Parameters for Evaluation of Benefits not withstanding Loss of Forests
For
Kutulisingha Irrigation Project
Athmallik Forest Division, Odisha

Sl. No.	Parameters	Remarks
1.	Increase in productively attribute due to this project	165.23 Cr
2.	Benefit to the economy due to this project	354.80 Cr
3.	No of population benefited due to this project	1,10,548
4.	Economic benefits due to direct and indirect employment due to this project	569.32 Cr.
5.	Economic benefits due to Compensatory afforestation	122.234 CR
	(Benefits)Total	1211.584Cr.

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Parameters for Evaluation of Loss of Forests
For
Kutulisingha Irrigation Project
Athmallik Forest Division, Odisha
(As per the *VAN (Sanrakshan Evam Samvardhan) Rules, 2023* of MoEF & CC, GoI.)

Sl. No.	Parameters	Remarks
1.	Ecosystem services losses due to proposed forest diversion. Eco–Class III, Density=0.6 (Dense Forest)	153.938Ha X Rs. 12,28,590 /- per Ha. =Rs. 18,91,26,687 /-
2.	Loss of animal husbandry productivity, including loss of fodder @10% of the point no.1.	Rs. 1,89,12,669 /-
3.	Cost of human resettlement	No Resettlement in the forest land in this patch.
4.	Loss of public facilities and administrative infrastructure (Roads, building, schools, dispensaries, electric lines, railways etc.) on forest land, if these facilities were diverted due to the project	No Public Facility or Infrastructure located in the forest land and hence no loss will be involved.
5.	Possession value of forest land diverted @30% the point no.1	Rs. 5,67,38,006 /-
6.	Cost of Suffering to oustees.	No oustees are involved in the forest land proposed.
7.	Habitat Fragmentation cost@50% of the point no.1	Rs. 9,45,63,344/-
8.	Compensatory afforestation and soil & moisture conservation cost (Proportionate cost for Athmallik Forest Division)	Rs.17,20,37,100 /-
	Total	Rs. 53,13,77,806 /- Or 53.137 Cr

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Athmallik Forest Division

Cost Benefit Analysis Ratio

Benefit to Economy: :Rs.1211.584Cr

Loss of Forest and Environment: :Rs. 53.137 Cr

Ratio: 1: 22.80

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Athmallik Division

Kutulisingha Irrigation Project
Benefit

All amounts in lakhs

		Before Project	After Project
A	GROSS RECEIPT		
	1 GROSS VALUE OF FARM PRODUCE	2764.40	26144.00
	2 DUNG RECEIPT (30% of B5)	124.40	784.32
	TOTAL OF A-GROSS RECEIPT	2888.80	26928.32
B	EXPENSES		
	1 Expenditure on seeds	33	360
	2 Expenditure on manure	124	488
	3 Expenditure on fertiliser	564	976
	4 Expenditure on labour	250.25	2719.2
	Total	971.25	4543.2
	5 Fodder Expenditure 15% for pre and 10% for post of A1	414.66	2614.4
	6 Depreciation 2.7% of A1	74.64	705.89
	7 Share and Cash rent 5% for pre 3% for post of A1	138.22	784.32
	8 Land revenue 2% of A1	55.288	522.88
	Total expenses of B	1654.06	9170.69
C	Net Value of Farm produce		
	1 Total gross receipt	2888.80	26928.32
	2 Total expenses	1654.06	9170.69
	3 Net value (1- 2)	1234.74	17757.63
	in Crores		177.58

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D	Annual Benefits		
	1 Net value after project		17757.63
	2 Net value before project		1234.74
	3 Net annual benefit (1-2)		16522.89
		in Crores	165.23

Increase in productively attribute due to this project is 165.23 Crore.

E	Capital cost of the project	
	1 Total cost of the project	15487
	2 Cost Of Land Development for 50% of CCA @ Rs.20000/- ha,i.e, 2540*50% *20000	254
	Total of the project cost	15741
F	Annual cost of the project	
	1 Interest on capital @ 10% of capital cost	1574.10
	2 O & M CHARGES @ 1400/ha	35.56
	3 Depreciation 2% of civil cost	309.74
	4 O & M 1% of Head works	62.41
	Total of F (annual cost)	1981.81

Benefit to the economy due to this project= Net value of farm produce + Total of the project cost + Total of F (Annual Cost) *(in Lakhs)*

= 17757.63+15741+1981.81

= 35480.442 Lakhs

= 354.80   Crores

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GENERAL ABSTRACT OF COST

PRICE LEVEL - 2024

Sl.No.	Sub -Head of classification	Cost in Lakhs		
		Unit-I	Unit-II	Total Cost
1	2	3	4	5
	Works			
1	A-Preliminary	404.520	216.400	620.920
2	B-Land	235.872	4952.400	5188.272
3	C-Works	24965.760	0.000	24965.760
4	D-Regulator	0.000	205.184	205.184
5	E-Fall		120.400	120.400
6	F-Cross Drainage Works		1163.864	1163.864
7	G-Bridges		1339.952	1339.952
8	K-Building	679.328	679.320	1358.648
9	L-Earth Works		3934.840	3934.840
10	L1-Service and Boundary Roads		223.360	223.360
11	M-Plantation	57.144	110.408	167.552
12	O-Miscellaneous	381.64	163.56	545.200
13	P-Maintenance	258.8	157.52	416.320
14	Q-Special T & P	45.64	19.56	65.200
15	R-Communication	236.672	47.56	284.232
16	U-Distributary & Minors		8037.14	8037.140
17	X-Ecology & Environment	8055.76	135.492	8191.252
18	Y-Losses on Stocks	64.72	39.36	104.080
	Total	35385.856	21546.320	56932.176

Economic benefits due to direct and indirect employment due to this project= | 569.32 Crores

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ABSTRACT OF THE TOTAL POPULATION OF ANGUL DISTRICT AS PER 2011 CENSUS

BLOCK NAME	TSC	SCW	SCM	TST	STW	STM	TO	OW	OM	TOTAL	TW
ANGUL	32734	16524	16210	18001	9001	9000	116067	59418	56649	166802	84943
ATHMALLIK	18037	8945	9092	26452	13128	13324	66059	33161	32898	110548	55234
KANIHA	31007	15931	15076	12096	6208	5888	100653	52986	47667	143756	75125
KISHORENAGAR	16086	8149	7937	21638	10656	10982	70090	35530	34560	107814	54335
CHHENDIPADA	35818	18025	17793	17890	8955	8935	113043	58320	54723	166751	85300
TALCHER	26527	13641	12886	13167	6646	6521	102861	54704	48157	142555	74991
PALLAHARA	19786	9943	9843	50397	25303	25094	58946	30421	28525	129129	65667
BANARPAL	41221	20930	20291	7329	3636	3693	141230	73840	67390	189780	98406
TOTAL	221216	112088	109128	166970	83533	83437	768949	398830	370569	1157135	594001

No of population benefited due to this project is 1,10, 548.

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