

UTTAR PRADESH PUBLIC WORKS DEPARTMENT
Forest Land proposed to be diverted for
Widening and strengthening of Chibramau-Saurikh-Bidhuna(MDR-13) in Kannauj
District

COST.BENEFIT ANALYSIS

Purpose: This cost benefit analysis is being undertaken for proposed diversion of forest Land being affected due to construction of access controlled

(a) Parameters for Evaluation of the loss of Forests

	Loss of value of timber, fuel wood and minor forest produce on annual basis, including loss of man hours per annum of people who derived livelihood and wages from the harvest of these commodities	No. of Trees 1554 trees of magnitera Indica, Azadirachta Indica Terminilia etc. will be Affected due to the Project. Total Value of trees= INR 2,70,396.00 No livelihood of people will be affected due to proposed diversion of forest land.														
	Loss of animal husbandry, productivity including loss of fodder	Nil														
	Cost of human resettlement	No resettlement in the forest land that are diverted for the Project														
	Loss of public facilities and administrative infrastructure(roads, buildings, schools, dispensaries, electric lines, railways etc) on forest land or which would require forest land if these facilities were diverted due to: the Project	There are no Public facilities and administrative infrastructure (roads buildings, schools, dispensaries, electric lines, railway etc.) on forest land where diversion :														
	Environmental losses(soil erosion, effect on hydrological cycle, wild life habitat, microclimatic upsetting of ecological balance)	<div>As per Forest As per forest (conservation) Act 1980 the environmental loss for a 50 years period for the density of 1.0 is INR 126.74 Lacs per hectare, The division wise environment loss is as follow</div> <table><tr><th>Division</th><th>Forest</th><th>Density</th><th>Enviroment Loss in INR.</th></tr><tr><td>Kannauj</td><td>21.6</td><td>0.4</td><td>10950360</td></tr><tr><td>Total</td><td colspan="3"></td></tr></table> <div>Hence on calculation the current total loss is INR 5,19,479.44 per hectare and total environmental loss for the project is 1095.036 Lac.</div>			Division	Forest	Density	Enviroment Loss in INR.	Kannauj	21.6	0.4	10950360	Total			
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	Suffering to ousters	Nil														

There for Current Environment Net loss in - INR= 270,396.00 +10950360 = INR 1 , 12, 20,765/-
 Expenditure for development and maintenance of the project for 15 years
 = Cost of Project +Renewal cost of BC for two cycle = INR 24.9249+12.46245= INR 37.38735 crore
Net Total Loss = INR 1095.036+37.38735 =1132.42335crore

(b) Parameters for evaluation of Benefit. Notwithstanding Loss

S.No.	Parameter	Description										
1	increase in productivity attributable to the specific Project	<p>In Lieu of total to be affected in forest land it is proposed to be undertake at least twice of the affected trees as compensatory afforestation as per forest (conservation)Act 1980. So the net productivity will increase. Apart from compensatory Plantation it has been proposed to develop green belt in either side of project road throught project stretch.</p> <p>The trees to be planted as per compensatory afforestation are 57108 no. of trees in Kannauj The Compensatory Afforestation cost will be INR 84850000. The CA will be done in 43.2Ha of degraded forest land,which is down the line after ten years would be having the density of 1.0. The ecological value for a 50 years period of density of 1.0 is 126.74lac per hectare. By considering the min 0.8 density the ecological gain for this project would be INR 438013440(Calculated the value for remaining 40 years after achieving 0.8 density)</p>										
2	Benefits to economy	<p>Socio economic benefits due to The road project will provide the connectivity to state capital to district head quarter with high speed corridor leading to reduced travel time and fuel consumption.</p> <p>2-The benefits to trade specially in moment of perishable goods.</p> <p>3. Access to new industrial areas.</p> <p>Overall enhancement of socio-economic condition of the area along the project corridor.</p> <p>Though overall mission to increase the GDP of the said region and make it comparable/abobe the nation GDP of the benefit of the</p> <p>The benefit of Economy shown in table below</p> <table><tr><th>Project Details</th><th>Increasing Rate of Cost year</th><th>Project after 50 Years</th><th>Current Cost Involve in Construction Project</th><th>Net Profit in 50year</th></tr><tr><td>Widening and strengthening of Chibramau - Saurikh - Bidhuna(MDR - 13) in Knnauj</td><td>8%</td><td>1246.245 Cr.</td><td>249.249 Cr.</td><td>996.996 Cr.</td></tr></table>	Project Details	Increasing Rate of Cost year	Project after 50 Years	Current Cost Involve in Construction Project	Net Profit in 50year	Widening and strengthening of Chibramau - Saurikh - Bidhuna(MDR - 13) in Knnauj	8%	1246.245 Cr.	249.249 Cr.	996.996 Cr.
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		<p>So benefit of economy in 50 years =99.6996 crore.</p> <p>GDP will increase 3.0%(996.996/32400) current GDP of Kannauj.</p> <p>Saving due to less consumption of fuel and fatalities=282.6939 crore</p> <p>Total NPV of the project</p> <p>Kannauj 21.6x 8.03(0.4% density) =173.448 Thus Lacs. the total NPV for the project is INR 173.448 Lac</p> <p>The result of economic evaluation show that the proposed development of project road economically viable with EIRR 16.26%</p>										
3	No.of population benefited	<p>The Population of 115000 People from district Kannauj, Auraiya and Etawah will be benefited direct bv or</p>										

4	Employment Potential	Approximately 25000 man days of temporary employment will be generated during the construction of the Project for a period of 2 year
5	Cost Acquisition of facility on non forest land where ever feasible	Total of protected forest land is 21.6ha in Kannauj where forest diversion is involved
6	Loss of (a) agriculture & (b) animal husbandry production due to diversion of Forest Land	Nil
7	Cost of rehabilitating the displaced persons as different from compensatory amounts given for displacement	There is no displacement related to the Project in the forest area proposed for diversion.
8	Cost of supply of free fuel wood to workers residing in or near forest area during the period of construction	No fuel wood will be supplied to the workers during the construction period contractor will supply LPG fuel for the cooking and the purpose in the workers Camp to the workers.

Therefore Project Benefit

INR.84,8,50,000+43,80,13,4400+17,34,4800+**28,26,93,9000+99,69,96,000**

Net Profit=7,31,92,64,200

Therefore Benefit cost ratio = **11324233500/7319264200**
=1.547


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