

Name of Project: Diversion of 6.9702 ha. Forest land for Mining in favour of Nidhi stone at Village: Tuked Ta. Mandvi, Dist. Surat in Gujarat state.

COST BENEFIT ANALYSIS

Part-I Estimation of cost of forest diversion

Sr. No	Parameters	Remarks (Explanation)	Value/Detail
1	Ecosystem services losses due to proposed forest diversion	Economic value of loss of ecosystem services due to diversion of forests shall be the net present value (NPV) of the forest and being diverted as prescribed by the Central Government (MoEF & CC) Note: In case of National Parks the NPV shall be ten(10) times the normal NPV and in case of Wildlife Sanctuary the NPV shall be five(s) times the normal NPV or otherwise prescribed by the ministry or any other competent authority)	As per the MoEF GR No. NPV-102008/Court-8-F dated 9th September 2008, Surat District is falling in Eco-Class III. The proposed land for diversion is open forest land having less than 40% density. Hence the NPV rate applicable is Rs. 12,28,590/- per ha. The total NPV value for 6.9702 Ha land is :- $6.9702 \times 12,28,590 = 85,63,272/-$ Say Rs. 0.856 Crs
2	Loss of animal husbandry productivity, including loss of Fodder.	To be quantified and expressed in monetary terms or 10% of NPV applicable whichever is maximum	Not applicable There is no animal husbandry activity is affected and lose of fodder.
3	Cost of human resettlement.	To be quantified and expressed in monetary terms as per approved R&R plan	Not applicable There is no human settlement is displaced.
4	Loss of public facilities and administrative infrastructure (Roads, building, schools, dispensaries, electric lines, railways, etc.) on forest land, Which would require forest land if these facilities were diverted due to the project.	To be quantified and expressed in monetary terms on actual cost basis at the time of diversion	Not applicable There is no loss of public facilities and administrative infrastructure due to this project. No such facility exists within the proposed forest land diversion.
5	Possession value of forest land diverted.	30% of environmental cost (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	30% of the NPV: $6.9702 \times 12,28,590 \times 30\% = 25,68,981/-$ Say Rs. 0.25 Crs Circle rates(Agri-Non-irrigated) Tuked Rs. 37.00 rs x 6.9702 ha = 24,79,000 rs

			<p>Total = 24,79,000 rs x 30%</p> <p>Say Rs. 0.0743 Crs</p>
6	Cost of suffering to oustees.	The social cost of rehabilitation of oustees (in addition to the cost likely to be incurred in providing residence, occupation and social services as per R&R plan) be worked out as 1.5 times of what oustees should have earned in two years had he not been shifted	<p>Not Applicable.</p> <p>No existence of people on forest land.</p>
7	Habitat Fragmentation Cost.	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	Not applicable.
8	Compensatory Afforestation and soil & moisture conservation cost.	The actual cost of compensatory afforestation and soil & moisture conservation and its maintenance in future at present discounted value	<p>As per prevailing wage rates, Rs. 7,45,373/- is considered for Compensatory Afforestation with 10 years of maintenance expenses</p> <p>The total cost would be Rs. 7,45,373/- x 6.9702 Ha= 51,95,398/-</p> <p>Say Rs. 0.519 Crs</p>

Total Estimation of Benefits of the Forest Diversion is Rs. 0.856 + 0.257 + 0.074 + 0.519 = 1.706 Crs.

Part-II Estimation of Benefits of the Forest Diversion

Sr. No	Parameters	Remarks (Explanation)	Value/Detail
1	Increase in productively attribute to the specific project.	To be quantified & expressed in monetary terms avoiding double counting.	Presently Nidhi stone is operating at a Capacity of 60,000/- to 70,000/- MTPA and with the Expansion to 3,00,000/- to 3,50,000/- MTPA (5 times). The profit before tax will be approx rs. 8.5/ ton. The Incremental production Will be 2,40,000/- MTPA. Out of 2,40,000/- MTPA,(3,00,000-60,000) From contribution of 6.9702 ha. Forest land for 50 Years. Cost benefit will be Rs. $8.5 \times 2,40,000 \times 6.9702 = 1,42,18,800/-$ Say Rs. 1.42 Crs.
2	Benefits to economy due to the specific project.	The incremental economic benefit in monetary terms due to the activities attributed to the specific project	Due to Expansion project, during and after construction of the project, people and the industry situated in this area will be benefited greatly. It is difficult to quantify the benefits in monetary terms. However, we anticipated this value to be Rs. 5 Crs.(New plant, vehicles, manpower, electricity load etc. Additionally due to taxes duties, 30% of the profit before tax is the contribution as revenue to the nation. $\text{Rs. 5 Crs} \times 30\% = \text{Rs. 15 Crs.}$ = Rs. 15 Crs.
3	No. of population benefited due to specific project.	As per the Detail project report	We anticipate 70 indirect employment and 30 direct employment for the project. Due to utilization of 6.9702 Ha forest land likely 140 indirect employment & 60 direct employment opportunities. If we consider, Rs. 500/- per day wages for indirect employment, the annual monetary benefits will be Rs. $500 \times 140 \times 312 = \text{Rs. 21.84 Crs.}$ If we consider Rs. 800/- per day wages for direct employment, the annual monetary benefits will be $\text{Rs. } 800 \times 60 \times 312 = 1,49,76,000$ Rs. 1.5 Crs.

Total Estimation of Benefits of the Forest Diversion is Rs. $1.42 + 15 + 21.84 + 1.5 = 39.76$ Crs.

Part-III Estimation of Cost Benefit Analysis/Ratio

1.	Total loss per annum due to loss of timber, fire wood and minor forest produce and environmental loss due to loss of forest.	Rs. 1.706 Crs
2.	Total benefit to the economy due to the project.	Rs. 39.76 Crs
3.	Hence, the Cost-benefit ratio of the mining project is (Loss:Benefit)	1.706 : 39.76 (Approx)

The benefits from the diversion of the above forest land are 23.30 times than the cost of diversion of the forest land.

Note:

- i) *Conservative estimation is considered for productivity and revenue compare to present past 5 years growth.*
- ii) *Monetary value of benefits to be population is not derived and not considered in benefits.*

Place: Surat

Date: 12/4/2024

For, NIDHI STONE


PARTNER