

Project Name : Renewal of Diversion of Forest Clearance over an area of 34.43 Ha. in village Dongri Buzurg, Tahsil Tumsar, Distt. Bhandara, State : Maharashtra

COST BENEFIT ANALYSIS

Purpose : This cost benefit analysis is being undertaken for renewal forest clearance for diversion of forest land over an area of 34.43 Ha. in village Dongri Buzurg, Tahsil Tumsar, Distt. Bhandara, Maharashtra State.

a) Parameters for Evaluation of loss of Forests.

Sr. No.	Parameters	Description
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 the area is already under mining lease and diverted for non-forest purpose, hence there is no trees within the area. Thus no affect on ecology.
2	Loss of animal husbandry productivity, including loss of fodder	As the area is already under mining lease and diverted for non-forest purpose, hence there is no trees within the area. Thus no affect on ecology.
3	Cost of human resettlement	As the area is already under Mining Lease and diverted for non-forestry purpose, no resettlement require.
4	Loss of public facilities and administrative infrastructure (Roads buildings, school, dispensaries , electric lines, railways, etc.) on forest land, or which would require forest land if these facilities were diverted due to the project.	There are no public facilities and administrative infrastructure (Roads buildings, school, dispensaries , electric lines, railways, etc.) on the forest land where renewal of diversion for forest clearance is proposed.
5	Environmental losses (Soil erosion, effect on hydrological cycle, wildlife habitate, micro climate	The total area of forest land being diverted for the extraction of manganese minerals over an area of 34.43 ha. in village Dongri buzurg, Tahsil Tumsar, Distt. Bhandara.

	upsetting of ecological balance)	<p>The area is under mining operation.</p> <p>As per Forest (Conservation) Act. 1980 the environmental loss for a 50 years period for the density below of 1.00 Is INR 126.74 lacs per hectares.</p> <p>The division wise environment loss for 59.21 Ha. is follows:</p> <table border="1" data-bbox="691 478 1492 663"> <thead> <tr> <th>Division</th> <th>Forest Area</th> <th>Density</th> <th>Environmental loss in lacs</th> </tr> </thead> <tbody> <tr> <td>Bhandara</td> <td>34.43</td> <td>0.40</td> <td>1745.463</td> </tr> </tbody> </table> <p>Hence, on calculation the environmental loss for the projects is INR 1745.463 Lacs for diversion of 34.43 Ha. forest land.</p>	Division	Forest Area	Density	Environmental loss in lacs	Bhandara	34.43	0.40	1745.463
Division	Forest Area	Density	Environmental loss in lacs							
Bhandara	34.43	0.40	1745.463							
6	Suffering to oustees	Nil								

Therefore Current Environmental Net Loss in INR(Lacs) = 1745.463 Lacs.

b) Parameters for evaluation of Benefit, notwithstanding loss of Forests.

Sr.No.	Parameters	Description
1	Increase in productivity attribute to the specific project	<p>The compensatory afforestation will be taken up in about 34.43 Ha. of Non-Forest land as per the stipulated norm of forest conservation act. 1980 the ecological value of the forest land for a 50 years period for the density of 1.00 is INR 126.74 lacs per hectares</p> <p>Considering current density of proposed CA land is 0.00, then</p> <p>Current ecological value of proposed CA land for 50 years :</p> $34.43 \times 126.74 \times 0.00 = 0.00 \text{ Lac.}$ <p>It is expected, density of proposed CA land after 10 years of plantation will be 0.80, then</p> <p>Ecological value of proposed CA land after 10 years of plantation :</p> $34.43 \times 126.74 \times 0.80 = 3490.926 \text{ Lacs}$ <p>Net increase in productivity after 10 years of plantation on CA land : $(3490.926 - 0.00) \text{ Lacs} = 3490.926 \text{ Lacs}$</p>
2	Benefits of economy	Socio-economic benefits due to the projects will be

		<ul style="list-style-type: none"> • The community development programme is being implemented in 11 villages (Balapur Hamesha, Dongri buzurg, Kurmuda, Chandmara, Pavanarkhari, Lobhi, Chikla, Gudrikh, Yedurbuchi, Rajapur and Sitasaoning) in Bhandara district in the vicinity of MOIL mines. • Health Awareness programmes/ camps focus on the personal hygiene, home level chlorination and filtration of water, control of mosquitoes through cleanliness at homes and surroundings and health food habits for leading a healthy life. During the FY 2017-18, 41 health awareness programs and 39 health camps were conducted in which 820 males and 1230 females were benefited. 182 Cataract patient were operated from Dongri Bz. And Munsar cluster. • SOIL inception soil samples from 1285 acres of agriculture have been tested for availability of macro-nutrients such as Nitrogen, Phosphorous, Potash and micro-nutrients such as Copper, Iron Manganese Zinc and Boron Soil Health Cards have been provided to 1285 farmers in above 11 villages in Bhandara District. • Permanent constructive Vermi-compost units have been supported by te project. Permanent units for preparation of compost are planned in view of sustainability of the activity. • 20 drip systems have been provided for 10 acres of land in Bhandara District. • Water Resource Development works carried out in Bhandara District. <ol style="list-style-type: none"> 1. 16 PCD structures have been renovated, 2. 69 wells have been further deepened to increase storage capacity. 3. 22 water bodies have been renovated., benefited 150 farmers. • Over all enhancement on socio-economic condition of the area along the project corridor. <table border="1" data-bbox="695 1549 1317 1682"> <thead> <tr> <th>Forest Land</th> <th>NPV amount</th> <th>Total amount</th> </tr> </thead> <tbody> <tr> <td>34.43</td> <td>6.26 lacs / ha.</td> <td>215.531 Lacks</td> </tr> </tbody> </table> <p>The total NPV for the project is INR 215.531 Lacs</p>	Forest Land	NPV amount	Total amount	34.43	6.26 lacs / ha.	215.531 Lacks
Forest Land	NPV amount	Total amount						
34.43	6.26 lacs / ha.	215.531 Lacks						
3	No. of Population benefited	Presently 589 numbers of local people are directly engage in mining operation. Mining of one of the highest source of in case of the area						

		almost 2000 peoples are directly or indirectly benefited by this project.
4	Employment potential	Permanent / Regular employment (Number of Persons) : 589 Nos.
5	Cost of acquisition of facility on non-forest land wherever feasible	Acquisition of facility on non-forest land is not applicable.
6	Loss of (a) agricultural and (b) animal husbandry production due to diversion of forest land.	Nil. As the area is already diverted for mining.
7	Cost of rehabilitation the displaced persons as different from compensatory amount given for displacement	There is no displacement related to the project in the forest area proposed for diversion. As the area is already diverted and mining is under operation , hence no displacement is require.
8	Cost of supply of free fuel wood to works residing in or near forest area during the period of extraction of minerals.	The worker's of MOIL having already LPG gas for the domestic use.

Therefore Net Project Benefit in INR (lacs) (3490.926+215.531) = INR 3706.457 lacs

Therefore Cost benefit ratio = 3706.457/1745.463 = 2.123

Signature of User Agency

Dr. G.G.Manekar
GeneralManager(Mines-Plng)