

COST BENEFIT ANALYSIS FOR DIVERSION OF FOREST LAND

Name of Project:- Diversion of 18.9149 hectare of forest land in favour of Himachal Pradesh Technical University at Hamirpur

Nature of Proposal:- Diversion of 18.9149 hectare of forest land in favour of Himachal Pradesh Technical University at Hamirpur

Total Forest Area:- 18.9149


Purpose:-

Cost Benefit Analysis as per MoEF&CC Guideline for Forest Land Diversion – August, 2017

Case under which a Cost-Benefit Analysis for Forest Diversion is required

Table- A

Sr. No.	Nature of Proposal	Applicable/Not Applicable	Remarks
1	All category of forests involving forest land upto 20 hectares in plains and 5 hectares in hills	Applicable	These proposals may be considered on case to case basis and value judgment
2	Proposal for defence installation purpose and oil prospecting.	Not Applicable	In view of National priority accorded to these sectors, the proposal would be critically assessed to help ascertain that the utmost minimum forest land is diverted for non-forest use.
3	Habitation, establishment of industrial units, tourist lodge complex and other building construction	Not applicable	These activities being detrimental to protection and conservation of proposals would be rarely entertained.



Registrar
H.P. Technical University
Hamirpur (H.P.)

4	All other proposal 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 line, location specific installation like micro wave stations, auto repeater centres, TV towers etc.	Not Applicable	These are cases where a cost benefit analysis is necessary to determine when diverting the forest land to non-forest use in the overall public interest
---	--	----------------	---


Table-B

**COST BENEFIT ANALYSIS
Estimation of Cost of Forest Diversion**

Sr. No	Parameters	Value expressed to Monetary terms and in Detail	Remarks
1	Ecosystem services losses due to proposed forest diversion	RS. 2,95,09,135.00	Economic value of loss of eco-system services due to diversion of forest shall be the net present value (NPV) of the forest land being diverted as prescribed by the Central Government (MoEF & CC).
2	Loss of animal husbandry productivity, including loss of fodder	Rs. 29,50,914.00	To be quantified and expressed in monetary terms or 10% of NPV applicable whichever is maximum


 Registrar
 H.P. Technical University
 Hamirpur (H.P.)


3	Cost of human resettlement	Since no residential village/ area is getting affected, there will be no cost of human resettlement.	To be quantified and expressed in monetary terms as per approved R&R plan
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.	Since no public facilities and administrative infrastructure (Roads, building, schools, dispensaries, electric lines, railways, etc.) on forest land, being diverted due to the project, there will be no such loss.	To be quantified and expressed in monetary terms on actual cost basis at the time of diversion
5	Possession value of forest land diverted	30% of environmental costs (NPV) due to loss of forests i.e. Rs. 88,52,741/-	30% of environmental costs (NPV) due to loss of forests or circle rate of adjoining area in the district should be added as a cost component as possessor value of forest land whichever is maximum
6	Cost of suffering to outsiders	Nil	The social cost of rehabilitation of oustees (in addition to the cost likely to be incurred in providing residence, occupation and social services as per R&R plan) be worked out as 1.5 times of what oustees should have earned in two years had he not been shifted.


 Registrar
 H.P. Technical University
 Hamirpur (H.P.)


7	Habitat Fragmentation Cost	Rs. 1,47,54,568.00	While the relationship between fragmentation and forest goods and services in complex, for the sake of simplicity the cost due to fragmentation has been pegged at 50% of NPV applicable as a thumb rule.
8	Compensatory afforestation and soil & moisture conservation cost	Rs. 13,56,131.00	The actual cost of compensatory afforestation and soil & moisture conservation and its maintenance in future at present discounted value

Table-C
Estimating Benefits of Forest Diversion in Cost benefit Analysis

Sr. No.	Parameters	Value expressed in Monetary Terms	Remarks
1	Increase in Productively attribute to the specific project	Growth of local business by almost Rs. 10,00,00,000.00 (Ten Crore Only) (Approx.)	To be quantified & expressed in monetary terms
2	Benefits to economy due to the specific project.	The economic benefit in monetary terms due to the activities attributed to the specific project will be Rs. 10,00.00 Lakhs (Ten Crore Only). (Approx.)	The incremental economic benefit in monetary terms due to the activities attributed to the specific project.


 Registrar
 N.P. Technical University
 Hamirpur (H.P.)

3	No. of population benefited due to specific project.	About 21,900 man days job will be generated by the construction of the project, which will be paid with average salary of Rs. 475/- per day. That means around Rs.141 Lakhs will be paid as salaries to the workers.	
4	Economic benefits due to direct and indirect	Directly:- 0	
	Indirect employment due to the project.	Indirectly:- 21900	
5	Economic benefits due to Compensatory Afforestation	Economic benefits due to Compensatory Afforestation includes Benefits due to animal husbandry productivity including fodder and fuel wood , Ecosystem services Benefits due to proposed forest diversion, Possession value of forest land diverted will be Rs.15,93,656/-	


 Registrar
 H.P. Technical University
 Hamirpur (H.P.)


Summary of Cost Benefit Analysis for the Project

Sr. No.	Total Cost/Loss	Evaluation
1	Ecosystem Services Loses Rs. 2,95,09,135/-	Increase in productively attribute to the specific project Rs. 10,00,00,000/-
2	Loss of animal husbandary productivity including loss of fodders RS. 29,50,914/-	Benefit to economy due to the specific project Rs. 10,00,00,000/-
3	Loss of public facility	Nil
4	Possession value of forest land diverted Rs. 88,52,741/-	Ecological gain from compensatory afforestation on 18.9149 Ha. on degraded land would be Rs. 15,93,656/-
5	Habitat fragmentation cost Rs. 1,47,54,568/-	Total Employment Cost Rs. 1,41,00,000/-
6	Compensatory afforestation and soil & moisture conservation cost Rs. 13,56,131/-	
	Total Cost/Loss= 5,74,23,489/-	Total Gain/Benefit from Project= 21,56,93,656/-

Cost Benefit Ratio = Total Benefit/Total Cost

Therefore, CB Ration= 21,56,93,656/5,74,23,489

CB Ratio= 3.75 which is >1, so project is found viable based on given criteria.


 Registrar
 N.P. Technical University
 Hamirpur (H.P.)