

# **COST BENEFIT ANYLYSIS**

## **Dhoraji-Jamkandorna-Kalavad Section of NH-927D**

Project Management Phase-I including preparation of Detailed Project Report for up gradation of Junction with NH-27 near Dhoraji- Jamkandorna, Kalavad Jamnagar section of NH-927D in the state of Gujarat to two/ four lane with paved shoulder configuration (Package no - NH/IAHE/18)

### COST BENEFIT ANALYSIS APPLICATION

S. No.	Nature of proposal	Applicable/ Not applicable	Remarks
1	All categories of proposals involving forest land up to 20 hectors in plains and up to 5 hectors in hills.	Not applicable	
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.	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 project, hydel projects mining activity, railway lines, location specific installation like micro-wave stations, auto repeater centres, T.V. towers etc.	Applicable	

### ANNEXURE-6(b)

#### PARAMETERS FOR EVALUATION OF LOSS OF FORESTS

Sl.No	Parameters	Roads, tr. Lines & Railway line	Minor irrigation projects, quarrying of stones <sup>2</sup> metals	Medium & major irrigation hydro electric, large mining & other misc projects.
1	Loss of value of timber, fuel wood and minor forest produce on an annual basis, including loss of man-hours per annum of people who derived livelihood and wages from the harvest of these commodities.			
2	Loss of animal husbandry productivity ,	Nil		

Sl.No	Parameters	Roads, tr. Lines & Railway line	Minor irrigation projects, quarrying of stones <sup>2</sup> metals	Medium & major irrigation hydro electric, large mining & other misc projects.
	including loss of fodder			
3	Cost of human resettlement	Nil		
4	loss of public facilities and administrative infrastructure (Road, Building, School, dispensaries electric lines, railway etc.) on forest land.or which would require forest land if these facilities were diverted due to the project.	Nil		
5	Environment losses : (soil erosion, effect on hydrological wildlife habitat, microclimate upsetting of ecological balance	Nil		
6	Suffering to ousted.	Nil		

**ANNEXURE-6 ( C**  
**PARAMETERS FOR EVALUATION OF BENEFIT NOT WITH STANDING LOSS**  
**OF FORESTS**

**Nature of proposal**

S. No.	Parameters	Road , Tr . Lines & railway lines	Minor project
1	Increase in productivity attributable to the specific project	15000Crore	
2	benefits to economy	A road project usually contributes to the growth of the local economy by increased commercial activities through the improvement in the flow of goods and services the better road condition and plantation throughout the stretch will improve air	

S. No.	Parameters	Road , Tr . Lines & railway lines	Minor project
		<p>quality and reduce noise level. Thereby reducing the number of productive days.</p> <ol style="list-style-type: none"> <li>1. Reduction in pollution :</li> <li>2. Due to better surface quality.</li> <li>3. Due to reduction in congestion on roads</li> <li>4. saving in travel time</li> <li>5. due to reduction on congestion on roads.</li> <li>6. Reduction in accidents</li> <li>7. Saving in annual fuel consumption because of reduction in congestion</li> <li>8 Reduction in vehicle operating cost as compared to a similar distance elsewhere with lower traffic congestion</li> </ol> <p>Note: detail of Economic and analysis is attached</p>	
3	No. of population benefited	<p>It is expected people of Jamnagar ,Junagarh and Rajkot district will be benefited by the project.</p> <ol style="list-style-type: none"> <li>1. Connective of Important Places-District place,Air Force,Navy,Port Industries,Reliance and Essar Oil Refinary.</li> <li>2. Connective of Small town to Major town e.g.Junagarh,Rajkot,Somanath.Porbandar and Jamnagar.</li> <li>3. Free from congestion of Traffic Jam-: Any other benefit such as there are very old major bridge and Deficient of Geometric which shall be reconstructed new,improvement of curves geometric and Bypasses provide relief from daily. Congestion of traffic jam.</li> </ol>	
4	Employment potential	<p>The Dhoraji-Jmakandoran-Kalavad -Jamnagar section of NH-927D Project provides employment benefits to the unskilled labour especially during its construction period these labors are otherwise unemployed or under employed in the Indian economy.</p>	
5	Cost of acquisition of facility on non-	NA	

S. No.	Parameters	Road , Tr . Lines & railway lines	Minor project
	forest land wherever feasible		
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 in the forest land due to construction of road. The Diversion of forest land consists of road side plantation, this is the protected forest(PF) because up-gradation to 2/4 lane with Paved shoulders	
8	Cost of supply of free fuel -wood to workers residing in or near forest area during the period of construction	No Labour Camp will be sited near the forest and it is the contractor Responsibility to supply fuel to the labours. In now a day there is facility of mess system to provide food is cooked by LPG.	
<b>Total Construction Cost of Project</b>			<b>213 Cr.</b>

  
 Deputy Executive Engineer,  
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## HDM - 4 Economic Analysis Summary

ROADWAY DEVELOPMENT & MAINTENANCE

Site/Name: Dorsaji Jamnagar  
Run Date: 21-09-2016

This report shows total economic benefits using the following:

Currency: Rupee (millions)

Discount rate: 12.00%

ANALYSIS MODE: ANALYSIS-By-Project

Alternative: With Project vs. Alternative: Without Project

	Increase in Road Agency Costs		Savings in MT VOC	Savings in MT Travel Time Costs	Savings in HMT Travel & Operating Costs	Reduction in Accident Costs	Net Exogenous Benefits	Net Economic Benefits (NPV)
	Capital	Recurrent						
Undiscounted	1,897.38	132.25	7,597.40	9,479.82	30.17	0.00	0.00	15,594.56
Discounted	1,854.89	102.90	1,183.81	1,326.10	5.10	0.00	0.00	757.22

Economic Internal Rate of Return (EIRR) = 15.3% (No. of solutions = 1)

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Figure 14.1: HDM-4 Economic Analysis Summary

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