## **COST BENEFIT ANALYSIS**

Name of Project.

Widening of existing two lane to two lane with 1.5 M. wide paved shoulder from Km.0/0 to 81/0 Km. and 93/0 Km. to

119/0 Km. (Total=107 Kms.) of NH-157 in the Districts of

Kandhamal and Ganjam of Odisha on EPC mode.

Job No.

: 157-ORS-2016-17-585

Estimated Cost of : Rs.28769.75 Lakhs.

the Project.

As per guidelines issued by the MoEF&CC, Government of India vide Notification No.7-69/2011-FC(Pt.) dated:01.08.2017 it is to analyze the Cost benefit of this Road Project following Table-B (Estimation of cost of Forest diversion) is applicable as this Project is involving Forest land more than 20 hectares. The details as follows that:-

TABLE-B Estimation of cost of Forest Diversion

SI. No.	Parameters	Description	Aprx. Amount (Rs. in Lakhs)	Remarks
1	Ecosystem services losses due to proposed forest diversion	Economic value of loss of Eco-system services due to diversion of forests shall be the net present value (NPV) of the Forest land being diverted as prescribed by the Central Government (MoEF&CC). Note: (1) In case of National Parks the NPV shall be ten times the normal NPV (2) In case of Wildlife Sanctuary the NPV shall be five times the normal NPV or (3) otherwise prescribed by the Ministry or any other competent authority.	184.00	This project not involving National Park and Wildlife sanctuary so the normal NPV will be charged.
2	Loss of animal husbandry productivity, including loss of fodder.	To be quantified and expressed in monetary terms or 10% of NPV applicable whichever is maximum	Nil	No loss of Animal Husbandry
3	Cost of human resettlement	To be quantified and expressed in monetary terms as per approved R&R plan.	Nil	Not involving human resettlement
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.	monetary terms on actual cost basis at the time of diversion.	Nil	After approval of 1st stage the estimation will be assessed.

		Grand Total:	479.00	
Add Wildlife management as per conditions laid down in Stage-1:				
Add possession value of Forest land diverted for road work (Note-2) of the guidelines @ 30% of NPV.				
8	Compensatory afforestation and soil & moisture conservation cost.	The actual cost of compensatory afforestation and soil & moisture conservation and its maintenance in future at present discounted value.	40.00 <b>224.00</b>	Involving compensatory afforestation.
7	Habitat Fragmentation Cost	While the relationship between fragmentation and forest goods and services is complex, for the sake of simplicity the cost due to fragmentation has been pegged at 50% of NPV applicable as a thumb rule.	Nil	Not applicable
* .	Cost of suffering to oustees.	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.	Nil	No such rehabilitation of oustees is required in this Project.
5	Possession - value of forest land diverted.	loss of forests or circle rate of adjoining area in the district should be added as a cost component as possession value of forest land whichever is maximum.	Nil	Amount as stated in SI.No.1 which is normal NPV.

Note: (1) This Project is a Central Government Project hence the degraded land will be used by the concerned Forest Division for compensatory afforestation.

(2) The cost estimation is approximate and the actual assessment of value as above parameters will be paid to the concerned Forest Divisions after approval of the 1<sup>st</sup> Stage in the MoEF&CC, Bhubaneswar as per their demand notice.

Executive Engineer
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