

**Cost Benefit Analysis for
GOUR MINOR IRRIGATION PROJECT
MANDLA**

On the basis of Guidelines for forest land diversion 2017

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

S.No.	Nature of Proposal	Applicable/Not applicable	Remark
1	All categories of proposal involving forest land upto 20 Ha, in plains and upto 5 Ha. In hills	Not applicable	
2	Proposal for defense 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 20 Ha. In plain and more 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 Gour Minor irrigation Project falls under this category


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GOUR MINOR IRRIGATION PROJECT
COST BENEFIT ANALYSIS
(as per GOI, MOEF4CC No. 7-69/2011 dtd. 01.08.2017)

Table- B Estimation of cost of forest diversion.

S. No.	Parameters	Remark
1.	Ecosystem services losses due to proposed forest diversion.	Ecosystem services due to diversion of forest land and suggested by the Central Powered Committee as per the forest classification report of proposed Gour Minor Irrigation Project is Rs. 6.26 Laksh/Ha. Cost of land = 20.22×6.26 = Rs. 126.58 Lakhs
2.	Loss of animal husbandry productivity including cost of fodder.	As per the cost benefit guideline i.e., 10% of N.P.V. 0.626 Laksh per Ha. = 20.22×0.626 = Rs. 12.66 Lakhs
3.	Cost of human resettlement	There is no human settlement due to Gour Minor Irrigation Project, hence cost of Human resettlement is Nil.
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 infrastructures of forest land due to construction of Gour Minor Irrigation Project, no cost has been added on this account.
5.	Possession value of forest land diverted.	The possession value of forest and diverted is taken 30% of the N.P.V. due to loss of forest i.e., Rs. 1.878 Laksh/Ha. = 20.22×1.878 = Rs. 37.97 Lakhs
6.	Cost of suffering to oustees	Not applicable
7.	Habitat fragmentation cost.	Forest land is being acquired for submergence of Gour Minor Irrigation Project. There is no amount is taken under this account.
8.	Compensatory afforestation and soil and moisture conservation cost.	The cost @ Rs. 4.00 lakhs per Ha. is taken for compensatory afforestation and soil moisture conservation. Hence amount will be: = 40.44×4.00 = Rs. 161.76 Lakh
9.	Total cost due to forest land diversion	Total cost due to forest land diversion for Gour Minor Irrigation Project will be: = $126.58 + 12.66 + 37.97 + 161.76$ = Rs. 338.97 Lakhs

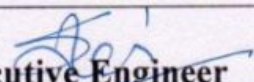
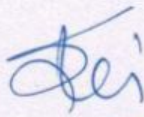

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Table- C Existing guidelines for estimating benefits of forest diversion in CBA.

S. No.	Parameters	Remark
1.	Increase in productivity attribute to the specific project.	The crop production benefit due to Gour Minor Irrigation Project will be Rs. 552.76 Lakhs in designed life of 100 years and ground water level will increase economy growth of the project. Project also reserves the water for Drinking purpose for Niwas Block of District Mandla.
2.	Benefits to economy due to the specific project.	Gour Minor Irrigation Project will trigger economy development and also influence irrigation facility to a land of 1105 Ha. in the surrounding area irrigation is proposed by open canal system.
3.	No of population benefited due to specific project	Project is located is backward are of village. After completion of project. 312 cultivators will be benefited & water level will be increased in surrounding area. The project will be also facilitate drinking water supply to Niwas Block of District Mandla.
4.	Economic benefits due to of direct and indirect employment due to the project.	The project will provided direct employment for approximate 48600 man- days during construction period of (24 months)
5.	Economic benefits due to compensatory affrestation.	An economic benefit due to compensatory afforestation has considered as per the benefit of C.A. guidelines of Ministry for N.P.V. estimation.


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GOUR MINOR IRRIGATION PROJECT

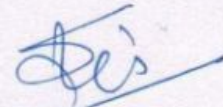
BENEFIT TO COST ANALYSIS

Total cost due to forest land - Rs. 338.97 Lakhs

Total benefit due to project - Rs. 552.76 Lakhs

Benefit cost ratio of project

@10% interest on capital - 1.63



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