COST BENIFIT ANALYSIS (SUNDARGARH FOREST DIVISION)

(A) Parameters for	In	I according to the second	
evaluation of loss of forest	(a)	Loss of value of timbers, fuel wood & minor forest produce	
ovaluation of 1033 of 10163t		on an animal basis, including loss of man hrs per annum of	
		people who derived livelihood & wages from the forest of these commodities.	
	i	Loss of value of timbers as per enumeration in 24.424 Ha.	20.24.020.20
	1	Of forest area (1326.26 units) @ Rs. 2286.00 per unit as	30,31,830.36
		per value provided by forest office Sundargargh Forest Div.	
		(1326.26 units X Rs. 2286.00 per unit)	
		Firewood approx. 150 MT @ Rs. 2000.0 per MT	3,00,000.00
	111)	Minor forest produce (MEF) :-	
		(aa) Mahua trees 433 Nos. with average yieldind capacity	9,74,250.00
		of 1.5 quintal per tree @ Rs. 1500.00 per quintal per annum.	
		(bb) Char trees 508 Nos. @ 5.0 Kgs per tree (total produce	2,54,000.00
		is 25.40 quintal) @ Rs. 10000.00 per quintal per annum.	
		(cc) Bahada trees 26 Nos. @ 2.0 Quintal per tree (total	26 000 00
		produce is 52 quintal) @ Rs. 500.00 per quintal per annum.	26,000.00
	T of	, and a second per quintar per armam.	
		(dd) Harida trees 1 Nos. @ 2.0 Quintal per tree (total	1,000.00
		produce is 2.0 quintal) @ Rs. 500.00 per quintal per	1,000.00
		annum.	
		(ee) Neem trees 36 Nos. @ 1.0 Quintal per tree (total	10,800.00
		produce is 36.0 quintal) @ Rs. 300.00 per quintal per	
		annum.	
		(ff) Mango trees 6 Nos. @ 2.0 Quintal per tree (total	30,000.00
		produce is 12.0 quintal) @ Rs. 2500.00 per quintal per annum.	
		(gg) Jamun trees 154 No. @ 50.0 Kgs per tree (total	77,000.00
		produce is 77 Quintal) @ Rs. 1000.00 per quintal/ per	77,000.00
		annum.	
	iv)	Man power requirement approx. 350 man days per year @	70,000.00
		Rs. 200.00 per man day	
	(b)	Loss of annual husbandary productivity including loss of	
		fodder	
		i) Animal husbandary	0.00
		ii) Fodder in 24.424 Ha. @ Rs. 2500.00 per Ha. Per annum.	61,060.00
	(c)	Cost of human resettlement	
		Loss of public facilities & admision infraustructure	0.00
	(e)	Environmental loss (loss/erosion) effect on hydrological	0.00
	(0)	cycle, wild life habbit, microclimate up setting of ecological	21,66,848.43
		balance. As per thumb rule prescribed, environmental loss	
		due to the loss of forest area density 1.0 to accure over a	
		period of 50 years is 126.74 lacs. Hence, loss for average	
		density 0.35 for one year. (Rs. 126.74 lacs. X 24.424 Ha. X	
(0.35/ 50)	
	(f)	Suffering of ouster -	0.00
		Average density is 0.35 hence NPV=24.424 x 7.5 lacs	1,83,18,000.00
		Cost of C A (Approx.)	50,00,000.00
		Total Loss	3,03,20,788.79
		i.e. Rs. (Crores)	
,		10. 10. (Ololes)	3.0321

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(B) Parameters for	1	Increase in productivity due to the angular	
evaluation of benefit not		Increase in productivity due to the specific project .	
withstanding loss of forest		Assumptions	
		1. Power flow 2000 MW	
		2. Load factor 60%	
		3. Transmission loss 2.5%	
		Average value added to the economy Rs. 6.0 pe KWh Energy sent out per year	or
		2000 x 1000 x 0.6 x 24 x 365 x 0.975 K Wh	10249200000
		Value added to the economy per year	
		10249200000 x Rs. 6.0 (In Crores	6149.52
	2	Benefit to economy :-	
		The agriculture and industry will have tremendous growth with avilability of electricity.	5
	3	No. of population benifitted : More than 1.0 Crore	
	4	Employment potential :-	
		Around 500 People will be engaged during	1
		construction period and also employment opportunity may be generated in benificiary, Agriculture &	
		Industrial sector for not less than 5000 people.	
	5	Cost of acquisition of facility in non forest land whenever feasible.	0.00
		Loss of agriculture & animal husbandary	0.00
	7	Cost of rehabilitation to the displaced persons	0.00
(c) Summary of cost benefit analysis		a) Total loss per annum due to the loss of timber, firewood, MFP, manpower, fodder and environmental Rs. (Crores)	
	(o) Total benefit to economy due to transmission of electrical power of 10249200000 units per annum by the proposed line @ Rs. 6.0 per unit	
		Rs. (Crores)	6149.52
	F	c) Hence, the cost benifit ratio of the transmission line project involving diversion of 24.424 Ha. of forest land is 3.0321: 6149.52 = 1:2028	
		C. B. Ratio =	1 : 2028

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