


Conducting cost-benefit analysis for projects involving forest diversion

- (i) While considering proposal for diversion of forest land for non-forestry use, it is essential that ecological and environmental losses and eco-economic distress caused to the people who are displaced are weighted against economic and social gains.
- (ii) Whenever the forest land is involved in the development projects, the cost of ecosystem services and fragmentation of habitat of wildlife and economic distress caused to people dependent on forests and the cost of settlement of people dependent on forest should also be added as the cost of forest diversion in addition to the standard project cost which would have been incurred by the user agencies without involvement of forest land while conducting the cost benefit analysis of the project. Similarly, the benefits from the project accruing due to diversion of forest land and used in the project should also be accounted for in the benefits component in addition to the standard benefits of the project which would have accrued without involvement of forest land while conducting the cost benefit analysis and determining the benefit and cost ration (BC ratio).
- (iii) The cost of compensatory afforestation and its maintenance in future and soil & moisture conservation at present discounted value and future benefits from such Compensatory Afforestation accruing over next 50 years monetized and discounted to the present value should be included as cost and benefits respectively of compensatory afforestation while conducting the cost benefit analysis and determining the benefit and cost ratio (BC ratio).
- (iv) Table-A lists the details the types of projects involving forest land for which cost-benefit analysis will be required. Table-B lists the parameters according to which the cost aspect of forest land diverted for the development projects will be determined, while Table-C lists the parameters for assessing the benefits accruing to the project using of forest land.
- (v) A cost-benefit analysis as above should accompany the proposals sent to the Central Government for forest clearance under the Forest Conservation Act.

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


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S. No.	Nature of proposal	Applicable/ Not applicable	Remarks
1.	All categories of proposals involving forest land upto 20 hectares in plains and upto 5 hectare in hills.	Not Applicable	As per judgement made by National Green Tribunal, Eastern Zone Bench, Kolkata vide OA. No. 50/2015/EZ on 08.11.2017 wherein direction given to initiate steps for seeking clearance under Sec 2 of the Forest (Conservation) Act, 1980 in respect of Land situated at Gandhigram, Mouza. A land measuring 40 acres of land situated at Mouza, Gandhigram, Agartala, West Tripura was handed over to the CPWD by the Revenue Department, Govt. of Tipura for construction of General Pool Residential Area (GPRA) colony for providing residential quarters to the Central Government employees vide letter no. F 34(66)-REV/78 (Shadow) dated 20.08.1978 on behalf of Govt. of India from The Govt. of Tripura in the year 1978 under intimation of Deputy Chief Conservator of Forest, Agartala, Tripura in two phases (10 + 30) equivalent to 40 acres of land pertaining to old block No. CS7020 (P) at Mouza, Gandhigram, Nowhere indicated the stated land to be a forest land/reserve forest.
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.	Applicable	Out of 40 Acres, 8.10 Acres has been used for construction of road, park, play ground, etc. and 4.26 Acres for establishment of the other


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			infrastructures leaving the rest measuring 24.12 Acres vacant, unoccupied and unutilized.
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 stations, auto repeater centers, TV towers etc.	Not Applicable	As the cost benefit analysis is not suitable in this cost.

Table-B: Estimation of cost of forest diversion

S. No.	Parameters	Remarks
1.	Ecosystem services losses due to proposed forest diversion.	No ecosystem services affected as the said land was initially 'Tilla' at that point of time of handed over of land to CPWD in 1978.
2.	Loss of animal husbandry productivity, including loss of fodder.	Not Applicable
3.	Cost of human resettlement	No such cases in that land.
4.	Loss of public facilities and administrative infrastructure (Roads, building, schools, dispensaries, electric lines, railways, etc) on forest land, which would require forest land if these facilities were diverted due to the project.	No such case in that land.
5.	Possession value of forest land diverted.	As 30 (Thirty) acres of land was allotted and transferred by the Govt. of Tripura in Revenue department in the year 1978 vide letter no F.34(66)/REV/78(Shadow) dated 20.08.1978 in consideration of Rs 1,12,500/- (Rupees One Lakh Twelve Thousand Five Hundred) only at the rate of Rs 3750/- per acre as assessed by District Magistrate and accordingly the said amount is duly paid. Viewing the object of Govt. of India's policy to provide proper accommodation towards all Central Govt. employees situated at Agartala.
6.	Cost of suffering to oustees.	No such case
7.	Habitat Fragmentation Cost.	No such case


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8.	Compensatory Afforestation and soil & moisture conservation cost.	Not applicable
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Table-C – Existing guidelines for estimating benefits of forest-diversion in CBA


Sr. No.	Parameters	Remarks
1.	Increase in productively attribute to the specific project.	As the said Land was allotted for the purpose of residential accommodation towards all categories of Central Govt employees situated at Agartala.
2.	Benefits to economy due to the specific project.	
3.	No. of population benefited due to specific project.	
4.	Economic benefits due to of direct and indirect employment due to the project.	
5.	Economic benefits due to Compensatory afforestation.	

Note-1: Net Present value (NPV) of environment and ecosystem services loss:

The concept of Net Present Value of the forest land diverted is a scientific method of calculating the environmental cost and other losses caused due to diversion of forest land for non-forestry purposes. The NPV represents the net value of various ecosystem services and other environmental services in monetary terms which the forest would have provided if the forest would not have been diverted.

Note-2 : Possession value of forest land diverted:

The forest land diverted for the project such as irrigation, hydropower, railways, roads, wind, and transmission lines and mining etc. are unlikely to be returned and remains in possession of the user agencies. Therefore 30% of the net present value (NPV) of forest land diverted or market rate of adjoining area in the district should be added as a cost component as “possession value of forest land” in addition to the environmental costs due to loss of forests.


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