

COST BENEFIT ANALYSIS- PACKAGES

NAME OF PROJECT: Forest Proposal for diversion of 22.045 ha of forest land for widening/ improvement of existing road Chakpikarong – Sajik – Aigejang – Khongtal (0 KM to 19.5 KM) to NHSL Specifications in the state of Manipur on EPC Mode by NHIDCL

NATURE OF PROPOSAL: Diversion of Forest Land under FCA, 1980 for road project.

PURPOSE:- This Cost Benefit Analysis is being undertaken for proposed Diversion of Forest Land being taken for the Development of existing road to for widening/ improvement of existing road Chakpikarong – Sajik – Aigejang – Khongtal (0 KM to 19.5 KM) to NHSL Specifications in the state of Manipur on EPC Mode by NHIDCL. Estimated construction cost for Package -4 of project road is 572. 118 Cr.

TABLE – A: ESTIMATION OF COST OF FOREST DIVERSION

1	Ecosystem services/losses due to proposed forest diversion	1. Proposed forest area to be diverted	22.045	Ha.	
		2. Crown density of the proposed area	0 to 60	%	
		3. Forest Cover Area in (Ha.)			
		A. Class	Total (area) ha.		
		i. Open forest	14.236		
		ii. scrub forest	4.253		
		iii. Degraded forest	3.556		
		Total	22.045		
		4. As per supreme court's order date 28.03.2008 in WPC (No.202/1995			
		I. Forest type of the proposed diversion area	Eco-class I		
		ii. Net Present Value (NPV)	Area	Rate per ha. (Lakhs)	Amt (Rs.) in Lakhs
		a. Open forest	14.236	7.3	103.9228
		b. Scrub forest			
		c. Degraded forest			
		Total NPV (a+b+c)			103.9228
2.	Loss of animal husbandry productivity, including loss of fodder @ 10% of NPV		10% of NPV	Amt (Rs.) in lakhs	
3.	Cost of human resettlement	Nil		10.39228	
		The cost of human resettlement for diversion of forest land is nil, However any R&R cost, if required is being			

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for Comments



		considered in project clearance cost
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.	Nil Electric Lines & Poles, Water pipelines, water tank etc., public facilities which are being affected have been considered in the budget. Also, the budgets for affected Community Properties resettlement have been considered
5.	Possession value of forest land diverted	30% of environmental cost (NPV) 30% of NPV Amt(Rs.) in Lakhs 31.17684
6.	Cost of suffering to Ousters	The widening and strengthening of the project road is to be undertaken on the adjoining land of the Existing road, so there are no sufferings to ousters.
7.	Habitat Fragmentation Cost	As per thumb rule: 50% of NPV 50% of NPV Amt(Rs.) in Lakhs 51.9614
8.	Compensatory afforestation and soil & moisture conservation cost	Compensatory Afforestation cost of 44.09ha land for 22.045 ha proposed forest land diversion is Rs.127.864 lakhs @Rs 225- wage rate(including Rs.11.624 lakhs as soil & moisture conservation cost which is 10% of CA tem work cost for a maintenance period of 10 Years) Amt(Rs.) in Lakhs 71.652
	Total (Table A: Cost of Forest Diversion)	305.7222 Lakhs
	Estimated cost of construction for Package road section	
	Total Cost (Forest Diversion +Construction Cost)	
	TABLE B: ESTIMATION OF BENEFITS OF FOREST DIVERSION	
1.	Increase in productivity attribute to the specific project	In lieu of total trees and forest land to be affected due to project, it is proposed to undertake Compensatory afforestation as per Forest (Conservation) Act. The project road will improve connectivity of Manipur state. This will enhance the economic improvement in the Project Districts with additional growth in the GDP due to the project
2.	Benefit on vehicle maintenance cost due to Operations & maintenance cost due to improvement of the project road	Main objective of this project is to provide all weather connectivity with improvement of road. Widening and curve improvement under the project will minimize the chances of accidents. Economics benefits will be in terms of saving in travel time and Vehicle operating cost for a period of 30 years. VOC per year for project road (19.5km) = 96 cr. VOC per year for Package 4 Section (approx. 20 km) = 18.56 cr. Saving period =30 years



for Commander
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