

Cost Benefit Analysis Mandliya Ghat Tank Project

On the basis of Guidelines for Forest Land Diversion

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

No.	Nature of Proposal	Applicable/ Not applicable	Remarks
1	All categories of proposals involving forest land up to 20 hectares in plains and up to 5 hectares in hills.	Not applicable	
2	Proposal for defence installation purpose 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 hectares in plains and more than 5 hectares in hills including roads, transmission lines, minor, medium and major irrigation projects, hydro projects, mining activity railway lines, location specific installations like micro-wave station, auto retreat 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. Mandliya Ghat Tank Project falls under this category.

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Table- B Estimation of cost of Forest Diversion

Parameters	Remarks	Cost
<i>Ecosystem services losses due to Proposed forest diversion.</i>	Ecosystem service due to diversion of forest land suggested by the Central Powered Committee as per the forest classification report of proposed Project is Rs 12.93 Lakh/Ha NPV(cost of land) payable Cost of Land = $x12.93= 415.6995$	415.6995
<i>Loss of animal husbandry productivity including cost of fodder</i>	As per the cost benefits guideline i.e. 10 % of N.P.V. 1.293 Lakh per Ha. = $20 \times 1.293 = 41.569$ Lakh	41.56995
<i>Cost of human resettlement</i>	There is no loss of public facilities and administrative infrastructures of forest land due to construction Project, no cost has been added on this account.	0
<i>Loss of Public facilities and administrative infrastructure (Roads, building, schools, dispensaries, electric, railways etc.) on forest land which would required forest land if these facilities were diverted due to the project</i>	There is no loss of public facilities and administrative infrastructures of forest land due to construction of Project. No cost has been added on this account.	0
<i>Possession value of forest land diverted</i>	The possession value of forest land diverted is taken 30% of the N.P.V. due to loss of forest. =Lakhs @30% = 124.709Lakhs	124.70985
<i>Cost of Suffering to oustees</i>	Not Applicable	0
<i>Habitat Fragmentation Cost</i>	Forest land is being acquired for Piped Canal of Mandliya Ghat Tank Project. There is no amount is taken under this account.	0
<i>Compensatory afforestation and soil & moisture conservation cost</i>	The cost @ Rs 5 lakh per Ha. Is taken for compensatory afforestation and soil moisture conservation. Hence amount will be = Area x 5 = 160.75	160.75
<i>Total cost due to forest land diversion</i>	Total cost due to forest land diversion for Mandliya Ghat Tank Project will be : $415.699+41.5699+124.709+160.75 = 742.7293$ Lakh	742.7293

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Table – C Existing guidelines for estimation benefits of Forest diversion in CBA

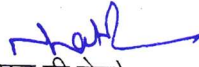
S.No.	Parameters	Remarks
1	Increase in productivity attribute to the specific project	The crop production benefit due to Project will be 1893.00 lakh in designed life of 100 years. Water level will be increased and economic growth of command area will be boosted. Project also reserves water for Drinking purpose of command villages.
2	Benefits to Economy due to the specific project	Project will trigger economic development with irrigation facility. In the command area. Irrigation is proposed by pressurized pipe system.
3	No. of population benefitted due to specific project	After completion of project 1200 villagers will be benefitted.
4	Economic benefits due to direct and indirect employment due to the project.	The project will provide direct and indirect employment for approximate 2500 people due to the project.
5	Economic benefits due to compensatory afforestation	Economic benefit due to compensatory afforestation has been considered as per the benefit of C.A. guideline of Ministry for N.P.V. estimation.

COST BENEFIT ANALYSIS

Total cost due to forest land (Rs. Lakh) : Rs 742.72 Lakh
Total benefit due to the project (Rs. Lakh) : Rs. 1893.00 Lakh

Benefit Ratio of project : 2 . 4 7 6

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