

DAMKHEDA TANK PROJECT

COST BENEFIT ANALYSIS

PARAMETER FOR EVALUATION OF LOSSES OF FOREST

S.NO.	PARAMETER	IRRIGATION PROJECT
1	Increase in productivity attributed specified project	The Damkheda tank project is conceived to cater irrigation water to 1200 Hect. of CCA in village Damkheda, Narvat, Nahaldari, Dagarkhedi, Mandvi of Zhiranya Tehsil of Khargone District irrigation intensity is will increase. Total amount annual benefits from increased to productivity have been worked out 27370 Qtl. from 00 Qtl. Therefore total profit in next 100 year would be 104771 lacs
2	Benefits to economy.	The main objective of Damkheda tank Project is to provide benefit of irrigation water 1200 Hect. land, which is mainly owned by Tribals and after completion assured water will be given to boost up their economy.
3	Number of population benefitted	The Damkheda tank project is conceived to cater irrigation water to 1200 Hect. of CCA in village Damkheda, Narvat, Nahaldari, Dagarkhedi, Mandvi of Zhiranya Tehsil of District Khargone will be benefitted by this scheme by way of irrigation so, the total cultivators benefitted through irrigation shall be nearly 480 Nos.
4	Employment Potential	During the construction stage temporary employment to 424040 man days and permanent employment 10 persons shall be generated for 24 months.
5	Cost of acquisition facility on non-forest land wherever feasible	No human commodity will affected due to construction of project.
6	Loss of (a) Agriculture (b) Animal Husbandry production due to diversion.	No loss of agriculture envisaged. In fact present object has been proposed for the improvement of agriculture in this area . No loss in the animal husbandry production.
7	Cost of rehabilitating the displacement person has different from.	Not Applicable Based on survey it was found that there no displacement due to project and as such there is no resettlement issue related to project.
8	Cost of supply of free fuel would to workers residing in are near forest area during period of construction.	The labour camps will be facilitated with kerosene/L.P.G. facilities and hence no free cutting shall be there for fuel wood.
9	Total benefit due to project.	Rs. 60.53 Yearly in Lacs. Rs. 6053 Lacs after 100 Years.

Cost Benefits Analysis :-

- Total Benefit due to Project (Rs. 6053 Lacs)
- Total Annual Cost (Expenditure 52.82 Lacs)
- Benefit Cost Ratio 1.74
- Cost BenefitRatio 1.02


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Cost Benefit Analysis for
DAMKHEDA TANK PROJECT
KHARGONE

On the basis of Guidelines for forest Land Diversion 2019

Table A Cases Under Which A Cost Benefit Analysis for Forest Diversion Area Required

S.No.	Nature of Proposal	Applicable/ Not Applicable	Remarks
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 contruction.	Not applicable	
4	All other proposal involving forest land more than 20 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 benefits analysis is necessary to determine when diverting the forest land to non-forest use of overall public interest. The Damkheda Tank Project falls under this category.


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Table-B Estimation of Cost of Forest Diversion

S.No.	Parameters	Remarks
1	Ecosystem services losses due to proposed forest diversion	Ecosystem services due to diversion of forest land suggested by the forest classification report of proposed, Damkheda Tank Project is Rs. 6.26 Lakhs/Ha. Cost of Land = $74.43 \times 6.26 = 465.93$ Lakhs Eco Class III consisting of tropical dry deciduous.
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 Lakh per Ha. $= 74.43 \times 0.626 = 46.59$ Lakhs
3	Cost Human Resettlement	There is no human settlement due to proposed Damkheda Tank 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 Damkheda Tank Project. No cost has been added on this account.
5	Possession value of forest land diverted	The possession value of forest land diverted is taken 30% of N.P.V. due to loss of forest i.e. Rs. 1.878 Lakhs/Ha. $= 74.43 \times 1.878 = 139.78$ Lakhs.
6	Cost of suffering to oustees	No Applicable.
7	Habitat fragmentation cost	Forest land is being acquired for submergence of Damkheda Tank Project. There is no amount is taken under this account.
8	Compensatory afforestation and soil and moisture conservation cost.	The cost of @ Rs. 6.33 Lakhs per Ha. is taken for compensatory afforestation and soil moisture conservation. Hence amount will be $= 74.43 \times 6.33 = 471.14$ lakhs.
9	Total cost due to forest land diversion	Total cost due to forest land diversion for Damkheda Tank Project will be : $465.93 + 46.59 + 139.78 + 471.14 = 1123.44$ Lakhs.

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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 Damkheda Tank Project will be Rs. 104771 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	Benefit to economy due to the specific project	Damkheda Tank Project will trigger economy development and also influence with irrigation facility to a land of 1200 Ha. in the surrounding area. Irrigation is proposed by gravity flow system.
3	No. of population benefited due to specific project	Project is located in backward area of the village. After completion of project 1200 Ha. 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 benefit due to of direct and indirect employment due to the project	The project will be provided direct employment for approximate 5500 people (12 months) during construction period.
5	Economic benefit due to compensatory afforestation.	An economic benefit due to compensatory afforestation has considered as per the benefit of C.A. guideline of ministry for N.P.V. estimation.


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