

**CHECK LIST**

**for**

**PROPOSAL FOR DIVERSION OF FOREST LAND FOR NON-  
FORESTRY USE UNDER FOREST (CONSERVATION) ACT, 1980.**

**Prepared by**

**Principal Chief Conservator of Forests, Orissa**

**CHECK LIST**  
**PROPOSAL FOR DIVERSION OF FOREST LAND FOR NON- FORESTRY**  
**USE UNDER FOREST (CONSERVATION) ACT, 1980.**

**Title of the proposal:** Proposal for diversion of 80.826 ha of Forest Land including 64.260 ha of Non-Forest Land recorded as Forest in Govt. record as on/after 25th October 1980, within Tiringpahar Iron and Manganese Mines of M/s Tata Steel Ltd under Barbil Tahasil under the jurisdiction of Keonjhar Forest Division in Keonjhar District, Odisha.

Sl No.	Details and documents to be provided	Provided or not	If not provided why?	Page Number
1	Check list of project proposal.	Provided		
2	Authorisation letter of the project authority. Position of the Authorised person in the company with the signature attested.	Provided		Annexure-XIV
3	Main application Form from Part-I prescribed in the rules under Forest (Conservation) Act, 1980 with all its columns duly filled in and signed by the Competent authority with date, place and their official seal. NB:-All the information of <b>Part- I</b> of the <b>Form A</b> including <b>Item-wise Breakup</b> of the forest area required must be given in the Form itself by expanding the columns.	Provided		Form-A
4	Detail note on the project. It must include the information regarding the number of village and number of persons to be benefited from the project including employment generation.	Provided		Form-A
5	Map of the project site with forest areas indicated clearly by showing forest boundaries within the proposed area; proposed land use of all areas in distinct colours in 1:50000 or any other suitable scale on original survey of India Topo sheet. <u>The survey details should be in the GPS Coordinates in addition to plain table survey</u> NB:-If the area is very small, in addition to above, an index map be submitted showing forest boundaries and a location map on a larger scale with land use of the area required duly signed by User agency Revenue authorities not below the rank of Tahasildar and DFO concerned.	Provided		Plate-I
6	Lay-out plan of project site. <i>In case of linear diversions of forest land, linear map or a diagrammatic map of the project site, if it is not a linear diversion, map should be enclosed.</i>	Provided		Plate-III & IV

7	Statement showing the details of forest area Involved. <i>Survey No. /Coup No. Compartment No. etc. and item –wise breakup of the forest area</i> <i>Proposed for diversion duly signed by Range officer and DFO concerned.</i>	Provided		Annexure-IX A & Plate-II
8	Statement giving the details of non-forest areas involved in the proposal. The land schedule and the map had to be attested by the revenue authority not below the rank of Tahasildar.	Provided		Annexure-IX A
9	Certificate from the project proponent that no alternative suitable non-forest land is available for the project in question, and that this is the best location from among several alternatives considered and involving the barest minimum extent of forest land.	NA		
10	Justification for locating the project in forest area to be given by the User agency and countersigned by DFO.	Provided		Annexure-IA
11	Certificate for minimum use of forest land to be submitted by User Agency giving details of areas and trees involved in the alternatives examined and reasons for their rejection duly countersigned by DFO.	Provided		
12	Cost- Benefit analysis as per the guidelines issued under Forest (Conservation) Act, 1980 in Prescribed format. If not required reasons may be mentioned.	Provided		Annexure-XVI
13	No Objection Certificate from local bodies ie Aam Sabha.	Provided		Annexure-XI
14	Status of clearance under Environment (Protection) Act, 1986, where necessary. 1) Environment clearance and 2) Orissa State Pollution Control Board clearance	Provided		Annexure-VIII & VI
15	Detail scheme for rehabilitation of project affected person. The scheme has agreement with the state R&R policy 2006.	NA		
16	Has the rights under Forest Rights Act 2006 has been settled? If so, the Documents from the Collector and Gram Sabha need to be attached.	Provided		Annexure-XXI
17	Undertaking by the User Agency to bear the cost of compensatory afforestation duly countersigned by the DFO.	Provided		Annexure-III
18	Undertaking by User Agency to pay the Net Present Value (NPV) of the forest land involved duly countersigned by the DFO.	Provided		Annexure-III

19	Species-wise and Girth class wise enumeration list and abstract of trees (abstract to be given at the end of the list) standing in the forest area in question neatly typed or computerized and duly signed by DFO.	Provided		Submitted in a Separate bound volume
20	Site inspection report of the forest area involved in the project proposal by concerned DFO or higher level Forest Officer in prescribed format.	Provided		
21	Details of non-forest land/degraded forest area Identified for compensatory afforestation viz. Survey No. Compartment No., Village, Tehsil, District etc. along with the boundaries of adjoining areas with their land use in district colours.	Provided		Annexure- XIX series and Plate- X , XII & XIV
22	Detailed scheme for compensatory afforestation on identified non-forest area/degraded forest area at present wage rates duly signed by DFO and counter signed by the CF concerned. The CA scheme must include all the technical details, details of work scheduled total financial outlay and proposed monitoring mechanism.	Provided		
23	Certificate from the DFO that non-forest land selected for compensatory afforestation is in a compact block and contiguous to forest area or in close proximity of forest area and suitable from the management and protection point of view.	Provided		
24	Certificate from the competent authority regarding non-availability of non-forest land in the State for raising compensatory afforestation, where applicable.	NA		
25	Any other information/documents attached. Please specify.	Provided		

Date: 16/7/18

Place: Soda

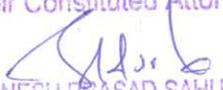
User Agency

Signature and seal

(Please read Sl. No. 2)

**FOR TATA STEEL LTD.**

By their Constituted Attorney

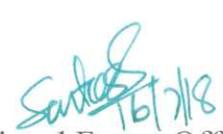
  
(GANESH PRASAD SAHU)

Head (Ferro Alloys Production)  
Ferro Alloys & Minerals Division)

Countersigned by:-  
Regional Chief Conservator of Forests)

Circle \_\_\_\_\_

Office Seal \_\_\_\_\_

  
16/7/18  
Divisional Forest Officer  
Keonjhar Forest Division  
Office seal  
Keonjhar Division

## Details for the specific diversion proposal

### Irrigation

Sl No	Details and documents to be provided	Provided or not	If not provided why	Page Number
27	<p><b>8. Details of Irrigation Hydel</b></p> <p>(i) Total catchment area</p> <p>(ii) Total command area</p> <p>(iii) Full Reserved level</p> <p>(iv) High Flood level</p> <p>(v) Minimum Drawal Level.</p> <p>(vi) Break- up of area calling in catchment area of the project (forest land, cultivated land,. Pasture land, human, cultivation, others)</p> <p>(vii) Area of submergence at Full Reservoir Level</p> <p>(ix) Area of submergence at 2 metre below Full Reservoir Level.</p> <p>(x) Area of submergence at 4 metre below Full Reservoir Level (For medium and major projects only).</p> <p>(xi) Area of submergence at Minimum drawal level.</p> <p>(xii) Detail Catchments Area treatment Plan, wherever required. The CAT Plan should be prepared on the basis of actual survey of areas and its classification in various categories requiring different engineering/afforestation and other treatments in phased manner.</p> <p>(xiii) Total financial outlays and details regarding availability of funds for catchment Area Treatment Plan.</p> <p><b>NB: Map of the above information in the appropriate scale</b></p>	NA		

### Road railway and transmission lines

Sl No	Details and documents to be provided	Provided or not	If not provided why	Page Number
28	<p>In case of proposal <b>regarding Road/Railway line/Transmission line</b>, the following information/ documents must be given:-</p> <p>(a) Length and width of Road/Railway line/Transmission line passing through forest and non-forests area.</p> <p>(b) Length of Road already existing constructed out of the total length involved in the project proposal.</p> <p>(c) Does this road project involve widening or black topping of existing formation?</p> <p>(d) Does it involve a new alignment in forest area?</p> <p>(c) In case of transmission line:-</p> <p>(1) Number of towers to be erected both in forests and non-forests area.</p> <p>(2) Width of the right of way for transmission.</p> <p><b>NB: Map of the above information in the appropriate scale</b></p>	NA		

## HYDRO ELECTRIC PROJECT

Sl No	Details and documents to be provided	Provided or not	If not provided why	Page Number
29	<p>In case of proposal regarding <b>Hydro Electric</b> Projects, the following information/documents must be given:-</p> <p>(a) Component wise total area requirement.</p> <p>(b) Copy of Memorandum of Understanding.</p> <p>(c) Copy of Techno-Economic clearance.</p> <p>(d) Copy of Implementation Agreement.</p> <p>(e) NOC from I&amp;PH Department.</p> <p><b>NB: Map of the above information in the appropriate scale.</b></p>	NA		

**MINING PROPOSAL**

Sl No	Details and documents to be provided	Provided or not	If not provided why	Page Number
30	<p>In case of <b>mining proposal</b>, the following information/documents must be given:-</p> <p>(a) Certificate from the competent authority like District Mining Officer/Geologist, regarding non-availability of the same mineral/ore in the nearby non-forest area.</p> <p>(b) Estimated reserve of each mineral/ore in the forest area and non-forest area.</p> <p>(c) Total area demanded and extent of forest area involved in the proposed mining lease shown in distinct colours on relevant maps.</p> <p>(d) Proposed period of mining lease.</p> <p>(e) If it is a renewal of mining lease</p> <p>a. Whether the details have been furnished about the expired lease?</p> <p>b. Date of filing the renewal application.</p> <p>c. Extent of forest and non-forest land already covered by working and mining operation, etc.,</p> <p>(f) Minimum distance of the proposed site from Wildlife Sanctuary and National Park.</p>	<p>-</p> <p>Provided</p> <p>Provided</p> <p>Provided</p> <p>NA</p> <p>-</p>		<p>Annexure-VII</p> <p>Plate-II</p> <p>Annexure-XVII &amp; XVIII</p>

	<p>(g) A copy of the mining plan duly approved by IBM, Nagpur be enclosed.</p> <p>(h) Detail Reclamation Plan, wherever required. It should be realistic exhaustive and complete in all respects along with relevant maps in distinct colours. It should also include the details of back fillings, afforestation and execution of such works, wherever required.</p> <p>(i) Copy of lease deed/agreement entered into with the district authorities.</p> <p>(j) The details of <b>Safety Zone Area</b> for the mining as per para 4.7 of the guidelines. The undertaking from the project authority to bear the cost of fencing the safety zone area and afforestation over one and half times of degraded forest area. The details of safety zone to be ascertained by the competent authority viz Indian Bureau of Mines/Department of Geology and Mining of State Government.</p> <p><b>NB: Map of the above information in the appropriate scale wherever it is required.</b></p>	<p>Provided</p> <p>Provided</p> <p>Provided</p> <p>-</p>		<p>Annexure-VII</p> <p>Annexure-IV &amp; Plate-VII</p> <p>Annexure-XVII</p>
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## RETAIL OUT LET

Sl.No.	Details and documents to be provided	Provided or not	If not provided why	Page Number
31	<p>In case of a <b>retail outlet</b> of an oil company the following information/documents must be given:-</p> <p>(a) Copy of letter of intent issued by the Oil Company.</p> <p>(b) Site selection certificate as per Government of India guidelines. The DFO should certify the distance between two retail outlets on either side of the outlet in question.</p> <p>(c) Lay-out plan showing dimensions of proposed approach road from entry and exit with clear area calculation. The area proposed for diversion should be shown in distinct colour.</p> <p>(d) The area calculation for the curves should invariably be given in the layout plan.</p> <p><b>NB: Map of the above information in the appropriate scale</b></p>	N/A		

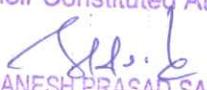
User Agency

Signature and seal

(Please read Sl. No. 2)

**FOR TATA STEEL LTD.**  
By their Constituted Attorney

Agreed to documents

  
(GANESH PRASAD SAHU)

Head (Ferro Alloys Production)  
Ferro Alloys & Minerals Division

Nodal officer

Office of the PCCF Orissa

  
16/7/18  
Divisional Forest Officer  
Keonjhar Forest Division  
Office seal  
**Keonjhar Division**

Countersigned by:-  
(Regional Chief Conservator of Forests)

Circle \_\_\_\_\_

Office Seal \_\_\_\_\_

**ANNEXURES**  
**CHECK LIST SERIAL NUMBER: - 07**  
**STATEMENT SHOWING DETAILS OF FOREST AREA**  
**PROPOSED FOR DIVERSION**

Sl No.	Division	District	Range/ Block/ village limit	Survey/ Compartment Number/ KM. Stone	Forest area propos ed for diversi on (Ha)	Legal status of Forest area	Remarks
1	2	3	4	5	6	7	8
1	Keonjhar	Keonjhar	Champua Range	Village- Guruda, Palasa (Kha), Khandaband ha, Jadibahal	80.826 Ha.	K.F- 7.610 DLC-8.956 Non-forest land recorded forest as on 25.10.1980 - 64.260 ha.	Detailed land schedule annexed in the FDP as Annexure- IX-A.

Date 16-07-2018

Place Keonjhar.

*Santosh*  
16/7/18  
Divisional Forest Officer  
Keonjhar Forest Division  
Divisional Forest Officer  
Keonjhar Division

**CHECK LIST SERIAL NUMBER: - 08**  
**STATEMENT SHOWING DETAILS OF NON-FOREST AREA**  
**INVOLVED IN THE DIVERSION PROPOSED**

Sl No	Division	District	Range/ Block/ village limit	Survey/ Compartment Number/ KM. Stone	Non Forest Area involved in the diversion proposal (ha)	Legal status of Non- Forest area Pre 1980 and after	Remarks
1	2	3	4	5	6	7	8
1	Keonjhar	Keonjhar	Champua Range	Village - Guruda, Palasa (Kha), Khandabandha, Jadibahal- 17.001 ha	17.001ha	Non- Forest	Detailed land schedule annexed in the DRP as annexure - IX-A.

date-16-07-2018

Place-Keonjhar.

*Santosh*  
16/7/18

Divisional Forest Officer  
Keonjhar Forest Division

Divisional Forest Officer  
Office seal  
Keonjhar Division

**CHECK LIST SERIAL NUMBER: - 11**

**CERTIFICATE FOR MINIMUM USE OF FOREST LAND**

This is to certify that the forest area involved in the proposed diversion proposal over 80.826 ha of Forest Land involving K.F- 7.610ha, DLC- 8.956 & 64.260 ha of Non-Forest Land recorded as Forest in Govt. record as on 25.10.1980 is unavoidable and barest minimum and is a statutory requirement.

Date-----16/7/18

Place-----Soda

(Signature of User Agency)

Office seal **FOR TATA STEEL LTD.**  
By their Constituted Attorney

  
(GANESH PRASAD SAHU)  
Head (Ferro Alloys Production)  
Ferro Alloys & Minerals Division)

  
16/7/18

Countersigned by:-  
Divisional Forest Officer  
Keonjhar Forest Division  
Office seal **Divisional Forest Officer**  
**Keonjhar Division**

**CHECK LIST SERIAL NUMBER: - 17**  
**UNDERTAKING FOR PAYMENT OF COST OF**  
**COMPENSTATORY AFFORESTATION**

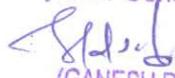
I Sri G.P Sahu, Constituted Attorney of M/s Tata Steel Ltd, hereby, undertake to pay the entire amount for compensatory afforestation in lieu of the forest area diverted for mining and allied purpose as per prevailing wage rate on receipt of Stage I approval.

Date 16/7/18

Place Soda

  
Countersigned by:-  
Divisional Forest Officer  
Keonjhar Forest Division  
**Divisional Forest Officer**  
Office seal  
**Keonjhar Division**

(Signature of User Agency)

Office seal **FOR TATA STEEL LTD.**  
**By their Constituted Attorney**  
  
(GANESH PRASAD SAHU)  
Head (Ferro Alloys Production)  
Ferro Alloys & Minerals Division

**CHECK LIST SERIAL NUMBER: - 18**

**UNDERTAKING FOR PAYMENT OF NET PRESENT VALUE  
FOREST AREA**

It is to certify that I Sri G.P. Sahu, Constituted Attorney of M/s Tata Steel Ltd, have applied for diversion of 80.826 ha of Forest Land including K.F- 7.610ha, DLC- 8.956 & 64.260 ha of Non-Forest Land recorded as Forest in Govt. record as on 25.10.1980, for the purpose of Mining. We have already paid NPV of entire forest area involved in mining lease area. Further I /We, hereby undertake to pay the revised net present value (NPV) if any of the entire forest land involved in the mining lease.

Date---16/2/18

Place---Joda

(Signature of User Agency)

Office seal **FOR TATA STEEL LTD.**  
By their Constituted Attorney

  
(GANESH PRASAD SAHU)  
Head (Ferro Alloys Production)  
Ferro Alloys & Minerals Division

  
16/2/18  
Countersigned by:-  
Divisional Forest Officer  
Keonjhar Forest Division  
Office seal  
**Divisional Forest Officer**  
**Keonjhar Division**

**CHECK LIST SERIAL NUMBER: - 20**  
**SITE INSPECTION REPORT NOT BELOW THE RANK OF DCF**  
(for the forest land to be diverted under FCA)

A proposal has been received by this office from M/s TATA Steel Ltd. for Tiringpahar Iron & Manganese Mine for diversion (under FCA-1980) of 80.826 ha of Forest Land including K.F- 7.610ha, DLC- 8.956 & 64.260 ha of Non-Forest Land recorded as Forest in Govt. record as on 25.10.1980, for non-forestry purpose. The project envisages the use of forest land for mining purpose. The site inspection of the land involved in the proposal has been done by me on date 01.07.2018 & 13.07.2018.

On inspection of the site, it is found that the land required by the user agency is over 80.826 ha of Forest Land including K.F- 7.610ha, DLC- 8.956 & 64.260 ha of Non-Forest Land recorded as Forest in Govt. record as on 25.10.1980.

The requirement of forest land as proposed by the user agency in Col. 2 of part-I is unavoidable and is barest minimum required for the project.

Whether any rare/endangered/unique species of flora and fauna found in the area. If so, the details thereof.

No rare or endangered species available in the applied diversion area, but elephant movement is often noticed in fringe area. There is no archaeologically important monument situated in the area.

Whether any protected archaeological/heritage site/defence establishment or any other important monument is located in the area. If so, the details thereof with NOC from competent authority, if required.

No protected archeological / heritage site/ defense establishment or any other important monument is located in the area.

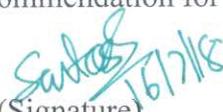
\*\*

(a) (✓). The user agency has not violated the provisions of Forests (Conservation) Act, 1980 and no work has been started without proper sanction.

(b) (X). It has been found that the user agency has violated the Forest (Conservation) Act, 1980 provisions. A detailed report as per para 1.9 of Chapter 1, Part C of handbook of Forest (Conservation) Act, 1980 is attached. Specific recommendation for acceptance or otherwise of the proposal.

Place- Keonjhar

Date 16-07-2018

  
(Signature)

Name- Santosh Joshi, IFS

Designation- Divisional Forest Officer

Office Seal **Divisional Forest Officer**

**Keonjhar Division**

**N.B** \* state the purpose for which the forest land is proposed to be diverted.

\*\* out of (a) and (b) tick (✓) the option which is applicable and cross (x) the option which is not applicable.

As per letter number 2-2/2000-FC dated 16.10.2000 from Ministry of Environment & Forests, Government of India for proposal involving less than 40 ha of forest land, the site inspection report from DCF is required and for proposal involving more than 40 ha of forest land site inspection report of Conservator of Forests is required.

**CHECK LIST SERIAL NUMBER: - 21**  
**LOCATION MAP**

Location Map of Non-Forest land identified for Compensatory Afforestation in lieu of proposal for diversion of 80.826 ha in Village Kaliapani under Telkoi Tahasil of Keonjhar District, Village-Asanbahali under Kankadahad Tahasil of Dhenkanal District and degraded forest land identified in Renda PRF under Telkoi Range of Keonjhar Division is enclosed vide Plate No.- IX, XI & XIV respectively.

  
16/7/18  
Divisional Forest Officer  
Keonjhar Forest Division  
Office seal  
Divisional Forest Officer  
Keonjhar Division

**CHECK LIST SERIAL NUMBER: - 22**  
“SCHEME FOR COMPENSATORY AFFORESTATION”

Detail scheme for Compensatory Afforestation to be carried out in lieu of 80.826 ha of forest area to be diverted for non-forestry purpose in Keonjhar District.

**1. Detail of degraded forest land /non-forest land:-**

District- Keonjhar Village- Kaliapani

Tehsil- Telkoi

Name of Division Keonjhar Forest Division

Range- Telkoi,

Block/Compartment/Survey No. - Khata No. 25, Plot No. 238 and 239/294.

Area to be afforested – 13.798 ha.

District- Keonjhar Village- Renda PRF

Name of Division Keonjhar Forest Division

Range- Telkoi,

Block/Compartment/Survey No. – Coupe- ORY-IX under Oriya-Binida Improvement Series

Area to be afforested – 99.00 ha.

District- Dhenkanal Village- Asanabahali

Tehsil- Kankadahad

Name of Division Dhenkanal Forest Division

Range- K.Nagar East Range,

Block/Compartment/Survey No.- Khata No. 196, Plot No. 1781, 1782, and 127/2389.

Area to be afforested – 64.260ha.

**2. Description of Area**

- i. Whether the site selected for Compensatory Afforestation is a land bank or not- Land Bank
- ii. If the CA site is other than the land bank, reasons be given- Not applicable
- iii. In case of non- forest area identified for CA, then what is the distance of CA site from the adjoining forest boundary- about 3.00 Km.
- iv. Soil type- Clay mixed sandy-loam.
- v. Topography
  - a. Hilly/Undulating /Plain- Undulating
  - b. Slope- Steep/Medium/Gentle- Medium
- vi. Whether the area is bearing any root stock of vegetation- Yes

**3. Plantation Model**

ANR Plantation model over 8.798 ha. @ 400 nos. of seedlings per ha and ANR without gap plantation model 5.00 ha identified in District- Keonjhar.

ANR Plantation model over 99.00 ha. @ 400 nos. of seedlings per ha for Renda PRF in District- Keonjhar.

AR Plantation model over 21.261 ha. @ 1600 nos. of seedlings per ha identified in District- Dhenkanal.

Copy of the approved Compensatory Afforestation Scheme/Model showing component wise physical and financial breakup is enclosed as **Annexure – XXVIII Series**.

#### 4. Schedule of Plantation Programme

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

ANR Plantation model over 8.798 ha. @ 400 nos. of seedlings per ha

Year	Person days	Labour	Material	Total
0th Year	20	4486.00	900.00	5386.00
1st Year	84	18841.2	2950.00	21791.2
2nd Year	26	5831.80	2356.00	8187.80
3rd Year	12	2691.60	0	2691.60
4th Year	3	672.90	0	672.90
5th Year	3	672.90	0	672.90
6th Year	3	672.90	0	672.90
7th Year	3	672.90	0	672.90
8th Year	3	672.90	0	672.90
9th Year	3	672.90	0	672.90
10th Year	3	672.90	0	672.90
<b>Total</b>	<b>163</b>	<b>36560.90</b>	<b>6206.00</b>	<b>42766.90</b>
<b>Total Cost Norm per ha.</b>				<b>42766.90</b>
<b>Total Cost of plantation (8.798 ha.)</b>				<b>376263.18</b>

ANR without gap plantation model 5.00 ha

Year	Person days	Labour	Material	Total
0th Year	9	2018.70	0	2018.70
1st Year	43	9644.90	500.00	10144.90
2nd Year	16	3588.80	300.00	3888.80
3rd Year	8	1794.40	300.00	2094.40
4th Year	3	672.90	100.00	772.90
5th Year	3	672.90	100.00	772.90
6th Year	3	672.90	100.00	772.90
7th Year	3	672.90	100.00	772.90
8th Year	3	672.90	100.00	772.90
9th Year	3	672.90	100.00	772.90
10th Year	3	672.90	100.00	772.90
<b>Total</b>	<b>97</b>	<b>21757.10</b>	<b>1800.00</b>	<b>23557.10</b>
<b>Total Cost Norm per ha.</b>				<b>23557.10</b>
<b>Total Cost Norm over 5.00 ha</b>				<b>117785.50</b>

ANR Plantation model over 99.00 ha. @ 400 nos. of seedlings per ha

Year	Person days	Labour	Material	Total
0th Year	20	4486.00	900.00	5386.00
1st Year	84	18841.2	2950.00	21791.2
2nd Year	26	5831.80	2356.00	8187.80
3rd Year	12	2691.60	0	2691.60
4th Year	3	672.90	0	672.90
5th Year	3	672.90	0	672.90
6th Year	3	672.90	0	672.90

7th Year	3	672.90	0	672.90
8th Year	3	672.90	0	672.90
9th Year	3	672.90	0	672.90
10th Year	3	672.90	0	672.90
<b>Total</b>	<b>163</b>	<b>36560.90</b>	<b>6206.00</b>	<b>42766.90</b>
<b>Total Cost of plantation (99.00 ha.)</b>				<b>4233923.10</b>

AR Plantation model over 21.261 ha. @ 1600 nos. of seedlings per ha identified in District- Dhenkanal

Item of Work	Person days	Labour	Material	Total
0 <sup>th</sup> year operation	344	77159.20	9712	86871.2
1 <sup>st</sup> year operation	253.5	56860.05	17373	74233.05
2 <sup>nd</sup> year operation	114	25570.20	6036	31606.2
3 <sup>rd</sup> year operation	73	16373.90	500	16873.9
4 <sup>th</sup> year operation	66	14803.80	500	15303.8
5 <sup>th</sup> year operation	66	14803.80	500	15303.8
6 <sup>th</sup> year operation	66	14803.80	500	15303.8
7 <sup>th</sup> year operation	66	14803.80	500	15303.8
8 <sup>th</sup> year operation	66	14803.80	500	15303.8
9 <sup>th</sup> year operation	66	14803.80	500	15303.8
10 <sup>th</sup> year operation	66	14803.80	500	15303.8
<b>TOTAL</b>	<b>1246.5</b>	<b>279589.95</b>	<b>37121.00</b>	<b>316710.95</b> <b>or say 316711.00</b>
<b>Total Cost of plantation (21.261 ha.)</b>				<b>6733593.00</b>

## 5. Technical details

Technical details of Compensatory Afforestation Scheme are as follows:-

- (a) General Details : Bald Hill Plantation over 21.261 ha, 13.798 ha ANR with gap Plantation & 99.00 ha ANR with gap Plantation.
- (b) Spacement : 2.5 mtr x 2.5 mtr
- (c) Species
1. *Syzizium cumini* (Jamu)
  2. *Adina cardifolia* (Kuruma)
  3. *Anogeissus latifolia* (Dhaura)
  4. *Accacia catechu* (Khair)
  5. *Dalbergia sissoo* (Sissoo)
  6. *Azadirachta indica* (Neem)
  7. *Gmelina arborea* (Gambar)
  8. *Terminalia belerica* (Bahada)
  9. *Terminalia chebula* (Harida)
  10. *Pongamia pinnata* (Karanja)
  11. *Emblica officinalis* (Ainla)
  12. *Shorea robusta* (Sal)
- (d) Plantation Method : ANR plantation @400 per ha  
: ANR without gap plantation over 5.00 ha  
: ANR plantation @400 per ha  
: AR plantation @1600 per ha
- (e) Soil and Moisture Conservation Works regeneration : LBCD structure  
: Staggered Trenches
- (f) Protection : Watch and ward and Barbed wire fencing

(g) Proposed Monitoring Mechanism:

Compensatory Afforestation will be taken up in the identified site by the Range Officer, Telkoi Range of Keonjhar Division and Range Officer, K.Nagar East Range of Dhenkanal Division. The Range Forest Officer, Telkoi and K.Nagar east Forest Range will undertake field checks of the works undertaken at the identified site and will be cross checked by the Asst. Conservator of Forests, (Affn.) and Divisional Forest Officer, Keonjhar and Dhenkanal Division. GPS co-ordinates along with other required informations of Compensatory Afforestation will be uploaded in the e-Greenwatch Portal of NIC, MoEF, and Govt. of India for the purpose of online monitoring. Annual progress of plantation involving growth of planted seedlings, survival percentage etc. will be monitored and recorded in the plantation journal by the field staffs of Telkoi and K.Nagar East Forest Range and reported to the Divisional Forest Officer for necessary action. The same thing will be reported to the Regional Chief Conservator of Forests, Raourkela and Angul Circle and Chief Conservator of Forests (PP&A), O/o the Pr. Chief Conservator of Forests, Odisha, Bhubaneswar and necessary corrective measures will be followed if required so.

(h) Any other information.

  
16/7/18  
**Divisional forest Officer**  
**Keonjhar Division.**

**CHECK LIST SERIAL NUMBER: - 23**

**“LAND SUITABILITY CERTIFICATE BY DFO CONCERNED”**

This is to certify that 13.798 ha. land bearing Khata No.25(AJA), Plot No. 238 & 239/294 of Village Kaliapani under Telkoi Tahasil in District Keonjhar identified for Compensatory Afforestation is suitable for plantation under ANR Gap Plantation model @ 400 seedling per ha over 8.798 ha and 5.00 ha ANR without Gap plantation model.

Place Keonjhar.  
Date 16-07-2018

  
16/7/18  
Divisional forest Officer  
Keonjhar Division.  
Keonjhar Division

**MAPS AND PLATES**

Sl. No.	Particulars	Scale	Plate No.
1	Location Plan showing Mining Lease Area over 169.000 ha in respect of Tiringpahar Iron & Manganese Mines in Keonjhar Dist. Reference Topo Sheet No. 73-G/5 (New Topo Sheet No. F45N5 )	1:50000	I
2	Plan Showing Mining Lease area of 169.000 ha of Tiringpahar Iron & Manganese Mine.	16" =1 mile	II
3	Land Use Plan for forest and non-forest area already approved and Land Use Plan for forest and non-forest area as on 01.04.2016	16" =1 mile	III
4	Land Use Plan for forest and non-forest area for Future Requirement till end of life of Mine	16" =1 mile	IV
5	Surface Geological Plan of Tiringpahar Iron & Manganese Mining Lease	16" =1 mile	V
6	Plan showing Safety Zone area of Tiringpahar Iron & Manganese Mine.	16" =1 mile	VI
7	Plan showing Phase Reclamation and Afforestation of Tiringpahar Iron & Manganese Mine.	16" =1 mile	VII
8	Sketch Map showing the method of Reclamation, Top Soil, and Waste Dump Management	16" =1 mile	VIII
9	Topo Sheet Plan showing 13.798 ha of Govt. non-forest land identified and allotted for Compensatory Afforestation in Telkoi Tahasil of Keonjhar District.	1:50000	IX
10	Plan showing 13.798 ha of Govt. non-forest land identified and allotted for Compensatory Afforestation (Along with GPS Coordinates) in Telkoi Tahasil of Keonjhar District.	16" =1 mile	X
11	Topo Sheet Plan showing 64.260 ha of Govt. non-forest land identified and allotted for Compensatory Afforestation in Kankadahad Tahasil of Dhenkanal District.	1:50000	XI
12	Plan showing 64.260 ha of Govt. non-forest land identified and allotted for Compensatory Afforestation (Along with GPS Coordinates) in Kankadahad Tahasil of Dhenkanal District.	16" =1 mile	XII
13	DGPS Map showing the patch wise forest land proposed for diversion along with co-ordinates.	16" =1 mile	XIII
14	Plan showing the degraded forest land identified in Renda PRF over 99.00 ha for CA.	16" =1 mile	XIV