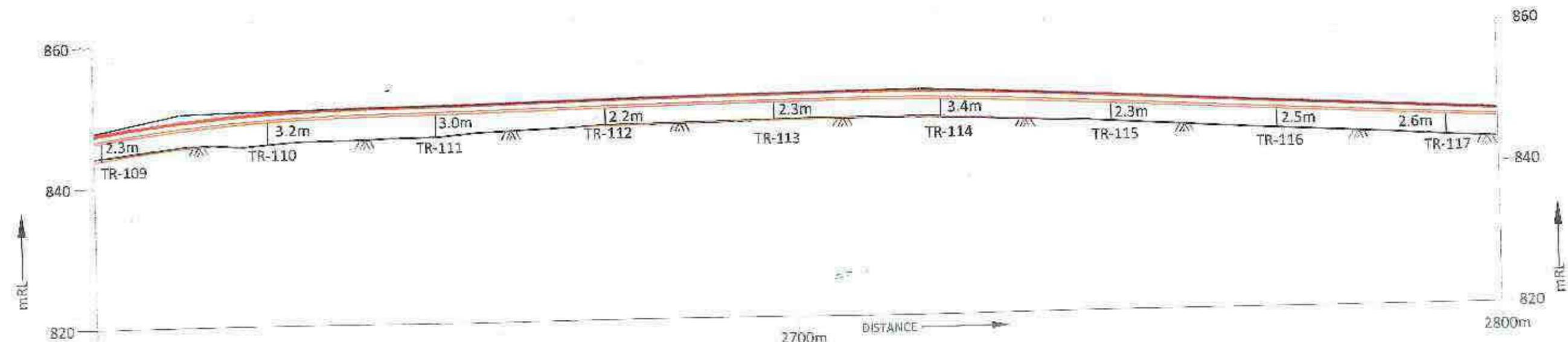
Countersigned
J. K. Mishra
 Asst. Manager (Survey) Divisional Forest Officer
 & Wildlife Warden
 BONAI DIVISION

Drng. No. - 3

PIPE CONVEYOR - 1
(Kurmitar ML of DMC to Barsuan Railway siding)



(Longitudinal section along TR-101 to TR-108)



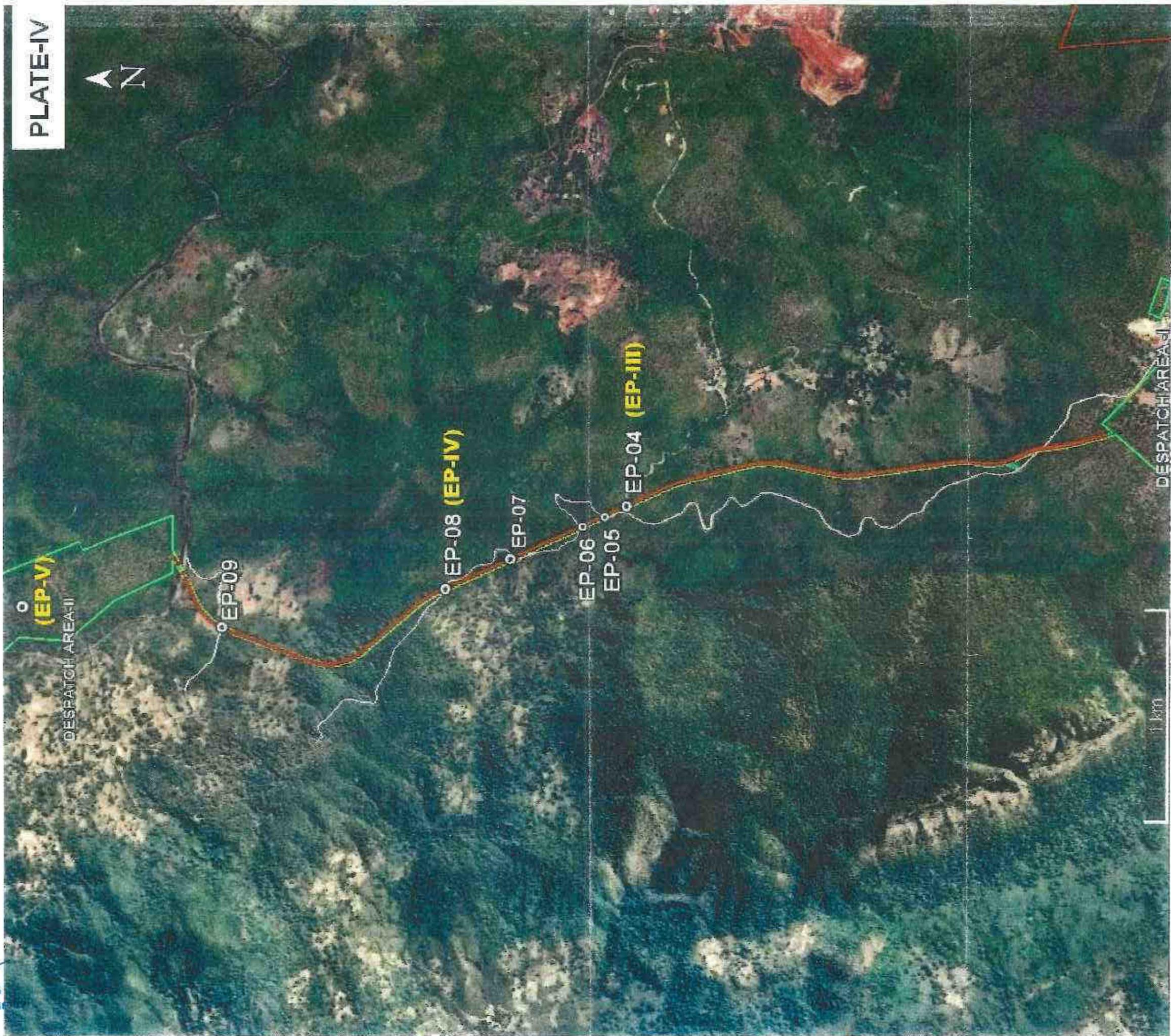
(Longitudinal section along TR-109 to TR-117)



(Longitudinal section along TR-118 to TR-121)

Ass. Manager (Survey) **Mishra**
 Countersigned
 Divisional Forest Officer
 Wildlife Warden
 BONAI DIVISION

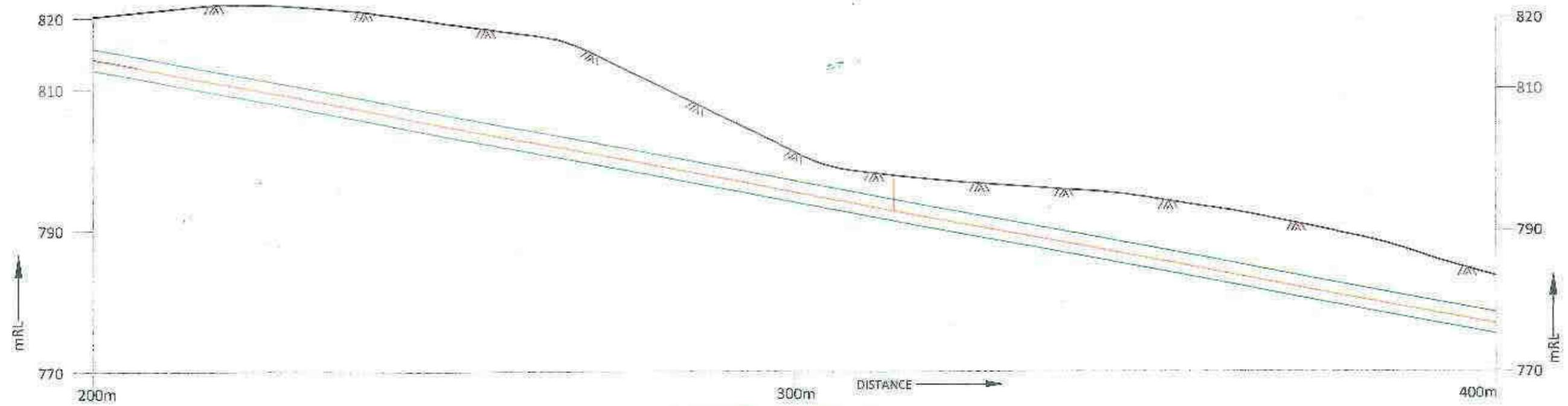
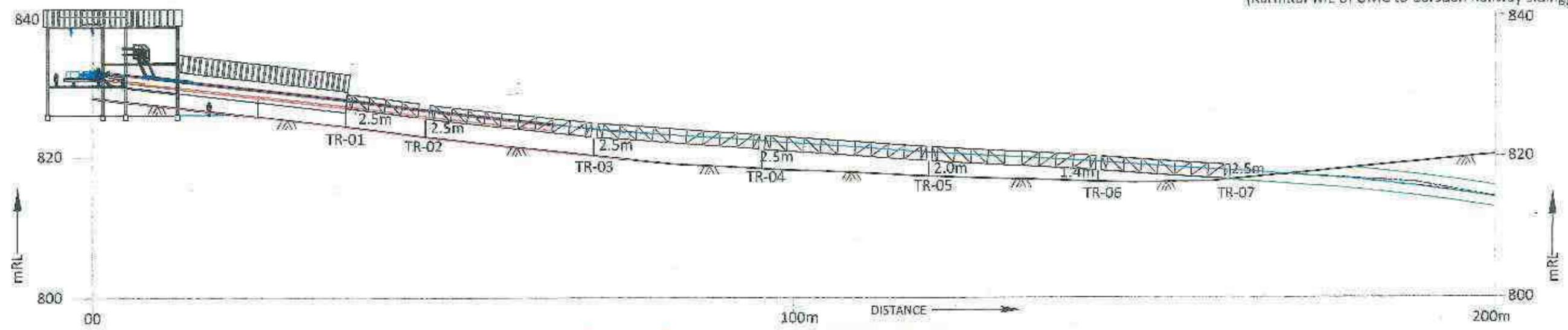
PLATE-IV



J.K.
J. K. Mishra
Asst. Manager (Sup)

Countersigned
[Signature]
Divisional Forest Officer
& Wildlife Warden
BONAI DIVISION

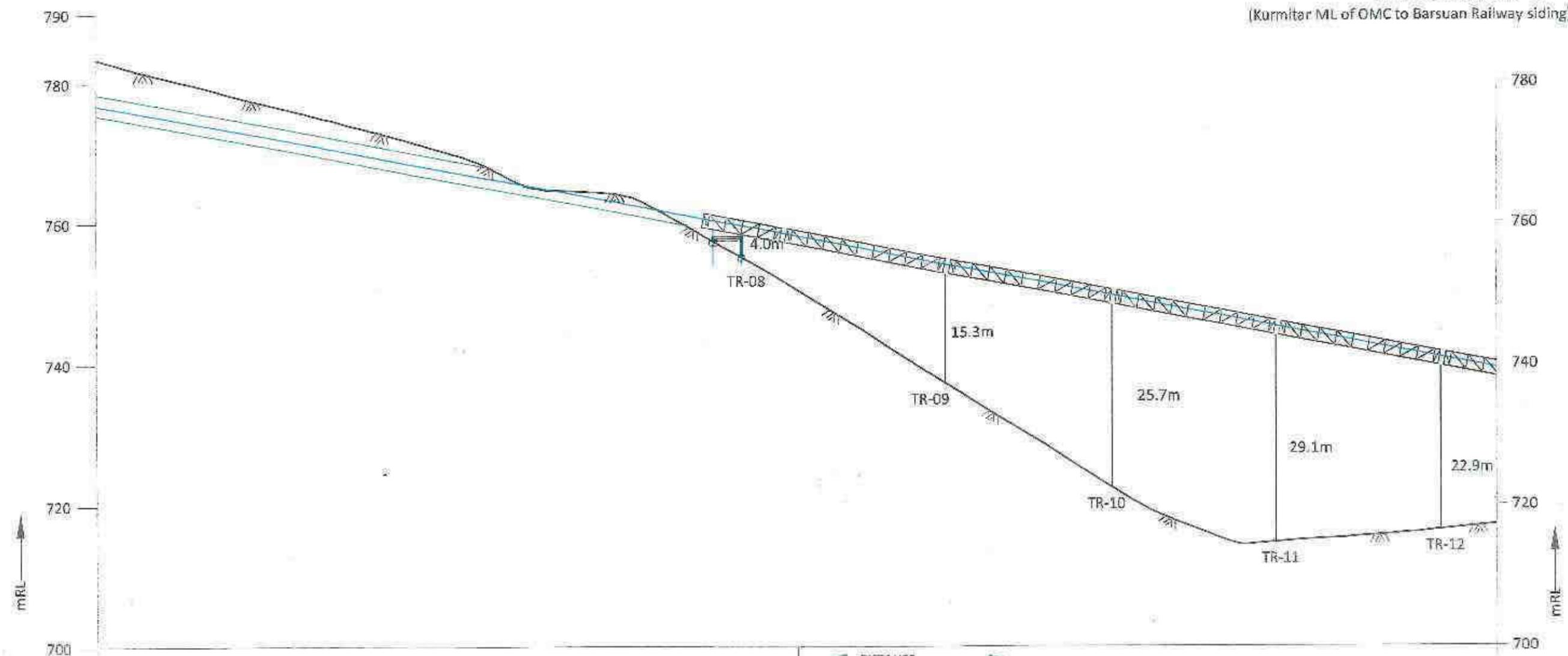
PIPE CONVEYOR - 2
(Kurmitar ML of OMC to Barsuan Railway siding)



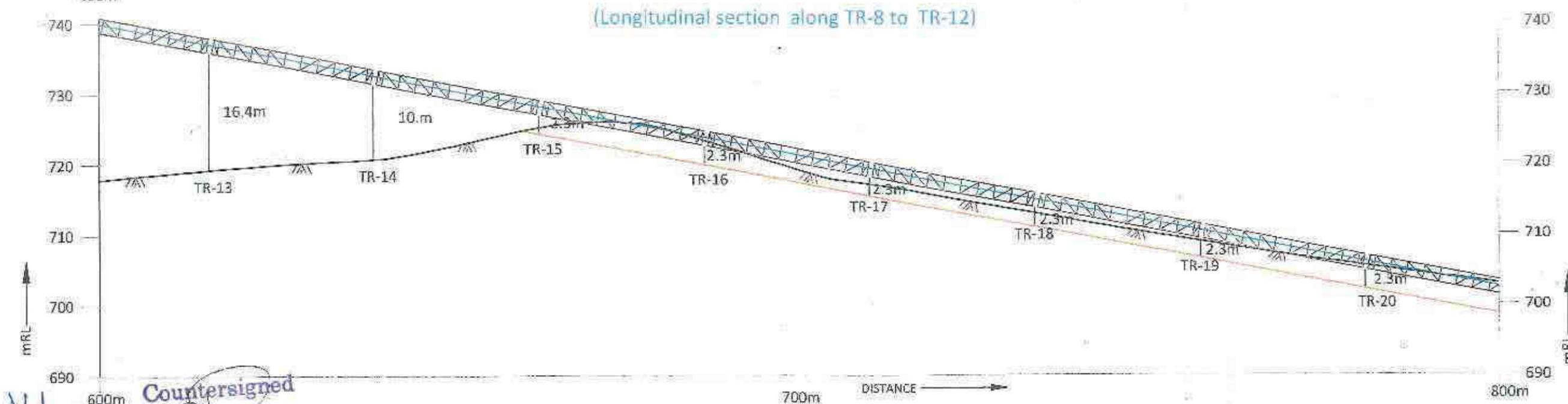
Countersigned
 J. K. Mishra
 Asst. Manager (Survey)
 Divisional Forest Officer
 & Wildlife Warden
 BONAI DIVISION

PIPE CONVEYOR - 2

(Kurmitar ML of OMC to Barsuan Railway siding)



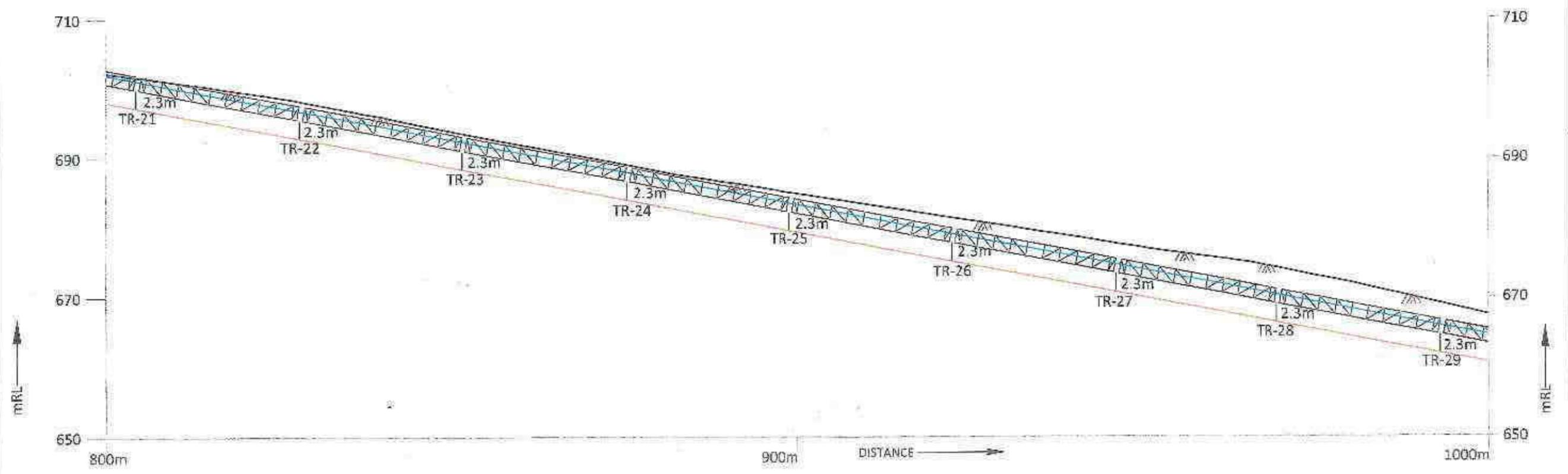
(Longitudinal section along TR-8 to TR-12)



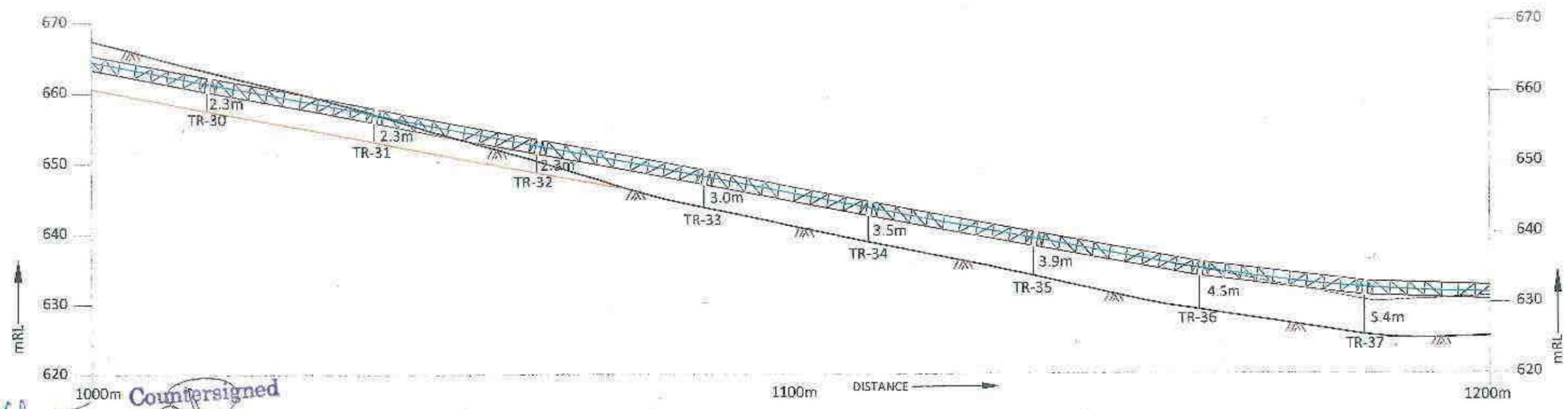
(Longitudinal section along TR-13 to TR-20)

J. K. Mishra
Asst. Manager (Survey)
Countersigned
Divisional Forest Officer
& Wildlife Warden
BONAI DIVISION

PIPE CONVEYOR - 2
(Kurmitar ML of OMC to Barsuan Railway siding)



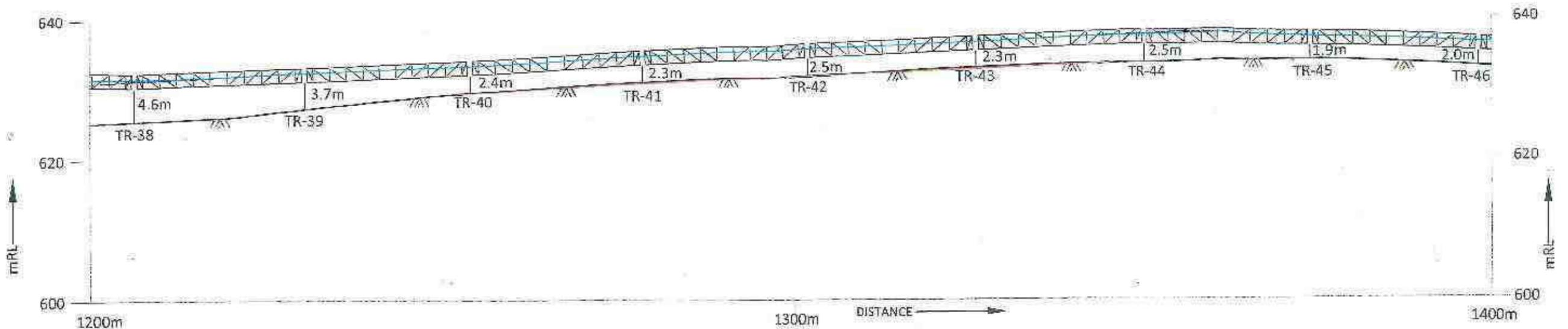
(Longitudinal section along TR-21 to TR-29)



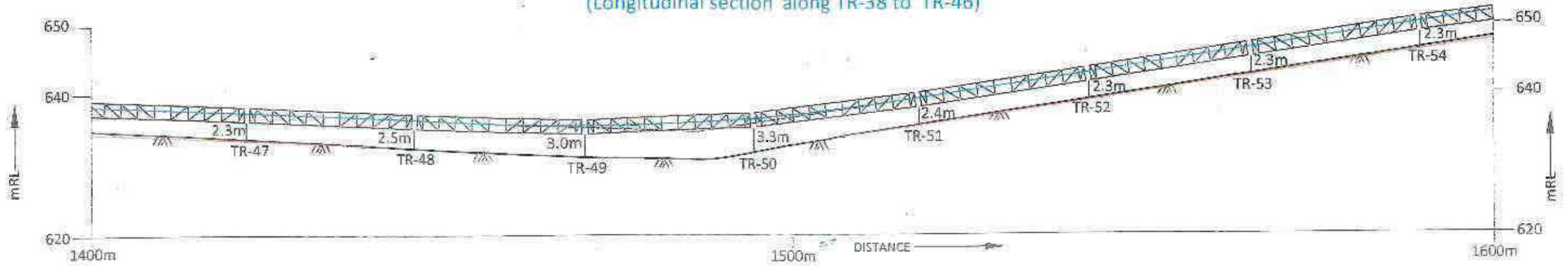
(Longitudinal section along TR-30 to TR-37)


 K. Mishra
 Asst. Manager (Survey)
 Countersigned
 Divisional Forest Officer
 & Wildlife Warden
 BONAI DIVISION

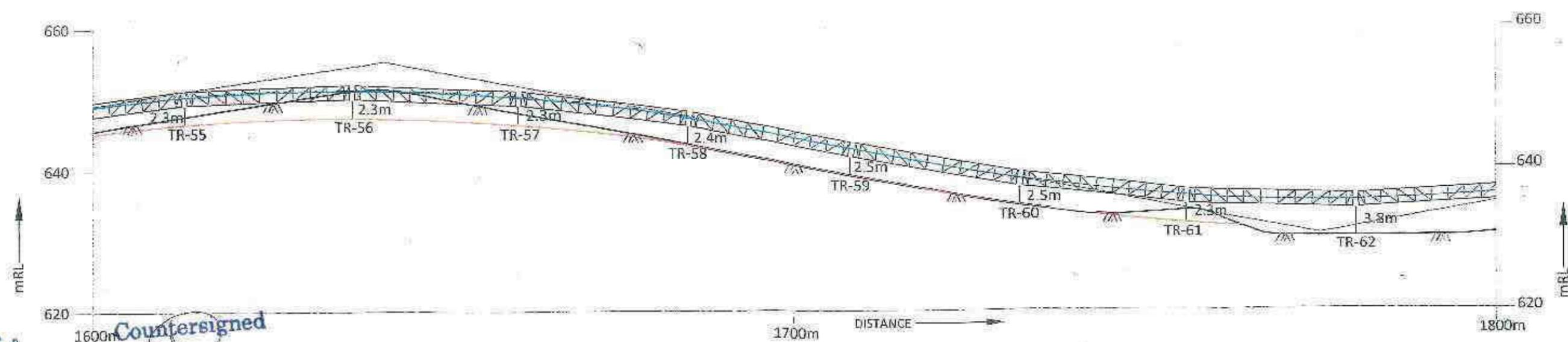
PIPE CONVEYOR - 2
 (Kurmitar ML of OMC to Barsuan Railway siding)



(Longitudinal section along TR-38 to TR-46)



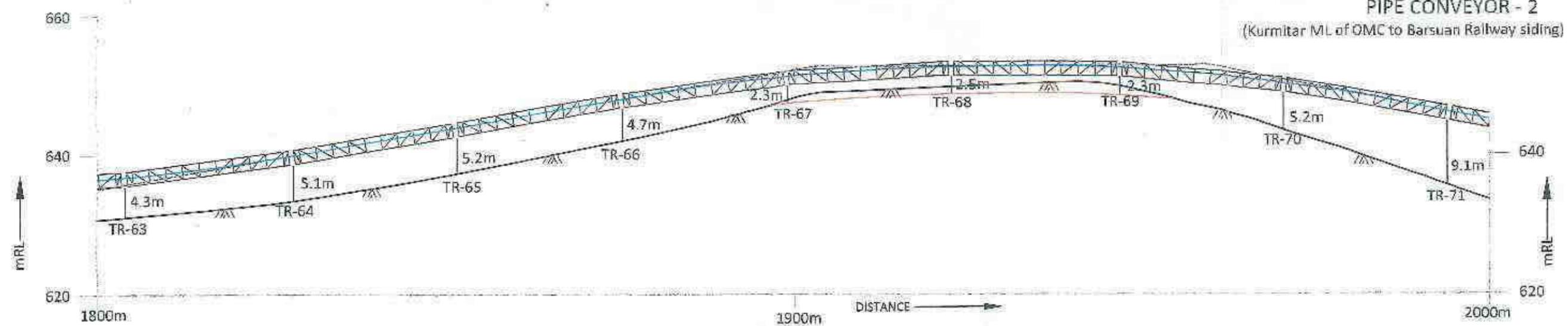
(Longitudinal section along TR-47 to TR-54)



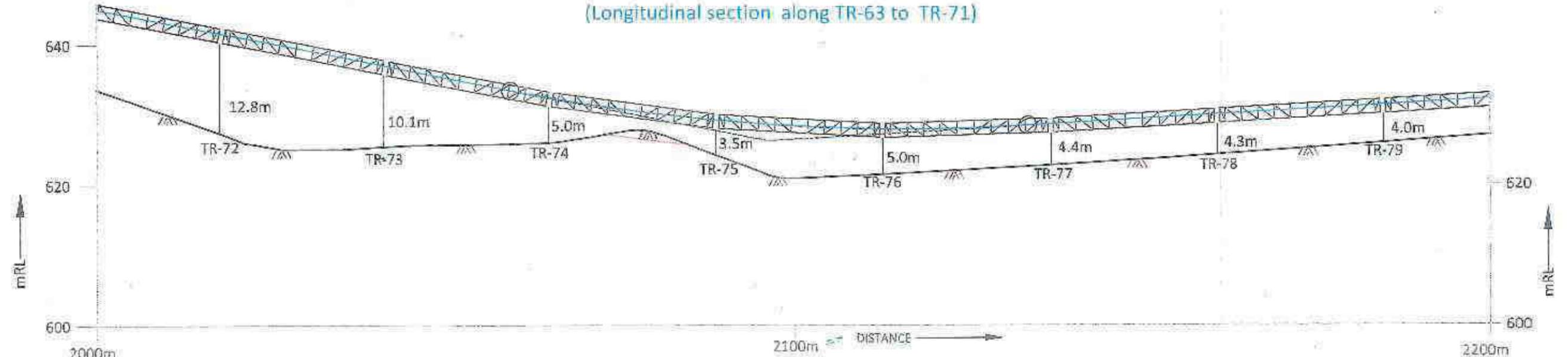
(Longitudinal section along TR-55 to TR-62)

Countersigned
 J. K. Mishra
 Asst. Manager (Survey)
 Divisional Forest Officer
 & Survey Officer
 Forest Division

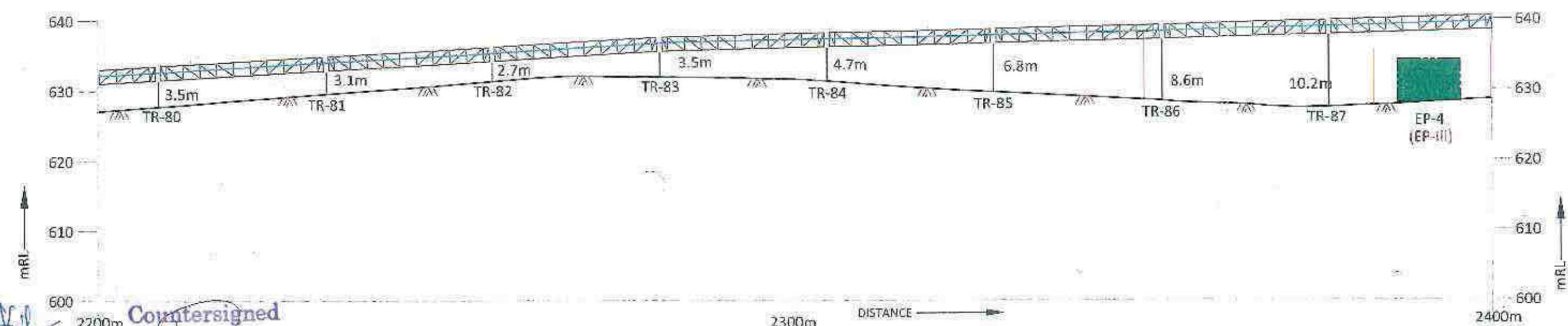
PIPE CONVEYOR - 2
(Kurmitar ML of OMC to Barsuan Railway siding)



(Longitudinal section along TR-63 to TR-71)



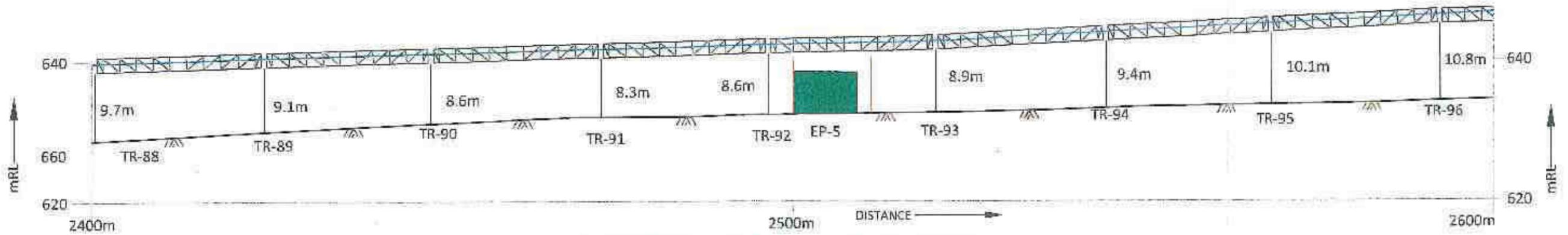
(Longitudinal section along TR-72 to TR-79)



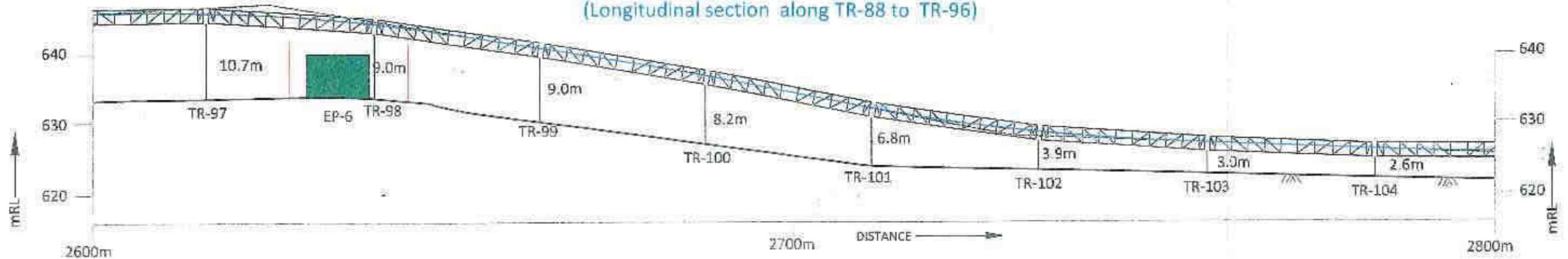
(Longitudinal section along TR-80 to TR-87)

J. K. Mishra
Asst. Manager (Survey)
Countersigned
Divisional Forest Officer
BONAI DIVISION

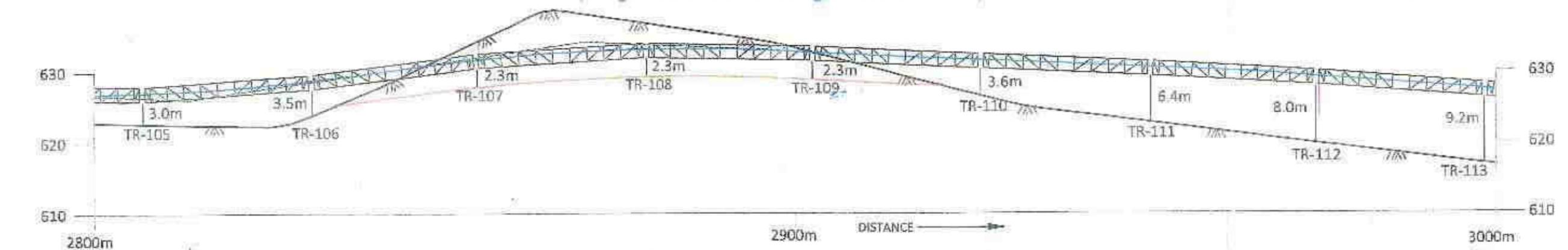
PIPE CONVEYOR - 2
(Kurmitar ML of OMC to Barsuan Railway siding)



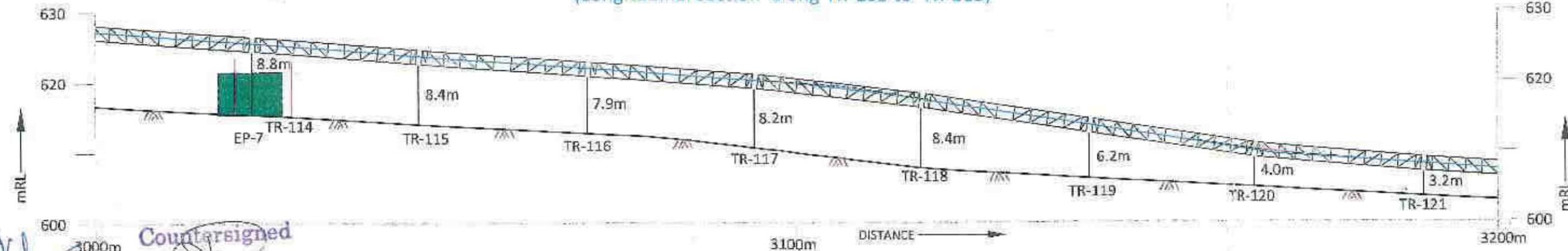
(Longitudinal section along TR-88 to TR-96)



(Longitudinal section along TR-97 to TR-104)



(Longitudinal section along TR-105 to TR-113)

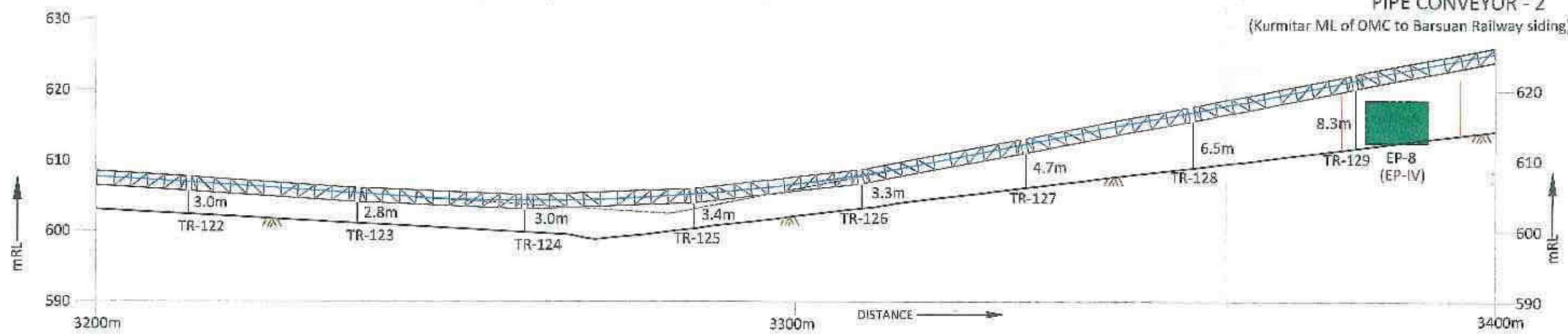


(Longitudinal section along TR-114 to TR-121)

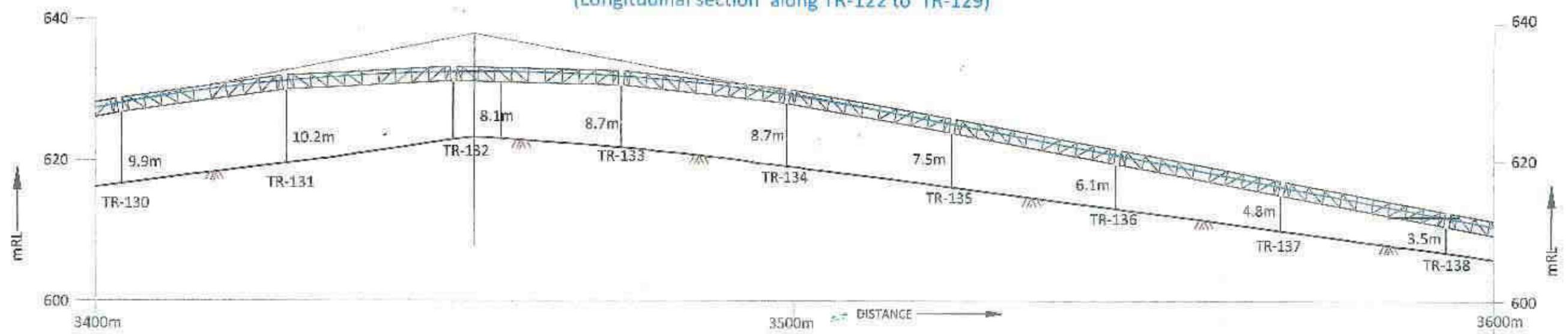

 J. K. Mishra
 Asst. Manager (Survey)
 Countersigned

 Divisional Forest Officer
 & Forest Warden
 BONAI DIVISION

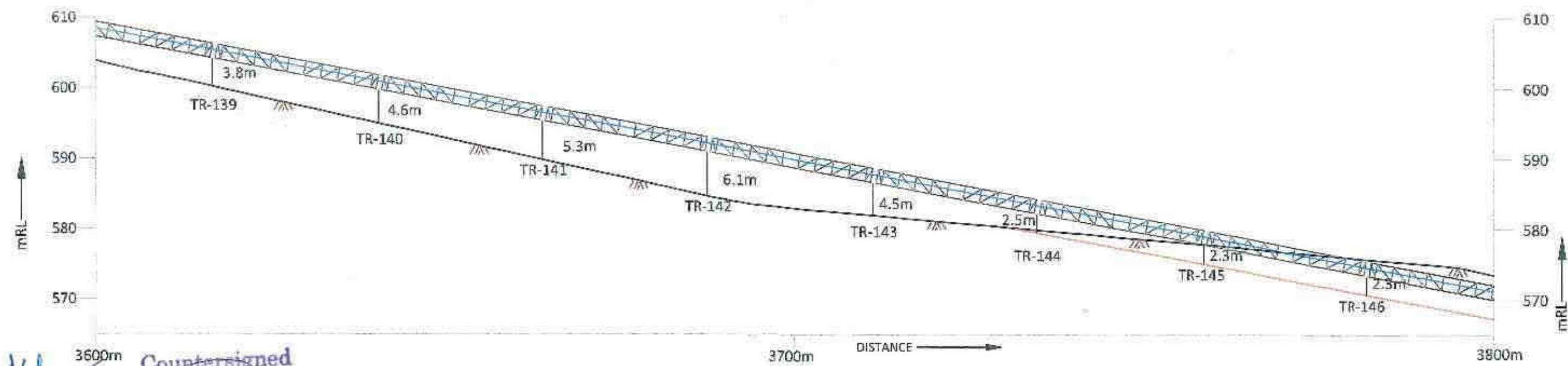
PIPE CONVEYOR - 2
(Kurmitar ML of DMC to Barsuan Railway siding)



(Longitudinal section along TR-122 to TR-129)



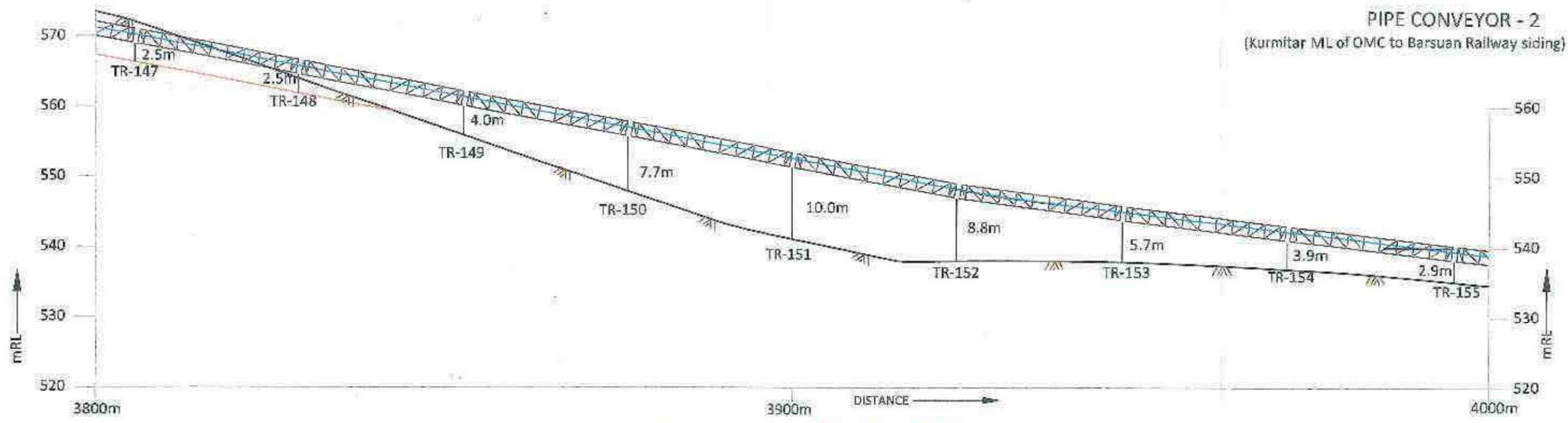
(Longitudinal section along TR-130 to TR-138)



(Longitudinal section along TR-139 to TR-146)

J. K. Mishra
Asst. Manager (Survey)
Countersigned
[Signature]
Divisional Forest Officer
BONAI DIVISION

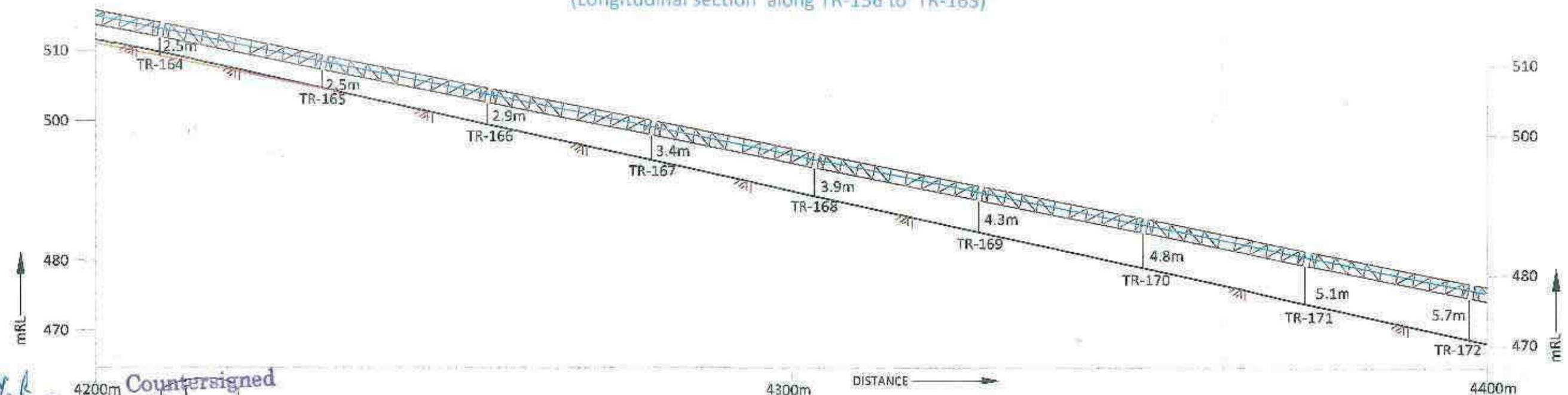
PIPE CONVEYOR - 2
(Kurmitar ML of OMC to Barsuan Railway siding)



(Longitudinal section along TR-147 to TR-155)



(Longitudinal section along TR-156 to TR-163)

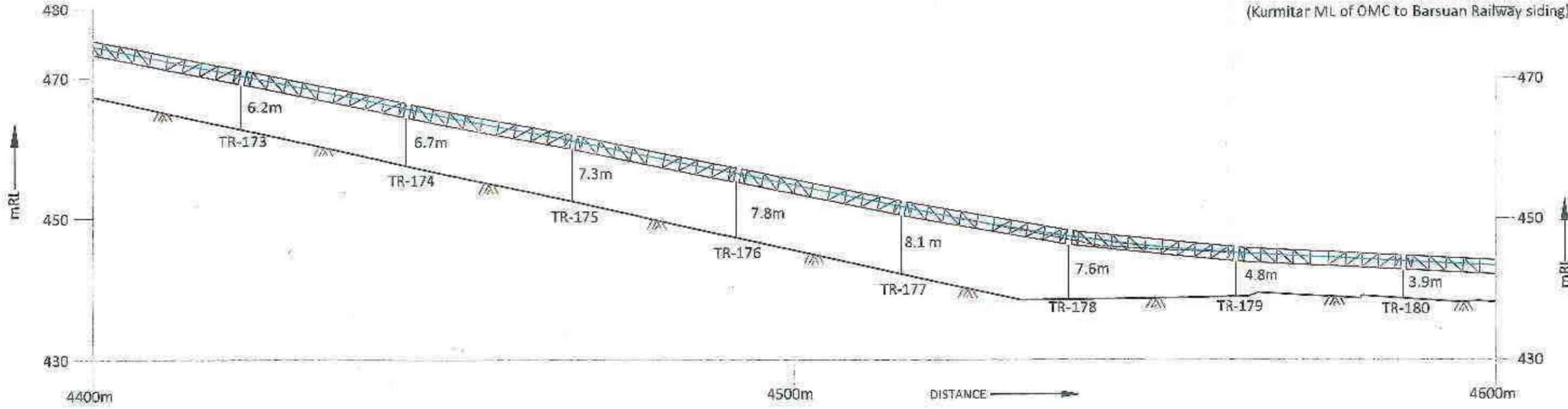


(Longitudinal section along TR-164 to TR-172)


 J. K. Mishra
 Asst. Manager (Suction)
 Divisional Forest Officer
 & Wildlife Warden
 BONAI DIVISION

PIPE CONVEYOR - 2

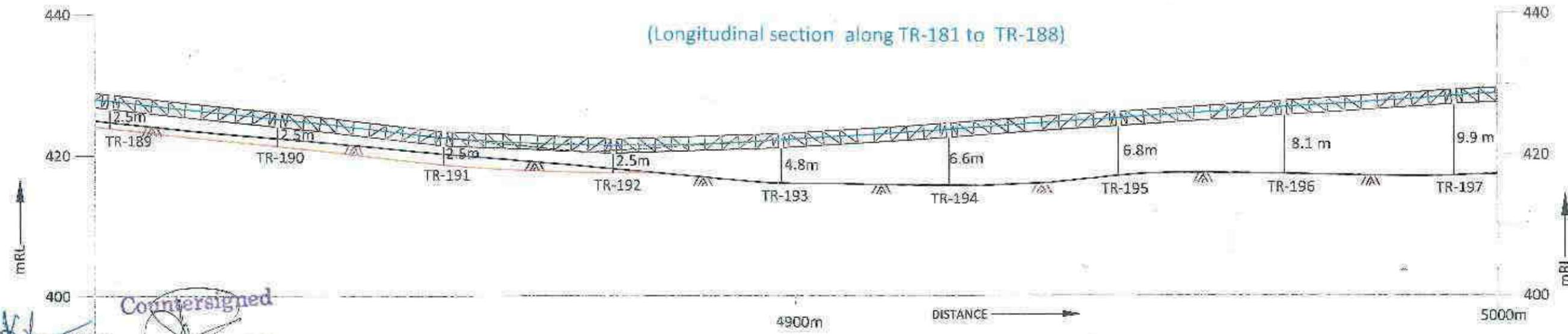
(Kurmitar ML of OMC to Barsuan Railway siding)



(Longitudinal section along TR-173 to TR-180)



(Longitudinal section along TR-181 to TR-188)

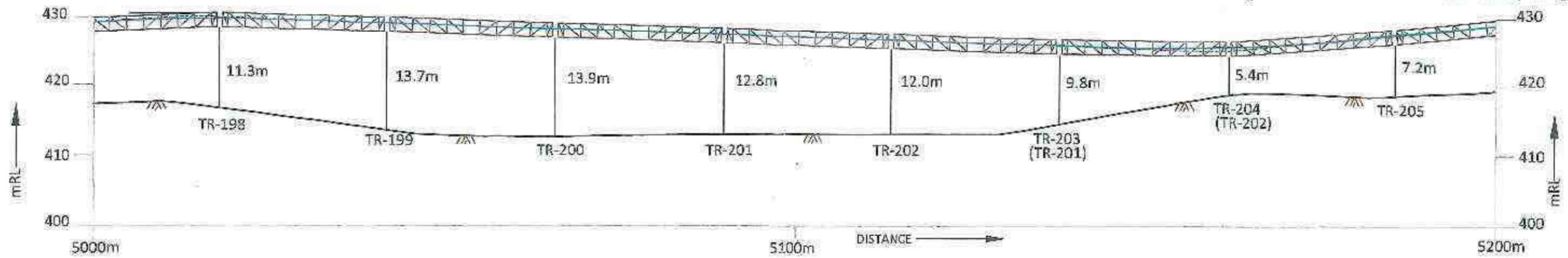


(Longitudinal section along TR-189 to TR-197)

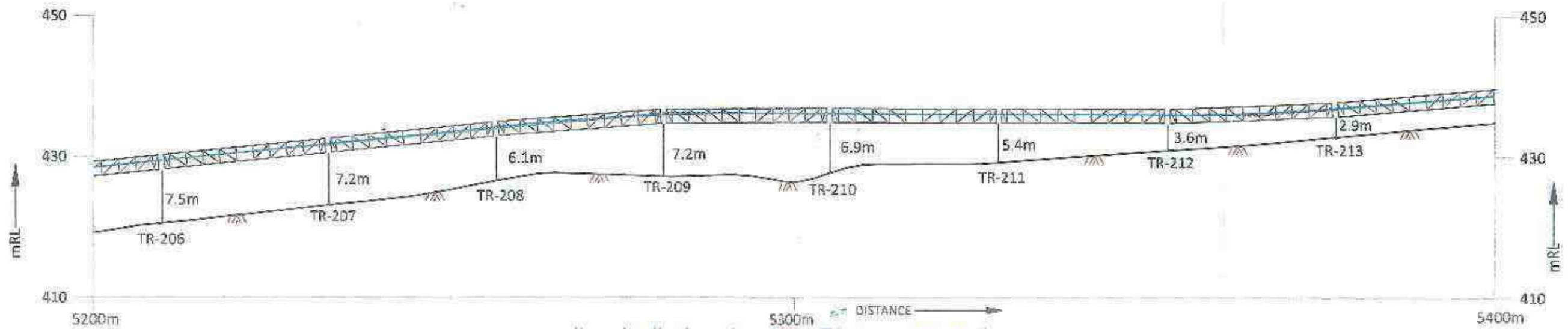

J. K. Mishra
 Asst. Manager (Survey)
 Divisional Forest Officer
 & Wildlife
 BONAI DIVISION

PIPE CONVEYOR - 2

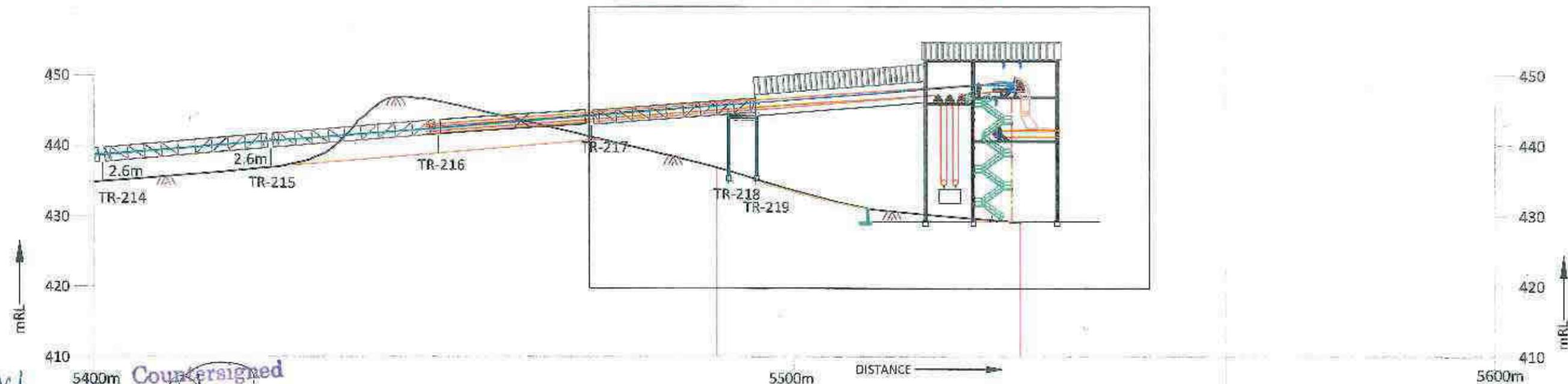
(Kurmitar ML of DMC to Barsuan Railway siding)



(Longitudinal section along TR-198 to TR-205)



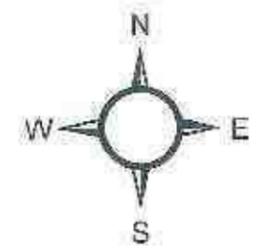
(Longitudinal section along TR-206 to TR-213)



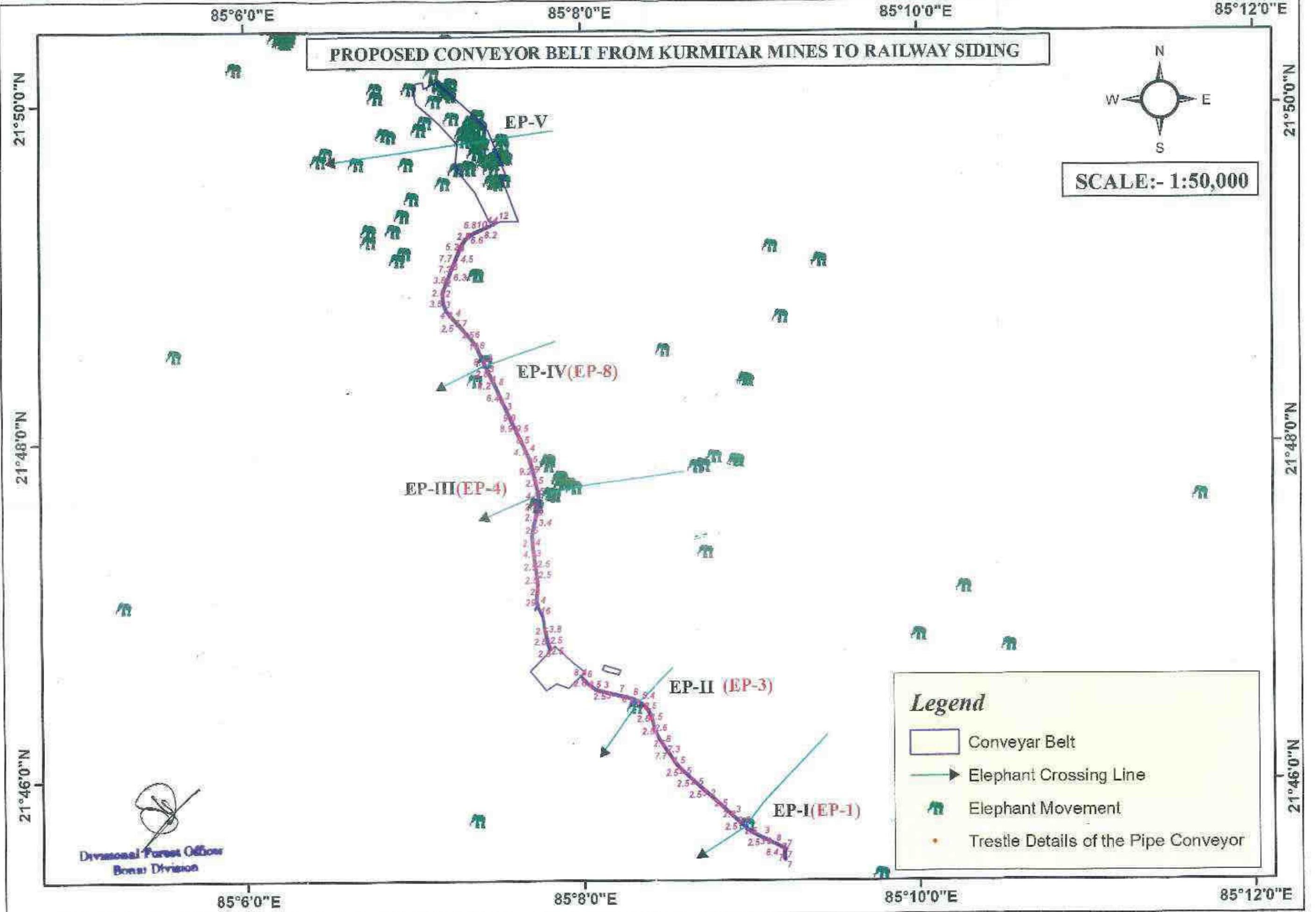
(Longitudinal section along TR-214 to TR-219)

J. K. Mishra
 Asst. Manager (Survey)
 Divisional Forest Officer
 & Wildlife Warden
 BONAI DIVISION

PROPOSED CONVEYOR BELT FROM KURMITAR MINES TO RAILWAY SIDING



SCALE:- 1:50,000



EP-V

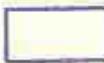
EP-IV (EP-8)

EP-III (EP-4)

EP-II (EP-3)

EP-I (EP-1)

Legend

-  Conveyor Belt
-  Elephant Crossing Line
-  Elephant Movement
-  Trestle Details of the Pipe Conveyor

Divisional Forest Officer
Bansri Division



By E-mail

ବନଖଣ୍ଡ ଅଧୀକାରୀଙ୍କ କାର୍ଯ୍ୟାଳୟ: ବଣାଇଁ ବନଖଣ୍ଡ ।
OFFICE OF THE DIVISIONAL FOREST OFFICER: BONAI DIVISION.

Phone / Fax – 06626-244434; E-mail

At-dfobonai.od@gov.in

No. 5807/6F-(Mg.)Dt: 23.7.2021

To

The Addl. General Manager, (Geo),
M/s Orissa Mining Corporation Ltd.,
OMC House, Bhubaneswar-751001.

Sub:-

Proposal seeking prior approval under the Forest (Conservation) Act, 1980 for non-forestry use of 86.749 ha. of forest land comprising of 85.175 ha of fresh forest land and 1.304 ha re-diversion of Forest land (which is a part of 11.912 ha. forest land, granted Stage-II approval by ERO, MoEF&CC on 29.05.2020) in favour of M/s Odisha Mining Corporation Ltd. for construction of overhead piped conveyor belt from Kurmitar ML Boundary to proposed Railway siding in Tehsil Lahunipara Dist-Sundargarh (Odisha)- reg-Approval of Site Specific Wildlife Conservation Plan.

Ref. -

Memo No.6964 dt.23.7.2021 of the Principal Chief Conservator of Forests (WL) & CWLW, Odisha, Bhubaneswar.

Sir,

With reference to above, this is to inform you that the Site Specific Wildlife Conservation Plan for above said Project in compliance to Condition No.A5 of the Stage-I approval accorded by the Government of MoEF & CC, New Delhi vide their Letter No.8-113/2000-FC (Vol-III) dt.4.2.2021 has been approved by the PCCF (WL) & CWLW, Odisha, Bhubaneswar vide his Letter No.6963 dt.23.7.2021 for ₹588.516 Lakh for implementation of activities in project as well as impact zone.

Hence, you are requested to deposit of ₹588.516 Lakhs (Rupees Five Crore Eighty Eight Lakh Fifty One Thousand Six Hundred) only through e-portal of MoEF & CC as provided in the <http://parivesh.nic.in>, and submit the original proof with seal and signature of the issuing Bank to this office for needful.

Besides, it is further requested to take note of the following conditions for future compliance.

1. This Plan may be revisited after 5 years, and the User Agency will give undertaking to contribute towards the revised cost of the conservation plan till the project period, if any.
2. Should there be need for Site Specific Wildlife Conservation Plan after expiry of the present plan period, the user agency shall submit another such plan at least one year before the expiry of the present Conservation Plan and deposit the oullay amount upon its approval. In case of delay, it will be dealt as per law for violation of Forest (Conservation) Act'1980 and Environment (Protection) Act'1986.
3. The User Agency shall give an undertaking to bear the differential cost in case of enhancement of wage rate during implementation of the Plan.

Yours faithfully,


Divisional Forest Officer,
Bonai Division.

Contd.2...

Memo No. 5808 /6F-Dt: 23.7.2021

Copy forwarded to the Principal Chief Conservator of Forests (WL) & Chief Wildlife Warden, Odisha, Bhubaneswar for favour of kind information and necessary action with reference to his Memo No.6964 dt.23.7.2021


Divisional Forest Officer,
Borai Division.

Memo No. 5809 /6F-Dt: 23.7.2021

Copy forwarded to the Addl. Principal Chief Conservator of Forests, Forest Diversion & Nodal Officer, F.C. Act, O/O the P.C.C.F. Odisha, Bhubaneswar for favour of kind information and necessary action.


Divisional Forest Officer,
Borai Division.

Memo No. 5810 /6F-Dt: 23.7.2021

Copy forwarded to the Regional Chief Conservator of Forests, Rourkela Circle, Rourkela for favour of kind information and necessary action with reference to Memo No.6964 dt.23.7.2021 of the PCCF (WL) CWLW, Odisha.


Divisional Forest Officer,
Borai Division.

AGENCY COPY

यूनियन बैंक Union Bank of India



NEFT / RTGS CHALLAN for CAMPA Funds

Date : 27-07-2021

Agency Name	ODISHA MINING CORPORATION LTD
Application No.	19944967481
MoEFISG File No.	S-15321003-FC VOL-III
Location	ORISSA
Address	OMC House Khordha
Amount (in Rs)	70506100/-

Amount in Words: Seven Crore Five Lakh Six Thousand One Hundred Rupees Only

NEFT/RTGS to be made as per following details;

Beneficiary Name:	ORISSA CAMPA
IFSC Code:	URIN0503710
Pay to Account No.	1508218044957461 Valid only for this challan amount.
Bank Name & Address:	Union Bank Of India Lodhi Complex Branch, Block 1, CGO Complex, Phase I, Lodhi Road, New Delhi - 110003

This Challan is strictly to be used for making payment to CAMPA by NEFT/RTGS only

BANK COPY

यूनियन बैंक Union Bank of India



NEFT / RTGS CHALLAN for CAMPA Funds

Date : 27-07-2021

Agency Name	ODISHA MINING CORPORATION LTD
Application No.	19944967481
MoEFISG File No.	S-15321003-FC VOL-III
Location	ORISSA
Address	OMC House Khordha
Amount (in Rs)	70506100/-

Amount in Words: Seven Crore Five Lakh Six Thousand One Hundred Rupees Only

NEFT/RTGS to be made as per following details;

Beneficiary Name:	ORISSA CAMPA
IFSC Code:	URIN0503710
Pay to Account No.	1508218044957461 Valid only for this challan amount.
Bank Name & Address:	Union Bank Of India Lodhi Complex Branch, Block 1, CGO Complex, Phase I, Lodhi Road, New Delhi - 110003

This Challan is strictly to be used for making payment to CAMPA by NEFT/RTGS only

After making successful payment, User Agencies may send a line of confirmation through Email: helpdeskcampa@corpbank.co.in

Note: After making the required payment through challan, if the payment status has not been updated even after 7 working days, then kindly mail a copy of your challan with transaction date to Email: cb0371@unionbankofindia.com

S. Mohapatra
28/7/2021
S. Mohapatra
Cy. General Manager (Fin)

UB IN/32/209864223



Details	Amount in Rs.
Additional Cnst of CA	3,51,600/-
SSWLCP	6,08,51,600/-
Scheme for ANR	1,15,02,900/-
Plantation in 500 meter	
Total	7,05,06,100/-

Effective Available Balance: INR 4,93,13,861.93 (Cr)

Primary Account: Y

Lien Balance:
INR 2,002.95

[+ More Details](#)

[View Statement](#) 

Tran Id	Date	Remarks	Instrument ID	UTR Number	Amount (INR)	Balance (INR)
574714647	28/07/2021	NEFTD-ORRISA CAMPA 000328655539	02001496	-	7,05,06,100.00 (Dr)	3,21,25,864.88
574714647	28/07/2021	Charges for PORD Customer Payment:UBINJ21209864503		-	29.50 (Dr)	10,26,31,964.88
AA724062	28/07/2021	BY DD NUM 48862144 PAID		-	1,850.00 (Cr)	10,26,31,994.38
AA724062	28/07/2021	By DD Num 48862143 Paid		-	2,000.00 (Cr)	10,26,30,144.38
AA447199	28/07/2021	TRF 101-50418		-	10,00,00,000.00 (Cr)	10,26,28,144.38

Viewing 1 to 5 of 86

Page

1

Download As [Select](#)

No More Records Available.



ବନ୍ଦୁମଣି ଅଧିକାରୀଙ୍କ ଦାୟତାକ୍ଷର: ବନ୍ଦୁମଣି ବିଭାଗ ।

OFFICE OF THE DIVISIONAL FOREST OFFICER, BONAI DIVISION.

Phone / Fax – 06626-244434. E-mail

At- afobonai.odia@gov.in

No. 3335 /DF-(Mg) Dt: 6.01.2021

- To: The Adnl. General Manager (Geo),
M/s Orissa Mining Corporation Ltd.,
OMC House, Bhubaneswar -751001
- Sub: Proposal for diversion of 85,175 ha of fresh forest land and 1,304 ha re-diversion of Forest land (which is a part of 13,812 ha forest land for which Stage-II approval has already been accorded by ERO, MoEF&CC on 29.05.2020) for construction of overhead piped conveyor belt from Kuntur Mt. Boundary of OMC Ltd to new proposed Railway siding at Barsuan for transportation of mineral with provision for one dispatch area in between the route and the other at terminal point at Barsuan.
- X Sub: Stage-I approval accorded vide Letter No.8-113/2000-FC (Vol-III) dt.4.2.2021 of the MoEF & CC, Govt.
- Ref:- 1. Letter No.8-113/2000-FC (Vol-III) dt.4.7.2021 of the MoEF & CC, Govt.
2. Letter No.8-113/2000-FC (Vol-III) dt.8.2.2021 of the MoEF & CC, Govt.
3. Letter No.3806/F&E dt.22.2.2021 of the I & E Deptt. addressed to the PCCF, Odisha, and copy endorsed to all concerned.
4. Memo No 6777 dt.25.3.2021 of the CCT (TD & NO), Odisha, Bhubaneswar.
5. This Office Memo No.1663 dt.19.3.2021.

Sir,

Vide the reference (4) cited above, the demand of NPV raised with reference to the above said project issued with reference (5) is hereby intimated as follows:

- The User Agency is requested to deposit ₹ 7,99,79,325/- (₹ 7,99,000/- (X) 85,175 Ha.) (Rupees Seven Crore Ninety Nine Lakh Seventy Nine Thousand Three Hundred Twenty Five) only towards Net Present Value (NPV) as per Condition No.2 of the Stage-I approval and corrigendum Letter No.8-113/2000-FC (Vol-I) dt.8.2.2021 within 30 days from the issue of this Letter.
- The User Agency is requested to deposit ₹ 69,84,784/- (₹ 69,000/- (X) 85,302 ha.) (Rupees Sixty Nine Lakh Ninety Four Thousand Seven Hundred Sixty four) only towards Regional Wildlife Management Plan fund as per Condition No.5 of the Stage-I approval order.

Hence, you are requested to deposit the above said amount separately through a-portal of MoEF & CC as provided in the <http://oprivesh.nic.in>, and submit the original proof with seal and signature of the issuing Bank to this office for needful.

Yours faithfully,


Divisional Forest Officer,
Bonai Division.

Memo No. 3336 /GF-Dt: 6-4 .2021

Copy forwarded to the Chief Conservator of Forests, Forest Division & Nodal Officer, O/O the P.C.C.F., Odisha Bhubaneswar for favour of kind information and necessary action with reference to his Memo No.6777 dt.25.3.2021.


Divisional Forest Officer,
Bonai Division.

Memo No. 3337 /GF-Dt: 6-4 .2021

Copy forwarded to the Regional Chief Conservator of Forests, Rourkela Circle, Rourkela for favour of kind information with reference and necessary action with reference to Memo No.6778 dt.25.3.2021 of the CCF (FD & NO), Bhubaneswar.


Divisional Forest Officer,
Bonai Division.

Memo No. 3338 /GF-Dt: 6-4 .2021

Copy forwarded to the Collector, Sundargarh for favour of kind information with reference and necessary action.


Divisional Forest Officer,
Bonai Division.

Memo No. 3339 /GF-Dt: 6-4 .2021

Copy forwarded to the Range Officer, Barsuan Range for information and necessary action.


Divisional Forest Officer,
Bonai Division.

Memo No. 3340 /GF-Dt: 6-4 .2021

Copy forwarded to the Regional Manager, M/s Orissa Mining Corporation Ltd., AMPO-Koira, Dist-Sundargarh for information and necessary action with reference to his Memo No.412 dt.1.3.2021.


Divisional Forest Officer,
Bonai Division.

B. 231/2021/F & C

AGENCY COPY	
	
NEFT TRIGS CHALLAN for CAMPA Funds	
Date: 16/04/2021	
Agency Name.	UJIS-HA MINING CORPORATION LTD
Application No.	19944967465
NEFT/RTGS File No.	2-113/2000-FC VOL-III
Location.	ORISSA
Address.	DMC House Khorpada
Amount (in Rs)	858740.89/-
Amount in Words (Eight Crore Sixty-Nine Lakh Seven Ty-Four Thousand and Eighty Nine Rupees Only)	
NEFT TRIGS to be made as per following details:	
Beneficiary Name:	ORISSA CAMPA
IFSC Code:	UBIN0003718
Pay to Account No.	1508219544967465 Valid only for this challan amount.
Bank Name & Address:	Union Bank Of India Lodhi Complex Branch, Block 11, CGO Complex, Phase I, Lodhi Road, New Delhi-110003
This Challan is strictly to be used for making payment to CAMPA by NEFT/RTGS only	

BANK COPY	
	
NEFT TRIGS CHALLAN for CAMPA Funds	
Date: 16/04/2021	
Agency Name.	UJIS-HA MINING CORPORATION LTD
Application No.	19944967465
NEFT/RTGS File No.	2-113/2000-FC VOL-III
Location.	ORISSA
Address.	DMC House Khorpada
Amount (in Rs)	858740.89/-
Amount in Words (Eight Crore Sixty-Nine Lakh Seven Ty-Four Thousand and Eighty Nine Rupees Only)	
NEFT TRIGS to be made as per following details:	
Beneficiary Name:	ORISSA CAMPA
IFSC Code:	UBIN0003718
Pay to Account No.	1508219544967465 Valid only for this challan amount.
Bank Name & Address:	Union Bank Of India Lodhi Complex Branch, Block 11, CGO Complex, Phase I, Lodhi Road, New Delhi-110003
This Challan is strictly to be used for making payment to CAMPA by NEFT/RTGS only	

After making successful payment, User Agencies may send a line of confirmation through Email: helpdeskampa@corpbank.co.in

Note: After making the required payment through challan, if the payment status has not been updated even after 7 working days, then kindly mail a copy of your challan with transaction date in Email: cb0371@unionbankofindia.com

NPV - ₹ 7,99,79,325/-

RW:MP - ₹ 69,94,764/-

Total - ₹ 8,69,74,089/-

UBINVT21109634976



Challan use for k. office

[Signature]
16/04/21

S. Mohapatra
Dy General Manager (Fin)



OFFICE OF THE REGIONAL CHIEF CONSERVATOR OF FORESTS, ROURKELA CIRCLE,
AT/P.O. PANPOSH, ROURKELA-769 004.

Memo No. 1577/3F(Misc)756/2021 Date: 24.6.2021

To

The Divisional Forest Officer,
Bonai Forest Division.

Sub:- Proposal for diversion of 85.175 ha of fresh forest land and 1.304 ha re-
diversion of Forest Land (which is a part of 11.912 ha forest land for which
Stage-II approval has already been accorded by ERO, MoEF & CC on
29.05.2020) for construction of overhead piped conveyor belt Railway siding
at Barsuan for transportation of mineral with provision for one dispatch area in
between the route and the other at terminal point at Barsuan.

X-Sub:- Submission of 4 Nos. of revised financial outlay of Schemes.

Ref:- Your Memo No.4552 Dtd.11.06.2021.

The revised financial outlay of the following schemes prepared in compliance
with the conditions stipulated in the Stage-I approval accorded vide Letter No.B-113/2000-
FC (VoI-III) dt.4.2.2021 of the MoEF & CC, GoI in respect of the above diversion proposal
at the current wage rate of Rs.311/- per man day and submitted vide your Memo under
reference are hereby technically approved for the amount as indicated against each.

Sl. No.	Name of the scheme	Technical approval by the RCCF, Rourkela Circle.
01	Revised financial outlay of scheme for plantation between the banks of seasonal nala and the proposed dispatch area-2 for the development of green belt and soil and moisture conservation in the dispatch area to prevent Iron ore leaching from the dispatch areas in compliance with Condition No. A.4 with a total financial outlay of Rs.3,32,84,200/-	Technically approved for Rs.3,32,84,200/- (Rupees three crore thirty-two lakh eighty-four thousand two hundred) only
02	Revised financial outlay of Scheme for Assisted Natural Regeneration of the forest in 500 meter perimeter of dispatch areas with a view to create dense green cover so as to minimize dust and other pollution on rest of the forest in compliance with Condition No. A.6 with a total financial outlay of Rs.1,13,02,900/-	Technically approved for Rs.1,13,02,900/- (Rupees one crore thirteen lakh two thousand nine hundred) only
03	Revised financial outlay of Scheme for comprehensive soil conservation measures in compliance with Condition No. A.7 with a total financial outlay of Rs.15,20,800/-	Technically approved for Rs.15,20,800/- (Rupees fifteen lakh twenty thousand eight hundred) only

SCHEME FOR

ASSISTED NATURAL REGENERATION OF THE
FOREST IN 500 METER PERIMETER OF THE
DISPATCH AREAS WITH A VIEW TO CREATE DENSE
GREEN COVER SO AS TO MINIMISE DUST AND
OTHER POLLUTION ON REST OF THE FOREST

FOR

DIVERSION OF 86.479 HA OF FOREST LAND FOR
CONSTRUCTION OF OVERHEAD PIPED CONVEYOR
BELT FROM KURMITAR ML BOUNDARY TO
PROPOSED RAILWAY SIDING

UNDER BONAI FOREST DIVISION

OF

M/s ODISHA MINING CORPORATION LTD.
(A GOVT. OF ODISHA UNDERTAKING)
OMC HOUSE, BHUBANESWAR-751001

{As per condition No. A.6 of the stage-I Forest clearance granted by MoEF & CC, Govt. of India vide F.No.B-
113/2000-FC (Vol-III) dt 04.02.2021}

(@ Rs 308.00 per manday)

SCHEME FOR ASSISTED NATURAL REGENERATION OF THE FOREST IN 500 METER PERIMETER OF THE DISPATCH AREAS WITH A VIEW TO CREATE DENSE GREEN COVER SO AS TO MINIMISE DUST AND OTHER POLLUTION ON REST OF THE FOREST FOR DIVERSION OF 86.479 HA OF FOREST LAND FOR CONSTRUCTION OF OVERHEAD PIPED CONVEYOR BELT FROM KURMILAR ML BOUNDARY TO PROPOSED RAILWAY SIDING OF M/s ODISHA MINING CORPORATION LTD

1. INTRODUCTION

Odisha Mining Corporation Ltd had submitted a proposal for diversion of 86.479 ha of forest land, comprising of 85.575 ha of fresh forest land and 1.004 ha re-diversion of Forest land (which is a part of 11.912 ha forest land, granted Stage-II approval by EPC, MoEF&C on 29.05.2020) for construction of overhead piped conveyor belt from Kurmilan ML Boundary to proposed Railway Siding at Barsuan in Lalunipara Tahasil of Sundergarh District. The proposal was placed before Project Advisory Committee on 22nd December, 2020. As per the recommendation of PAC, Stage-I FC has been granted by MoEF & CC vide letter F. No. 8-1172001 FC (Vol-11) dt. 04.02.2021. Condition 3. A.6 of the Stage-I FC is read as under:

"The state Forest Department shall also prepare a scheme of Assisted Natural Regeneration of the forest in 500 meter perimeter of the dispatch areas with a view to create dense green cover so as to minimise dust and other pollution on rest of the forest, and implement it at the cost of the user agency".

In compliance, a comprehensive scheme is prepared @ Rs. 302.00 per muu day for implementation of the same by the State Forest Department.

2. LOCATION OF THE AREA

The project comes under Lalunipara Tahasil and Umari Forest Division of Sundergarh District, Odisha. The entire stretch of proposed conveyor belt & Railway siding is bounded by Latitude: 21° 45' 35.317" - 21° 45' 08.16" N and Longitudes: 85° 09' 04.05" - 85° 09' 12.48" E of Survey of India Topo sheet No. 145(3). The area exhibits an undulating topography with varying elevations from 402 muu (Orini) to 927 muu (Maximum above Mean Sea Level (AMSL)). The proposed conveyor corridor comprises of two conveyor corridor and two dispatch area. Dispatch area-1 comprises of 1.602 ha of forest land and Dispatch area-2 comprises of 58.518 ha of forest land. In order to comply the provision of Stage-I FC, plantation has been proposed around 500 meter perimeter of Dispatch Area-1 and Dispatch Area-2.

3. PLANTATION MODELS

There is some vegetation exists in the proposed plantation area of 500 meter perimeter of Dispatch Area-1 and Dispatch Area-2. Therefore, ANR plantation has been proposed to be taken up with 200 plants per ha. Cost 6000 for ANR plantation is furnished as Annexure-L-A'.

some portion of the area is coming under Agricultural land and some portion of the area is coming under already planted area. Total three numbers of patches comprising of 48.643 ha of land around 500 meter perimeter of Dispatch Area-1 and four number of patches comprising of 127.379 ha of land around 500 meter perimeter of Dispatch Area-2 has been identified. The details are given as under. The area identified for plantation has been shown in the Map has been furnished as Plate-I, II & III.

Sl. No.	Plantation Patches	Area in Ha
Around 500 meter perimeter of Dispatch Area-1		
1	Plantation Area-1	13.375
2	Plantation Area-2	3.357
3	Plantation Area-3	31.911
Sub-Total		48.643
Around 500 meter perimeter of Dispatch Area-2		
1	Plantation Area-1	92.758
2	Plantation Area-2	23.197
3	Plantation Area-3	10.049
4	Plantation Area-4	1.375
Sub-Total		127.379
Total		176.022

All works mentioned in the cost norm will be executed in time as per specification. While taking up plantation, the following points shall be taken up for consideration: -

- Care to be taken to raise healthy plantable seedlings of minimum 60 cm height. 10% extra seedlings are to be raised for replacement of casualty.
- Pitting shall invariably be done during November-February i.e., before onset of monsoon. If possible the soil of upper portion and lower portion of pit should be placed separately in specific direction so that while planting the pits will be filled with top-soil first.
- Planting shall be done on the onset of monsoon to get full benefit of monsoon rain and planting should never be delayed.
- Basal dose of fertilizer and insecticides should be applied at the time of planting carefully by mixing with top-soil so that the roots of seedlings do not come in direct contact with fertilizer.
- In case of any mortality of planted seedlings, it should be replaced with good seedlings as soon as possible for better success rate.
- Complete weeding in proper time will be done. Strip weeding will not be permitted.
- Soil-working and application of 2nd dose fertilizer should be done in time.
- Since the area is provided with barbed wire fence, watch & ward will be easier and the watchers may be engaged in weeding in problematic areas alongwith watch & ward.

Species:

Although indigenous species are to be preferred in the plantation, considering adverse soil & moisture conditions we may go for hardy exotic species where required so that the plants are

able to survive. For success of plantation in interior tribal areas, plantation of fruit and NTFP species plays a great role since economic species have a little value for local people. Considering the topography, soil and moisture availability of the plantation area, the following species will be planted

Sl No	Name of species	Common name	Remarks
1	<i>Azadirachta indica</i>	Neem	
2	<i>Derris indica</i>	Karanja	
3	<i>Embllica officinalis</i>	Amla	
4	<i>Terminalia chebula</i>	Harida	In lower areas with good soil depth
5	<i>Terminalia bellinica</i>	Bahada	In lower areas with good soil depth
6	<i>Dalbergiasissoo</i>	Sissoo	In lower areas with good soil depth
7	<i>Gmelina arborea</i>	Gambhari	In lower areas with good soil depth
8	<i>Dendrocalamus strictus</i>	Salia bamboo	In lower areas with good soil depth healthy seedlings from rhizomes may be planted
9	<i>Cassia siamea</i>	Chakunda	In lower areas with good soil depth
10	<i>Tamarindus indica</i>	Tentuli	In lower areas with good soil depth
11	<i>Machoea indica</i>	Mahul	Two years old seedlings may be planted
12	<i>Simarubaglauca</i>	Simaruba	In rocky areas with low soil depth
13	<i>Zizyphus mauritania</i>	Ber	In rocky areas with low soil depth
14	<i>Tectonagrandis</i>	Teak	Potted seedlings from pre-sprouted healthy stumps will be planted
15	<i>Mangifera indica</i>	Mango	In situ plantation (direct placing of mango stone in planting site) during pre-monsoon may be adopted in few lower areas or where life-saving watering can be done during summer
16	<i>Caryotaurens</i>	Salapa	
17	<i>Terminalia arjuna</i>	Arjuna	Planted only on nala bank or near water.
18	<i>Desmodium ajefrensis</i>	Bandhan	
19	<i>Dillenia indica</i>	Ou	Planted in area having good soil depth
20	<i>Feronia limonia</i>	Kaitha	
21	<i>Ficus benghalensis</i>	Bara	
22	<i>Ficus racemosa</i>	Dimiri, Dunier	
23	<i>Ficus religiosa</i>	Aswattha	
24	<i>Acacia auriculiformis</i>		
25	<i>Phoenix sylvestris</i>	Khajuri	
26	<i>Pithecolobium dulce</i>	Simakayan	
27	<i>Acacia catechu</i>	Khair	
28	<i>Acacia nilotica</i>	Babul	
29	<i>Artocarpus heterophyllus</i>	Jack fruit	
30	<i>Bauhinia variegata</i>	Kuler	
31	<i>Boswelliaserrata</i>	Salai	
32	<i>Bridelia retusa</i>	Kasi	
33	<i>Buchanania lanzan</i>	Char	
34	<i>Calophyllum inophyllum</i>	Polanga	

35	<i>Cassia fistula</i>	Sunari	
36	<i>Ceibapentandra</i>	White silk cotton	
37	<i>Chloroxylonsvietiana</i>	Bheru	
38	<i>Cleistanthuscollinus</i>	Karada	
39	<i>Albizialebbek</i>	Siris	
40	<i>Albiziaprocera</i>	White Siris	

4. EXECUTING AGENCY

The work in the present Scheme shall be executed by the State Forest Dept. from the funds deposited by OMC.

5. REQUIREMENT OF FUNDS

The total cost of the implementation of the project will be Rs. 1,12,02,600.00 (Rupees One Crore twelve lakhs two thousand six hundred) only. This budget will be subject to increase in amount considering the increase in materials and labour charges.

Sl No.	Description of the work	Funds Required in Rs.
1	ANR plantation @ 200 Plants/ Ha for 176.022 ha @ Rs. 46118.10/Ha (Annexure-I).	81,17,800.20
	Sub-total	81,17,800.20
6	Inspection, monitoring & evaluation @15% of the total project cost	12,17,670.03
	Total	93,35,470.23
7	Price escalation @20%	18,67,094.04
	Grand Total	1,12,02,564.27
		Or Say 1,12,02,600.00

Technically Approved

Regional Chief Conservator of Forests
Rourkela Circle

Divisional Forest Officer
Bona Forest Division

Annexure-I

COST NORM FOR AIDED NATURAL REGENERATION (ANR) @ 200 PLANTS PER HECTARE
Wage rate Rs. 308.00/Day.

Sl No	Part of Work	Preferable period of Execution	Labour in Man/days	Labour Cost (Rs)	Material Cost (Rs)	Total Cost in (Rs)
0TH YEAR						
1	Survey, Demarcation and PPR working, GPS Reading with tagging	Nov/Dec	2	616.00	0	616.00
2	Site Preparation	Nov/Dec	2	616.00	0	616.00
3	Site/cultural Operation including clearance of weed, lumber cutting, high stump cutting, singling of stools etc.	Jan/Feb	5	1540.00	0	1540.00
4	Nursery cost (6 months old seedling @ Rs.17.43/- seedling (Rs.5.67 in 1st year + Rs.3.76 in 2nd year) for 200 seedlings (200*20)	Jan-March	2.5	1654.00	357	2011.00
5	Contingency and Unforeseen Expenditures		0	0	133	133
	SUB TOTAL		14.5	4166.00	500	4966.00
6	Monitoring & Supervision charge 5% of the total cost					248.30
	GRAND TOTAL					5214.30
1ST YEAR OPERATION						
1	Nursery cost (6 months old seedling) balance @ Rs.3.76 for 200 seedlings	Apr-June	2.5	770.00	128	898.00
2	Planting 35 cm or less size	7th-March	6	1848.00	0	1848.00
3	Carriage and planting including casualty expenditure	Jul/Aug	5	1540.00	0	1540.00
4	Complete weeding, Soil working, Manuring	Aug/Sep	6	1848.00	0	1848.00
5	Cost of Vermo compost @ 200 gm/plant @ Rs.70/- per kg - Rs.80.00 and circular insecticide 5 gm/plant @ Rs.40/- per kg -Rs.80.00	Aug/Sep	0	0	880	880
6	Cost of Chemical fertilizer (a) Urea 70 gm/plant in two subsequent doses @ Rs.60/- per kg -Rs.84.00 (b) NPK 50 gm/plant @ Rs.240/- per kg -Rs.240.00 as basal dose	Jul/Aug	0	0	334	324
7	Site/cultural Operation involving clearance of weeds, cutting of lumps, singling of stools etc.	Sept/Oct	15	4620.00	0	4620.00
8	Soil Conservation Measures (3x3 meter benches of dimension 3 m X 0.5 m X 0.5 m @ 46 nos per	Sept/Oct	20	6160.00	0	6160.00

	ha) or its equivalent:					
9	Fireline Tracing and Inspection Path	Feb/Mar	3	924.00	0	924.00
10	Watch & ward	Aug-Mar	7	2156.00	0	2156.00
11	Contingency and Unforeseen Expenditures		0	0	304	304
	SUB TOTAL		64.5	19866.00	1636	21502.00
12	Monitoring & Supervision charge 5% of the total cost					1075.10
	GRAND TOTAL					22577.10
2ND YEAR OPERATION						
1	Casualty Replacement including cost of seedling, carriage and planting	Jul/Aug	1	308.00	248.60	556.60
2	Complete weeding and cultural operations	Sep/Oct	2	616.00	0	616.00
3	Soil working and manuring	Sep/Oct	2	616.00	0	616.00
4	Cost of Fertiliser and insecticide (a) Vermicompost 200gms/plant @ Rs.20/- per kg=Rs.800.00 (b) Granular Insecticides 5 gms/plant for 20 plants 100 gms @ Rs.80/- per kg=Rs.8.00	Sep/Oct	0	0	808	808
5	Soil Conservation Measures (Renovation of staggered trenches etc.)	Sep/Oct	8	2464.00	0	2464.00
6	Fireline Tracing and Inspection Path	Feb/Mar	1	308.00	0	308.00
7	Watch & ward (whole year)	Apr-Mar	7	2156.00	0	2156.00
8	Contingency and Unforeseen Expenditures		0	0	181	181
	SUB TOTAL		21	6468.00	1238	7706.00
9	Monitoring & Supervision charge 5% of the total cost					385.30
	GRAND TOTAL					8091.30
3RD YEAR OPERATION						
1	Complete weeding and cultural operations	Aug/Sep	1	308.00	0	308.00
2	Soil working	Aug/Sep	1	308.00	0	308.00
3	Fireline Tracing and Inspection Path	Feb/Mar	1	308.00	0	308.00
4	Watch & ward (whole year)	Apr-Mar	7	2156.00	0	2156.00
5	Contingency		0	0	200	200.00
	SUB TOTAL		10	3080.00	200	3280.00
6	Monitoring & Supervision charge 5% of the total cost					164.00
	GRAND TOTAL					3444.00
4TH YEAR OPERATION						
1	Fireline Tracing and Inspection Path	Feb/Mar	1	308.00	0	308.00
2	Watch & ward and cultural	Apr-Mar	2	616.00	0	616.00

	operations:					
	SUB TOTAL		3	924.00	0	924.00
3	Monitoring & Supervision charge 5% of the total cost					46.2
	GRAND TOTAL		3	970.20	0	970.20
5TH YEAR OPERATION						
1	Fireline Tracing and Inspection Path	Feb/Mar	1	308.00	0	308.00
2	Watch & ward and cultural operations	Apr-Mar	2	616.00	0	616.00
	SUB TOTAL		3	924.00	0	924.00
3	Monitoring & Supervision charge 5% of the total cost					46.2
	GRAND TOTAL					970.20
6TH YEAR OPERATION						
1	Fireline Tracing and Inspection Path	Feb/Mar	1	308.00	0	308.00
2	Watch & ward and cultural operations	Apr-Mar	2	616.00	0	616.00
	SUB TOTAL		3	924.00	0	924.00
3	Monitoring & Supervision charge 5% of the total cost					46.2
	GRAND TOTAL					970.20
7TH YEAR OPERATION						
1	Fireline Tracing and Inspection Path	Feb/Mar	1	308.00	0	308.00
2	Watch & ward and cultural operations	Apr-Mar	2	616.00	0	616.00
	SUB TOTAL		3	924.00	0	924.00
3	Monitoring & Supervision charge 5% of the total cost					46.2
	GRAND TOTAL					970.20
8TH YEAR OPERATION						
1	Fireline Tracing and Inspection Path	Feb/Mar	1	308.00	0	308.00
2	Watch & ward and cultural operations	Apr-Mar	2	616.00	0	616.00
	SUB TOTAL		3	924.00	0	924.00
3	Monitoring & Supervision charge 5% of the total cost					46.2
	GRAND TOTAL					970.20
9TH YEAR OPERATION						
1	Fireline Tracing and Inspection Path	Feb/Mar	1	308.00	0	308.00
2	Watch & ward and cultural operations	Apr-Mar	2	616.00	0	616.00
	SUB TOTAL		3	924.00	0	924.00
3	Monitoring & Supervision charge 5% of the total cost					46.2
	GRAND TOTAL					970.20
10TH YEAR OPERATION						
1	Fireline Tracing and Inspection Path	Feb/Mar	1	308.00	0	308.00

2	Watch & ward and cultural operations	Apr-Mar	2	616.00	0	616.00
	SUB TOTAL		3	924.00	0	924.00
3	Monitoring & Supervision charge 5% of the total cost					46.2
	GRAND TOTAL					970.20

ABSTRACT

SL. No.	Item of Work	No. Person Day	Labour cost @ Rs 308.00/- per day	Material cost (Rs)	Monitoring & Supervision charge 5% of the total cost	Total cost in (Rs)
1	0th Year operation	14.5	4466.00	500	248.30	5214.30
2	1st Year operation	64.5	19866.00	1636	1075.10	22577.10
3	2nd Year operation	21	6468.00	1238	385.30	8091.30
4	3rd Year operation	10	3080.00	200	164.00	3444.00
5	4th Year operation	3	924	0	46.2	970.20
6	5th Year operation	3	924	0	46.2	970.20
7	6th Year operation	3	924	0	46.2	970.20
8	7th Year operation	3	924	0	46.2	970.20
9	8th Year operation	3	924	0	46.2	970.20
10	9th Year operation	3	924	0	46.2	970.20
11	10th Year operation	3	924	0	46.2	970.20
	TOTAL	131	40348	3574.00	2196.10	46118.10


 Forest Range Officer
 Serwan Range


 Divisional Forest Officer
 Serwan Division

COST NORM FOR AIDED NATURAL REGENERATION (ANR) @ 200 PLANTS PER HECTARE

Wage rate Rs. 311.00/Day.

Sl. No.	Item of Work	Preferable period of Execution	Labour in Mandays	Labour Cost (Rs)	Material Cost (Rs)	Total Cost in (Rs)
0TH YEAR						
1	Survey, Demarcation and Pillar Posting, GPS Reading with mapping	Nov/Dec	2	622.00	0	622.00
2	Site Preparation	Nov/Dec	2	622.00	0	622.00
3	Silvicultural Operation including clearance of weed, climber cutting, high stump cutting, singling of shoots etc.	Jan/Feb	5	1555.00	0	1555.00
4	Nursery cost (6 months old seedling) part @ Rs.12.43/- seedling (Rs.8.67 in 0th year + Rs.3.76 in 1st year) for 220 seedlings (200+20)	Jan-March	5.5	1710.50	367	2077.50
5	Contingency and Unforeseen Expenditures		0	0	133	133
	SUB TOTAL		14.5	4509.50	500	5009.50
6	Monitoring & Supervision charge 5% of the total cost					250.48
	GRAND TOTAL		14.5	4509.50	500	5259.98
1ST YEAR OPERATION						
1	Nursery cost (6 months old seedling) balance @ Rs.3.76 for 220 seedlings	Apr-June	2.5	777.50	128	905.50
2	Pitting 30 cm cube size	Feb/Mar	6	1866.00	0	1866.00
3	Carriage and planting including casualty replacement	Jul/Aug	5	1555.00	0	1555.00
4	Complete weeding, Soil working, Manuring	Aug/Sep	6	1866.00	0	1866.00
5	Cost of Vermi compost @200 gms/plant @ Rs.20/- per kg = Rs.800.00 and Granular Insecticide 5 gms/plant @ Rs.80/- per kg. =Rs.80.00	Aug/Sep	0	0	880	880
6	Cost of Chemical fertiliser (a) Urea 70 gms/plant in two subsequent doses @ Rs.6/- per kg =Rs.84.00 (b) NPK 50 gms/plant @ Rs.24/- per kg=Rs.240.00 as basal dose	Jul/Aug	0	0	324	324
7	Silvicultural Operation involving clearance of weeds, cutting of climbers, singling of shoots etc.	Sep/Oct	15	4665.00	0	4665.00
8	Soil Conservation Measures (Staggered trenches of dimension 2 m X 0.5 m X 0.5 m @ 60 nos per ha) or its equivalent	Sep/Oct	20	6220.00	0	6220.00
9	Fireline Tracing and Inspection Path	Feb/Mar	3	933.00	0	933.00
10	Watch & ward	Aug-Mar	7	2177.00	0	2177.00
11	Contingency and Unforeseen Expenditures		0	0	304	304
	SUB TOTAL		64.5	20059.50	1636	21695.50
12	Monitoring & Supervision charge 5% of the total cost					1084.78
	GRAND TOTAL		64.5	20059.50	1636	22780.28

	Item of Work	Preferable period of Execution	Labour in Man-days	Labour Cost (Rs)	Material Cost (Rs)	Total Cost in (Rs)
2ND YEAR OPERATION						
1	Casualty Replacement including cost of seedling, carriage and planting	In/Aug	1	311.00	248.50	559.50
2	Complete weeding and cultural operations	Sep/Oct	2	622.00	0	622.00
3	Soil working and currying	Sep/Oct	2	622.00	0	622.00
4	Cost of Fertilizer and Insecticide (a) Vermicompost 200gms/plant @ Rs.20/- per kg-Rs.800.00 (b) Granular Insecticides 5 gms/plant for 20 plants @ 50 gms @ Rs.80/- per kg-Rs.800	Sep/Oct	0	0	808	808
5	Soil Conservation Measures (Renovation of staggered trenches etc.)	Sep/Oct	8	2438.00	0	2438.00
6	Fireline Tracing and Inspection Path	Feb/Mar	1	311.00	0	311.00
7	Watch & ward (whole year)	Apr-Mar	7	2177.00	0	2177.00
8	Contingency and Unforeseen expenditures		0	0	181	181
	SUB TOTAL		21	6531.00	1238	7769.00
9	Monitoring & Supervision charge 5% of the total cost					388.45
	GRAND TOTAL		21	6531.00	1238	8157.45
3RD YEAR OPERATION						
1	Complete weeding and cultural operations	Aug/Sep	1	311.00	0	311.00
2	Soil working	Aug/Sep	1	311.00	0	311.00
3	Fireline Tracing and Inspection Path	Feb/Mar	1	311.00	0	311.00
4	Watch & ward (whole year)	Apr-Mar	7	2177.00	0	2177.00
5	Contingency		0	0	200	200.00
	SUB TOTAL		10	3110.00	200	3310.00
6	Monitoring & Supervision charge 5% of the total cost					165.50
	GRAND TOTAL		10	3110.00	200	3475.50
4TH YEAR OPERATION						
1	Fireline Tracing and Inspection Path	Feb/Mar	1	311.00	0	311.00
2	Watch & ward and cultural operations	Apr-Mar	2	622.00	0	622.00
	SUB TOTAL		3	933.00	0	933.00
3	Monitoring & Supervision charge 5% of the total cost					46.65
	GRAND TOTAL		3	933.00	0	979.65
5TH YEAR OPERATION						
1	Fireline Tracing and Inspection Path	Feb/Mar	1	311.00	0	311.00
2	Watch & ward and cultural operations	Apr-Mar	2	622.00	0	622.00
	SUB TOTAL		3	933.00	0	933.00
3	Monitoring & Supervision charge 5% of the total cost					46.65
	GRAND TOTAL		3	933.00	0	979.65
6TH YEAR OPERATION						
1	Fireline Tracing and Inspection Path	Feb/Mar	1	311.00	0	311.00
2	Watch & ward and cultural operations	Apr-Mar	2	622.00	0	622.00
	SUB TOTAL		3	933.00	0	933.00
3	Monitoring & Supervision charge 5% of the total cost					46.65
	GRAND TOTAL		3	933.00	0	979.65

Sl. No.	Item of Work	Preferable period of Execution	Labour in Mandays	Labour Cost (Rs)	Material Cost (Rs)	Total Cost in (Rs)
7TH YEAR OPERATION						
1	Fireline Tracing and Inspection Path	Feb/Mar	1	311.00	0	311.00
2	Watch & ward and cultural operations	Apr-Mar	2	622.00	0	622.00
	SUB TOTAL		3	933.00	0	933.00
3	Monitoring & Supervision charge 5% of the total cost					46.65
	GRAND TOTAL		3	933.00	0	979.65
8TH YEAR OPERATION						
1	Fireline Tracing and Inspection Path	Feb/Mar	1	311.00	0	311.00
2	Watch & ward and cultural operations	Apr-Mar	2	622.00	0	622.00
	SUB TOTAL		3	933.00	0	933.00
3	Monitoring & Supervision charge 5% of the total cost					46.65
	GRAND TOTAL		3	933.00	0	979.65
9TH YEAR OPERATION						
1	Fireline Tracing and Inspection Path	Feb/Mar	1	311.00	0	311.00
2	Watch & ward and cultural operations	Apr-Mar	2	622.00	0	622.00
	SUB TOTAL		3	933.00	0	933.00
3	Monitoring & Supervision charge 5% of the total cost					46.65
	GRAND TOTAL		3	933.00	0	979.65
10TH YEAR OPERATION						
1	Fireline Tracing and Inspection Path	Feb/Mar	1	311.00	0	311.00
2	Watch & ward and cultural operations	Apr-Mar	2	622.00	0	622.00
	SUB TOTAL		3	933.00	0	933.00
3	Monitoring & Supervision charge 5% of the total cost					46.65
	GRAND TOTAL		3	933.00	0	979.65
ABSTRACT						
SL. No.	Item of Work	No. Person Day	Labour cost @ Rs 311.00/- per day	Material cost (Rs)	Monitoring & Supervision charge 5% of the total cost	Total cost in (Rs)
1	0th Year operation	14.5	4509.50	500	250.48	5259.98
2	1st Year operation	64.5	20059.50	1636	1084.78	22780.28
3	2nd Year operation	21	6531.00	1238	388.45	8157.45
4	3rd Year operation	10	3110.00	200	165.50	3475.50
5	4th Year operation	3	933.00	0	46.65	979.65
6	5th Year operation	3	933.00	0	46.65	979.65
7	6th Year operation	3	933.00	0	46.65	979.65
8	7th Year operation	3	933.00	0	46.65	979.65
9	8th Year operation	3	933.00	0	46.65	979.65
10	9th Year operation	3	933.00	0	46.65	979.65
11	10th Year operation	3	933.00	0	46.65	979.65
	TOTAL	131	40741.00	3574.00	2215.76	46530.76

Annexure-II

Development of crate boulder masonry wall (Length of the wall = 1560 + 4210 mtr.)

1) E/W excavation by mechanical means,
 Qty. 5770 m x 2m x 0.3 = 3462 Cum @ Rs. 66.19 = Rs. 2,29,149.78

2) Providing crate boulder.
 Bottom layer: 5770m x 1.5m x 1.00 = 8655.00 Cum
 Second layer: 5770m x 1.00m x 1.00m = 5770.00 Cum
 14425.00 Cum
 @ Rs. 1540.18/Cum = Rs. 22217096.50
 Rs. 22446246.28
 Say Rs. 2,24,46,300.00

Annexure-III

Excavation of Earthen drain (Garland drain) (Length of the wall = 1560 + 4210 mtr.)

1) E/W excavation by mechanical means.
 5770 m x 2.00 x 1.5 = 17310.00 Cum @ Rs. 56.95/cum = Rs. 9,85,804.50
 Say Rs. 9,85,900.00

Annexure-IV

Excavation of settling pond

1) E/W excavation by mechanical means.
 2m x 1 m x 1m = 2.00 Cum @ Rs. 56.95/Cum = Rs. 113.90

2) Dry masonry wall, 1 nos. x 2.00 x (1.60+1.00)/2 x 2 = 2.6 Cum
 @ Rs. 533.83/Cum = Rs. 1387.958
 Rs. 1501.858
 Say Rs. 1510.000

3) Total 14 (6+8) numbers of Settling ponds = 8 x 1510.00 = Rs. 12,080.00


 Divisional Forest Officer,
 Boral Division.

REVISED FINANCIAL OUTLAY OF SCHEME FOR ASSISTED NATURAL REGENERATION OF THE FOREST IN 500 METER PERIMETER OF THE DISPATCH AREAS WITH A VIEW TO CREATE DENSE GREEN COVER SO AS TO MINIMISE DUST AND OTHER POLLUTION ON REST OF THE FOREST FOR DIVERSION OF 16.479 HA OF FOREST LAND FOR CONSTRUCTION OF OVERHEAD PIPED CONVEYOR BELT FROM KURMITAR ML BOUNDARY TO PROPOSED RAILWAY SIDING OF M/s ODISHA MINING CORPORATION LTD.

Wage rate @ ₹311/- per Manday

Sl. No.	Description of the work	Funds Required in Rs.
1.	ANR plantation @ 200 Plants/ Ha for 176.022 ha. @ Rs.46,530.76/ha (Ref-Annexure-I).	81,90,437.43
	Sub-Total :-	81,90,437.43
2.	Inspection, monitoring & evaluation @15% of the total project cost.	12,28,585.61
	Total :-	94,19,003.04
3.	Price escalation @20%	18,83,800.60
	Grand Total :-	1,13,02,803.65
		Or, 1,13,02,900.00

(Rupees One Crore Thirteen Lakh Two Thousand Nine Hundred) only.

Technically Approved

Regional Chief Conservator of Forests
Bourkela Circle

Divisional Forest Officer
Bona Division

AGENCY COPY

यूनियन बैंक Union Bank of India



NEFT / RTGS CHALLAN for CAMPA Funds

Date : 27-07-2021

Agency Name.	ODISHA MINING CORPORATION LTD
Application No.	19944967481
MoEF/SG File No.	8-113/2000-FC VOL-III
Location.	ORRISA
Address.	OMC House Khordha
Amount(in Rs)	70506100/-

Amount in Words :Seven Crore Five Lakh Six Thousand One Hundred Rupees Only

NEFT/RTGS to be made as per following details;

Beneficiary Name:	ORRISA CAMPA
IFSC Code:	UBIN0903710
Pay to Account No.	1508219944967481 Valid only for this challan amount.
Bank Name & Address:	Union Bank Of India Lodhi Complex Branch, Block 11,CGO Complex, Phase I, Lodhi Road, New Delhi -110003

This Challan is strictly to be used for making payment to CAMPA by NEFT/RTGS only

BANK COPY

यूनियन बैंक Union Bank of India



NEFT / RTGS CHALLAN for CAMPA Funds

Date : 27-07-2021

Agency Name.	ODISHA MINING CORPORATION LTD
Application No.	19944967481
MoEF/SG File No.	8-113/2000-FC VOL-III
Location.	ORRISA
Address:	OMC House Khordha
Amount(in Rs)	70506100/-

Amount in Words :Seven Crore Five Lakh Six Thousand One Hundred Rupees Only

NEFT/RTGS to be made as per following details;

Beneficiary Name:	ORRISA CAMPA
IFSC Code:	UBIN0903710
Pay to Account No.	1508219944967481 Valid only for this challan amount.
Bank Name & Address:	Union Bank Of India Lodhi Complex Branch, Block 11,CGO Complex, Phase I, Lodhi Road, New Delhi -110003

This Challan is strictly to be used for making payment to CAMPA by NEFT/RTGS only

After making successful payment, User Agencies may send a line of confirmation through Email: helpdeskcampa@corpbank.co.in

Note:After making the required payment through challan, if the payment status has not been updated even after 7 working days, then kindly mail a copy of your challan with transaction date to Email: cb0371@unionbankofindia.com

S. Mohapatra
28/7/2021

S. Mohapatra
Dy. General Manager (Fin)

UBIN0903710 864503



Details	Amount in Rs.
Additional Cost of CA	3,51,600/-
SSWLCP	5,88,51,500/-
Scheme for ANR Plantation in 500 meter	1,13,02,900/-
Total	7,05,06,100/-

Effective Available Balance: INR 4,93,13,861.93 (Cr)

Primary Account: Y

Lien Balance:
INR 2,002.95

[+ More Details](#)

[View Statement](#) 

Tran Id	Date	Remarks	Instrument ID	UTR Number	Amount (INR)	Balance (INR)
574714647	28/07/2021	NEFTO-ORRISA CAMPA. 000328655539	02001496	-	7,05,06,100.00 (Dr)	3,21,25,864.88
574714647	28/07/2021	Charges for PORD Customer Payment:UBINJ21209854503		-	29.50 (Dr)	10,26,31,964.88
AA724062	28/07/2021	BY DD NUM 48862144 PAID		-	1,850.00 (Cr)	10,26,31,994.38
AA724062	28/07/2021	By DD Num 48862143 Paid		-	2,000.00 (Cr)	10,26,30,144.38
AA447199	28/07/2021	TRF 101-50418		-	10,00,00,000.00 (Cr)	10,26,28,144.38

Viewing 1 to 5 of 86

Page

1

Download As

No More Records Available.



By E-mail

ବନଖଣ୍ଡ ଅଧୀକାରୀଙ୍କ କାର୍ଯ୍ୟାଳୟ: ବଣାଇ ବନଖଣ୍ଡ ।

OFFICE OF THE DIVISIONAL FOREST OFFICER: BONAI DIVISION.

Phone / Fax – 06626-244434; E-mail

AI-dfobonai.od@gov.in

No. 4966 /BF-(M&I) Dt. 25 6. 2021

To

The Addl General Manager, (Geo),
M/s Orissa Mining Corporation Ltd.,
OMC House, Bhubaneswar-751001.

Sub:-

Proposal for diversion of 85.175 ha of fresh forest land and 1.304 ha re-diversion of Forest land (which is a part of 11.912 ha forest land, for which Stage-II approval has already been accorded by ERO, MoEF&CC on 29.05.2020) for construction of overhead piped conveyor belt from Kurmitar ML Boundary of OMC Ltd to new proposed Railway siding at Barsuan for transportation of mineral with provision for one dispatch area in between the route and the other at terminal point at Barsuan.

Ref:-

1. Letter No.8-113/2000-FC (Vol-III) dt.4.2.2021 of the MoEF & CC, Govt
2. Letter No.8-113/2000-FC (Vol-III) dt.8.2.2021 of the MoEF & CC, Govt
3. Memo No 1418 dt.3.6.2021 & Memo No.1577 dt.24.6.2021 of the RCCF, Rourkela Circle, Rourkela.

Sir,

With reference to above, this is to inform you that the Scheme for Assisted Natural Regeneration of the forest in 500 meter perimeter of dispatch areas with a view to create dense green cover so as to minimize dust and other pollution on rest of the forest over 176.022 ha, identified in Barsuan Range of this Division in compliance with Condition No.A6 of the Stage-I approval in lieu of above said diversion proposal has approved by the Regional Chief Conservator of Forests, Rourkela Circle for ₹1,13,02,900/- at the wage rate of ₹311/- per MD vide his Memo No. under reference (3)

Hence, you are requested to deposit ₹ 1,13,02,900/- (Rupees One Crore Thirteen Lakh Two Thousand Nine Hundred) only through e-portal of MoEF & CC as provided in the <http://parivesh.nic.in>, and submit the original proof with seal and signature of the issuing Bank to this office for needful.

Yours faithfully,

Divisional Forest Officer,
Bonai Division

Memo No. 4967 /BF-Dt: 25 6. 2021

Copy forwarded to the Regional Manager, M/s Orissa Mining Corporation Ltd., ADPO-Koira, Dist-Sundargarh for information and necessary action.

Divisional Forest Officer,
Bonai Division



OFFICE OF THE REGIONAL CHIEF CONSERVATOR OF FORESTS, ROURKELA CIRCLE,
AT/P.O. PANPOSH, ROURKELA-769 004.

To Memo No. 1577/3F(Misc)755/2021 Date: 24.6.2021
The Divisional Forest Officer,
Bonai Forest Division.

Sub:- Proposal for diversion of 85.175 ha of fresh forest land and 1.304 ha re-
diversion of Forest Land (which is a part of 11.912 ha forest land for which
Stage-II approval has already been accorded by ERO, MoEF & CC on
29.05.2020) for construction of overhead piped conveyor belt Railway siding
at Barsuan for transportation of mineral with provision for one dispatch area in
between the route and the other at terminal point at Barsuan.

X-Sub:- Submission of 4 Nos. of revised financial outlay of Schemes.

Ref:- Your Memo No.4552 Dtd.11.06.2021.

The revised financial outlay of the following schemes prepared in compliance
with the conditions stipulated in the Stage-I approval accorded vide Letter No.8-113/2000-
FC (VoI-III) dt.4.2.2021 of the MoEF & CC, GoI in respect of the above diversion proposal
at the current wage rate of Rs.311/- per man day and submitted vide your Memo under
reference are hereby technically approved for the amount as indicated against each.

Sl. No.	Name of the scheme	Technical approval by the RCCF, Rourkela Circle.
01	Revised financial outlay of scheme for plantation between the banks of seasonal nala and the proposed dispatch area-2 for the development of green belt and soil and moisture conservation in the dispatch area to prevent Iron ore leaching from the dispatch areas in compliance with Condition No. A.4 with a total financial outlay of Rs.3,32,84,200/-	Technically approved for Rs.3,32,84,200/- (Rupees three crore thirty-two lakh eighty-four thousand two hundred) only
02	Revised financial outlay of Scheme for Assisted Natural Regeneration of the forest in 500 meter perimeter of dispatch areas with a view to create dense green cover so as to minimize dust and other pollution on rest of the forest in compliance with Condition No. A.6 with a total financial outlay of Rs.1,13,02,900/-	Technically approved for Rs.1,13,02,900/- (Rupees one crore thirteen lakh two thousand nine hundred) only
03	Revised financial outlay of Scheme for comprehensive soil conservation measures in compliance with Condition No. A.7 with a total financial outlay of Rs.15,20,800/-	Technically approved for Rs.15,20,800/- (Rupees fifteen lakh twenty thousand eight hundred) only

SCHEME FOR
COMPREHENSIVE SOIL CONSERVATION
MEASURES

FOR
DIVERSION OF 86.479 HA OF FOREST LAND FOR
CONSTRUCTION OF OVERHEAD PIPED CONVEYOR
BELT FROM KURMITAR ML BOUNDARY TO
PROPOSED RAILWAY SIDING

UNDER BONAI FOREST DIVISION

OF

M/s ODISHA MINING CORPORATION LTD.
(A GOVT. OF ODISHA UNDERTAKING)
OMC HOUSE, BHUBANESWAR-751001

(As per condition No. A.7 of the stage-I Forest clearance granted by MoEF & CC, Govt. of India vide F.No.8-
113/2000-FC (Vol-III) dt 04.02.2021)

(@ Rs 308.00 per manday)

SCHEME FOR COMPREHENSIVE SOIL CONSERVATION MEASURES FOR DIVERSION OF 86.479 HA OF FOREST LAND FOR CONSTRUCTION OF OVERHEAD PIPED CONVEYOR BELT FROM KURMITAR ML BOUNDARY TO PROPOSED RAILWAY SIDING OF M/S ODISHA MINING CORPORATION LTD.

1. INTRODUCTION

Odisha Mining Corporation Ltd had submitted a proposal for diversion of 86.479 ha of forest land, comprising of 85.175 ha of fresh forest land and 1.304 ha re-diversion of Forest land (which is a part of 11.912 ha forest land, granted Stage-II approval by ERO, MoEF&CC on 29.05.2020) for construction of overhead piped conveyor belt from Kurmitar ML Boundary to proposed Railway Siding in Tahsil Lahunipara, District Sundergarh. The proposal was placed before Forest Advisory Committee on 22nd December, 2020. As per the recommendation of FAC, Stage-I FC has been granted by MoEF & CC vide letter F. No. 8-113/2000-FC (Vol-III) dt. 04.02.2021. Condition n. A.7 of the Stage-I FC is read as under:

"The User agency will undertake comprehensive soil conservation measures at the project cost in consultation with the State Forest Department in the forest area being diverted. A scheme of the same shall be submitted along with compliance of Stage-I approval".

In compliance, a comprehensive scheme is prepared @ Rs. 308.00 per man day for implementation of the same by OMC.

2. LOCATION OF THE AREA

The project comes under Lahunipara Tahasil and Bonal Forest Division of Sundergarh District, Odisha. The entire stretch of proposed conveyor belt & Railway siding is bounded by Latitude: 21° 45' 31.31" - 21° 50' 08.16" N and Longitudes: 85° 07' 0.40" - 85° 09' 12.45" E of Survey of India Topo sheet No. F45N1. The area exhibits an undulated topography with varying elevations from 407 mtr (Min.) to 927 mtr (Max.) above Mean Sea Level (AMSL). The total length of the conveyor corridor of 15 meter width is nearly 8.315 KM and covers 12.47 ha. The total area of forest land including Dispatch Area 1, Dispatch Area 2 and Conveyor belt comes to 86.479 ha.

3. OBJECTIVE OF THE SCHEME:

The objectives of the proposed scheme are as follows:

- a) To meet the requirement of condition No. A.7 of the Stage-I approval of Govt. MoEF.
- b) Prevention of erosion of loose materials from Iron Ore Stackyard & erosion of top soil in non-working area which will be chance to chocking the natural streams as well as the effect in agriculture.
- c) Prevention of obstruction of natural water sources.
- d) Proper Management of diverted area so as to prevent siltation in the streams.
- e) Prevention of overflow of eroded soils from the proposed area to the cultivable lands, natural streams and inhabitations.

f) Prevention of overflow of eroded soils from the proposed areas to the cultivable lands, natural streams and inhabitations.

4. PROPOSED METHODOLOGY:

To achieve the above objectives it has been proposed to take up structural works for soil and water conservation. As per the current practice, check dams are constructed across the contour seasonal streams arising from the up-slope areas to arrest the sediment load to prevent choking of streams followed by de-silting before monsoon.

Soil & Moisture Conservation Measures will be done by constructing Loose Boulder Check Dams in the gullies and small streams in the mining lease area.

Since Loose Boulder Check Dams will be of varying length depending upon the size of gully/stream, estimate has been prepared to arrive at average cost per metre of Loose Boulder Check Dam.

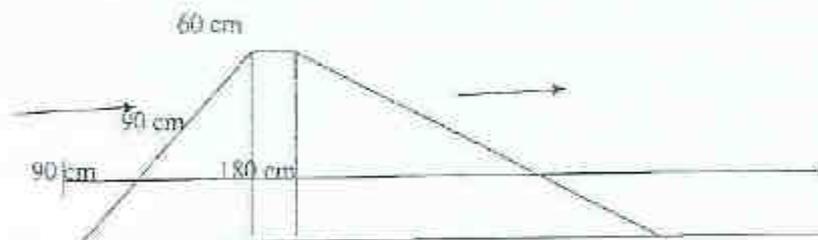
Estimate for Loose Boulder Check Dam is enclosed as Annexure-1.

Loose Boulder Check Dams in gullies:

Loose Boulder Check Dams should be constructed on the following principles:-

- Height of the dam should be the height of the bank or 90 cm whichever is higher.
- Series of check dams should be constructed on the gullies. Bottom level of Check Dam situated on higher slope and top level of the Check Dam located downstream should be same.
- Check Dam or any Soil Conservation Measure should start from the top where the erosion starts and move downwards.
- Check Dam should be constructed where the gully or nala is narrowest and the bank is strong. The tendency of constructing big check dams at wide and accessible points should be avoided.
- For construction of loose boulder check dams as big stones as possible to fit the design should be used and small stones may be used to fill interstices to make the structure stable.
- If possible the construction of loose boulder check dams should be done before plantation is taken up in the area to prevent damage of planted seedlings.

The following simple design should be followed for loose boulder check dams:



- Volume of stone work will be Cross section of check dam is sq.mtr x length of check dam in mtr. For example, as per the drawing shown above, the volume calculation for a 2.5 mtr long check dam will be:-

Cross section:

Foundation $4.5 \text{ mtr} \times 0.25 \text{ mtr} = 1.125 \text{ sq.mtr}$

Super structure $(3.5 \text{ m} \times 0.6 \text{ m})/2 \times 0.9 \text{ m} = 0.891 \text{ sq.mtr}$

$0.891 \text{ mtr} + 1.125 \text{ sq.mtr} = 2.016 \text{ sq.mtr}$

Volume = $2.016 \text{ sq.mtr} \times 2.5 \text{ mtr} = 5.04 \text{ cu.m}$

Volume of stone for a 2.5 mtr long loose boulder check dam is 5.04 cu.m.

Volume of check dams of different lengths can be calculated accordingly.

Estimate of a standard loose boulder check dam is furnished at Annexure-1

5. INSPECTION, MONITORING AND EVALUATION:

For successful implementation of the above mitigative measures, intensive inspection and technical guidance from concerned technical wing of the User Agency is required. The work will also be inspected and evaluated by officers of Forest Department and MoEF & CC.

6. EXECUTING AGENCY

The work in the present Scheme shall be executed by the User Agency.

7. REQUIREMENT OF FUNDS

The total cost of the implementation of the project will be Rs. 14,57,970/- (Rupees Fourteen lakhs fiftyseven thousand nine hundred seventy) only. This budget will be subject to increase in amount considering the increase in materials and labour charges.

Sl No.	Description of the work	Funds Required in Rs.
1	Loose Boulder Check Dams over 500 Running Metres in gullies and streams within the proposed area @ Rs 2113 per metre.	10,56,500.00
	Sub-total	10,56,500.00
6	Inspection, monitoring & evaluation @15% of the total project cost	158475.00
	Total	12,14,975.00
7	Price escalation @20%	2,42,995.00
	Grand Total	14,57,970.00


Forest Range Officer
Boruan Range

Technically Approved


Divisional Forest Officer
Borai Forest Division


Regional Chief Conservator of Forests
Rourkela Circle

Estimate for Loose Boulder Check Dam of length 2.5 mtr

Foundation and apron 25 cm thick.

Top width 60 cm

Height of check dam above the foundation is 90 cm.

Uphill side width 90 cm.

Downhill side width should be 180 cm.

Uphill side apron 30 cm and downhill side apron 90 cm.

Analysis of Rate

Particulars of work	No./Quantity	Rate	Amount
Earth work in hard or gravelly soil within 50m. Initial lead and 1.5m. Initial lift including rough dressing of clods to maximum 5 cm. to 7 cm and laying in layers not exceeding 0.3 m. in depth (per 100 cum.)	43	308.00	13244.00
Mulla			264.88
2% sundries and T & P etc.	Total		13508.88
Rough stone dry packing in aprons and revetments with hard granite stones (15 to 30 cm size) per cum	1	507.96	507.96
Granite broken stone 1 cum.	0.17	458.00	77.86
Mason (Special)	0.35	348.00	121.80
Stone packer	1.04	308.00	320.32
Mulla			20.56
2% sundries, T & P etc.	Total		1048.50

Estimate for construction of Loose Boulder Check Dam
Length of Loose Boulder Check Dam 2.5 Mtr

Particulars of work	Volume	Rate in Rupees	Total amount in Rupees
Earth work in hard or gravelly soil within 50m. Initial lead and 1.5m. Initial lift including rough dressing of clods to maximum 5 cm. to 7 cm and laying in layers not exceeding 0.3 m. in depth			
Dressing the side of banks and foundation on L.S	L.S	200.00	200.00
Rough stone dry packing in aprons and revetments with hard granite stones (15 to 30 cm size) per cum			
Foundation	4.5 mtr x 0.25 mtr = 1.125 sq.m		
Super structure	(3.3mx0.6m)/2x 0.9m=0.891 sq.m		
0.891 sq. mtr + 1.125 sq.mtr = 2.016 sq.mtr	5.04		
Volume = 2.016 sq.mtr x 2.5 mtr = 5.04 cu.m	cu.m	1048.50	5281.92
Total			5281.92

Cost per running metre of L.B.C.D of 90 cm height = Rs 5281.92/2.5 = Rs. 2112.768 or say Rs.2113/-


 District Forest Officer
 Bouda Division

REVISED FINANCIAL OUTLAY OF SCHEME FOR COMPREHENSIVE SOIL CONSERVATION MEASURES FOR DIVERSION OF 86.479 HA OF FOREST LAND FOR CONSTRUCTION OF OVERHEAD PIPED CONVEYOR BELT FROM KURMITAR ML BOUNDARY TO PROPOSED RAILWAY SIDING OF M/S ODISHA MINING CORPORATION LTD.

COMP
IF 86.4
CON
ILWA
IN LT

Wage rate @ ₹311/- per Manday

day

Sl. No.	Description of the work	Funds Required in Rs.
1.	Loose Boulder Check Dams over 500 Running Metres in gullies and streams within the proposed area @ ₹ 2204.00 per metre. (Ref-Annexure-1)	11,02,000.00
	Sub-total	11,02,000.00
2.	Inspection, monitoring & evaluation @15% of the total project cost	1,65,300.00
	Total	12,67,300.00
3.	Price escalation @20%	2,53,460.00
	Grand Total	15,20,760.00 Or 15,20,800.00

(Rupees Fifteen Lakh Twenty Thousand Eight Hundred) only.


Divisional Forest Officer
Bonai Division

Technically Approved


Regional Chief Conservator of Forests
Rourkela Circle

Estimate for Loose Boulder Check Dam of length 2.5 mtr

Annexure-2

Foundation and apron 25 cm thick,

Top width 60 cm

Height of check dam above the foundation is 90 cm.

Uphill side width 90 cm.

Downhill side width should be 180 cm.

Uphill side apron 30 cm and downhill side apron 90 cm.

Analysis of Rate

Particulars of work	No./ Quantity	Rate	Amount
Earth work in hard or gravelly soil within 50m. Initial lead and 1.5m. Initial lift including rough dressing of clods to maximum 5 cm. to 7 cm and laying in layers not exceeding 0.3 m. in depth (per 100 cum.)	43	311.00	13373.00
Mafia			267.45
2% sundries and T & P etc.	Total		13640.46
Rough stone dry packing in aprons and revetments with hard granite stones (15 to 30 cm size) per cum.		507.96	507.96
Granite broken stone 1 cum.	0.17	461.00	78.37
Mason (Special)	0.35	351.00	122.85
Stone pecker	1.04	311.00	323.44
Mafia			20.65
2% sundries, T & P etc.	Total		1053.27

Estimate for construction of Loose Boulder Check Dam

Length of Loose Boulder Check Dam 2.5 Mtr

Particulars of work	Volume	Rate in Rupees	Total amount in Rupees
Earth work in hard or gravelly soil within 50m. Initial lead and 1.5m. Initial lift including rough dressing of clods to maximum 5 cm. to 7 cm and laying in layers not exceeding 0.3 m. in depth			
Dressing the side of banks and foundation on L.S	L.S	200.00	200.00
Rough stone dry packing in aprons and revetments with hard granite stones (15 to 30 cm size) per cum			
Foundation: 4.5 mtr x 0.25 mtr = 1.125 sq.m			
Super structure (3.3m x 0.6m) 2 x 0.3m = 0.891 sq.m			
0.891 sq. mtr + 1.125 sq. mtr = 2.016 sq. mtr	5.04		
Volume = 2.016 sq. mtr x 2.5 mtr = 5.04 cu. m	cu. m.	1053.27	5308.48
Total			5508.48

Cost per running metre of L.B.C.D of 90 cm height = Rs. 5508.48/2.5 = Rs. 2203.39 or

say Rs. 2204/-

Divisional Forest Officer,

Scanned by CamScanner



OFFICE OF THE REGIONAL CHIEF CONSERVATOR OF FORESTS, ROURKELA CIRCLE,
AT/P.O. PANPOSH, ROURKELA-769 004.

Memo No. 1577/3F(Misc)756/2021 Date: 24.6.2021

To

The Divisional Forest Officer,
Bonal Forest Division.

Sub:- Proposal for diversion of 85.175 ha of fresh forest land and 1.304 ha re-diversion of Forest Land (which is a part of 11.912 ha forest land for which Stage-II approval has already been accorded by ERO, MoEF & CC on 29.05.2020) for construction of overhead piped conveyor belt Railway siding at Barsuan for transportation of mineral with provision for one dispatch area in between the route and the other at terminal point at Barsuan.

X-Sub:- Submission of 4 Nos. of revised financial outlay of Schemes.

Ref:- Your Memo No.4552 Dtd.11.06.2021.

The revised financial outlay of the following schemes prepared in compliance with the conditions stipulated in the Stage-I approval accorded vide Letter No.8-113/2000-FC (VoI-III) dt.4.2.2021 of the MoEF & CC, GoI in respect of the above diversion proposal at the current wage rate of Rs.311/- per man day and submitted vide your Memo under reference are hereby technically approved for the amount as indicated against each.

Sl. No.	Name of the scheme	Technical approval by the RCCF, Rourkela Circle.
01	Revised financial outlay of scheme for plantation between the banks of seasonal nala and the proposed dispatch area-2 for the development of green belt and soil and moisture conservation in the dispatch area to prevent Iron ore leaching from the dispatch areas in compliance with Condition No. A.4 with a total financial outlay of Rs.3,32,84,200/-	Technically approved for Rs.3,32,84,200/- (Rupees three crore thirty-two lakh eighty-four thousand two hundred) only
02	Revised financial outlay of Scheme for Assisted Natural Regeneration of the forest in 500 meter perimeter of dispatch areas with a view to create dense green cover so as to minimize dust and other pollution on rest of the forest in compliance with Condition No. A.5 with a total financial outlay of Rs.1,13,02,900/-	Technically approved for Rs.1,13,02,900/- (Rupees one crore thirteen lakh two thousand nine hundred) only
03	Revised financial outlay of Scheme for comprehensive soil conservation measures in compliance with Condition No. A.7 with a total financial outlay of Rs.15,20,800/-	Technically approved for Rs.15,20,800/- (Rupees fifteen lakh twenty thousand eight hundred) only

Forest Dept.
Bhubaneswar

04	Revised financial outlay of Scheme for creation and maintenance of plantation of dwarf species (preferably medicinal plants) in the right of way under the conveyor belt in compliance with Condition No. A.8 with a total financial outlay of Rs.21,67,600/-	Technically approved for Rs.21,67,600/- (Rupees twenty-one lakh sixty-seven thousand six hundred) only
----	--	--

The technically approved financial outlays each in duplicate are returned herewith for taking further necessary action at your end, the receipt of which may please be acknowledged.

Encl: As above.

Regional Chief Conservator of Forests,
Rourkela Circle

Memo No. _____ Date: _____

Copy forwarded to the Chief Conservator of Forests (Forest Diversion & Nodal Officer, FC Act), O/o the Pr.CCF, Odisha for favour of kind information and necessary action with reference to Memo No.4278 dtd.24.05.2021 of the DFO, Bonal Division.

Regional Chief Conservator of Forests,
Rourkela Circle

SCHEME FOR

CREATION AND MAINTENANCE OF PLANTATION OF
DWARF SPECIES (PREFERABLY MEDICINAL PLANTS)
IN THE RIGHT WAY UNDER THE CONVEYOR BELT

FOR

DIVERSION OF 86.479 HA OF FOREST LAND FOR
CONSTRUCTION OF OVERHEAD PIPED CONVEYOR
BELT FROM KURMITAR ML BOUNDARY TO
PROPOSED RAILWAY SIDING

UNDER BONAI FOREST DIVISION

OF

M/s ODISHA MINING CORPORATION LTD.
(A GOVT.OF ODISHA UNDERTAKING)
OMC HOUSE, BHUBANESWAR-751001

[As per condition No. A.3 of the stage-I Forest clearance granted by MoEF & CC, Govt. of India vide F.No.8-
113.2000-FC (Vol-III) dt 04.02.2021]

(@ Rs 308.00 per manday)

SCHEME FOR CREATION AND MAINTENANCE OF PLANTATION OF DWARF SPECIES (PREFERABLY MEDICINAL PLANTS) IN THE RIGHT WAY UNDER THE CONVEYOR BELT FOR DIVERSION OF 86.479 HA OF FOREST LAND FOR CONSTRUCTION OF OVERHEAD PIPED CONVEYOR BELT FROM KURMITAR ML BOUNDARY TO PROPOSED RAILWAY SIDING OF M/S ODISHA MINING CORPORATION LTD.

1.0 Introduction:

Odisha Mining Corporation Ltd had submitted a proposal for diversion of 86.479 ha of forest land, comprising of 85.175 ha of fresh forest land and 1.304 ha re-diversion of Forest land (which is a part of 11.912 ha forest land, granted Stage-II approval by ERO, MoEF&CC on 29.05.2020) for construction of overhead piped conveyor belt from Kurmitar ML Boundary to proposed Railway Siding in Tahsil Lahunipara, District Sundergarh. The proposal was placed before Forest Advisory Committee on 22nd December, 2020. As per the recommendation of FAC, Stage-I FC has been granted by MoEF & CC vide letter F. No. 8-113/2000-FC (Vol-III) dt. 04.02.2021. Condition n. A.8 of the Stage-I FC is read as under:

"The User agency in consultation with the State Forest Department shall prepare a detailed scheme for creation and maintenance of plantation of dwarf species (preferably medicinal plants) for its implementation in right of way under the conveyor belt at the project cost".

In compliance, a comprehensive scheme is prepared @ Rs. 308.00 per man day for implementation of the same by the user agency.

2.0 LOCATION OF THE AREA

The project comes under Lahunipara Tahasil and Bonai Forest Division of Sundergarh District, Odisha. The entire stretch of proposed conveyor belt & Railway siding is bounded by Latitude: 21° 45' 31.31" - 21° 50' 08.16" N and Longitudes: 85° 07' 0.40" - 85° 09' 12.48" E of Survey of India Topo sheet No. F45N1. The area exhibits an undulated topography with varying elevations from 403 mtr (Min.) to 927 mtr (Max.) above Mean Sea Level (AMSL). The total length of the conveyor corridor of 15 meter width is nearly 8.315 KM and covers 12.47 ha. The total area of forest land including Dispatch Area 1, Dispatch Area 2 and Conveyor belt comes to 86.479 ha. The area details of conveyor corridor and inspection path is given as under:

Sl. No.	Pattern of Utilization	Forest Land involved	Category of Forests in ha		
			RF	PRF	Total
1	Conveyor Corridor-1 including 0.623 ha for construction of 127 nos. of trestle pillars (Khandadhar RF -63 & Khandadhar PRF-64)	Virgin Forest Land	1.018	1.142	2.160
		Re-diversion	0	0.031	0.031
Sub-Total			1.018	1.173	2.191

5	Conveyor Corridor-2 including 1.073 ha for construction of 219 nos. of trestle pillars (Terha RF-01 & Khandadhar PRF -216, Non-Forest land-02)	Virgin Forest Land	0.033	3.557	3.590
Grand Total			1.051	4.73	5.781
So the plantation Proposed over the Area= 5.781-0.623-1.073=4.085 ha					

3.0 PLANTATION MODEL:-

Block Plantation over 4.085 ha will be carried out @ 1600 plants/Ha. All planting & post planting measures like casualty replacement, soil working, manuring, fire protection etc. will be undertaken as given in Cost norm for Block plantation with 1600 seedlings furnished as Annexure-I.

While taking up plantation, the following vital points shall be taken up for consideration.

- ❖ Care to be taken to raise healthy seedlings of minimum 60 cm height. 10% extra seedlings are to be raised for replacement of casualty.
- ❖ Pitting shall invariably be done during November-February i.e., before onset of monsoon. If possible the soil of upper portion and lower portion of pit should be placed separately in specific direction so that while planting the pits will be filled with top-soil first.
- ❖ Planting shall be done on the onset of monsoon to get full benefit of monsoon rain and should not be delayed.
- ❖ Basal dose of 50 grams of NPK and 5 grams of Chlorpyrifos dust per plant should be applied at the time of planting carefully by mixing with top-soil so that the roots of seedlings do not come in direct contact with fertiliser.
- ❖ In case of any mortality of planted seedlings, it should be replaced with good seedlings as soon as possible for better success rate.
- ❖ Complete weeding in proper time will be done. Strip weeding will not be permitted.
- ❖ Soil-working and application of 2nd dose fertilizer of 50 gms NPK/plant should be done in time

Since the area is provided with barbed wire fence, watch & ward will be easier. Watchers may be engaged in weeding in problematic areas alongwith watch & ward.

Spacing: The spacing adopted for the plantation in gaps is 2.5 mtr X 2.5 mtr. Alignment and pit marking should be done carefully in slopes so that the horizontal distance between plants in a row remains 2.5 mtrs and not the distance measured along the slope.

Species to be planted

The following species may be planted: -

Sl No	Species	Local name
1	<i>Annona squamosa</i>	Sitaphal, Ata
2	<i>Ziziphus mauritiana</i>	Barakoli
3	<i>Oroxylum indicum</i>	Phanaphana
4	<i>Phyllanthus emblica</i>	Amla
5	<i>Lagerstroemia reginae</i>	Patuli
6	<i>Terminalia bellirica</i>	Bahada
7	<i>Mimusops elengi</i>	Baula

Although it is not Compensatory Afforestation which requires maintenance for 7 to 10 years, for success of the plantation, maintenance has been provided for 10 years.

Nursery: Good seeds from middle aged healthy plants should be collected. Treatment of seeds should be done wherever necessary. Soil, Cow Dung Manure and sand should be mixed properly and polythene bags should be filled carefully. In case of disease or insects attack, proper fungicide and insecticide should be applied in time. Watering should be done judiciously. Weak seedlings should be culled from the beginning to obtain healthy plantable seedlings.

Spacing: A single row plantation of dwarf species will be taken up in a 3 mtr wide strip. Spacing between plants in a row will be 2.5 mtrs. In the gaps available in remaining right of way of 21 mtr width, the spacing will be 2.5 mtr X 2.5 mtr.

Digging of pits: 30 cm x 30 cm x 30 cm size pits to be dug before onset of monsoon, preferably between November to March. Soil on upper and lower portion of pit should be put separately in specific direction so that while planting, the pits will be filled with top soil first.

Plantation: Planting should be done after onset of monsoon and in no case the planting should be delayed. Polythene bags from the seedlings should be removed carefully without disturbing ball of earth. After putting the seedlings carefully, the pits should be filled first with top soil mixed with fertiliser and insecticide and then bottom soil should be put in the pit and compacted properly. Planting site should be made saucer shaped in plains and in slopes half-moon trench should be provided. In case of mortality, casualty replacement should be done as soon as possible.

Post-planting operation: Weeding, Soil-working, application of fertilizer etc should be done in time properly.

4. EXECUTING AGENCY

The work in the present Scheme shall be executed by OMC.

5. REQUIREMENT OF FUNDS

The total cost of the implementation of the project will be Rs.21,60,000/- (Rupees Twenty One Lakhs Sixty Thousand) only. This budget will be subject to increase in amount considering the increase in materials and labour charges.

Sl No.	Description of the work	Funds Required in Rs.
1.	Block plantation @ 1600 Plants (18 months old seedling)/ Ha for 4.985 ha @ Rs.4,40,617.34/Ha (Annexure-I)	17,99,921.83
	Sub-Total	17,99,921.83
3.	Price escalation @20%	3,59,984.36
	Grand Total	21,59,906.19
		Or Say 21,60,000.00

Technically Approved

Regional Chief Conservator of Forests
Rourkela Circle


Divisional Forest Officer
Bona Forest Division

COST NORM FOR BLOCK PLANTATION @1600 PLANTS PER HECTARE
(18 months old seedlings)
WAGE RATE ₹ 308.00 per day

Sl No.	Item of works	Preferable period of execution	Labour in Mandays	Labour cost @308.00	Material cost (Rs.)	Total Cost (Rs.)
1	2	3	4	5	6	7
PREVIOUS YEAR (ADVANCE WORK) NURSERY RAISING						
1	Nursery cost (18 month Old seedlings) @Rs. 34.84/- part (Rs.8.88 to be released) for 1760 (1600+160)	Nov - March	44	13552.00	2,956.80	16508.80
	Total :-		44	13552.00	2,956.80	16508.80
2	Monitoring & Supervision charge 5% of the total cost.					825.44
	G.Total :-		44	13552.00	2,956.80	17334.24
0th Year (Advance Work) Pre-Planting Operation						
1	Survey, Demarcation & Pillar Posting	Nov / Dec	2	616.00		616.00
2	Site preparation	Nov / Dec	12	3696.00		3696.00
3	Align and stacking of pits	Jan/ Feb	2	616.00		616.00
4	Digging of pits(30cm cube)	Feb / Mar	40	12320.00		12320.00
5	Nursery cost (18 months old seedlings) @ ₹ 34.94/- seedling, part ₹ 22.14 for 1760 seedlings (1600+160)	Apr - March	111.67	34364.36	7698.80	42063.16
	Total :-		167.67	51642.36	7698.80	59341.16
6	Monitoring & Supervision charge 5% of the total cost.					2967.06
	G.Total :-		167.67	51642.36	7698.80	62308.22
1st Year/Planting Year						
7	Nursery cost (18 months old seedlings) balance @ ₹ 4.02 for 1760 seedlings	Apr-Jul	22	6776.00	815.20	7691.20
9	Cartage & planting, casualty replacement and application of insecticides, manure etc.	Jul/Aug	21	6468.00	0	6468.00
10	Cost of insecticide & fertiliser (a) NPK @ 50 gms / plant as basal dose = 80kg @ ₹ 24/- per kg = ₹ 1920.00 (b) Urea @ 70 gms / plant in two subsequent doses @ ₹ 5/- per kg = ₹ 672.00 (c) Granular insecticide (Thiomit, Forale etc) @ 5 gms / plant @ ₹ 80/- per kg = Rs 640/-	Jul/Aug			3232	3232.00
11	1st weeding (complete weeding)	Aug/Sep	7	2158.00	0	2158.00
12	Manuring urea 35 gm	Aug/Sep	5	1540.00	0	1540.00
13	2nd weeding (complete weeding)	Sep/Oct	5	1540.00	0	1540.00
14	Soil working (50 cms radius around plant) and manuring Urea 35 gms per plant	Sep/Oct	7	2158.00	0	2158.00
15	Soil conservation measures in the form of staggered trenches of size 2 m x 0.5 m x 0.5 m @ 30 nos per ha.	Sep/Oct	10	3080.00	0	3080.00
16	Fireline tracing & inspection path	Feb / Mar	3	924.00	0	924.00

Sl No.	Item of works	Preferable period of execution	Labour in Mandays	Labour cost @308.00	Material cost (Rs.)	Total Cost (Rs.)
1.	2	3	4	5	6	7
17	Water for 5 months, 10 days per months from Nov-March including cost of water, labour and transportation through tractor/tanker @ Rs.84/- per seedlings for 1600 nos.	Nov-Mar			134400	134400.00
18	Watch and ward	Aug-Mar	7	2156.00	0	2156.00
	Total :-		87	26796.00	138547.2	165343.20
19	Monitoring & Supervision charge 5% of the total cost.					8267.16
	G.Total :-		87	26796	138547.2	173610.36
2nd Year Maintenance						
20	Casualty replacement (10%) with Nursery cost	Jul/Aug	4	1232.00	5574.40	6806.40
21	Weeding (complete weeding)	Sep/Oct	6	1848.00	0	1848.00
22	Cost of fertiliser (NPK @ 70 gms / plant) (Rs. 24/- per kg & Insecticide @ 5gms / plant for 160 plants 800 gms @ Rs.80/- per kg)				2752	2752.00
23	Soil working (50 cms. Radius around plants)	Oct/Nov	7	2156.00	0	2156.00
24	Application of fertilizer & insecticide	Sep/Oct	4	1232.00	0	1232.00
25	Fire line tracing (2m. wide fire line over 400 m L)	Feb / Mar	3	924.00	0	924.00
26	Water for 8 months, 5 days per months from Nov-March including cost of water, labour and transportation through tractor/tanker (April-June, & Nov-Mar) @ Rs.67.20 per seedlings for 1600 nos.	Nov-Mar			107520	107520.00
27	Watch and ward	Apr-Mar	15	4620.00	0	4620.00
	Total :-		39	12012.00	115846.40	127858.40
28	Monitoring & Supervision charge 5% of the total cost.					6392.92
	G.Total :-		39	12012	115846.40	134251.32
3rd year Maintenance						
29	Weeding and application fertilizer	Aug/Sep	7	2156.00	0	2156.00
30	cost of Fertiliser (NPK @ 50 gms / plant) @ Rs.24/- per kg		0	0.00	1920	1920.00
31	Soil working (50 cms radius around plant) & application of fertilizer	Oct/Nov	7	2156.00	0	2156.00
32	Fire line tracing (2m. Wide fire line over 400 mtr Long) & cultural operation	Feb / Mar	3	924.00	0	924.00
33	Watch and ward	Apr-Mar	15	4620.00	0	4620.00
	Total :-		32	9856.00	1920	11776.00
34	Monitoring & Supervision charge 5% of the total cost.					588.80
	G.Total :-		32	9856	1920	12364.80
4th Year Maintenance						
35	Fire line tracing (2m. Wide fire line over 400 m long) & cultural operation	Feb / Mar	3	924.00	0	924.00
36	Watch and ward	Apr-Mar	15	4620.00	0	4620.00
	Total :-		18	5544.00	0	5544.00

Sl No.	Item of works	Preferable period of execution	Labour in Mandays	Labour cost @308.00	Material cost (Rs.)	Total Cost (Rs.)
1	2	3	4	5	6	7
37	Monitoring & Supervision charge 5% of the total cost					277.20
	G.Total :-		18	5544	0	5821.20
5th Year Maintenance						
38	Fire line tracing (2m. Wide fire line over 400 m long) & cultural operation	Feb / Mar	3	924.00	0	924.00
39	Watch and ward	Apr-Mar	15	4620.00	0	4620.00
	Total :-		18	5544.00	0	5544.00
40	Monitoring & Supervision charge 5% of the total cost					277.20
	G.Total :-		18	5544	0	5821.20
6th Year Maintenance						
41	Fire line tracing (2m. Wide fire line over 400 m long) & cultural operation	Feb / Mar	3	924.00	0	924.00
42	Watch and ward	Apr-Mar	15	4620.00	0	4620.00
	Total :-		18	5544.00	0	5544.00
43	Monitoring & Supervision charge 5% of the total cost					277.20
	G.Total :-		18	5544	0	5821.20
7th Year Maintenance						
44	Fire line tracing (2m. Wide fire line over 400 m long) & cultural operation	Feb / Mar	3	924.00	0	924.00
45	Watch and ward	Apr-Mar	15	4620.00	0	4620.00
	Total :-		18	5544.00	0	5544.00
46	Monitoring & Supervision charge 5% of the total cost					277.20
	G.Total :-		18	5544	0	5821.20
8th Year Maintenance						
47	Fire line tracing (2m. Wide fire line over 400 m long) & cultural operation	Feb / Mar	3	924.00	0	924.00
48	Watch and ward	Apr-Mar	15	4620.00	0	4620.00
	Total :-		18	5544.00	0	5544.00
49	Monitoring & Supervision charge 5% of the total cost					277.20
	G.Total :-		18	5544	0	5821.20
9th Year Maintenance						
50	Fire line tracing (2m. Wide fire line over 400 m long) & cultural operation	Feb / Mar	3	924.00	0	924.00
51	Watch and ward	Apr-Mar	15	4620.00	0	4620.00
	Total :-		18	5544.00	0	5544.00
52	Monitoring & Supervision charge 5% of the total cost					277.20
	G.Total :-		18	5544	0	5821.20
10th Year Maintenance						
53	Fire line tracing (2m. Wide fire line over 400 m long) & cultural operation	Feb / Mar	3	924.00	0	924.00
54	Watch and ward	Apr-Mar	15	4620.00	0	4620.00
	Total :-		18	5544.00	0	5544.00
55	Monitoring & Supervision charge 5% of the total cost					277.20
	G.Total :-		18	5544	0	5821.20

Sl. No.	Item of works	Preferable period of execution	Labour in Mandays	Labour cost @308.00	Material cost (Rs.)	Total Cost (Rs.)
	2	3	4	5	6	7
1			451.67	139114.36	264012.40	423283.10
G. total						

ABSTRACT					
Year	No. person days	Labour cost @308.00 per day	Material cost (Rs.)	Monitoring & Supervision charge 5% of the total cost	Total cost Rs.
Previous Year	44.00	13552.00	2956.80	825.44	17334.24
0th year	167.67	51642.36	7698.80	2967.36	62306.22
1st year	87.00	26706.00	138547.20	8267.16	173510.36
2nd year	39.00	12012.00	116846.40	6392.92	134251.32
3rd year	32.00	9856.00	1920.00	588.80	12354.80
3rd year	18.00	5544.00		277.20	5821.20
4th year	18.00	5544.00		277.20	5821.20
5th year	18.00	5544.00		277.20	5821.20
6th year	18.00	5544.00		277.20	5821.20
7th year	18.00	5544.00		277.20	5821.20
8th year	18.00	5544.00		277.20	5821.20
9th year	18.00	5544.00		277.20	5821.20
10th year	18.00	5544.00		277.20	5821.20
Total	495.67	152668.4	266969.20	20981.78	440617.34


 Divisional Forest Officer,
 Bonal Division.

COST NORM. FOR BLOCK PLANTATION @1600 PLANTS PER HECTARE
(18 months old seedlings)

WAGE RATE ₹ 311.00 per day

Sl. No.	Item of works	Preferable period of execution	Labour in Mandays	Labour cost @₹311.00	Material cost (₹s.)	Total Cost (₹s.)
1	2	3	4	5	6	7
PREVIOUS YEAR (ADVANCE WORK) NURSERY RAISING						
1	Nursery cost: (18 month Old seedlings) @₹5.04 84/- part (₹5.85 to be released) for 1780 (1500+150)	Nov - March	44	13684.00	2,956.30	16640.00
	Total :-		44	13684.00	2,956.80	16640.80
2	Monitoring & Supervision charge 5% of the total cost.					832.04
	G.Total :-		44	13684.00	2,956.80	17472.84
0th Year (Advance Work) Pre-Planting Operation						
1	Survey, Demarcation & Pillar Posting	Nov / Dec	2	622.00	-	622.00
2	Site preparation	Nov / Dec	12	3732.00	-	3732.00
3	Align and stacking of pits	Jan / Feb	2	622.00	-	622.00
4	Digging of pits (30cm cube)	Feb / Mar	40	12440.00	-	12440.00
5	Nursery cost (18 months old seedlings) @₹ 34.84/- seedling, part ₹ 22.14 for 1780 seedlings (1600+180)	Apr - March	111.67	34720.37	7698.3	42428.17
	Total :-		167.67	52145.37	7698.30	59814.17
6	Monitoring & Supervision charge 5% of the total cost.					2992.21
	G.Total :-		167.67	52145.37	7698.50	52836.38
1st Year/Planting Year						
7	Nursery cost (18 months old seedlings) balance @ ₹ 4.02 for 1760 seedlings	Apr-Jul	22	6842.00	910.2	7757.20
8	Carriage & planting, casualty replacement and application of insecticides, manure etc.	Jul/Aug	2	622.00	0	622.00
9	Cost of insecticide & fertilizer (a) NPK @ 50 gms / plant as base dose = 50kg @ ₹24/- per kg = ₹1920.00 (b) Urea @ 70 gms / plant in two subsequent doses @ ₹3/- per kg = ₹ 672.00 (c) Granular insecticide (Thiomol, I-mate etc) @ 5 gms / plant @ ₹ 80/- per kg = Rs.640/-	Jul/Aug			3232	3232.00
10	1st weeding (complete weeding)	Aug/Sep	7	2177.00	0	2177.00
11	Manuring urea 35 gm	Aug/Sep	5	1555.00	0	1555.00
12	2nd weeding (complete weeding)	Sep/Oct	5	1555.00	0	1555.00
13	Soil working (50 cms radius around plant) and manuring Urea 35 gms per plant	Sep/Oct	7	2177.00	0	2177.00
14	Soil conservation measures in the form of staggered trenches of size 2 m x 0.5 m x 0.5 m @ 30 nos per ha.	Sep/Oct	10	3110.00	0	3110.00
15	Fireline tracing & inspection falls	Feb / Mar	3	933.00	0	933.00

Item of works	Preferable period of execution	Labour in Mandays	Labour cost @311.00	Material cost (Rs.)	Total Cost (Rs.)
2	3	4	5	6	7
Water for 5 months. 10 days per months from Nov-March including cost of water, labour and transportation through tractor/tanker @ Rs.84/- per seedlings for 1600 nos.	Nov-Mar			134400	134400.00
18 Watch and ward	Aug-Mar	7	2177.00	0	2177.00
Total :-		87	27057.00	138547.2	165604.20
19 Monitoring & Supervision charge 5% of the total cost.					8280.21
G.Total :-		87	27057	138547.2	173884.41
2nd Year Maintenance					
20 Casualty replacement (10%) with Nursery cost	Jul/Aug	4	1244.00	5574.40	6818.40
21 Weeding(complete weeding)	Sep/Oct	6	1866.00	0	1866.00
22 Cost of fertiliser (NPK @ 70 gms / plant) (Rs. 24/- per kg & Insecticide @5gms / plant for 160 plants 800 gms @ Rs.80/- per kg)				2752	2752.00
23 Soil working (50 cms. Radius around plants)	Oct/Nov	7	2177.00	0	2177.00
24 Application of fertilizer & insecticide	Sep/Oct	4	1244.00	0	1244.00
25 Fire line tracing(2m. wide fire line over 400 m L)	Feb / Mar	3	933.00	0	933.00
26 Water for 8 months. 5 days per months from Nov-March including cost of water, labour and transportation through tractor/tanker (April-June, & Nov-Mar) @ Rs.67.20 per seedlings for 1600 nos.	Nov-Mar			107520	107520.00
27 Watch and ward	Apr-Mar	15	4665.00	0	4665.00
Total :-		39	12129.00	115846.40	127975.40
28 Monitoring & Supervision charge 5% of the total cost.					6398.77
G.Total :-		39	12129	115846.40	134374.17
3rd year Maintenance					
29 Weeding and application fertiliser	Aug/Sep	7	2177.00	0	2177.00
30 cost of Fertiliser (NPK @ 50 gms / plant) @ ₹24/- per kg)		0	0.00	1920	1920.00
31 Soil working (50 cms readius around plant) & application of fertilizer	Oct/Nov	7	2177.00	0	2177.00
32 Fire line tracing(2m.Wide fire line over 400 mtr Long) & cultural operation	Feb / Mar	3	933.00	0	933.00
33 Watch and ward	Apr-Mar	15	4665.00	0	4665.00
Total :-		32	9952.00	1920	11872.00
34 Monitoring & Supervision charge 5% of the total cost.					593.60
G.Total :-		32	9952	1920	12465.60
4th Year Maintenance					
35 Fire line tracing (2m. Wide fire line over 400 m long) & cultural operation	Feb / Mar	3	933.00	0	933.00
36 Watch and ward	Apr-Mar	15	4665.00	0	4665.00
Total :-		18	5598.00	0	5598.00

Item of works	Preferable period of execution	Labour in Mandays	Labour cost @311.00	Material cost (Rs.)	Total Cost (Rs.)
2	3	4	5	6	7
37 Monitoring & Supervision charge 5% of the total cost.					279.90
G.Total :-		18	5598	0	5877.90
5th Year Maintenance					
38 Fire line tracing (2m. Wide fire line over 400 m long) & cultural operation	Feb / Mar	3	933.00	0	933.00
39 Watch and ward	Apr-Mar	15	4665.00	0	4665.00
Total :-		18	5598.00	0	5598.00
40 Monitoring & Supervision charge 5% of the total cost.					279.90
G.Total :-		18	5598	0	5877.90
5th Year Maintenance					
41 Fire line tracing (2m. Wide fire line over 400 m long) & cultural operation	Feb / Mar	3	933.00	0	933.00
42 Watch and ward	Apr-Mar	15	4665.00	0	4665.00
Total :-		18	5598.00	0	5598.00
43 Monitoring & Supervision charge 5% of the total cost.					279.90
G.Total :-		18	5598	0	5877.90
7th Year Maintenance					
44 Fire line tracing (2m. Wide fire line over 400 m long) & cultural operation	Feb / Mar	3	933.00	0	933.00
45 Watch and ward	Apr-Mar	15	4665.00	0	4665.00
Total :-		18	5598.00	0	5598.00
46 Monitoring & Supervision charge 5% of the total cost.					279.90
G.Total :-		18	5598	0	5877.90
8th Year Maintenance					
47 Fire line tracing (2m. Wide fire line over 400 m long) & cultural operation	Feb / Mar	3	933.00	0	933.00
48 Watch and ward	Apr-Mar	15	4665.00	0	4665.00
Total :-		18	5598.00	0	5598.00
49 Monitoring & Supervision charge 5% of the total cost.					279.90
G.Total :-		18	5598	0	5877.90
9th Year Maintenance					
50 Fire line tracing (2m. Wide fire line over 400 m long) & cultural operation	Feb / Mar	3	933.00	0	933.00
51 Watch and ward	Apr-Mar	15	4665.00	0	4665.00
Total :-		18	5598.00	0	5598.00
52 Monitoring & Supervision charge 5% of the total cost.					279.90
G.Total :-		18	5598	0	5877.90
10th Year Maintenance					
53 Fire line tracing (2m. Wide fire line over 400 m long) & cultural operation	Feb / Mar	3	933.00	0	933.00
54 Watch and ward	Apr-Mar	15	4665.00	0	4665.00
Total :-		18	5598.00	0	5598.00
55 Monitoring & Supervision charge 5% of the total cost.					279.90
G.Total :-		18	5598	0	5877.90

Item of works	Preferable period of execution	Labour in Mandays	Labour cost @311.00	Material cost (Rs.)	Total Cost (Rs.)
2	3	4	5	6	7
G.total		451.67	140469.37	264012.40	424705.86

ABSTRACT					
Year	No. person days	Labour cost @311.00 per day	Material cost (Rs.)	Monitoring & Supervision charge 5% of the total cost	Total cost Rs.
Previous Year					
10th year	44.00	13684.00	2956.80	832.04	17472.84
1st year	167.67	52146.37	7598.80	2992.21	62836.38
2nd year	87.00	27057.00	138547.20	8280.21	173884.41
3rd year	38.00	12129.00	115846.40	6398.77	134374.17
4th year	32.00	9952.00	1920.00	593.60	12465.60
5th year	18.00	5598.00	-	279.90	5877.90
6th year	18.00	5598.00	-	279.90	5877.90
7th year	18.00	5598.00	-	279.90	5877.90
8th year	18.00	5598.00	-	279.90	5877.90
9th year	18.00	5598.00	-	279.90	5877.90
10th year	18.00	5598.00	-	279.90	5877.90
Total	495.67	154153.4	266969.20	21056.13	442178.70


 Divisional Forest Officer,
 Boral Division.

1245
3

REVISED FINANCIAL OUTLAY OF SCHEME FOR CREATION AND MAINTENANCE OF PLANTATION OF DWARF SPECIES (PREFERABLY MEDICINAL PLANTS) IN THE RIGHT WAY UNDER THE CONVEYOR BELT FOR DIVERSION OF 86.479 HA OF FOREST LAND FOR CONSTRUCTION OF OVERHEAD PIPED CONVEYOR BELT FROM KURMITAR ML BOUNDARY TO PROPOSED RAILWAY SIDING OF M/S ODISHA MINING CORPORATION LTD.

Wage rate @ ₹311/- per Manday

Sl No.	Description of the work	Funds Required in Rs.
1.	Block plantation @ 1600 Plants (18 months old seedling)/ Ha for 4.085 ha @ Rs.4,42,178.70/Ha (Ref-Annexure-I).	18,06,299.98
	Sub-Total	18,06,299.98
3.	Price escalation @20%	3,61,259.99
	Grand Total	21,67,559.97 Or Say 21,67,600.00

(Rupees Twenty One Lakh Sixty Seven Thousand Six Hundred) only

Technically Approved

Regional Chief Conservator of Forests
Rourkela Circle


Divisional Forest Officer,
Bonai Division



OFFICE OF THE COLLECTOR & DISTRICT MAGISTRATE, SUNDARGARH

(Revenue Section)
No. 2753 VIII-19/2020/Dt. 28/7/2020

To

The Divisional Forest Officer,
Bonai Division.

Sub-

Diversion of forest land measuring 86.479 ha of Forest Land for non-forest purpose in favour of OMC for construction of Conveyor Corridor from Kurmitar Mines to Barsuan Railway siding under Lahunipara Tahasil.

Sir

With reference to the letter on the subject cited above, I am to furnish herewith the certificate regarding compliance of Scheduled Tribes and other traditional forest dwellers (Recognition of Forest Right) Act 2006 in respect of diversion of forest land measuring 86.479 ha of Forest Land for non-forest purpose in favour of OMC for construction of Conveyor Corridor from Kurmitar Mines to Barsuan Railway siding under Lahunipara Tahasil for taking further course of action at your end.

Yours faithfully,

[Signature]
28/07/2020
Addl. District Magistrate
Sundargarh

Memò No. 2754 Dt. 28/7/2020

Copy forwarded to the Regional Mnager, OMC Ltd, Koira for information and necessary action.

[Signature]
28/07/2020
Addl. District Magistrate
Sundargarh

Form-I
For Linear Projects
Government of Odisha

Office of the District Collector, Sundargarh
No. 2752 /SSD Dtd. 28/9/2020

To WHOMSOEVER IT MAY CONCERN

In compliance of the Ministry of Environment and Forests (MoEF), Government of India's letter No.11-9/98-FC(pt) dated 3rd August 2009 wherein the MoEF issued guidelines on submission of evidences for having initiated and completed the process of settlement of rights under the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Right) Act, 2006 ('FRA' for short) on the forest land proposed to be diverted for non-forest purposes read with MoEF's letter 5th February 2013 wherein MoEF issues certain relaxation in respect of linear projects, it is certified that 86.479 ha. of forest land proposed to be diverted in favour of OMC for construction of Conveyor Corridor from Kurmitar Mines to Barsuan Railway siding under Lahunipara Tehsil in Sundargarh district which are as follows;

It is further certified that,

- (a) The complete process for identification and settlement of rights under FRA has been carried out for the entire 86.479 ha. of forest land proposed for diversion has been completed. No title under FRA have been issued over the forest land proposed for diversion. A copy of records of all consultation and meetings of the Forest Right Committees, Gram Sabhas, Sub-Division Level Committees and the District Level Committees are enclosed as Annexure-I and Annexure-II.
- (b) The diversion of forest land for facilities managed by the Government as required under section 3(2) of the FRA have been completed and the Grama sabhas have given their consent to it.
- (c) The proposal does not involve recognised rights of Primitive Tribal Groups (PTG) and Pre Agricultural Communities (PAC).


Signature

(Full name and official seal of the District Collector)

COLLECTOR
SUNDARGARH

AND SCHEDULE OF FOREST LAND PROPOSED FOR DIVERSION TO CONSTRUCTION OF CONVEYOR CORRIDOR FROM KURMITAR MINES TO BARSUAN RAILWAY SIDING OF OMC.

Sl. No.	Name of Tahasil	Name of Village	Khata No	Plot No	Kisam	Total Area of the plot in Ac.	Map Area in Ac.	Map area in Ha.	Remarks
1	Lahunipara	Damalu	42 (AAA)	235	Pahada	33.91	0.871	0.353	PRF
2			42 (AAA)	248	Pahada	43.57	1.632	0.661	PRF
3			42 (AAA)	249	Pahada	40	1.553	0.628	PRF
4			42 (AAA)	250	Pahada	39.55	1.48	0.599	PRF
5			42 (AAA)	270	Pahada	38.75	0.043	0.017	PRF
6			42 (AAA)	277	Nala	8.59	0.314	0.127	
Sub-Total							5.893	2.385	
7	Lahunipara	Rantha	40 (AAA)	1	Pahada	25.62	0.744	0.301	PRF
8			41 (AAA)	17	Pahada	36.02	1.102	0.446	PRF
9			42 (AAA)	18	Pahada	27.50	0.746	0.302	PRF
10			43 (AAA)	19	Pahada	34.77	0.741	0.300	PRF
11			44 (AAA)	115	Pahada	37.50	2.420	0.979	PRF
12			45 (AAA)	124	Pahada	37.50	1.550	0.627	PRF
13			46 (AAA)	125	Pahada	40.00	9.132	3.696	PRF
14			47 (AAA)	126	Pahada	37.50	5.354	2.167	PRF
15			48 (AAA)	131	Pahada	35.00	1.093	0.442	PRF
16			49 (AAA)	132	Pahada	37.50	0.296	0.120	PRF
17			50 (AAA)	133	Pahada	25.00	0.792	0.320	PRF
18			51 (AAA)	134	Pahada	40.00	1.625	0.658	PRF
19			52 (AAA)	137	Pahada	40.00	6.431	2.602	PRF
20			53 (AAA)	138	Pahada	40.00	17.117	6.927	PRF
21			54 (AAA)	185	Pahada	37.32	1.638	0.663	PRF
22			55 (AAA)	186	Pahada	39.27	0.253	0.102	PRF
23			56 (AAA)	194	Pahada	38.75	0.818	0.331	PRF
Sub-Total							51.853	20.983	PRF
24		Saraikala	36 (AAA)	19	Pahada	39.15	0.520	0.211	PRF
25			36 (AAA)	22	Pahada	40.00	0.195	0.079	PRF
Sub-Total							0.715	0.290	PRF
26		Siliguda	16 (AAA)	8	Pahada	41.52	1.800	0.728	PRF
27			16 (AAA)	9	Pahada	50.80	1.061	0.429	PRF
28			16 (AAA)	10	Pahada	39.69	0.552	0.224	PRF
29			16 (AAA)	29	Pahada	41.70	1.597	0.646	PRF
30			16 (AAA)	30	Pahada	33.85	0.238	0.096	PRF
Sub-Total							5.248	2.123	
31	Khandadhar RF						5.397	2.184	RF
32	Techa RF						144.905	58.641	
Sub-Total							150.302	60.825	
Grand Total							214.008	86.606	

[Signature]
Signature

ଉପକିଲ୍ଲାପାଳ କାର୍ଯ୍ୟାଳୟ, ବୋନା

OFFICE OF THE SUB-COLLECTOR, BONAI

Phone: 06626-744433, E-Mail: sdmbonai@gmail.com

Letter No. 5465/FRA Date. 27 08-20

9

9

688

27.9.20

To
The Collector-cum-Chairman
District Level Forest Right Committee
Sundargarh

Submission of proceeding of the S.D.L.C. (Forest Rights), Bonai meeting on issue of NOC as per FRA-2006 (for linear Project) for diversion of 86.479 Ha. of forest land for construction of conveyor Corridor from Kurmitar Mines to Barsuan Railway siding of OMC under Lahunipara and approval of IFR proposal under FRA-2006.

Sir,

FRA

With reference to the subject cited above, I am to submit herewith the copy of the proceeding of the S.D.L.C. (Forest Rights), Bonai meeting held on 26.08.2020 at 11.00 A.M. under chairmanship of Sub-Collector, Bonai. This meeting was held on diversion of 86.479 Ha. of forest land for construction of conveyor Corridor from Kurmitar Mines to Barsuan Railway siding of OMC under Lahunipara. In this regard, I am also to submit herewith Letter No. 1821 dt. 15.07.2020 of Tehsildar, Lahunipara alongwith its enclosures (Copies enclosed). Besides, 17 nos. of IFR claims under FRA-2006 of Lahunipara Tehsil have been approved. Hence, I am to submit herewith said 17 nos. of IFR case records alongwith Gram Sabha resolution for further approval.

This is submitted for favour of kind information and necessary action.

Yours faithfully


Sub-Collector-cum-Chairman
S.D.L.C. (Forest Rights), Bonai

Encl.: As above

1. Letter No. 1821 dt. 15.07.2020 & supportive 71 nos. of sheets
2. 17 nos. of IFR case records alongwith Gram Sabha resolutions

Memo No. 5466 / Dt. 27 08 20 /

Copy alongwith copy of the proceeding of the S.D.L.C. (Forest Rights), Bonai meeting submitted to the Project Administrator, I.T.D.A., Sundargarh-cum-Nodal Officer (Forest Right) / and all members of the S.D.L.C. (Forest Rights), Bonai / all Tehsildars of this Sub-Division for favour of information and necessary action.


Sub-Collector-cum-Chairman
S.D.L.C. (Forest Rights), Bonai

PROCEEDINGS OF THE SUB-DIVISIONAL LEVEL (FOREST RIGHTS) COMMITTEE MEETING HELD ON 26.08.2020 AT 11.00 A. M. IN THE OFFICE CHAMBER OF THE SUB-COLLECTOR, BONAI

The Sub-Divisional Level Committee (Forest Rights) meeting under FRA-2006 & amendment Rule-2012, was held on the chairmanship of the Sub-Collector, Bonai. The list of the members present in the meeting is at Annexure-1

Initiating the discussion, the Chairperson-cum-Sub-Collector welcomed all the members to the meeting. The Tehsildar, Lahunipara had submitted 19 nos. of IFR case records related to various villages (Jamirdhi=3, San-Nuagaon-12, Nuagaon=3, Tikayatpali=1) for further approval by S.D.L.C.(Forest Rights), Bonai.

On scrutiny of the said case records, it is found that in two nos. of IFR claims, the claimants are minor persons and their claims could not be approved and returned to the concerned GramSabha through Tehsildar, Lahunipara. 17 nos. of IFR claims were approved (list enclosed) by S.D.L.C. (Forest Rights), Bonai and it was decided to submit the said case records to DLC (Forest Rights), Sundargarh for further approval.

Then Chairperson-cum-Sub-Collector, Bonai stated that Additional District Magistrate, Sundargarh has instructed to issue of NOC as per FRA-2006(for linear project) for diversion of 86.479 Ha of forest land for construction of Conveyor Corridor from Kurmitar Mines to Barsuan Railway siding of OMC under Lahunipara Tehsil vide District Office Letter No. 1485 dt. 30.05.2020. In this regard both the Tehsildar, Lahunipara & Special Officer, P.B.D.A., Khuntagaon were requested to submit their report on the following points. They have submitted their reports as follows as per sections, section 3(1)(i), 3(1)e and 4(5) of FRA-2006 & 2012.

1. Whether any Primitive Tribal Group (PTG) or Pre-Agricultural Communities (PAC) are staying in the village where forest land is proposed for diversion.	Yes
2. If yes, number of such families in the villages.	128 nos. of families are living in the villages (Saraikela-49, Ranta-56, Siliguda-05 & Damalu-18)
3. If, PTG/PAC are staying in the villages, have they filed any claims under FRA-2006 for individual or community rights? If yes give details	Yes. Total 225 nos. of claims received, out of those 208 nos. of claims are settled & 17 nos. of claims are pending at DLC level as per Letter No. 2062 dt. 19.05.2020 of A.D.W.O., Bonai
4. Whether identification and settlement of rights under the FRA-2006 has been carried out for the entire forest area proposed for diversion of the project is completed. A copy of the resolution of the Gramsabha is to be submitted	Identification and settlement of Rights under the FRA has been carried out as per GramSabha in the village Saraikela dtd. 30.07.2011, Damalu dtd. 27.06.2015, Ranta dtd. 30.06.2015, & Siliguda dtd. 30.06.2015

5. Whether the rights of PTG & PAC where applicable has been specifically safeguarded as per Sec3(1)(e) of the FRA.

As regards to rights of PTG & PAC under FRA-2006, total 79 claims of PTGs have been received and out of which 75 claims are settled. Remaining 04 claims are pending at DLC level as per Letter No. 2062 dt. 19.05.2020 of A.D.W.O., Bonai

After a threadbare discussion on the above points, the Committee unanimously decided to recommend this to the District Level Committee (Forest Rights) under FRA-2006 & 2012 for diversion of 86.479 Ha of forest land for construction of Conveyor Corridor from Kurmitar Mines to Barsuan Railway siding of OMC under Lahunipara Tehsil.

Besides, the Sub-Collector, Bonai has expressed his displeasure regarding following points.

1. Non-submission of pending IFR case records objected by SDLC- Tehsildar Gurandla & Koida were instructed for early submission of the same.
2. Detail discussion was made regarding submission of report on RoR correction and demarcation of distributed land under FRA-2006 & 2012. All Tehsildars were instructed to submit Monthly progress report in this regard positively.
3. Also all Tehsildars & DFO, Rourkela were requested to submit pending CFR case records pending for GPS reading after necessary compliance.
4. Hence forth SDLC meeting will be held every month preferably in the last week of the month. All Tehsildars to submit forth IFR & CFR proposals before the SDLC meeting.

On the view of the above, all Tehsildars were once again requested to take necessary steps on the above points at the earliest. Also, A.C.F., Rourkela was again requested to submit the pending 06 nos. of CFR case records after completion of GPS reading work.

The meeting ended with vote of thanks to the chair and participants.

Chairman, S.D. DC. (Forest Rights)
& Sub-Collector, Bonai

LIST OF MEMBERS ATTENDED IN THE SUB-DIVISIONAL LEVEL FOREST RIGHTS COMMITTEE MEETING HELD ON 26.08.2020 AT 11.00 A.M. IN THE OFFICE CHAMBER OF THE SUB-COLLECTOR, BONAI

Sub-Collector, Bonai

Chairperson

A.C.F., Rourkela

Member

A.C.F., Bonai

Member

Special Officer, P.A., I.T.D.A, Bonai

Member

Smt. Kaushlya Kisan, Zilla Parishad Member, Bonai Block

Member

Sri uttam Kisan, Panchayat Samiti Member, Lahuni para Block

Member

Bharat Kurnara, Panchayat Samiti Member, Gurundia Block

Member

Additional District Welfare Officer, Bonai

Tehsildar, Bonai

Tehsildar, Lahuni para

Tehsildar, Gurundia

Tehsildar, Koira

PBDA, Khuntagaan

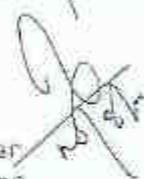
26.08.2020
26/08/2020

ଓଡ଼ିଶା ସରକାରଙ୍କ କାର୍ଯ୍ୟାଳୟ, ଲୁହାଣପଡ଼ା

BUREAU OF FOREST MANAGEMENT, Odisha State Forest Department, Bhubaneswar

ଓଡ଼ିଶା ସଂଖ୍ୟା-1821

ଡି-15.07.2020.

FRA
 Part rep for SOIC
 meeting


To: The Sub-Divisional Officer,
 Bonai.

Subj: Issuance of certificate in Form-I under FRA-2006 (for linear projects) for diversion of 86.479 ha. of forest land for construction of Conveyor Corridor from Kurmitar Mines to Barsuan Railway siding of OMC under Lahunipara Tehsil.

Ref: Your office letter No. 25977 Dtd. 05.06.2020 and 4737/Dtd. 15.07.2020.

Sir, With reference to the letter on the subject cited above, I am to submit herewith the village wise report for each revenue village for diversion of 86.479 ha. of forest land for construction of Conveyor Corridor from Kurmitar Mines to Barsuan Railway siding of OMC coming under linear project are as follows -

1. Whether any Primitive Tribal Group (PTG) or Pro-Agricultural Communities (PAC) are staying in the village where forest land is proposed for diversion? : Yes.
2. If, yes number of such families in the villages : 128 no of families are living in the villages (Saraikela-49, Ranta-56, Siliguda-85 & Damalu-18) Yes. Total 225 nos of claim received, out of those 208 nos. of claims are settled & 17 nos. of claims are pending at OLC level as per letter No. 2062/ Dtd. 15.05.2020 of A.D.W.O., Bonai.
3. If PTG/ PAC are staying in the villages, have they filed any claims under Forest Right Act for individual or community Right? If yes, give details.
4. Whether identification and settlement of rights under the FRA has been carried out for the entire forest area proposed for diversion for the project is completed or not. A copy of meetings of the FRC/SOLC/DLC is to be submitted. : Identification and settlement of rights under the FRA has been carried out as per Gram Sabha in the village: Saraikela Dtd. 30.07.2011, Damalu Dtd. 27.06.2015, Ranta Dtd. 30.06.2015 & Siliguda Dtd. 30.06.2015.
5. Whether the rights of PTG & PAC where applicable has been specifically safeguarded as per sec 3(1)(c) of the FRA. : As regards to rights of PTG & PAC under FRA 2006, total 79 claims of PTGs are received and out of which 75 claims are settled. Remaining 4 claims are pending at OLC level as per letter No. 2062/ Dtd. 19.05.2020 of A.D.W.O., Bonai.

2020-10

The details of orders of claims of PTGs are given below :

Sl NO	Name	Village	Khata No	Plot No	Kissam	Area(Ac.)	Remarks
1	Panu Naik, S/o- Fagu Naik	Sareikel a	36	103/2 103/9 103/10	Pahad	2.10	Pending at DLC Level.
2	Chemena Pradhan, S/o- Banu Pradhan	Sareikel a	36	34/8 37/11 37/19	Pahad	0.96	Pending at DLC Level.
3	Gadhei Naik, S/o- Amin Naik	Sareikel a	36	155/4	Pahad	1.10	Pending at DLC Level.
4	Natha Naik, S/o- Dhoba Naik	Sareikel a	36	103/3 103/17	Pahad	1.12	Pending at DLC Level.

This is for favour of your kind information and necessary action.

- Encl:- 1. Letter No. 2062/ Dtd. 19.05.20 of A.D.W.O., Bonei
 2. FRC Resolution copies of all 4 villages.
 3. Letter No. 329/ Dtd. 14.05.20 of PBDA

Yours faithfully,

 19.07.2020
 Tehsildar, Lahnipara
 Bonei

ଉପଜିଲ୍ଲାପାଳଙ୍କ କାର୍ଯ୍ୟାଳୟବଣାଠାଁ,
OFFICE OF THE SUB-COLLECTOR, BONAI

Phone: 06626-244433, E-Mail: sdmbonai@gmail.com

Letter No. 2062 /FRA Date. 19.5.2020 /

To

The Tehsildar
Lahunipara

Sub: Supply of information under FRA - 2006.

Ref: Tehsil Office Lahunipara, letter No. 1201 dtd. 15.05.2020.

Sir,

With reference to the letter on the subject cited above, I am to intimate that total 225 nos. (List enclosed) of IFR claims case records as details below have been approved in SDLC, Bonai and submitted to DLC, Sundargarh for further approval. After that in different phases 208 nos. of IFR claim case records along with respective Titles received from the PA, ITDA, Sundargarh and distributed the same among the beneficiary concerned through your good office. Further, rest of 17 nos. of IFR case records are still pending before the DLC, Sundargarh for further approval.

Sl No.	Name of the Village	Submitted to PA, ITDA, Sundargarh	Received from PA, ITDA, Sundargarh and distributed	Pending at DLC, Sundargarh
1	Siliguda	25	25	0
2	Damalu	98	96	2
3	Ranta	47	47	0
4	Sarekela	55	40	15
	Total	225	208	17

This is submitted for favour of kind information and necessary action.

Yours faithfully


A.D.W.O. Bonai
19/5/2020

Encl.: As above (11 nos. Sheet)

List of 208 nos. of IFR Titles under FRA-2006 distributed among beneficiaries concerned

Name of Tehsil - Lahuni para

Sl No	Name of the Claimant	Name of the Village	Name of the GP	Caste	Khata No	Plot No.	Total area involved	Total area	Kisam of the land
1	Ghasiram Naik, S/O- Nila Naik	Damalu	Sasyakela	Bhuyan	42	85/8	0.72	0.72	G.Jungle
2	Ilyajar Kandulana, S/O- Salman Kandulana	Damalu	Sasyakela	Munda	42	85/9	0.50	0.50	Jungle
3	Johan Munda, S/O- Jibannasi Munda	Damalu	Sasyakela	Munda	42	85/6	0.50	0.50	G.Jungle
4	Rabi Naik, S/O- Fagu Naik	Damalu	Sasyakela	Bhuyan	42	85/9	0.55	0.55	G.Jungle
5	Mansukh Bhuyan, S/O- Enem Bhuyan	Damalu	Sasyakela	Munda	42	85/7	0.40	0.40	Jungle
6	Niral Kandulana, S/O- Patras Kandulana	Damalu	Sasyakela	Munda	42	85/2	0.52	0.52	G.Jungle
7	Niranjan Kandulana, S/O- Niral Kandulana	Damalu	Sasyakela	Munda	42	85/1	0.63	0.63	G.Jungle
8	Jayamasi Barla, S/O- Benjamin Barla	Damalu	Sasyakela	Munda	42	84/7	0.40	0.40	Pahad
9	Sabana Barla, S/O- Abhiram Barla	Damalu	Sasyakela	Munda	42	84/2	2.00	2.00	Pahad
10	Guru Naik, S/O- Bhaba Naik	Damalu	Sasyakela	Bhuyan	42	247/8	0.40	0.40	Pahad
11	Keruna Tapno, S/O- Niramal Tapno	Damalu	Sasyakela	Munda	42	56/1	1.72	1.72	Pahad
12	Prabhusee Munda, S/O- Joseb Munda	Damalu	Sasyakela	Munda	42	55/7	1.20	1.20	Pahad
13	Melias Munda, S/O- Dayodham Munda	Damalu	Sasyakela	Munda	42	31/2	0.80	0.80	Pahad
14	Jasua Munda, S/O- Nistar Munda	Damalu	Sasyakela	Munda	42	75/9	0.60	0.60	Pahad
15	Suresh Naik, S/O- Ghana Naik	Damalu	Sasyakela	Bhuyan	42	247/11	0.48	0.48	Pahad
16	Bhaba Naik, S/O- Parbatia Naik	Damalu	Sasyakela	Bhuyan	42	248/5	1.09	1.09	Pahad
17	Dhankuar Munda, S/O- Joseb Munda	Damalu	Sasyakela	Munda	42	75/6	1.20	1.20	Pahad
18	Yakub Munda, S/O- Illiyas Munda	Damalu	Sasyakela	Munda	42	242/1	0.18	1.15	Pahad
					42	242/6	0.28		
					42	242/7	0.47		
					42	242/13	0.23		
19	Sushil Samad, S/O- Samuel Samad	Damalu	Sasyakela	Munda	42	247/7	0.48	0.48	Pahad
20	Gosnar Tapno, S/O- Grasiel Tapno	Damalu	Sasyakela	Munda	42	11/1	2.00	2.05	Pahad
					42	11/2	0.05		
21	Ramesh Dehury, S/O- Banda Dehury	Damalu	Sasyakela	Bhuyan	42	26/6	0.80	0.80	Pahad
22	Dharamdas Samad, S/O- Johan Samad	Damalu	Sasyakela	Munda	42	248/4	1.50	1.50	Pahad
23	Silas Munda, S/O- Nirmal Munda	Damalu	Sasyakela	Munda	42	56/2	1.40	1.40	Pahad

24	Kamal Samad, S/O- Mandasi Samad	Damalu	Sasyakela	Munda	42	247/1	0.48	0.48	Pahad
25	Daniel Samad, S/O- Nirdosh Samad	Damalu	Sasyakela	Munda	42	28/1	1.00	1.00	Pahad
26	Jatia Dehury, S/O- Lambodar Dehury	Damalu	Sasyakela	Bhuyan	42	26/9	1.20	1.20	Pahad
27	Arjun Dehury, S/O- Banda Dehury	Damalu	Sasyakela	Bhuyan	42	77/4	1.00	1.00	Pahad
28	Albish Tapno, S/O- Nirmal Tapno	Damalu	Sasyakela	Munda	42	56/3	1.72	1.72	Pahad
29	Sugal Munda, S/O- Ishak Munda	Damalu	Sasyakela	Munda	42	247/5	0.47	0.47	Pahad
30	Kandara Dehury, S/O- Gadhi Dehury	Damalu	Sasyakela	Bhuyan	42	26/5	0.80	0.80	Pahad
31	Joseph Munda, S/O- Anandamasi Munda	Damalu	Sasyakela	Munda	42	6/1	2.00	2.00	Pahad
32	Maskalan Soe, S/O- Illiyar Soe	Damalu	Sasyakela	Munda	42	74/2	1.25	1.25	Pahad
33	Mariarnasi Munda, S/O- Marsalan Munda	Damalu	Sasyakela	Munda	42	31/3	0.80	0.80	Pahad
34	Benejik Kandulana, S/O- Juel Kandulana	Damalu	Sasyakela	Munda	42	242/3	0.14	1.62	Pahad
					42	242/5	0.26		Pahad
					42	242/9	0.57		Pahad
					42	242/10	0.25		Pahad
					42	242/12	0.20		Pahad
					42	242/15	0.20		Pahad
35	Mantid Munda, S/O- Bedan Munda	Damalu	Sasyakela	Munda	42	247/2	0.47	0.47	Pahad
36	Mansukh Munda, S/O- Dayal Munda	Damalu	Sasyakela	Munda	42	75/1	0.40	0.40	Pahad
37	Gurubari Naik, W/O- Dashru Naik	Damalu	Sasyakela	Bhuyan	42	56/11	0.40	0.40	Pahad
38	Suleman Munda, S/O- Junas Munda	Damalu	Sasyakela	Munda	42	8/2	2.10	2.10	Pahad
39	Asiyan Soe, S/O- Maskalan Soe	Damalu	Sasyakela	Munda	42	74/1	0.30	0.30	Pahad
40	Santosh Gudra, S/O- Marsalan	Damalu	Sasyakela	Munda	42	84/1	0.60	0.60	Pahad
41	Mallias Munda, S/O- Dayal Munda	Damalu	Sasyakela	Munda	42	242/16	1.00	1.00	Pahad
42	Junul Kandulana, S/O- Masides Kandulana	Damalu	Sasyakela	Munda	42	241/1	1.00	1.00	Pahad
43	Namjan Munda, S/O- Philip Munda	Damalu	Sasyakela	Munda	42	25/7	0.60	0.60	Pahad
44	Prebhusha Tapno, S/O- Egnesh Tapno	Damalu	Sasyakela	Munda	42	11/4	1.32	1.32	Pahad
45	Marsalan Munda, S/O- Daud Munda	Damalu	Sasyakela	Munda	42	235/2	1.20	1.20	Pahad
46	Mantimuni Munda, W/O- Illiyar Munda	Damalu	Sasyakela	Munda	42	56/4	0.36	1.56	Pahad
					42	74/3	1.20		

11/11

47	Marsukh Munda, S/O- Daud Munda	Damalu	Sasyakela	Munda	42	31/1	2.00	2.00	Pahad
48	Johan Barla, S/O- Benjeyamin Barla	Damalu	Sasyakela	Munda	42	84/3	0.50	0.50	Pahad
49	Lukash Munda, S/O- Istifan Munda	Damalu	Sasyakela	Munda	42	84/6	0.40	0.40	Pahad
50	Abhiram Dhanwar, S/O- Tiuphil Dhanwar	Damalu	Sasyakela	Munda	42	27/2	1.00	1.00	Pahad
51	Mariyam Munda, W/O- Silas	Damalu	Sasyakela	Munda	42	74/6	0.30	0.30	Pahad
52	Indra Naik, S/O- Hadu Naik	Damalu	Sasyakela	Bhuyan	42	56/12	0.40	0.40	Pahad
53	Sunil Naik, S/O- Nila Naik	Damalu	Sasyakela	Bhuyan	42	248/4	1.10	1.10	Pahad
54	Samuel Kerketa, S/O- Niral Kerketa	Damalu	Sasyakela	Khadia	42	247/12	0.20	0.20	Pahad
55	Masidas Samad, S/O- Eman	Damalu	Sasyakela	Munda	42	247/4	0.47	0.85	Pahad
56	Matias Munda, S/O- Daud Munda	Damalu	Sasyakela	Munda	42	31/1	2.00	2.00	Pahad
57	Bira Naik, S/O- Ganda Naik	Damalu	Sasyakela	Bhuyan	42	247/10	0.42	0.42	Pahad
58	Samuel Samad, S/O- Johan Samad	Damalu	Sasyakela	Munda	42	248/3	2.00	2.00	Pahad
59	Binod Bardi, S/O- Johan Bardi	Damalu	Sasyakela	Munda	42	244/1	1.00	1.00	Pahad
60	Niral Munda, S/O- Tintula Munda	Damalu	Sasyakela	Munda	42	84/9	1.00	1.00	Pahad
61	Nistar Soe, S/O- Maskalan Soe	Damalu	Sasyakela	Munda	42	74/1	0.30	0.30	Pahad
62	Sunil Kandulana, S/O- Masidas Kandulana	Damalu	Sasyakela	Munda	42	56/6	1.00	1.00	Pahad
63	Tintus Kandulana, S/O- Masidas Kandulana	Damalu	Sasyakela	Munda	42	56/8	1.20	1.20	Pahad
64	Rosan Samad, S/O- Bedan Samad	Damalu	Sasyakela	Munda	42	84/5	0.56	0.56	Pahad
65	Istipan Jojo, S/O- Enem Jojo	Damalu	Sasyakela	Munda	42	10/4	0.40	0.40	Pahad
66	Sushila Munda, W/O- Nirdosh Munda	Damalu	Sasyakela	Munda	42	3/3	1.70	1.70	Pahad
67	Bijay Nag, S/O- Paulus Nag	Damalu	Sasyakela	Munda	42	251/1	1.36	1.36	Pahad
68	Martin Munda, S/O- Tiuphil Munda	Damalu	Sasyakela	Munda	42	27/1	2.00	2.00	Pahad
69	Johan Munda, S/O- Patras Munda	Damalu	Sasyakela	Munda	42	3/4	1.73	1.94	Pahad
70	Benjamin Barla, S/O- Abhiram Barla	Damalu	Sasyakela	Munda	42	11/7	0.21	0.21	Pahad
71	Marshallan Gudia, S/O- Santosh Gudia	Damalu	Sasyakela	Munda	42	84/8	0.44	0.44	Pahad
72	Suleman Marki, S/O- Manmasi Marki	Damalu	Sasyakela	Munda	42	85/3	0.60	0.60	Pahad
72	Suleman Marki, S/O- Manmasi Marki	Damalu	Sasyakela	Munda	42	31/4	1.04	1.04	Pahad
73	Suliman Cherwa, S/O- Patras Cherwa	Damalu	Sasyakela	Munda	42	3/2	0.45	0.78	Pahad
73	Suliman Cherwa, S/O- Patras Cherwa	Damalu	Sasyakela	Munda	42	11/5	0.33	0.33	Pahad

120

74	Bisham Tapno, S/O- Pawal Tapno	Damalu	Sasyakela	Munda	42	4/2	1.00	1.00	Pahad
75	Manmasi Munda, S/O- Piratam Munda	Damalu	Sasyakela	Munda	42	235/1	1.00	1.00	Pahad
76	Niral Tapno, S/O- Egnesh Tapno	Damalu	Sasyakela	Munda	42	11/3	1.20	1.20	Pahad
77	Illias Bage, S/O- Luther Bage	Damalu	Sasyakela	Munda	42	2/5	1.87	1.87	Pahad
78	Johan Gudie, S/O- Samuel Gudie	Damalu	Sasyakela	Munda	42 42	239/1 241/1	0.75 1.15	1.90	Pahad
79	Paulus Hembram, S/O- Herman Hembram	Damalu	Sasyakela	Munda	42	75/2	0.40	0.40	Pahad
80	Basante Tapno, S/O- Laurin Tapno	Damalu	Sasyakela	Munda	42	248/2	1.12	1.12	Pahad
81	Santesh Purty, S/O- Mathias Purty	Damalu	Sasyakela	Munda	42	27/3	2.00	2.00	Pahad
82	Luthar Bage, S/O- Illias Bage	Damalu	Sasyakela	Munda	42	2/4	1.45	1.45	Pahad
83	Illias Munda, S/O- Junas Munda	Damalu	Sasyakela	Munda	42	8/1	2.00	2.00	Pahad
84	Johan Samad, S/O- Paulus Samad	Damalu	Sasyakela	Munda	42	248/1	1.78	1.78	Pahad
85	Eman Haro, S/O- Masidas Haro	Damalu	Sasyakela	Munda	42	241/2	1.00	1.00	Pahad
86	Parsuram Naik, S/O- Parbatia Naik	Damalu	Sasyakela	Bhuyan	42	251/2	1.54	1.54	Pahad
87	Alanis Munda, S/O- Tintus Munda	Damalu	Sasyakela	Munda	42	84/4	0.50	0.50	Pahad
88	Kulu Naik, S/O- Loka Naik	Damalu	Sasyakela	Bhuyan	42	247/6	0.40	0.40	Pahad
89	Joseph Munda, S/O- Junos Munda	Damalu	Sasyakela	Munda	42 42 42 42	242/2 242/4 242/8 242/11	0.18 0.28 0.47 0.23	1.15	Pahad
90	Johan Munda, S/O- Jenga Munda	Damalu	Sasyakela	Munda	42	11/8	0.10	1.10	Pahad
91	Gura Naik, S/O- Luku Naik	Damalu	Sasyakela	Bhuyan	42	247/8	0.40	0.40	Pahad
92	Paulus Munda, S/O- Albish Munda	Damalu	Sasyakela	Munda	42	84/2	1.00	1.00	Pahad
93	Tabyas Munda, S/O- Nistar Munda	Damalu	Sasyakela	Munda	42	75/5	1.20	1.20	Pahad
94	Mansukh Munda, S/O- Philip Munda	Damalu	Sasyakela	Munda	42	26/8	0.60	0.60	Pahad
95	Gabriel Munda, S/O- Abhiram Munda	Damalu	Sasyakela	Munda	42	10/3	1.20	1.20	Pahad
96	Dukhan Naik, S/O- Baisakhu Naik	Damalu	Sasyakela	Munda	42	75/7	0.80	0.80	Pahad
97	Sarika Purty, S/O- Magata Purty	Silguda	Bhutuda	Munda	16	5/6	0.72	0.72	Pahad
98	Abhiram Munda, S/O- Paulus Munda	Silguda	Bhutuda	Munda	16 16	10/1 26/3	0.18 0.55	0.73	Pahad

124

99	Mahanta Purty, S/O- Binu Purty	Silguda	Bhutuda	Munda	16	6/10	1.52	1.52	Pahad
100	Masidas Topno, S/O- Mansid Topno	Silguda	Bhutuda	Munda	16	7/3	0.43	0.43	Pahad
101	Kande Purty, S/O- Mangata Purty	Silguda	Bhutuda	Munda	16	6/8	0.90	0.90	Pahad
102	Matias Kerketa, S/O- Dayal Kerketa	Silguda	Bhutuda	Munda	16	8/3	1.50	1.50	Pahad
103	Sama-Munda, S/O- Sukaram Munda	Silguda	Bhutuda	Munda	16	1/1	1.00	1.00	Pahad
104	Junika Topno, W/O- Gane Topno	Silguda	Bhutuda	Munda	16	10/3	1.04	1.04	Pahad
105	Amrut Kerketa, S/O- Joel Kerketa	Silguda	Bhutuda	Munda	16	7/14	1.50	1.50	Pahad
106	Mundal Surin, S/O- Etua Surin	Silguda	Bhutuda	Munda	16	5/2	1.56	1.56	Pahad
107	Baneswar Naik, S/O- Krusta Naik	Silguda	Bhutuda	Bhuyan	16	26/1	1.20	1.20	Pahad
108	Sursen Bading, S/O- Sawan Bading	Silguda	Bhutuda	Munda	16	10/5	1.20	1.20	Pahad
99	Herman Gudia, S/O- Johan Gudia	Silguda	Bhutuda	Munda	16	7/2	1.56	1.56	Pahad
110	Bhola Purty, S/O- Binu Purty	Silguda	Bhutuda	Munda	16	10/1	0.60	0.60	Pahad
111	Pradhan Purty, S/O- Kande Purty	Silguda	Bhutuda	Munda	16	6/5	0.90	0.90	Pahad
112	Habil Soren, S/O- Bhimsen Soren	Silguda	Bhutuda	Munda	16	6/3	1.38	1.38	Pahad
113	Marsilin Kerketa, W/O- Joseph Kerketa	Silguda	Bhutuda	Munda	16 16	7/11 10/2	0.10 0.57	0.67	Pahad Pahad
114	Dayal Kerketa, S/O- Joseph Kerketa	Silguda	Bhutuda	Munda	16	7/1	2.15	2.15	Pahad
115	Thomas Kerketa, S/O- Simon Kerketa	Silguda	Bhutuda	Munda	16	10/4	1.20	1.20	Pahad
116	Jabrias Topno, S/O- Kushen Topno	Silguda	Bhutuda	Munda	16 16	7/12 3/1	0.72 0.45	1.20	Pahad
117	Mangata Purty, S/O- Pradhan Purty	Silguda	Bhutuda	Munda	16	6/4	1.69	1.69	Pahad
118	Kedar Purty, S/O- Mangata Purty	Silguda	Bhutuda	Munda	16	6/9	1.80	1.80	Pahad
119	Nathaniel Bardo, S/O- Marafara Bardo	Silguda	Bhutuda	Munda	16	7/5	0.90	0.90	Pahad
120	Gangu Purty, S/O- Pradhan Purty	Silguda	Bhutuda	Munda	16	6/11	0.78	0.78	Pahad
121	Shyama Purty, S/O- Mangata Purty	Silguda	Bhutuda	Munda	16	6/7	0.78	0.78	Pahad
122	Kunu Dehury, S/O- Bhagra Dehury	Ranta	Bhutuda	Bhuyan	40	130/16	0.75	0.75	Pahad
123	Bhagulu Naik, S/O- Daiteri Naik	Ranta	Bhutuda	Bhuyan	40	129/2	1.50	1.50	Pahad

11/34

124	Ritu Naik, S/O- Sania Naik	Ranta	Bhutuda	Bhuyan	40	130/5	1.30	1.30	Paha
125	Kamara Dehury, S/O- Badia Dehury	Ranta	Bhutuda	Bhuyan	40	130/9	1.25	1.25	Paha
126	Kandha Naik, S/O- Sunia Naik	Ranta	Bhutuda	Bhuyan	40	130/4	1.30	1.30	Paha
127	Joseph Lamaga, S/O- Samuel Lamaga	Ranta	Bhutuda	Munda	40	16/3	0.88	0.88	Paha
128	Lakhindra Naik, S/O- Sania Naik	Ranta	Bhutuda	Bhuyan	40 40	129/4 130/1	0.30 0.90	1.20	Paha Paha
129	Sukutu Naik, S/O- Baneswar Naik	Ranta	Bhutuda	Bhuyan	40	130/2	0.92	0.92	Paha
130	Pradhan Naik, S/O- Dalu Naik	Ranta	Bhutuda	Bhuyan	40	130/8	1.50	1.50	Paha
131	Faguni Naik, S/O- Kandra Naik	Ranta	Bhutuda	Bhuyan	40	129/5	0.26	0.26	Paha
132	Asadhu Dehury, S/O- Bhagra Dehury	Ranta	Bhutuda	Bhuyan	40	130/13	1.00	1.00	Paha
133	Nuani Naik, S/O- Hrudev Naik	Ranta	Bhutuda	Bhuyan	40	130/6	0.96	0.96	Paha
134	Samari Dehury, S/O- Jamal	Ranta	Bhutuda	Bhuyan	40	129/13	0.48	0.48	Paha
135	Fulmani Barla, W/O- Paulus Barla	Ranta	Bhutuda	Munda	40	16/6	0.48	0.48	Paha
136	Sewan Jojo, S/O- Mani Jojo	Ranta	Bhutuda	Munda	40	140/8	0.60	0.60	Paha
137	Santosh Naik, S/O- Nira Naik	Ranta	Bhutuda	Bhuyan	40	133/1	0.60	0.60	Paha
138	Janu Naik, S/O- Khatu Naik	Ranta	Bhutuda	Bhuyan	40	129/2	0.36	0.36	Paha
139	Nigmal Hembram, S/O- Mansuk Hembram	Ranta	Bhutuda	Munda	40	198/1	1.20	1.20	Paha
140	Sujuni Dehury, S/O- Jamal	Ranta	Bhutuda	Bhuyan	40	129/3	0.28	0.28	Paha
141	Sutar Dehury, S/O- Chemana Dehury	Ranta	Bhutuda	Bhuyan	40	129/1	0.86	0.86	Paha
142	Pasindra Dehury, S/O- Tura Dehury	Ranta	Bhutuda	Bhuyan	40	140/7	0.40	0.40	Paha
143	Dinu Dehury, S/O- Bhagra	Ranta	Bhutuda	Bhuyan	40	130/14	1.00	1.00	Paha
144	Niani Dehury, S/O- Maghu Dehury	Ranta	Bhutuda	Bhuyan	40	129/12	0.50	0.50	Paha
145	Budhu Naik, S/O- Mangal Naik	Ranta	Bhutuda	Bhuyan	40	140/5	0.40	0.40	Paha
146	Kalhu Naik, S/O- Mangala Naik	Ranta	Bhutuda	Bhuyan	40	140/1	0.60	0.60	Paha
147	Bimal Dang, S/O- Mansuk Dang	Ranta	Bhutuda	Munda	40	130/17	0.75	0.75	Paha
148	Namjan Hembram, S/O- Mansuk Hembram	Ranta	Bhutuda	Munda	40	130/18	0.75	0.75	Paha

120

149	Chemeni Naik, S/O- Gura Naik	Ranta	Bhutuda	Bhuyan	40	140/6	0.40	0.40	Pahad
150	Madhu Naik, S/O- Gurucharan Naik	Ranta	Bhutuda	Bhuyan	40	130/20	0.75	0.75	Pahad
151	Deba Naik, S/O- Kalhu Naik	Ranta	Bhutuda	Bhuyan	40	140/2	0.50	0.60	Pahad
152	Sukamani Lamga, W/O- Imil Lamga	Ranta	Bhutuda	Munda	40	16/2	0.88	0.88	Pahad
153	Bhagar Naik, S/O- Mangala Naik	Ranta	Bhutuda	Bhuyan	40	140/3	0.30	0.30	Pahad
154	Puna Naik, S/O- Daitari Naik	Ranta	Bhutuda	Bhuyan	40	130/7	1.50	1.50	Pahad
155	Gurucharan Dehury, S/O- Kamara Dehury	Ranta	Bhutuda	Bhuyan	40	130/10	1.25	1.25	Pahad
156	Gurucharan Naik, S/O- Daitari Naik	Ranta	Bhutuda	Bhuyan	40	130/19	0.75	0.75	Pahad
157	Lalmohan Naik, S/O- Daitari Naik	Ranta	Bhutuda	Bhuyan	40	129/8	1.08	1.08	Pahad
158	Jata Dehury, S/O- Bhagra Dehury	Ranta	Bhutuda	Bhuyan	40	130/15	0.75	0.75	Pahad
159	Budhu Dehury, S/O- Jhara Dehury	Ranta	Bhutuda	Bhuyan	40	140/4	0.40	0.40	Pahad
160	Bhukula Naik, S/O- Sukru Naik	Ranta	Bhutuda	Bhuyan	40	129/9	1.20	1.20	Pahad
161	Bhima Naik, S/O- Baneswar Naik	Ranta	Bhutuda	Bhuyan	40	129/11	1.00	1.00	Pahad
162	Lajurus Soreng, S/O- Marthin Soreng	Ranta	Bhutuda	Munda	40	140/9	0.40	0.40	Pahad
163	Maelen Jadia, W/O- Markus Jadia	Ranta	Bhutuda	Munda	40	16/7	0.28	0.28	Pahad
164	Dukhia Naik, S/O- Sania Naik	Ranta	Bhutuda	Bhuyan	40	130/3	1.15	1.15	Pahad
165	Anil Dang, S/O- Mansuk Dang	Ranta	Bhutuda	Munda	40	16/1	0.88	0.88	Pahad
166	Habil Barla, S/O- Suleman Barla	Ranta	Bhutuda	Munda	40	16/5	1.52	1.52	Pahad
167	Sania Naik, S/O- Kenda Naik	Ranta	Bhutuda	Munda	40	133/3	0.90	0.90	Pahad
168	Abner Dang, S/O- Dayananda Dang	Ranta	Bhutuda	Munda	40	16/1	0.88	0.88	Pahad
169	Gurei Naik, S/O- Kalla Naik	Sareikela	Bhutuda	Bhuyan	36	38/27	0.05	0.05	Pahad Kissam
170	Mati Naik, S/O- Ramesh Naik	Sareikela	Bhutuda	Bhuyan	36	38/27	0.20	1.10	Pahad Kissam
171	Sohaye Jojo, S/O- Johan Jojo	Sareikela	Bhutuda	Munda	36	118/3	0.20	0.74	Pahad Kissam
					36	156/2	0.18		
					36	163/1	0.28		
					36	163/3	0.08		
172	Ashadu Naik, S/O- Shayem Naik	Sareikela	Bhutuda	Bhuyan	36	37/5	0.32	0.32	Pahad Kissam

~~171~~

173	Kaṅga Pradhān, S/o-Parikhya Pradhān	Sareikela	Bhutuda	Bhuyan	36	37/9	0.20	0.20	Paha Kissa
174	Chaitu Naik, S/o-Chihilu Naik	Sareikela	Bhutuda	Bhuyan	36	37/20	0.16	1.22	Paha Kissa
					36	37/23	0.70		
					36	38/3	0.30		
					36	38/13	0.06		
175	Sukutu Pradhān, S/o-Banu Pradhān	Sareikela	Bhutuda	Bhuyan	36	37/10	0.12	0.12	Paha Kissa
176	Saheba Naik, S/o-Kumar Naik	Sareikela	Bhutuda	Bhuyan	36	37/1	0.18	0.70	Paha Kissa
					36	38/1	0.08		
					36	38/8	0.20		
					36	38/11	0.24		
177	Rabi Samanta, S/o-Gundu Samanta	Sareikela	Bhutuda	Bhuyan	36	38/3	0.20	0.20	Paha Kissa
178	Junathan Dang, S/o-Khristasaye Dang	Sareikela	Bhutuda	Munda	36	118/1	0.75	0.75	Paha Kissa
179	Sukram Munda, S/o-Budhua Munda	Sareikela	Bhutuda	Munda	36	156/1	0.14	0.14	Paha Kissa
180	Bilish Dang, S/o-Junathan Dang	Sareikela	Bhutuda	Munda	36	156/1	0.10	2.95	Paha Kissa
					36	118/2	2.85		
181	Guruban Naik, S/o-Chama Naik	Sareikela	Bhutuda	Bhuyan	36	34/5	0.20	0.52	Paha Kissa
					36	37/17	0.32		
182	Johan Munda, S/o-Nirmal Munda	Sareikela	Bhutuda	Munda	36	5/6	0.58	3.20	Paha Kissa
					36	5/8	0.50		
					36	5/9	0.40		
					36	5/14	0.94		
					36	5/17	0.10		
					36	5/18	0.20		
183	Markesh Dang, S/o-Suleman Dang	Sareikela	Bhutuda	Munda	36	5/9	0.36	2.22	Paha Kissa
					36	5/10	1.40		
					36	5/11	0.36		
					36	5/16	0.10		
184	Oram Naik, S/o-Asura Naik	Sareikela	Bhutuda	Bhuyan	36	37/1	0.50	1.26	Paha Kissa
					36	37/2	0.28		
					36	38/6	0.48		
185	Purna Naik, S/o-Dharam Naik	Sareikela	Bhutuda	Bhuyan	36	38/21	0.46	0.46	Paha Kissa
186	Maghu Dehury, S/o-Makru Dehury	Sareikela	Bhutuda	Bhuyan	36	38/25	0.40	0.4	Paha Kissa
187	Sudersana Naik, S/o-Shayema Naik	Sareikela	Bhutuda	Bhuyan	36	37/1	0.30	1.12	Paha Kissa
					36	37/14	0.68		
					36	38/12	0.14		
188	Maheswar Malik, S/o-Jhara Malik	Sareikela	Bhutuda	Bhuyan	36	38/7	0.18	0.18	Paha Kissa
189	Dasara Dehury, S/o-Budhu Dehury	Sareikela	Bhutuda	Bhuyan	36	38/9	0.74	0.74	Paha Kissa
190	Tandakar Giri, S/o-Bhagye Giri	Sareikela	Bhutuda	Bhuyan	36	38/10	0.62	0.62	Paha Kissa

11/11

191	Chabi Naik, S/o-Rushi Naik	Sareikela	Bhutuda	Bhuyan	36	37/15	0.34	0.34	Pahad Kissam
192	Kartika Naik, S/o-Dina Naik	Sareikela	Bhutuda	Bhuyan	36	174/1	0.40	0.40	Pahad Kissam
193	Biranga Munda, S/o-Sukru Munda	Sareikela	Bhutuda	Munda	36	171/15	0.28	0.28	Pahad Kissam
194	Singa Munda, S/o-Ghasia Munda	Sareikela	Bhutuda	Munda	36 36	171/7 171/11	0.72 0.56	1.28	Pahad Kissam
195	Bhajana Naik, S/o-Jadu Naik	Sareikela	Bhutuda	Bhuyan	36	175/7	0.40	0.40	Pahad Kissam
196	Lachai Munda, S/o-Naga Munda	Sareikela	Bhutuda	Munda	36	175/6	0.40	0.40	Pahad Kissam
197	Langala Munda, S/o-Basu Munda	Sareikela	Bhutuda	Munda	36 36	171/4 171/12	0.32 0.24	0.56	Pahad Kissam
198	Mekani Munda, S/o-Ghasia Munda	Sareikela	Bhutuda	Munda	36 36	171/1 171/2	0.05 0.38	0.43	Pahad Kissam
199	Mangulu Naik, S/o-Sanu Naik	Sareikela	Bhutuda	Bhuyan	36	38/3	0.24	0.24	Pahad Kissam
200	Laxmidhar Thakur, S/o-Bramana Thakur	Sareikela	Bhutuda	Bhuyan	36	30/5	0.58	0.58	Pahad Kissam
201	Birsa Munday, S/o-Sukuram Munday	Sareikela	Bhutuda	Munday	36 36 36 36 36	3/1 3/6 3/7 3/8 4/1 4/2	0.10 0.26 0.25 0.30 1.22 0.10	2.23	Pahad Kissam
202	Nutan Dang, S/o-Rojan Dang	Sareikela	Bhutuda	Munda	36	118/6	0.70	0.7	Pahad Kissam
203	Namjan Dang, S/o-Matish Dang	Sareikela	Bhutuda	Munda	36 36	163/3 163/5	1.00 0.28	1.28	Pahad Kissam
204	Abinash Topno, S/o-Johan Topno	Sareikela	Bhutuda	Munda	36 36 36 36	118/4 118/5 163/4 163/6	0.70 1.06 0.21 0.62	2.59	Pahad Kissam
205	Budhua Munda, S/o-Pasa Munda	Sareikela	Bhutuda	Munda	36	163/1	0.24	0.24	Pahad Kissam
206	Kanahi Naik, S/o-Renga Naik	Sareikela	Bhutuda	Bhuyan	36	37/7	0.22	0.22	Pahad Kissam
207	Dukan Naik, S/o-Chandru Naik	Sareikela	Bhutuda	Bhuyan	36	38/5	0.30	0.30	Pahad Kissam
208	Phagulal Naik, S/o-Renga Naik	Sareikela	Bhutuda	Bhuyan	36 36 36	34/1 37/8 38/2	0.21 0.22 0.40	0.83	Pahad Kissam

ADWO. Bona
19/15/2020

List of 17 nos. of IFR Cases under FRA-2006 are pending before DLC, Sundargarh for further approval

Name of the Tehsil- Lahunipara

Sl No	Name of the Claimant	Name of the Village	Name of the GP	OTFD / ST	Caste	Khata No	Plot No.	Total area involved	Total area	Kisam of the land
1	Sakim Munda, S/O-Juseb Munda	Sareikela	Bhutuda	ST	Munda	36	2/7 2/10 2/21 2/30	0.23 0.15 0.18 0.78	1.34	Pahad
2	Manuel Munda, S/O-Joseph Munda	Sareikela	Bhutuda	ST	Munda	36	2/13 2/26	0.08 0.30	0.38	Pahad
3	Rajesh Surin, S/O-nageswar Surin	Sareikela	Bhutuda	ST	Munda	36	2/5 3/2	0.12 0.50	0.62	Pahad
4	Ganha Munda, S/O-Renga Munda	Sareikela	Bhutuda	ST	Munda	36	175/8	0.40	0.4	Pahad
5	Penu Naik, S/O-Fagu Naik	Sareikela	Bhutuda	ST	Bhuyan	36	103/2 103/9 103/10	1.15 0.90 0.05	2.10	Pahad
6	Chemena Pradhan, S/O-Banu Pradhan	Sareikela	Bhutuda	ST	Bhuyan	36	34/8 37/11 37/19	0.56 0.14 0.26	0.96	Pahad
7	Gadhei Naik, S/O-Amin Naik	Sareikela	Bhutuda	ST	Bhuyan	36	156/4	1.10	1.10	Pahad
8	Nathu Naik, S/O-Dhoba Naik	Sareikela	Bhutuda	ST	Bhuyan	36	103/3 103/17	0.32 0.80	1.12	Pahad
9	Sunil Munda, S/O-Jusab Munda	Sareikela	Bhutuda	ST	Munda	36	7/28	0.60	0.60	Pahad
10	Suleman Hembram, S/O-Egnesh hembram	Sareikela	Bhutuda	ST	Munda	36	1/1 2/12 2/15 2/22 2/23 2/24 2/28 2/30	0.50 0.05 0.46 0.12 0.14 0.15 0.15 0.72	2.29	Pahad
11	Philip Munda, S/O-Pasa Munda	Sareikela	Bhutuda	ST	Munda	36	156/2 156/3 163/2 163/3	0.42 0.08 0.10 0.94	1.54	Pahad
12	Peta Munday, S/O-Rainu Munday	Sareikela	Bhutuda	ST	Munday	36	4/4 3/12 3/14 3/19 3/20 3/23	0.14 0.38 0.12 0.18 0.10 0.42	1.64	Pahad
13	Sakra Munda, S/O-Laba Munda	Sareikela	Bhutuda	ST	Munda	36	171/14 174/2 175/1 175/4	0.80 2.60 0.16 3.70	7.26	Pahad

11/4/17

Point wise compliance to conditions stipulated in the Stage-II Forest Clearance granted by MoEF & CC, Govt. of India vide F.No. 8-113/2000-FC (Vol-II) dt. 29.11.2018 over 517.888 ha of forest land pertaining to Kurmitar Iron and Manganese ore mining lease over 651.0 ha of OMC Ltd in Sundargarh district, Odisha.

Condition No.	Conditions stipulated in the Stage-II grant order issued by MoEF & CC, Govt. of India	Compliance by OMC
1	Legal status of the diverted forest land shall remain unchanged.	OMC pursued the matter with the State Government to keep the legal status of the forest land diverted under this approval unchanged.
2	Compensatory afforestation over identified non-forest land equal in extent to the forest land being diverted and penal compensatory afforestation on identified degraded forest land shall be raised by the State Forest Department within a period of three years with effect from the date of issue of Stage-II clearance and maintained thereafter in accordance with the approved plan from the funds deposited in Ad-hoc CAMPA account by the User Agency;	State Forest Department shall raise Compensatory Afforestation over 508.496 ha of non-forest land allotted in village Melkundel under Thuamul Rampur Tahasil of Kalahandi (S) Forest Division within a period of three years from the date of issue of Stage-II Forest Clearance. The plantation shall be maintained for a period of ten years as per the scheme technically approved by APCCF (N), utilizing the funds already deposited by OMC.
3	The non-forest land transferred so mutated in favour of the State Forest Department shall be notified by the State Government as RF under Section-4 or PF under Section-29 of the Indian Forest Act, 1927 or under the relevant Section (S) of the local Forest Act, 1927 latest within a period of six months from the date of issue of Stage-II approval.	The CA land selected has been declared as "MELKUNDEL PROTECTED FOREST" by the State Govt. vide letter dt. 28.05.2020.
4	The user agency shall pay the additional amount of NPV, if so determined, as per the final decision of the Hon'ble Supreme Court of India:	OMC shall pay the additional amount of NPV, if so determined, as per the final decision of the Hon'ble Supreme Court of India.
5	Following activities shall be undertaken by the user agency at their cost as per approved plan;	
a	Mitigative measures to minimize soil erosion and choking of stream shall be implemented within a period of three years with effect from the issue of Stage-II clearance in accordance with the approved Plan in consultation with the State Forest Department.	A scheme on mitigative measures to minimize soil erosion and choking of stream has been approved by RCOFF, Rourkela with a financial outlay of Rs. 1,57,50,000/- to be executed by OMC.
b	Planting of adequate drought hardy plant species and sowing of seeds, in the	A scheme on planting of adequate drought hardy plant species and sowing of seeds, in

	appropriate area within the mining lease to arrest soil erosion in accordance with the approved scheme;	the appropriate area within the mining lease has been approved by RCCF, Rourkela with a financial outlay of Rs. 4,27,700/- to be executed by OMC.
c	Construction of check dam, retention /toe walls along the contour to arrest sliding down of the excavated material along the contour in accordance with the approved scheme;	A scheme on construction of check dam, retention/toe walls along the contour to arrest sliding down of the excavated material along the contour has been approved by RCCF, Rourkela with a financial outlay of Rs. 4,27,700/- to be executed by OMC.
d	Stabilize the overburden dumps by appropriate grading / benching, in accordance with the approved scheme, so as to ensure that angles of repose at any given place is less than 28 ^o , and	A scheme to stabilize the overburden dumps by appropriate grading/benching has been approved by RCCF, Rourkela with a financial outlay of Rs. 2,40,00,000/-. The OB dump is being maintained by OMC through appropriate grading and benching as per the scheme of mining approved by IBM.
e	No damage shall be caused to the top-soil and the user agency will follow the top soil management plan.	A scheme on top soil management has been approved by RCCF, Rourkela with a financial outlay of Rs. 42,00,000/- to be implemented by OMC.
6	The State Govt. shall ensure that the User Agency shall obtain the Environment Clearance as per the provisions of the Environmental (Protection) Act' 1986, if required;	Environment Clearance for production of 6.0 MTPA of Iron Ore has been obtained vide letter no. 23-237/2018-IA.III (V) dt. 22.12.2020.
7	The State Govt. and the user agency shall ensure that no labour camp shall be established on the forest land;	No labour camp has been established by OMC in the forest land granted under Stage-II approval.
8	The State Govt. shall ensure that user agency shall provide firewood preferably alternate fuel to the labourers and the staff working at the site so as to avoid any damage and pressure on the adjacent forest areas;	All the workers are coming from the nearby villages. The staffs working at the site are using cooking gas available in the local market and electric power for their household needs free of cost.
9	The State Govt. and the user agency shall ensure that the boundary of the diverted forest land, mining lease and safety zone, as applicable, shall be demarcated on ground at the project cost, by erecting four feet high reinforced cement concrete pillars, each inscribed with its serial number, forward and back bearing, distance from pillar to pillar and GPS coordinates;	The boundary of the diverted forest land, mining lease and safety zone, as applicable has been demarcated on ground at the project cost, by erecting four feet high reinforced cement concrete pillars, each inscribed with its serial number, forward and back bearing, distance from pillar to pillar and GPS coordinates. It is maintained by OMC on ground.
10	The State Government shall ensure that the process of settlement of rights has been completed in accordance with provisions of Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006;	Collector, Sundargarh vide letter no. 3769 dt. 27.11.2014 has issued certificate under the Schedule Tribes & Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 over 651.00 ha.

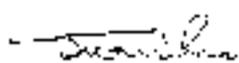
11	The State Govt. and the user agency shall ensure that layout plan of the mining plan/proposal shall not be changed without the prior approval of the Central Government and the forest land shall not be used for any purpose other than the specified in the proposal.	The layout plan of the mining plan/ proposal has not been changed.
12	The period of diversion of the said forest land under this approval shall be for a period co-terminus with the period of the mining lease proposed to be granted under the Mines and Minerals (Development & Regulating) Act, 1957, or Rules framed there under;	State Govt. vide letter no. III (3) SM-02/ 2015 2150/SM dt. 08.02.2016 extended the validity of lease till 28.04.2035. Supplementary lease has been executed on dt 14.09.2016. OMC shall restrict the operation till validity of the lease period.
13	The State Government to ensure that the State Forest Department will implement the approved Regional Wildlife Management and approved Site Specific Wildlife Conservation Plan from the funds deposited by the user agency in the account of Adhoc CAMPA.	OMC has deposited Rs. 1, 81, 87,050/- vide DD No. 718104 to 718122 dt. 03.04.2007, Rs. 98, 05,950/- through RTGS vide UTR No. ANDBH15012179137 dt. 12.01.2015 in Union Bank of India, Rs. 2, 41, 43,210/- through e-portal vide UTR No. ANDBN 1821359408 dt. 25.01.2018 towards cost of Regional wildlife management plan. OMC has also deposited Rs. 7, 81, 15,000 through RTGS vide UTR No. ANDBH 14004187130 dt. 04.01.2014 towards cost of Site Specific Wildlife conservation plan.
14	The State Govt. shall ensure that the State Forest Department will implement the approved plan/scheme for fencing, protection and regeneration of the safety zone area.	The approved plan/scheme for fencing, protection and regeneration of the safety zone area over 2.604 ha was commenced during 2010-11 and completed during 2013-14. The scheme for fencing, protection and afforestation of balance 6,788 ha of safety zone area (9.392ha-2.604 ha) has been technically approved by RCCF, Rourkela for Rs. 20, 71, 600/- to be implemented by OMC.
15	The State Govt. and the user agency shall ensure that no damage to the flora and fauna of the adjoining area shall be caused.	No damage to the flora and fauna of the adjoining area is being caused.
16	The State Govt. and the user agency shall explore the possibility of translocation of maximum number of trees identified to be felled and shall ensure that any tree felling shall be done only when it is unavoidable and that too under strict supervision of the State Forest Department.	Any tree felling by OMC is being done only when it is unavoidable and that too under strict supervision of the State Forest Department.
17	The State Govt. shall ensure that State Forest Department will implement the approved plan from the funds deposited in Ad-hoc CAMPA account by the user agency	A scheme for gap planning and soil & moisture conservation activities to restock and rejuvenate the degraded open forests located in the area within 100 m from outer

	for gap planting and soil & moisture conservation activities to restock and rejuvenate the degraded open forests located in the area within 100 m from outer perimeter of the mining lease.	perimeter of the mining lease (excluding that strip of the ML boundary which bears common with adjacent lessee and OMC) has been approved by RCCF, Rourkela with a total financial outlay of Rs.12, 68,700/- to be implemented by DFO, Bonai.
18	The State Govt. ensure that the user agency shall carry out mining in a phased manner as per the approved mining plan and take due care for reclamation of the mined over area and the concurrent reclamation plan shall also be executed by the User Agency as per the approved mining plan scheme. An annual report on implementation thereof shall be submitted to the Nodal Officer, Forest (Conservation) Act 1980, Government of Odisha and the Addl. Principal Chief Conservator of Forests (Central), Ministry of Environment & Forests, Regional Office, Bhubaneswar. If it is found from the annual report that the activities indicated in the concurrent reclamation plan are not being executed by the user agency, the Nodal Officer or the Addl. Principal Chief Conservator of Forests (Central) may direct that the mining activities shall remain suspended till such time, such reclamation activities are satisfactorily executed;	Mining is being carried out in a phased manner as per the approved mining plan by IBM vide letter no. RMP/A/39-ORI/BHU /2019-20 dt. 14.01.2020. An annual report on implementation of the concurrent reclamation plan to the Nodal officer, Forest (Conservation) Act, 1980, Odisha and Eastern Regional Office, MoEF & CC, Bhubaneswar has been submitted vide letter dt.28.04.2021.
19	The State Govt. ensure that the User Agency shall implement the R&R Plan as per the R&R Policy of State Government in consonance with National R&R Policy, Government of India before the commencement of the project work and implementation. The said R&R Plan will be monitored by the State Government/ Regional Office of MoEF along with indicators for monitoring and expected observable milestones;	The project does not involve displacement of people. Rights recognized under FRA, 2006 for the tribal people shall be taken care through ameliorative measures if OMC utilizes the land. Further, OMC will implement the R&R plan as per the R&R policy of the State Government in consonance with National R&R Policy, Government of India whenever such contingency arises.
20	The State Govt. ensure that the user agency shall carry out de-silting of the village tanks and other water bodies located within five km from the mine lease boundary so as to mitigate the impact of siltation of such tanks/water bodies at their cost in consultation with State Forest Department;	OMC will desilt the village ponds and other water bodies located within five km from the mine lease whenever required to mitigate the impact of siltation of such tanks/water bodies.
21	The State Govt. and the user agency shall ensure that the annual self-compliance report in respect of the above	The annual self-compliance report in respect of the above stated conditions and also to the conditions stipulated in Stage-I Clearance

	conditions and also to the conditions stipulated in stage-I Clearance dated 25.02.2016 for which undertakings given shall be submitted to the State Government, concerned Regional Office and this Ministry by the end of March every year regularly;	dt 25.02.2016 for which undertakings given to the State Government, Eastern Regional Office of MoEF & CC and MoEF & CC, Govt. of India by the end of March, 2020 has been submitted vide letter dt. 26.05.2020.
22	The State Govt. and the user agency shall ensure that any other condition that the concerned Regional Office of this Ministry, may stipulate, from time to time, in the interest of conservation, protection and development of forests & wildlife; and	OMC will abide by the conditions to be stipulated by the Regional Office of MoEF & CC from time to time in the interest of conservation protection and development of forests & wildlife.
23	The State Government and user agency shall comply the provisions of the all Acts, Rules, Regulations, Guidelines, Hon'ble Court Order (s) and NCT Order(s) pertaining to this project, if any, for the time being in force, as applicable to the project.	All the provisions of the all Acts, Rules, Regulations, Guidelines & Hon'ble Court Order (S) pertaining to this project, if any, for the time being in force as applicable to the project is being complied by OMC.

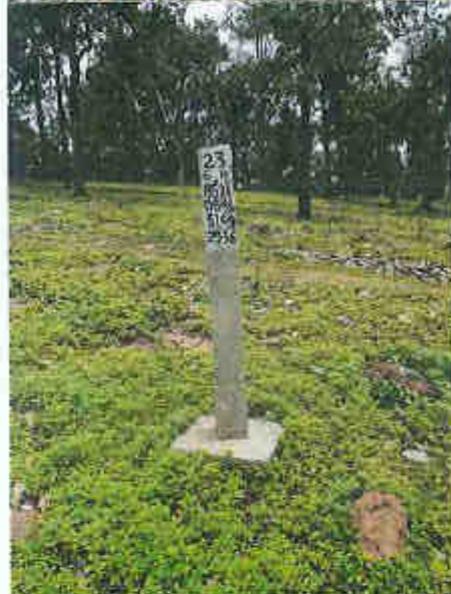
The compliance to the additional conditions imposed by the State Govt. is given as under:

Condition No.	Observations raised by the State Government vide letter No.26033 dt 03.12.2018	Compliance
	They shall publish the entire forest clearance granted in verbatim along with conditions and safeguards imposed by the Central Government in Stage-I/II forest clearance in two widely circulated daily newspapers, one in vernacular language and the other in English language so as to make people aware of the permission granted to the Project for use of forest land for non forest purposes.	Complied.
ii	They shall submit the copies of forest clearance orders granted by the Central Government/State Government to the Heads of local bodies and Municipal bodies along with the relevant offices of the State Government, who in turn, shall display the same for 30 days from date of receipt.	Complied.
iii	Detailed action taken in compliance to the above order of State Government shall be intimated to the DFO, Keonjhar Division/ DFO, Kalahandi (South)/RCCF, Rourkela/ RCCF, Bhanuapatna/Pr. CCF, Odisha/ F&E Department for reference.	Complied.


General Manager (Geology)

Authorized signatory
General Manager (Geology)

BOUNDARY OF FOREST LAND PROPOSED FOR DIVERSION





(Published in the Gazette of India, Extraordinary, Part-II, and Section 3, Sub-section (ii)
MINISTRY OF ENVIRONMENT AND FORESTS
 New Delhi 14th September, 2006

Notification

S.O. 1533(E) - Whereas, a draft notification under sub-rule (3) of Rule 5 of the Environment (Protection) Rules, 1986 for imposing certain restrictions and prohibitions on new projects or activities, or on the expansion or modernization of existing projects or activities based on their potential environmental impacts as indicated in the Schedule to the notification, being undertaken in any part of India, unless prior environmental clearance has been accorded in accordance with the objectives of National Environment Policy as approved by the Union Cabinet on 18th May, 2006 and the procedure specified in the notification, by the Central Government or the State or Union territory Level Environment Impact Assessment Authority (SEIAA), to be constituted by the Central Government in consultation with the State Government or the Union territory Administration concerned under sub-section (3) of section 3 of the Environment (Protection) Act, 1986 for the purpose of this notification, was published in the Gazette of India, Extraordinary, Part II, section 3, sub-section (ii) vide number S.O. 1324 (E) dated the 15th September, 2005 inviting objections and suggestions from all persons likely to be affected thereby within a period of sixty days from the date on which copies of Gazette containing the said notification were made available to the public;

And whereas, copies of the said notification were made available to the public on 15th September, 2005;

And whereas, all objections and suggestions received in response to the above mentioned draft notification have been duly considered by the Central Government;

Now, therefore, in exercise of the powers conferred by sub-section (1) and clause (v) of sub-section (2) of section 3 of the Environment (Protection) Act, 1986, read with clause (d) of sub-rule (3) of rule 5 of the Environment (Protection) Rules, 1986 and in supersession of the notification number S.O. 60 (E) dated the 27th January, 1994, except in respect of things done or omitted to be done before such supersession, the Central Government hereby directs that on and from the date of its publication the required construction of new projects or activities or the expansion or modernization of existing projects or activities listed in the Schedule to this notification entailing capacity addition with change in process and or technology shall be

I; II; III (i); (ii); IV (a); (b); V (i); (ii); (iii)(a); (b); (c); (iv); (v); (vi) (a); (b); (vii); (viii) (a); (b); (ix); (x); (xi); (xii) (a); (b); (xiii); (xiv) (a); (b); (xv) (a); (b); (xvi) (a); (b); (xvii); VI (a); (b); VII & VIII of the Notification, S.O. 3067(E) dated 01.12.2009 of the Ministry of Environment and Forests, (Published in the Gazette of India, Extraordinary, Part-II, and Section 3, Sub-section (ii), No. 2002] New Delhi, Tuesday, November 1, 2009; an amendment to EC notification S.O.1533(E) dated 14.09.2006

SCHEDULE

(See paragraph 2 and 7)

LIST OF PROJECTS OR ACTIVITIES REQUIRING PRIOR ENVIRONMENTAL CLEARANCE

Project or Activity		Category with threshold limit		Conditions if any
		A	B	
1		Mining, extraction of natural resources and power generation (for a specified production capacity)		
(1)	(2)	(3)	(4)	(5)
1(a)	(i) Mining of minerals. (ii) Slurry pipelines (coal lignite and other ores) passing through national parks / sanctuaries / coral reefs, ecologically sensitive areas.	≥ 50 ha. of mining lease area in respect of non-coal mine lease. > 150 ha of mining lease area in respect of coal mine lease. Asbestos mining Irrespective of mining area All projects.	<50 ha ≥ 5 ha .of mining lease area in respect of non-coal mine lease. ≤ 150 ha ≥ 5 ha of mining lease area in respect of coal mine lease.	General Condition shall apply Note: Mineral prospecting is exempted.";
1(b)	Offshore and onshore oil and gas exploration, development & production	All projects		Note Exploration Surveys (not involving drilling) are exempted provided the concession areas have got previous clearance for physical survey
1(c)	River Valley projects	(i) ≥ 50 MW hydroelectric power generation; (ii) ≥ 10,000 ha. of culturable command area	(i) < 50 MW ≥ 25 MW hydroelectric power generation; (ii) < 10,000 ha. of culturable command area	"General Condition shall apply. Note: Irrigation projects not involving submergence or inter-state domain shall be appraised by the SEIAA as Category 'B' Projects.";

I, II, III (i), (ii); IV (a), (b); V (i), (ii), (iii), (iv), (v), (vi) (a), (b), (vii), (viii) (a), (b), (ix), (x), (xi), (xii) (a), (b), (xiii), (xiv) (a), (b), (xv) (a), (b), (xvi) (a), (b), (xvii) (a), (b); VI (a), (b); VII & VIII of the Notification, S.O. 3067(E) dated 01.12.2009 of the Ministry of Environment and Forests, (Published in the Gazette of India, Extraordinary, Part-II, and Section 3, Sub-section (ii), No. 20021 New Delhi, Tuesday, November 1, 2009; an amendment to EC notification S.O.1533(E) dated 14.09.2006

3				
(1)	(2)	(3)	(4)	(5)
3(a)	Metallurgical industries (ferrous & non ferrous)	a) Primary metallurgical industry All projects b) Sponge iron manufacturing ≥ 200 TPD c) Secondary metallurgical processing industry All toxic and heavy metal producing units $\geq 20,000$ tonnes /annum	Sponge iron manufacturing < 200 TPD Secondary metallurgical processing industry i.) All toxic and heavy metal producing units $< 20,000$ tonnes /annum ii.) All other non-toxic secondary metallurgical processing industries > 5000 tonnes/annum	v "General condition shall apply. Note: (i) The recycling industrial units registered under the HSM Rules, are exempted. (ii) In case of secondary metallurgical processing industrial units, those projects involving operation of furnaces only such as induction and electrical arc furnace, submerged arc furnace, and cupola with capacity more than 30,000 tonnes per annum (TPA) would require environmental clearance. (iii) Plant / units other than power plants (given against entry no. 1(d) of the schedule), based on municipal solid waste (non-hazardous) are exempted."
3(b)	Cement plants	≥ 1.0 million tonnes/annum production capacity	< 1.0 million tonnes/annum production capacity. All Stand alone grinding units	General Condition shall apply
4				
(1)	(2)	(3)	(4)	(5)
4(a)	Petroleum refining industry	All projects	-	-
4(b)	Coke oven plants	$\geq 2,50,000$ tonnes/annum	$< 2,50,000$ & $\geq 25,000$ tonnes/annum	v "General Condition shall apply."
4(c)	Asbestos milling and asbestos based products	All projects	-	-

I, II, III (a), (b); IV (a), (b); V (i), (ii), (iii)(a), (b), (c), (iv), (v), (vi) (a), (b), (vii), (viii) (a), (b), (ix), (x), (xi), (xii) (a), (b), (xiii), (xiv) (a), (b), (xv) (a), (b), (xvi) (a), (b), (xvii); VI (a), (b); VII & VIII of the Notification, S.O. 3067(E) dated 01.12.2009 of the Ministry of Environment and Forests, (Published in the Gazette of India, Extraordinary, Part-II, and Section 3, Sub-section (ii), No. 2002] New Delhi, Tuesday, November 1, 2009; an amendment to EC notification S.O. 1533(E) dated 14.09.2006

(1)	(2)	(3)	(4)	(5)
7(e)	"Ports, harbours, break waters, dredging."	≥ 5 million TPA of cargo handling capacity (excluding fishing harbours)	< 5 million TPA of cargo handling capacity and/or ports/ harbours ≥10,000 TPA of fish handling capacity	"General Condition shall apply. Note: 1. Capital dredging inside and outside the ports or harbors and channels are included; 2. Maintenance dredging is exempt provided it formed part of the original proposal for which Environment Management Plan (EMP) was prepared and environmental clearance obtained."
7(f)	Highways	i) New National High ways; and ii) Expansion of National High ways greater than 30 KM, involving additional right of way greater than 20m involving land acquisition and passing through more than one State.	v " i) All State Highway Project; and ii) State Highway expansion projects in hilly terrain (above 1,000 m AMSL) and or ecologically sensitive areas."	General Condition shall apply. Note: Highways include expressways."
7(g)	Aerial ropeways	v(vi)(a) "(i) All projects located at altitude of 1,000 mtr. And above, (ii) All projects located in notified ecologically sensitive areas."	v(vii)(b) "All projects except those covered in column (3)."	General Condition shall apply
7(h)	Common Effluent Treatment Plants (CETPs)		All projects	General Condition shall apply
7(i)	Common Municipal Solid Waste Management Facility (CMSWMF)		All projects	General Condition shall apply
8		Building /Construction projects/Area Development projects and Townships		
8(a)	Building and Construction projects		≥20000 sq.mtrs and <1,50,000 sq.mtrs. of built-up area#	#(built up area for covered construction; in the case of facilities open to the sky, it will be the activity area)
8(b)	Townships and Area Development projects:		Covering an area ≥ 50 ha and or built up area ≥1,50,000 sq .mtrs ++	++All projects under Item 8(b) shall be appraised as Category B1

i, ii, iii (i), (ii); IV (a), (b); V (i), (ii), (iii)(a), (b), (c), (iv), (v), (vi) (a), (b), (vii), (viii) (a), (b), (ix), (x), (xi), (xii) (a), (b), (xiii), (xiv) (a), (b), (xv) (a), (b), (xvi) (a), (b), (xvii); VI (a), (b); VII & VIII of the Notification, S.O. 3067(E) dated 01.12.2009 of the Ministry of Environment and Forests, (Published in the Gazette of India, Extraordinary, Part-II, and Section 3, Sub-section (ii), No. 2002] New Delhi, Tuesday, November 1, 2009, an amendment to EC notification S.O.1533(E) dated 14.09.2006

To

**The Divisional Forest Officer,
Bonai Forest Division**

Sub: Proposal for diversion of 85.175 ha of fresh forest land and 1.304 ha re-diversion of Forest land (which is a part of 11,912 ha forest land, for which Stage-II approval has already been accorded by ERO, MoEF & CC on 29.05.2020) for construction of overhead piped conveyor belt from Kurmitar ML Boundary of OMC Ltd to new proposed Railway siding at Barsuan for transportation of mineral with provision for one dispatch area in between the route and the other at terminal point at Barsuan.

Ref: Letter No.6149/6F-(Mg) dt 09.08.2021 by DFO, Bonai.

Sir

The RCCF, Rourkela Circle vide letter No.2096/3F (Misc) 756/2021 dt 06.08.2021 has raised some observation while examining the stage-I compliance pertaining to the proposal for construction of Conveyor belt from Kurmitar ML Boundary of OMC to proposed new Railway siding at Barsuan. The observations have been forwarded by DFO, Bonai vide letter under reference to OMC for necessary compliance. The point wise compliance to the observations is given as under:

1. Your compliance with Condition No. A. 1 (ii) simply carries the information regarding cost of the CA scheme and payment of the same by the UA. It should be specifically mentioned whether the cost of survey, demarcation and erection of permanent pillars if required on the CA land have been deposited in advance with the Forest Department by the project authority. Further, as required under this condition, nothing has been stated regarding the maintenance of the CA scheme for 10 years and whether the CA scheme includes appropriate provision for anticipated cost increase for works scheduled for subsequent years.

In compliance, it is submitted that APCCF (N) has approved the CA scheme over 85.175 ha with a financial outlay of Rs. 4,51,43,600/- which includes Rs. 56,05,727/- towards cost of barbed wire fencing of 8169.41 Rmtr over the entire boundary of the proposed CA area of 85.175 ha proposed for plantation. The cost of barbed wire fencing includes cost of survey, demarcation and fixing of RCC pillars. The entire cost of CA including cost of barbed wire fencing has been deposited by OMC on dt 12.4.2021 and dt 28.07.2021. Hence, deposit of cost towards the above activity in separate by OMC is not envisaged.

As regards the second part of the observation, it is submitted that the cost norm provided for Bald hill block plantation in the CA scheme approved by APCCF (FD & NO FC Act) has been made for 10 years including the cost norm for Barbed wire fencing for a period of 10 years with a maintenance during 3rd, 6th and 9th years.

Besides, in compliance to the 3rd observation, there is a provision of 20% escalation cost over the total cost of Bald hill plantation and cost of barbed wire fencing which also includes appropriate provision

Odisha Mining Corporation Ltd.

(A Gold Category State PSU)

Registered Office : OMC House, Bhubaneswar - 751001, India

Tel : 0674-2377400/2377401, Fax : 0674-2396889, 2391629, www.omcltd.in

CIN : U13100OR1956SGC000313

for anticipated cost increase for works scheduled for subsequent years. The copy of the CA scheme enclosed as **Annexure-I** in the Stage-I FC compliance may kindly be referred.

2. Your compliance with condition No. A (5) does not speak anything regarding the trestles (pillars) of the proposed conveyor belt. It should be specifically mentioned the number of trestles (Pillars) to be erected and whether they are sufficiently high or not so that the movement of wildlife particularly elephants in the area is not hampered.

In compliance, it is submitted that the Pipe Conveyor-1 over a length of 2.92 Km, comprises 121 number of trestle and that of Pipe Conveyor-2 over a length of 5.55 Km, comprises 219 number of trestles of different heights and spacing depending on the topography and flowability of the Iron Ore. The Site Specific Wildlife Conservation Plan (SSWLCP) approved by PCCF (WL) & CWLW, Odisha vide letter dt. 23.07.2021 includes a special chapter on "Design of the trestles of pipe conveyor belt without obstructing the free movement of elephants in the project area" where the details are given for clarity. A copy of the approved SSWLCP is enclosed as **Annexure-I** for kind reference. The height of the Trestle Pillars will also be sufficiently high for free movement of wild animal particularly elephants.

3. The relevant information in regard to the four feet high reinforced cement concrete pillars erected each inscribed with its serial number, distance from pillar to pillar and GPS co-ordinates should be given in compliance with condition No. B.9.

In compliance, it is submitted that the boundary of the diverted forest land has been demarcated on ground erecting four feet high reinforced cement concrete pillars each inscribed with its serial number, distance from pillar to pillar and GPS Co-ordinates. Photographs in support of proof of the work completed are enclosed as **Annexure-II** for reference.

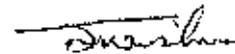
4. As required against condition No. B.22, the compliance report needs to be uploaded on e-portal (<https://parivesh.nic.in/>).

In compliance, it is submitted that as per the prevailing practice the compliance to the Stage-I FC is uploaded in the web-portal of MoEF & CC after initial verification of CA land by APCCF (FD & NO FC Act) and thereafter incorporating all the observations raised by DFO and RCCF while recommending the Stage-I FC compliance. Necessary follow up action shall be taken accordingly.

It is therefore requested to kindly examine the above compliances and recommend to higher quarter for grant of Stage-II FC.

Encl: As above.

Yours faithfully,



(Dr. Suman Krishna Sit)
General Manager (Geo)
Authorized signatory