

COST BENEFIT ANALYSIS FOR

MAHADEV BENDRA MINOR IRRIGATION PROJECT/LENERUDA

On the basis of Guidelines for forest land diversion 2017

Table-A Cases under which a cost benefit analysis for forest diversion is required

S.No.	Nature of Proposal	Applicable/Not applicable	Remarks
1	All categories of proposal involving forest land upto 25 Ha. in plains and upto 5 Ha. in hills.	Not applicable	
2	Proposal for defence installation purposes and oil prospecting (prospecting only)	Not applicable	
3	Habitation, establishment of industrial units, tourist lodges complex and other building construction.	Not applicable	
4	All other proposals involving forest land more than 25 ha. in plain and more than 5 ha. in hills including roads, transmission lines, minor, medium and major irrigation project, hydro projects, mining activity, railway lines, location specific installations like micro-wave station, auto repeater centers, TV towers etc.	Applicable	These are cases where a cost benefit analysis is necessary to determine when diverting the forest land to non-forest use of overall public interest. The MAHADEV BENDRA Minor Irrigation Project falls under this category.

Table-B Estimation of Cost of Forest Diversion

S.No.	Parameters	Remarks
1	Ecosystem services losses due to proposed forest diversion	Protection and conservation of forest land is essential for the environment. The forest land is being diverted for the proposed Mahadev Bendra Minor Irrigation Project. Hence cost of ecosystem services losses is Rs. 297.36 Lakhs. cost of land = 37.031 x 8.03 = 297.36 Lakhs Hence cost of ecosystem services losses is Rs. 297.36 Lakhs.
2	Loss of animal husbandry productivity including cost of fodder.	As per the cost benefit analysis is 10% of B.P.V. 6.00 Lakhs per Ha. = 37.031 x 8.03 = 297.36 Lakhs
3	Cost human resettlement	There is no human settlement due to proposed Mahadev Bendra Minor Irrigation Project. Hence cost of human resettlement is Rs. 0.
4	Loss of public facilities and administrative infrastructure (Road, building, schools, dispensaries, electric lines, railways etc.) on forest land if these facilities were diverted due to the project.	There is no loss of public facilities and administrative infrastructure of forest land due to construction of Mahadev Bendra Minor Irrigation Project. Hence cost has been added for this amount.
5	Possession value of forest land diverted	The possession value of forest land diverted is taken 30% of the B.P.V. due to loss of forest i.e. Rs. 2.409 Lakhs/Ha. = 37.031 x 2.409 = Rs. 89.21 Lakhs
6	Cost of suffering to oustees	Not applicable
7	Habitat fragmentation cost	Forest land is being acquired for submergence of Mahadev Bendra Minor Irrigation Project. There is no amount is taken under this account.
8	Compensatory afforestation and soil and moisture conservation cost.	The cost of Rs. 4.00 Lakhs per Ha. is taken for compensatory afforestation and soil moisture conservation. Hence amount will be = 37.031 x 4.00 = 148.12 Lakhs
9	Total cost due to forest land diversion	Total cost due to forest land diversion for Mahadev Bendra Minor Irrigation Project will be: = 297.36 + 29.74 + 89.21 + 148.12 = 564.43 Lakhs

**Table C Existing guidelines for estimating benefits of forest diversion
in CBA**

S.No.	Parameters	Remarks
1	Increase in productivity attribute to the specific project.	The crop production benefit due to MAHADEV BENDRA Minor Irrigation Project will be Rs. 846.95 Lakhs in designed life of 100 years and water level will be increase economy growth of the project. Project also reserves the water for Drinking purpose for adjacent villages.
2	Benefits to economy due to the specific project.	MAHADEV BENDRA Minor Irrigation Project will trigger economy development and also influence with irrigation facility to a land of 685 Ha. in the surrounding area. Irrigation is proposed by pressurized pipe system.
3	No. of population benefited due to specific project	Project is located in backward area of the village. After completion of project 300 Cultivators will be benefited and water level will be increased in surrounding area. This project will also facilitate drinking water supply to adjacent villages.
4	Economic benefits due to of direct and indirect employment due to the project.	The project will be provide direct employment for approximate 100 people (24 month) during construction period.
5	Economic benefits due to compensatory afforestation.	An economic benefit due to compensatory afforestation has considered as per the benefit of C.A. guidelines of ministry for N.P.V. estimation.

(Shivesh Mihani)
Sub Divisional Office
Water Resources Sub Division
Bherunda


(Deepak Chouksey)
Executive Engineer
Water Resources Division
Shore

MALABAR-BERHRA MINOR IRRIGATION PROJECT

BENEFIT ANALYSIS

Total cost due to forest land	Rs.
Rs. 4.5 Lakhs Total benefit due to project	Rs.
Rs. 98 Lakhs Benefit value of Project	1.50
Lakhs	

(Shivendu Mishra)
Sub Divisional Officer
Water Resources Sub Division
Bharatpur



(Deepak Choudhary)
Executive Engineer
Water Resources Division
Bharatpur