

COST BENEFITS ANALYSIS

Cost Benefits analysis

Diversion of 146.996 ha forest land under total mining lease of 339.467 ha in village Ruikot, Savli and Pardi in Zari Jamni Taluka of Yavatmal District for the project of integrated mining of coal in Marki Mangli II project in favor of M/s Yazdani International Private Limited Bhubaneswar

| a) Parameters for Evaluation of Loss of Forests | | | | |
|---|--|---|-------------------|---|
| Sr. No. | Parameters | Description | Amount (Rs. Lacs) | Guidelines issued by MOEFCC |
| 1 | Loss of value of timber, fuel wood and minor forest produce on an annual basis including loss of man hours per annum of people who derived livelihood and wages from the harvest of these commodities. | As per recent guidelines issued by MOEF to consider NPV as loss. Total estimate forest to be diverted works out to be 146.996 ha. Considering the propose value of NPV @ 12.285 lacs per ha considering dance forest category under Eco-class III as per the directives of Government of India updated vide their circular dated 6/1/2022 | 1805.85 | Economic value of loss of eco-system services due to diversion of forests shall be the net present value (NPV) of the forest land being diverted as prescribed by the Central Government (MoEF&CC). |
| 2 | Loss of animal husbandry productivity, including loss of fodder | No significant animal husbandry base is observed through forest stretch so as the fodder availability along road. However as per guidelines 10% of NPV is considered for monetary loss which comes to around 72.937 lakhs | 180.58 | To be quantified and expressed in monetary terms or 10% of NPV applicable whichever is maximum. |
| 3 | Cost of human resettlement | There is no displacement related to in the forest area proposed for diversion and no loss to human resettlement | 0 | To be quantified and expressed in monetary terms as per approved R&R plan. |
| 4 | Loss of public facilities and administration infrastructure (Roads, Building School, dispensaries, electric lines, railways etc.) on forest land, or which require forest land if these facilities were diverted due to the project. | There are no public facilities and administrative infrastructure (roads, buildings, schools, dispensaries, electric lines, railways, etc.) on the forest land where diversion is proposed. | 0 | To be quantified and expressed in monetary terms on actual cost basis at the time of diversion |
| 5 | Possession value of forest land diverted balance) | As per recent guidelines issued by MOEF to consider 30% NPV as loss. | 541.754 | 30% of environmental costs (NPV) due to loss of forests or circle rate of adjoining area in the district should be added as a cost component as possession value of forest land whichever is maximum |
| 6 | Suffering to oustees | Mining being site specific project there is no option but to excavate coal and therefore suffering of oustees are to be considered as loss | 1800 | Loss of income from nearly 180 ha land considering minimum rental income of Rs. 25000 per year per ha for lease period of 40 years |
| 7 | Habitat Fragmentation Cost | As per recent guidelines 50% of NPV is to be considered as habitat fragmentation loss | 902.923 | While the relationship between fragmentation and forest goods and services is complex, for the sake of simplicity the cost due to fragmentation has been pegged at 50% of NPV applicable as a thumb rule. |
| 8 | Compensatory afforestation cost | The actual cost of compensatory afforestation and soil & moisture conservation and its maintenance in future at present discounted value. Rs 8 lacs per ha for then years scheme | 1175.97 | The actual cost of compensatory afforestation and soil & moisture conservation and its maintenance in future at present discounted value. |
| | Net losses | | 6407.075 | |

b) Parameters for Evaluation of Benefits

| Sr. No. | Parameters | Description | Amount (Rs Lacs) | Guidelines issued by M0EFCC |
|---------|--|---|------------------|---|
| 1 | Increase in productivity attribute to the specific project | Sale of coal in the market @ Rs. 3000 per MT after production cost of Rs. 1700 per tonne of coal | 298500 | To be quantified & expressed in monetary terms avoiding double counting. |
| 2 | Benefits to economy due to the specific project. | As stated in Sl. 1 above mining will bring ancillary industrial growth | | |
| 3 | No. of population benefited due to specific project. | Direct employment created and financial outflow due this project would benefits the local population around . If considered in terms of monetary purpose considering | 18915 | From DPR |
| 4 | Economic benefits due to of direct and indirect employment due to the project. | Local people, especially project affected persons would be engaged in employment direct or indirect or will be provided Rs 5lacs per employment proposed. It is expected to offer employment or one time cash to nearly 528 | 2640 | From DPR |
| 5 | Economic benefits due to Compensatory afforestation. | Economic benefits to be accrued because of the compensatory afforestation on nearly 150 ha non forest area under then years compensatory afforestation scheme equivalent to NPV after completion of scheme | 1806 | Benefits from such Compensatory Afforestation accruing over next 50 years monetized and discounted to the present value should be included as benefits of Compensatory Afforestation. *For benefits of CA the guideline of the Ministry for NPV estimation may be consulted |
| 6 | Benefits from reclamation of land for solar park to generation on green solar energy from 50 MW Solar Generation Unit on 50 ha backfilled land | Based on thumb rules on benefits of energy production from solar park | 2175 | From DPR |
| 7 | Benefits of energy plantation on backfilled area for biodiesel production/ pasture conversion | Energy plantation of species producing biofuel and pasture development for animal husbandry based income generation programme | 1580 | From DPR |
| | Total benefits | | 325616 | |

COST BENEFIT RATIO CHART

Name of Project : Proposal for diversion of 146.996 ha forest land for Marki Mangli II project in Jgham Jamni Tanka of Yavatmal District

District :- Nanded

State :- Maharashtra

| Sr. No. | Particular | Amount in Rs. Lakhs |
|---------|--|---------------------|
| 1 | Total Cost (Investment proposed) | |
| A) | Project cost | 41517 |
| B) | NPV Amount to be Deposited @ Rs 12.25 lakh/ha as per current rate notified by GOIN in Jan 2022 | 1805.846 |
| C) | Compensatory afforestation on double degraded land to be deposited with Central Government as per Ten years scheme | 1175.968 |
| | Total Cost of project = | 44,498.81 |

Authorized Signatory

(A.K. PANI)
Vice President