Appx "B"

Annexure-II

COST BENEFIT ANALYSIS

PROPOSAL FOR DIVERSION OF 77.14 HA. OF WILDLIFE LAND FOR CONSTRUCTION OF ROING-HUNLI ROAD (GREEN FIELD ALIGNMENT) SECTIONS FROM CH 0 (KM 16 OF EXISTING ALIGNMENT) TO CH 24.64 AT LOWER DIBANG VALLEY DISTRICT IN ARUNACHAL PRADESH

EVALUATION OF BENEFIT, NOTWITHSTANDING LOSS OF FORESTS

<table>
<tr><th>SL NO.</th><th>PARAMETER</th><th>FOR STRATEGIC ROAD CONSTRUCTION</th></tr>
<tr><td>1</td><td>Increase in productivity attributed to the specific project</td><td>The road is Strategic road sponsored by Ministry of Road Transport & Highways. The road connects mainland to the North Eastern border which is strategically very important road for enhancing the defense potential of the area. There will be a saving in distance of 21 km in travel distance. New alignment will permit a journey speed of 35-40 km/h as against 18-20 km/h along existing road.Traffic will be greatly benefit in terms of time and vehicle operating costs (VOC). VOC savings is estimated to be nearly 50% of that along existing road. Time savings will add further. New alignment will be free from snowfall, landslide prone areas and problematic soil zones; hence, no disruption and/or closure of traffic movement. Three mega hydro-electric power generation projects have been planned along the project road corridor and beyond. Besides power generation, these are aimed to serve multi-purpose objectives.
(i) By NHPC, 3000 MW power generation at Munli over Dibang River.
(ii) By Jindal Power, 4500 MW, 3-projects near Italin, on tributaries of Dibang
(iii) By Reliance Power, 3500 MW, near Anini, further up-stream of Dibang
These projects would generate additional traffic to the project road. Development and commissioning of these areas is a time bound process and expected to take shape over a period of 10-12 years. These projects together are likely to infuse an investment to the tune of Rs. 80,000 crore.
It is further observed that mega investment planned through these projects over next 10-12 years will infuse a quantum jump in demand for infrastructure, service and tourism sector activities. There could be many mini and micro projects start developing too in the valley. If the momentum, so generated can well be taken forward by an apt planning process, transport demand is very likely to take the pace forward by the time the construction of mega project comes to completion.</td></tr>
<tr><td>2</td><td>Benefits to economy</td><td>As stated in Sl. 1 above, the road is strategic road. However many multipurpose hydro electric power projects including of NHPC, JINDAL and RELIANCE have been planned along project road which provides connectivity to dam site. The Part of area experience snow fall which attracts tourists. Detail economic appraisal has been done and found to be economically viable with EIRR more than the resource cost of capital @ 12%. Hence it as seen that the project proposal yields an EIRR of 19.00%.
The viability analysis has well established its strength in terms of economic return that stands well in excess of the economic cost of the capital investment required. Hence the construction of the road will facilitate economic growth of the area. Individual section-wise summary of economic analysis is as given below.
<table>
<tr><th rowspan="2">Case</th><th colspan="4">Economic Internal Rate of Return (%)</th></tr>
<tr><th>Link I</th><th>Link IIA</th><th>Link IIB</th><th>Link IIC</th></tr>
<tr><td>Base Case</td><td>46.80</td><td>35.40</td><td>23.60</td><td>21.60</td></tr>
<tr><td>All Section</td><td colspan="4">23.60</td></tr>
</table>
The EIRR of whole of the project is subjected to sensitivity analysis and resulits are as follows
<table>
<tr><th rowspan="2">Expressway Section</th><th colspan="4">Economic Internal Rate of Return (%)</th></tr>
<tr><th>Base Case</th><th>Sensitivity S1</th><th>Sensitivity S2</th><th>Sensitivity S3</th></tr>
<tr><td>All Links Combined</td><td>23.70</td><td>22.20</td><td>21.90</td><td>19.30</td></tr>
</table></td></tr>
</table>

B.O. NAMSAI

3	Number of population benefited	The construction of road is going to benefit Army and paramilitary forces in particular. Army is getting up a large unit for adjacent to China Border Anini. Total local habitat is approx 50000 out of which Schedule Tribes mainly consisting of Idu & Aditrubes is 22000 (Approx).
4	Employment Potential	During the construction stage employment will be generated for skilled and unskilled manpower. About 300 persons will be employed during the peak working season for construction of the road resulting in about 45000 man days would be required during the construction phase of three years. The local people will also get the opportunity to carry out contract works subject to their work capability/expertise- After the completion, about 50 people will be employed upkeep and maintenance of use road and other structures – The road will facilitate in tourism and horticulture where local population as per their experience and qualification will get benefitted
5	Cost of Acquisition facility on non-forest land wherever feasible	For USF land, the cost of acquisition of land will amount to **Rs. 6.00 CRORES (Approx.)** for complete alignment as mentioned in R&R policy 2008 of Arunachal Pradesh State Government
6	Loss of (a) Agriculture and (b) Animal Husbandry products due to diversion of forestland	As on date There is no any agriculture or Animal Husbandry activity going on along the alignment corridor.
7	Cost of Rehabilitating the displaced persons as different from compensatory amounts given for displacement	Not Applicable There is no displacement due to the diversion of the land for the project purpose.
8	Cost of Supply of free fuel –wood to workers residing in or near forest area during period of construction	During the construction, alternative source of fuel like LPG and Kerosene will be provided to the workers residing in or near the forest area. A wood depot will be setup for supply of firewood as a backup fuels to avoid illegal felling of trees for cooking purpose.

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