MATIONAL HIGHWAYS & INFRASTRUCTURE DEVELOPMENT CORPORATION LTD.

Ministry of Road Transport & Highways, Government of India Project Management Unit: HN 206, 3rd Floor, Professors Colony, Kharmalki, Shillong, Meghalaya 793001. Tel: 0364 - 2501195, E-mail: gmshillongnhidcl@yahoo.com



A GOVERMENT OF INDIA UNDERTAKING

PMU-SHG/P/RMB/02/III/

Dated Shillong the 10th February, 2020

COST BENEFIT ANALYSIS

NAME OF PROJECT: "Diversion of 12.781 Ha of Deemed Forest Land for up-gradation to 2-lane of State Highway (SH-04) stretch from Nongjri to Maheshkola (from Existing km 31.70 to 59.270) (Design Length = 25.525 km) under SARDP-NE Phase "A" in the State of Meghalaya"

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

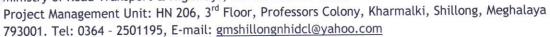
PURPOSE - This Cost Benefit Analysis is being undertaken for Proposed Diversion of Forest Land being affected due to "up-gradation to 2-lane of State Highway stretch from Nongjri to Maheshkola (from Existing km 31.70 to 59.270) (Design Length = 25.525 km) under SARDP-NE Phase "A" in the State of Meghalaya" by NHIDCL.

TABLE - A: ESTIMATION OF COST OF FOREST DIVERSION

SL NO.	PARAMETER	DESCRIPTION						
1	Ecosystem services losses due to proposed							
	forest diversion	(1.Proposed Deemed Forest Cover Area in Ha:						
		Eco-value Type Total Area						
		Class-I Dense Forest 12.781 Ha						
2	Loss of animal bushandry	 As per Supreme Court's Order dated 28.03.2008 in WP (C) No. 202/1995: (i) Forest type of the proposed diversion area: Eco-class I (ii) Net Present Value: Area: 12.781 Ha @ Rs. 9.39 lakhs = 120.01 Lakhs) 						
	Loss of animal husbandry productivity, including loss of fodder							
3	Cost of human resettlement	DC, South West Khasi Hills District has been requested vide letter no. PMU-SHG/P/RMB/02/III/1116 dated 13.02.2020 for providing FRA certificate						
4	Loss of public facilities and administrative	No loss of public facilities and administrative interest occurs.						

ATIONAL HIGHWAYS & INFRASTRUCTURE DEVELOPMENT CORPORATION LTD.

Ministry of Road Transport & Highways, Government of India





A GOVERMENT OF INDIA UNDERTAKING

5	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 Possession value of	20% of anvironmental cost (NPV) =30% of					
5	forest land diverted	30% of environmental cost (NPV) =30% of Rs.120.01 lakhs =Rs. 36.003 lakhs					
6	Cost of suffering to oustees	DC, South West Khasi Hills District has been requested vide letter no. PMU-SHG/P/RMB/02/III/1116 dated 13.02.2020 for providing FRA certificate.					
7	Habitat Fragmentation Cost	As per thumb rule : 50% of NPV = 50% of 120.01 lakhs = Rs. 60.005 lakhs					
8	Compensatory afforestation and soil & proposed deemed forest land diversion: tentatively Rs. 35,65,899/- (Considering Rs. 2,00,000/- per Ha for Compensatory Afforestation and subsequent maintenance for 8 years)						

TABLE - B: ESTIMATION OF BENEFITSOF FOREST DIVERSION

SL NO.	PARAMETER	DESCRIPTION							
	Increase in productivity attribute to the specific project	Highway standards, there will be overall development of the project area. The development of project road will lead to increase in the							
2	Benefit to economy due to the specific project	consumption and the better quality of road will decrease the							
		Sl.No.	Type of Vehicle	Total	in project length (Km)	Mileage	Fuel Price	reduced for deducted length	Maintenance Annual
		1	Two Wheeler	15	2.045	40	80	120	6000
		2	Car/Jeep/Taxi	411	2.045	8	80	16440	15000
		3	Mini Bus	3	2.045	5	80	198	25000
		4	Bus (full)	32	2.045	5	80	2112	25000

10.02:2020

TIONAL HIGHWAYS & INFRASTRUCTURE DEVELOPMENT CORPORATION LTD.

inistry of Road Transport & Highways, Government of India





A GOVERMENT OF INDIA UNDERTAKING

									INT OF INDIA UND
161		5	Light Commercial Vehicle (LCV)	182	2.045	8	80	7280	20000
		6	Two Axle Truck	299	2.045	5	80	19734	25000
		Per day saving (in Rs) 45884 Per year saving (in Rs) 16747660 Savings for 30 years (in Rs) 502429800 Savings for 30 years (in Cr.) 50.59							
3	No. of								
	population	hospitals farmers produces, new industries development etc.:							
	benefited due to specific	Rs. 9000 Lakhs.							
	project		ourism indust						
			ar. The proje					the contract of the contract of	ATTACAMENT OF THE
			Shizu Cave e			20 10 10 10 10 10 10 10 10 10 10 10 10 10			St. 1994(199) - 481
			pment of p	roject	road, w	hich w	ill ge	nerate 10	cr. Added
			e per year.				7		
		l .	ver the deve						165
	4,		and export,						
			Hospital, School, Colleges, Hotels etc. would be developed. Hence all these facilities will generate upto approx 40Cr. Revenue per year.						
		Newly constructed highway, with connectivity to urban areas will attract more industrialists to set up industries and startups(MSMEs) within project corridor and give employment to local people for direct and indirect jobs. Hence, assuming 40cr. revenue to be generated by the opening of new industries.							
4	Economic		Direct Employment of labours- 500 @ Rs. 1,44,000/- employed during						
	benefits due to direct and		construction for 3 years and 150 @ Rs.43,200/- during operation stage						
	indirect	101 13	for 15 years : Rs. 3942 lakhs						
	employment								
	due to the								
	project	40.404	2 11 1				±		!
5	Economic benefits due		O Man day a						
	to	period of 8 years of @ present wage rate Rs.368.00 Mday = Rs. 44.52800lakhs							iady
	Compensatory								
	Afforestation								8

(BIPIN KUMAR CHAND) General Manager (P) NHIDCL, PMU -Shillong,

Meghalaya-793001