



Cost Benefits Analysis
(Area is 3.0684 Ha)
As per Cost (Conservation) Rules 2003, Rules 6, Form 'A'S. No.1 (v) and Guidelines
(Under Forest Act 1980).

Sr. No.	Parameters	Remarks
1	Loss of value of timber fuel wood and minor forest produce on annual basis, including loss of man hours per annum of people who derived livelihood and wages from the harvest of these commodities.	The area bears very poor tree plantation density and growths also. Therefore, loss of value of timber and fuel wood per hectare is very negligible. Hence, question of harvesting of forest crop doesn't arise.
2	Loss of animal husbandry productivity including loss of fodder.	The linear road side strip having soil is low fertile category. This condition offers great resistance to any natural vegetation including grass. Hence, the loss of animal husbandry productivity, including loss of fodder is very less almost negligible.
3	Cost of Human Resettlement	There is no any displacement of people. Hence, as such the loss on this account is 'NIL'
4	Loss of public facilities and administrative infrastructure (Road, Building, Schools, Dispensaries, Electric Lines, Railways etc) on forest land or which would require forest land if these facilities were diverted due to the Project.	The existing Public facilities and administrative infrastructure like roads, buildings, schools, dispensaries, electric lines, railways etc. are not going to be affected due to the project and therefore the loss on this account will be 'NIL'. On the contrary the road infrastructure will be substantially enriched due project
5	Environmental Losses: (Soil erosion, effect on hydrological cycle, wildlife habitual, microclimate upsetting of ecological balance).	<p>As a thumb rule the environmental value of one hectare of fully stocked forest (density 1.0) would be taken as Rs. 126.00 Lakh to accrue over a period of 50 years. That means environmental value depends on the density of the forest and the area of the forest. The overall density of the proposed forest land under application is 0.01.</p> <p>Hence the environmental loss for 3.0684 Ha over a period of 50 years works out as under:</p> <p>Environmental Loss for 50 years:</p> $126 \times 0.01 \times 3.0684 = \text{Rs. 3.87 Lakh.}$ <p>Environmental Loss for 1year:</p> $3.87/50 = \text{Rs. 0.77 Lakh}$

		<p>Environmental Loss per year & per Ha.:</p> <p>$0.77/3.0684 = \text{Rs. } 0.24 \text{ Lakh}$</p> <p>Therefore, environmental loss per year per hectare will be Rs. 0.24 Lakh.</p> <p>And Environment Loss for 30 years will be Rs. $0.24 \times 30 \text{ years} = \text{Rs. } 7.53 \text{ Lakh}$. This is much less as compared to the benefits due to the project.</p>
6	Suffering to oustees.	<p>Since there are no oustees, because of the proposed project, the social cost of rehabilitation of oustees is NIL.</p>
7	Therefore, the total loss of Environmental losses i.e. Soil erosion, effect on hydrological cycle, Wildlife habitat, microclimate upsetting of ecological balance, as per the approved parameters, works out is	Rs. 7.53 Lakh.
8	Increase in productivity (Attributable to Specific Project).	<p>Lignite reserves of about 103.20 Lakh Tonne is blocked under that part of the State Highway 166 (Kosamba-Velachha-Mosali-Jhankhav).</p> <p>Hence, as per the approved Mining Plan by Ministry of Coal, GoI, in order to excavate the lignite blocked beneath the said SH-166, the above-mentioned part of the SH-166 from 19/8 to 22/6 admeasuring 2.80 Km length between Mosali Chowkdi to Ukai Kankrapar Main Cannel need to be diverted.</p> <p>As there is a Social Forestry on either side of the road (The Government of Gujarat vide its Gazette Notification declares road side area to be into Protected Forest) the social forest land (4.48 Ha Protected Forest Land will also be come under the mining area and hence along with the part of road, Social Forest land is also need to be shifted/ diverted as per Forest Conservation Act, 1980.</p> <p>Hence, there will be recovery of Lignite reserves of about 103.20 Lakh Tonne.</p>

9	Benefits to Economy.	<p>Lignite reserves of about 103.20 Lakh Tonne is blocked under that part of the State Highway 166 (Kosamba-Velachha-Mosali-Jhankhav). Lignite is used as a fuel and the generated power will be used for “Public Purpose” and the generated power is given to Gujarat Urja Vikas Nigam Limited (GUVNL) under the long-term Power Purchase Agreements (PPAs).</p> <p>Mining Operation will be generated employment in Tribal area and fetch income for the peoples and government due to</p> <ul style="list-style-type: none"> a) Royalty deposited to the State Government, b) Employment of persons engaged in our mining operations and transportation activities. c) Power Generation for using lignite as fuel. GIPCL has all along supplied the power generated at Surat Lignite Power Plant (SLPP) to Gujarat Urja Vikas Nigam Limited (GUVNL) under the long-term Power Purchase Agreements (PPAs) enhance the development of State as well as National. <p>The above benefit in terms of rupees is about Rs. 206400.00 Lakh.</p>
10	No. of Population Benefited.	225 Nos. of local persons engaged in our mining and transportation activities are benefited per day for about 270 days per annum.
11	Employment Potential.	225 Nos. of local persons are engaged in our mining and transportation activities.
12	Cost of Acquisition facility on Non-Forest Land whenever feasible.	As against 3.0684 Ha of Social forest land proposed to be diverted, non-forest land of 3.0684 Ha will be transferred in the name of Forest Department.
13	Loss of (a) Agricultural and Animal Husbandry production due to diversion of forest land.	No loss of Agriculture and Animal husbandry production due to diversion of forest land shall take

		place. The loss of Agriculture and Animal husbandry production will be Nil.
14	Cost of Rehabilitation of the displaced person as different from compensatory amounts given for displacement.	No displacement of people involved hence question of rehabilitation does not arise. The Cost of rehabilitation will be Nil.
15	Cost of supply of free fuel-Wood to workers residing in or near forest area during the period of diversion of social forestry land.	No workers will be allowed to live in Forest area and also use forest products for fuel and others.
16	Considering the total benefits against the losses of social forestry, as per the above parameters, the Cost Benefit ratio will be:	Rs. 206400.00 Lakh/ Rs. 7.53 Lakh = 27,410 Hence Cost Benefit Ratio = 1:27410


04/09/2020
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