

छत्तीसगढ़ शासन

वन विभाग

मंत्रालय, महानदी भवन, नवा रायपुर अटल नगर,

क्रमांक/एफ 5-01/2019/10-2
प्रति,

नवा रायपुर, अटल नगर, दिनांक 05/07/2019

अपर प्रधान मुख्य वन संरक्षक (क्षे0),
भारत सरकार, पर्यावरण वन तथा जलवायु परिवर्तन मंत्रालय,
ग्राऊंड फ्लोर (ईस्टर्न विंग), न्यू सेक्रेटेरियेट बिल्डिंग,
व्ही.सी.ए. स्टेडियम के सामने सिविल लाईन,
नागपुर (महाराष्ट्र) - 440001 ।

विषय:-

Diversion of 36.99 ha of forest land under Forest Conservation Act, 1980 for widening & upgrading to 2 Lane with paved shoulder of NH-78 (New NH-43) Katni-Gumla Road from Manendragarh to Dumariya (Baikunthpur) under NH corridor scheme in favour of Public Works Division, National Highway Zone Raipur, in Korea District in the State of Chhattisgarh.

संदर्भ:-

1. आपका पत्र क्रमांक FC-II/CH-106/2019-NGP/5390, दिनांक 11.06.2019 ।
2. अपर प्रधान मुख्य वन संरक्षक (भू-प्रबंध) का पत्र क्र./भू-प्रबंध/विविध/115-645/1527, दिनांक 22.06.2019 ।

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विषयांकित प्रस्ताव में भारत सरकार, पर्यावरण वन तथा जलवायु परिवर्तन मंत्रालय, नागपुर के संदर्भित पत्र क्र. 1 के माध्यम से अतिरिक्त जानकारी चाही गई है ।

2/- उक्त जानकारी अपर प्रधान मुख्य वन संरक्षक (भू-प्रबंध) के संदर्भित पत्र क्रमांक 2 के माध्यम से इस विभाग को प्रेषित किया गया है ।

3/- उपरोक्त संदर्भित पत्र क्र. 2 की छायाप्रति पत्र के साथ संलग्न प्रेषित है । कृपया विषयांकित प्रकरण में स्वीकृति जारी करने का कष्ट करें ।

संलग्न:- उपरोक्तानुसार ।

Regional
5.7.19
(के.पी.राजपूत)

अवर सचिव

छत्तीसगढ़ शासन, वन विभाग

पृष्ठां.क्रमांक/एफ 5-01/2019/10-2 नवा रायपुर, अटल नगर, दिनांक 05/07/2019
प्रतिलिपि :-

अपर प्रधान मुख्य वन संरक्षक (भू-प्रबंध), अरण्य भवन, सेक्टर-19, नार्थ ब्लॉक, केपिटल कॉम्प्लेक्स, अटल नगर, छत्तीसगढ़ की ओर सूचनार्थ अग्रेषित ।

Regional
5.7.19
अवर सचिव
छत्तीसगढ़ शासन, वन विभाग

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दिनांक 02/07/2019

कार्यालय प्रधान मुख्य वन संरक्षक, छत्तीसगढ़

अरण्य भवन, सेक्टर-19, नार्थ ब्लॉक, केपिटल कॉम्पलेक्स, अटल नगर, रायपुर - 492002

(अपर प्रधान मुख्य वन संरक्षक - भू-प्रबंध)

दूरभाष: 0771 - 2512840

ई - मेल: apccf-lm.cg@gov.in

क्र./भू-प्रबंध/विविध/115-645/1527

रायपुर, दिनांक 22/06/2019

प्रति,

अपर मुख्य सचिव
छत्तीसगढ़ शासन, वन विभाग
मंत्रालय, महानदी भवन
अटल नगर, रायपुर

127 JUN 2019

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अलखिल

विषय: - Diversion of 36.99 ha. of forest land under Forest Conservation Act, 1980 for widening & upgrading to 2 Lane with paved shoulder of NH-78 (New NH - 43) Katni - Gumla Road from Manendragarh to Dumariya (Baikunthpur) under NH corridor scheme in favour of PWD, NH Zone Raipur in Korea District in the State of Chhattisgarh - regarding .

संदर्भ: छ.ग. शासन, वन विभाग का पु. पत्र क्रमांक / एफ 5-01/2019/10-2 दिनांक 14.06.2019

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कृपया उक्त विषयांकित एवं संदर्भित पत्र का अवलोकन करें। यूजर एजेंसी द्वारा प्रस्तुत मूल जानकारी अवलोकनार्थ, सूचनार्थ एवं आवश्यक कार्यवाही हेतु संलग्न प्रेषित है।

संलग्न: उपरोक्तानुसार (कुल 06 पृष्ठीय)

(प्र.मु.व. संरक्षक द्वारा अनुमोदित)

(अतुल कुमार शुक्ला)
अ.प्र.मु.व.स (भू-प्रबंध / व.सं.अ)
छत्तीसगढ़

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01/07/19
दिनांक

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**OFFICE OF THE CHIEF ENGINEER,
NATIONAL HIGHWAY ZONE, P.W.D. RAIPUR (C.G.)**

Tel:- 0771-4051075, Fax. 0771-4023057 email- cenhr@rediffmail.com

Memo No.- 489 /CE/Corridor/A/03-1/NH-43(Pkg.I)/NSPR Raipur, Dated 13 /06/2019
To,

**The Additional Principal Chief Conservator of Forest
(Land Management)**
Forest Department
Aranya Bhawan, Atal Nagar, Raipur (C.G.)

Subject : Diversion of 36.99 ha. of forest land under Forest Conservation Act ,1980 for widening and upgrading to 2 Lane with paved shoulder of NH 78 (New NH 43) Katni – Gumla Road from Manendragarh to Dumariya (Baikunthpur) under NH corridor scheme.

Ref : RO, MoEFCC, Nagpur letter no. FC-II/CH-106/2019-NGP/5390 dt. 11.06.2019

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Please refer the above cited letter under ref #2. Regarding above mentioned proposal the REC meeting held on 30th May 2019 has opinionated that Regional office will issue Stage-1 approval only after the receipt of complete CB analysis as per guidelines dated 01.08.2017.

Please find enclosed herewith complete CB analysis as per guidelines dated 01.08.2017.

Encl:- CB Analysis

13/6/19
Chief Engineer,
National Highway Zone,
P.W.D. Raipur (C.G.)

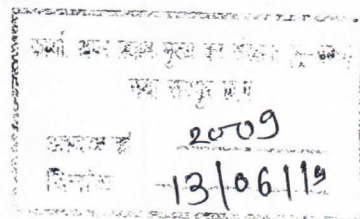
Endt. No. 490 /CE/Corridor/A/03-1/NH-43(Pkg.I)/NSPR Raipur, Dated 13 /06/2019
Copy forwarded to:

1. **The Additional Chief Secretary (Forest),** Govt. of Chhattisgarh, Forest Department, Mantralaya, Mahanadi Bhawan, Atal Nagar, Raipur (C.G.) for information.
2. **Divisional Forest Officer,** Manendragarh (C.G.) for information.
3. **Superintending Engineer,** P.W.D. N.H. Circle Bilaspur for information.

Encl: Nil

13/6/19
Chief Engineer,
National Highway Zone
P.W.D. Raipur (C.G.)

Adar
13.6.19



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COST BENEFITS ANALYSIS IN ACCORDANCE WITH GOI FC GUIDLINES NO 7- 69/2011-FC DATED 01-08-2017

Name of Project: Rehabilitation and upgradation to 2 lane with paved shoulder of NH-43 (Old NH 78), From Manendragarh to Dumariya (Baikunthpur) section in the state of Chhattisgarh.

Nature of Proposal: Linear

Total Length of Project: 78.10 Km

Number of district involve- 01 (Korea)

Number of forest division involve: 02

S.no.	Forest Division	Proposed Area (ha)
1.	Manendragarh	27.30
2.	Korea	9.69
	Total	36.99

Table A: Cases under which a Cost -benefit analysis for forest diversion are required

Sl	Nature of Proposal	Applicable/Not Applicable	Remarks
1	All Categories of proposal involving forest land upto 20 hectares in plains and upto 5 hectares in hills	Not Applicable	These proposals may be considered a case to case basis and value judgments.
2	Proposed for defense installation purpose and oil prospecting only	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 in protection and conservation of proposals would be rarely entertained.
4	All other proposal involving forest land more than 20 hectares in plain and more than 5 hectares in hills including roads, transmission line, minor, medium and major irrigation projects, hydro projects, mining activity, railway line, location specific installations like microwave stations, auto repeater centres, TV tower etc.	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.

Since the proposal is for diversion of forest land measuring more than 5 hectare in Hill area for the road project cost benefit analysis report is applicable

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COST BENEFITS ANALYSIS IN ACCORDANCE WITH GOI FC GUIDLINES NO 7- 69/2011-FC DATED 01-08-2017

Table B: Estimation of Cost of forest diversion

S. No	Parameters	Given Guideline	Evaluation
1	Ecosystem services losses due to proposed forest diversion	Economic value of loss of ecosystem services due to diversion of forest shall be the net present Value (NPV) of the forest land being diverted as prescribed by central Government (MOEF & CC) Note: In case of National parks the NPV shall be ten (10) times the normal NPV and in case wildlife Sanctuary the NPV shall be five (5) times the normal NPV or otherwise prescribed by the ministry or any other competent authority	NPV value has been taken as Rs.6.26 lakhs per hectare (Class IV , Very dense forest) Therefore losses = $6.26 \times 36.99 = 231.557$ Lakhs
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	Loss of Animal husbandry due to proposed diversion is very, moderate and calculated below. Gross Loss @5 ton/Ha/Year @ Rs.100/- per tonne. Therefore loss of fodder as estimated for about 73.426 hect .will be $36.99 \times 5 \times 100 \times 100$ Years =Rs. 18,49,500/- 10% of NPV $= 0.1 \times 231.557 = 23.15$ lakhs. So considered amount is Rs 23.15 Lakhs.
3	Cost of human resettlement	To be quantified and expressed in monetary terms as per approved R & R plan.	NIL human resettlement is required since no family residing in forest land.
4	Loss of public facilities and administrative infrastructure (Roads, buildings School, dispensaries, electric lines, railways etc) on forest land, or which would require forest land if these facilities were diverted due to the project.	To be quantified and expressed in monetary terms on actual basis at the time of diversion.	No Loss of public Infrastructure and administrative infrastructure (roads, buildings, railways, etc) on the forest land.
5	Possession value of forest land diverted	30% of environment costs (NPV) due to 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	30% of NPV $= 231.557 \times 0.3 = 69.47$ lakhs The circle rate of adjoining area in the district is about 15 Lakhs per hectare ,so possession value $= 36.99 \times 15.00 = 554.85$ Lakhs

COST BENEFITS ANALYSIS IN ACCORDANCE WITH GOI FC GUIDLINES NO 7- 69/2011-FC DATED 01-08-2017

6	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 as no Resettlement and Rehabilitation is required in forest land. Which is proposed to be diverted.
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.	Habitat fragmentation Cost is 50% of NPV i.e. 0.5×231.557 = Rs 115.78 Lakhs.
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	Total 37.00 Hectare of Revenue land proposed for CA in lieu of 36.99 ha forest land. Cost of CA is $= 37.00 \times 6.6 = 244.2$ Lakhs

Hence Total Loss = $231.557 + 23.15 + 554.85 + 115.78 + 244.2 = 1169.537$ Lakhs

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COST BENEFITS ANALYSIS IN ACCORDANCE WITH GOI FC GUIDELINES NO 7- 69/2011-FC DATED 01-08-2017

Table C: Existing Guidelines for estimating benefits of forest land diversion in CBA

S. No	Parameters	Given Guideline	Evaluation
1	Increase in productivity attributable to the specific project	To be quantified and expressed in monetary terms avoiding double counting	<p>The proposal project for which diversion of forest land is sought is for Rehabilitation and upgradation of existing road .The project road will improve accessibility to the region .This will help in both economic & social development in the region.</p> <p>The project will enable smooth accessibility in the region by which people of the region will be directly benefited. This will accelerate industrialization /commercialization in region and the same will directly generate maximum employment opportunities in these areas and boosting up the economy of the region and state.</p> <p>In terms of monetary terms =</p>
2	Benefits of economy due to the specific project	The incremental economic benefit in monetary terms due to the activities attributed to the specific project.	<p>Economic benefit in terms of increase in trade, saving in vehicular operation and maintenance cost better connectivity, safer journey to commuter and saving of travel time.</p> <p>Improved road connectivity helps in better implementation and management of government schemes .it will provide last and economical transport of goods, After completion of project, the local people and industries situated in the area will be greatly benefited . The widening of project road will provide safe and fast, economical and environment friendly transportation to the State, which in term will accelerate the rate of growth in this area.</p> <p>In addition to that there are several other benefits that may accrue due to saving in fuel, reduction in time to commute, vehicle maintenance, reduction in cabonemmission etc.</p> <p>"However they have not been quantified as it will be a function of various govt.policy variables". Exact quantification of the value is not possible as it is time and policy dependent.</p>
3	No. of population benefited due to specific project	As per the detailed project report	The project road passes through Korea District and connects Manendragarh to DostictheadquaterBaikunthpur. The entire population along the proposed alignmentof korea district i.e. approx. 8.0 - 8.5 Lakhs will be benefited.
4	Economic benefits due to of direct and indirect employment due to the project.	As per the detailed project report	<p>A Total of 740000 man days employment will be generated during construction phase for skilled/unskilled labour. Average wages inclusive of all cost of living is 500 per day.</p> <p>Total financial implication will come out to be = $740000 \times 500 = \text{Rs} 3700 \text{ Lakhs}$</p>

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COST BENEFITS ANALYSIS IN ACCORDANCE WITH GOI FC GUIDLINES NO 7- 69/2011-FC DATED 01-08-2017

5	Economic benefits due to Compensatory Afforestation	Benefits from such compensatory forestation accruing over next 50 years monetized and discounted to the present value should be included as benefits of compensatory afforestation. *For benefits of CA the guideline of the ministry for NPV estimation may be considered.	In lieu of total trees to be remove from proposed Row in forest land along the project road it is proposed to undertake at least twice of affected area as Compensatory afforestation and forest conservation act 1980 So the net productivity will increase . The Compensatory Afforestation will be done in 37.00hectare of Revenue land. Which is down the line would be having a density of minimum 0.4. The ecological value for a 50 years period for the density of 10 is Rs. 126.74 Lakhs per hectare .By considering minimum 0.4 density the ecological gain for the project would be $126.74 \times 0.4 \times 37.00 = \text{Rs. } 1875.75 \text{ lakhs}$
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Total Benefits = $1875.75 + 3700.00 = 5575.75$ Lakhs

Summary of Cost -Benefit Analysis for the Project

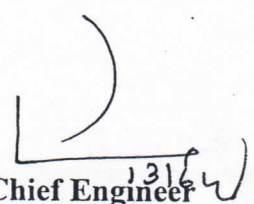
S.No	Loss (in Lakh)	Benefit (Lakh)
1	Ecosystem services losses Rs 231.557 Lakhs	Ecology gain from Compensatory Afforestation $126.74 \times 0.4 \times 37.00 = \text{Rs. } 1875.75 \text{ lakhs}$
2	Loss of Animal Husbandry Productivity including loss of Fodder =Rs 23.15Lakhs.	740000 Man days will be generated assuming 500 Rs per Day as wages total benefit = $500 \times 740000 = 3700$ Lakhs
3	Possession Value of Forest Land diverted Rs554.85 lakhs	
4	Habitat Fragmentation Cost Rs 115.78 Lakhs.	
5	Compensatory Afforestation Rs. 244.2 Lakhs,	
	Total Loss = 1169.537 Lakhs	Total Benefit Rs. 5575.75 Lakhs

Benefit Cost Ratio =Total Benefit /Total Loss

$= 5575.75 / 1169.537 = 4.76$ (which is more than 1 hence project is viable.

Date:

Place: Raipur


 Chief Engineer
 PWD, National Highway Zone
 Raipur (C.G.)