

CERTIFICATES & UNDERTAKINGS

Annexure - 1

DOCUMENT VERIFICATION CERTIFICATE

Certified that all the documents enclosed here with this proposal for forest land diversion for Up-gradation of Package -I (Existing km 0+000 to 45+000 & Design Km 0+000 to 42+250) Hatgamharia Jagannathpur - Baraiburu- saddle - Manoharpur -Anandpur - Bano - Kalebira Road (New NH-320G) in the state of Jharkhand to 2/4 lane with paved shoulder configuration".

Date: 17/12/2022

Place: - Chaibasa



(Binod Kachhap)

Executive Engineer

Nation Highway Division Chaibasa

EXECUTIVE ENGINEER
N. H. DIVISION
CHAIBASA

Signature & Seal

Annexure –2

भारत सरकार
सड़क परिवहन एवं राजमार्ग
मन्त्रालय
क्षेत्रीय कार्यालय
नन्दी विला (1 फ्लोर) 199/सी,
विद्यालय मार्ग, रोड न० 1, अशोक
नगर, राँची-834002



Ph: (0651) – 2240223, 2240222
GOVERNMENT OF INDIA
Ministry of Road Transport & Highways
Regional Office
Nandi Villa (1st Floor) 199/c, Vidyalaya
Marg, Road No.1 Ashok Nagar, Ranchi-02
E-Mail- roranchi03@gmail.com

No.RW/Ranchi/DPR/NH/IAHE/36/2017/12

Dated: 18th January, 2021

To

✓ The Chief Engineer (NH),
Road Construction Department,
Ranchi, Jharkhand

Sub: DPR for up gradation of Haat gamhriya-Jagannathpur-Baraiburu-Saddle-Manoharpur-Anandpur-Bano-Kolebira Road (NH declaration approved "In Principle") in the state of Jharkhand to Two/Four lane with paved shoulder configuration (LOT-III)(Package no-NH/IAHE/36) - Alignment approval reg.

Sir,

Please refer to the alignment proposal submitted vide your letter No.CE/NH/Works-30/17-425(WE) dated 20.07.2020 of the subject DPR work of NH-320G. Further, the alignment proposal was again examined by the consultant in light of observation made by Ministry. The compliance of the same was submitted by the consultant vide letter no. MSV/NV/IAHE/Package-36/Lot-III/201dated 12.12.2020.

2. In this regard, it is to inform that the alignment proposal has been approved by Ministry. Ministry has further requested to finalize the DPR and invite preconstruction activities for early sanction of the projects.

Yours faithfully

Encl: As above


(Abhijeet Kumar)
Regional Officer

Copy to:

- The Chief Engineer (Z-I)-I, Transport Bhawan, Ministry of Road, Transport & Highways, New Delhi-110001
- The Engineer-in-Chief, Road Construction Department, Engineer's Hostel, HEC Campus, Dhurwa, Ranchi- For kind information and necessary action.
- Executive Engineer, NH division, RCD, Chaibasa- For necessary action.
- M/s MSV International INC., 5th Floor, Suncity Success Tower, Golf Course Extension Road, Gurgaon-122005 (Haryana) - For necessary action.

Annexure –3
COMPENSATORY AFFORESTATION COST
(Undertaking/ Certificate of Project Authority)

As per the provision of Forest Conservation Act, 1980, non-forest land equivalent to the area of forest land diverted for the purpose of the project has to be provided to the forest department for obtaining forest clearance (FC). However, two circulars issued by Ministry of Environment & Forest (i) vide letter no.-4-1/97-FC dt.18.02.98 and (ii) 11-30/96-FC dt. 10.04.1997, exempts NH road from providing non-forest land for raising compensatory afforestation. As the circular cited above, it has to be prepared by the concerned DFO.

We hereby please to give the undertaking to bear the cost of raising and maintenance of compensatory afforestation and as per the scheme prepared by the State Government/Forest Department for project namely Up-gradation of Package -I (Existing km 0+000 to 45+000 & Design Km 0+000 to 42+250) Hatgamharia Jagannathpur - Baraiburu- saddle - Manoharpur -Anandpur - Bano - Kolebira Road (New NH-320G) in the state of Jharkhand to 2/4 lane with paved shoulder configuration”.

Date: 17/12/2022

Place: - Chaibasa



(Binod Kachhap)

Executive Engineer

Nation Highway Division Chaibasa

EXECUTIVE ENGINEER
N. H. DIVISION
CHAIBASA

Signature & Seal

Annexure –4

MINIMUM DEMAND FOR FOREST AREA

This is to certify that no suitable alternate Non-Forest Land is available other than Forest land located along/through which existing road alignment traverses. This project road is of widening and upgradation of existing road namely Up-gradation of Package -I (Existing km 0+000 to 45+000 & Design Km 0+000 to 42+250) Hatgamharia Jagannathpur - Baraiburu- saddle - Manoharpur - Anandpur - Bano - Kalebira Road (New NH-320G) in the state of Jharkhand to 2/4 lane with paved shoulder configuration”.

The demand of **10.5545**-hectare of forest land is the barest minimum demand for the upgradation of above said project.

Date: 17/12/2022

Place: - Chaibasa



(Binod Kachhap)

Executive Engineer

Nation Highway Division Chaibasa

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N. H. DIVISION
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Signature & Seal

Annexure –5

CERTIFICATE FOR BEARING COST FOR FELLING OF TREES
(Project Authority)

This is to certify that Project Authority fully agrees to bear the cost of clearance/removal of the vegetation growth from the forest land proposed to be released/diverted for non-forest use in terms of construction of project road namely Up-gradation of Package -I (Existing km 0+000 to 45+000 & Design Km 0+000 to 42+250) Hatgamharia Jagannathpur - Baraiburu- saddle - Manoharpur - Anandpur - Bano - Kolebira Road (New NH-320G) in the state of Jharkhand to 2/4 lane with paved shoulder configuration”.

Date: 17/12/2022

Place: - Chaibasa



(Binod Kachhap)

Executive Engineer

Nation Highway Division Chaibasa

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N. H. DIVISION
CHAIBASA

Signature & Seal

Annexure –6

CERTIFICATE OF NON-VIOLATION OF FOREST CONSERVATION ACT, 1980

This is to certify that the widening/construction work of project road namely Up-gradation of Package -I (Existing km 0+000 to 45+000 & Design Km 0+000 to 42+250) Hatgamharia Jagannathpur - Baraiburu- saddle - Manoharpur -Anandpur - Bano - Kalebira Road (New NH-320G) in the state of Jharkhand to 2/4 lane with paved shoulder configuration” has yet not started.

Any civil/construction work in the forest area is not started and **No Violation of Forest Conservation Act, 1980 and or its guidelines have been committed.** The work in Forest Area will be started only after Forest Department accords permission/ Forest Clearance.

Date: 17/12/2022

Place: - Chaibasa



(Binod Kachhap)

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Nation Highway Division Chaibasa

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N. H. DIVISION
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Signature & Seal

Annexure –7

CERTIFICATE NET PRESENT VALUE OF FOREST LAND

This is to certify that, as per guidelines for diversion of forest land for non-forest purpose by the Ministry of Environment and Forest. Govt. of India letter No. 5-1/98-FC (PT- II) dated 18/2/2003, this office (Project Authority) is fully agreed to deposit the sum against the **Net Present Value (NPV) of Forest Land** required for diverting forest land for project namely **Up-gradation of Package -I (Existing km 0+000 to 45+000 & Design Km 0+000 to 42+250) Hatgamharia Jagannathpur - Baraiburu- saddle - Manoharpur -Anandpur - Bano - Kalebira Road (New NH-320G) in the state of Jharkhand to 2/4 lane with paved shoulder configuration”**.

Date: 17/12/2022

Place: - Chaibasa



(Binod Kachhap)

Executive Engineer

Nation Highway Division Chaibasa

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N. H. DIVISION
CHAIBASA

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Annexure –8

Unqualified Commitment Certificate

It is confirmed that this office is fully agreeing to pay such amount as the Govt./Forest Department directs/decides, as may be required to defray the cost on.

- a) Compensatory Afforestation as per Govt. instruction.
- b) Clearance and removal of vegetal growth on the Forestland.
- c) N.P.V. for forest land diverted.
- d) Fencing & related expenditure etc.
- e) Other expenditure as per Forest Department direction/demand.

For project, namely Up-gradation of Package -I (Existing km 0+000 to 45+000 & Design Km 0+000 to 42+250) Hatgamharia Jagannathpur - Baraiburu- saddle - Manoharpur -Anandpur - Bano - Kalebira Road (New NH-320G) in the state of Jharkhand to 2/4 lane with paved shoulder configuration”.

Date: 17/12/2021

Place: - Chaibasa



(Binod Kachhap)

Executive Engineer

Nation Highway Division Chaibasa

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N. H. DIVISION
CHAIBASA

Signature & Seal

Annexure –9

CERTIFICATE TO GET THE ENVIRONMENT CLEARANCE

Certified that the project road namely Up-gradation of Package -I (Existing km 0+000 to 45+000 & Design Km 0+000 to 42+250) Hatgamharia Jagannathpur - Baraiburu- saddle - Manoharpur - Anandpur - Bano - Kalebira Road (New NH-320G) in the state of Jharkhand to 2/4 lane with paved shoulder configuration" *does* not attract Environmental Clearance.

The EIA notification 14th September 2006 amended, vide notification S.O.2559(E), dated 22nd of August 2013 which reads "Expansion of National Highways greater than 100 km involving additional right of way or land acquisition greater than 40m on existing alignments and 60m on re-alignments or by-passes." In purview of this amendment in EIA notification it is established that the proposed project does not attract Environmental Clearance (EC) from MoEFCC.

New EIA notification dated 11 March 2020 is still in draft stage, so it has not been considered.

Date: 17/12/2022

Place: - Chaibasa



(Binod Kachhap)

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Nation Highway Division Chaibasa

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Signature & Seal

Annexure –10

WILDLIFE CERTIFICATE

Certified that forest area which is required to be diverted for widening and upgradation of project namely Up-gradation of Package -I (Existing km 0+000 to 45+000 & Design Km 0+000 to 42+250) Hatgamharia Jagannathpur - Baraiburu- saddle - Manoharpur -Anandpur - Bano - Kalebira Road (New NH-320G) in the state of Jharkhand to 2/4 lane with paved shoulder configuration” and it is not a part of any Wildlife Area.

Also, the entire road is not located within ESZ of any Protected Area (PA).

Date: 17/12/2022

Place: - Chaibasa



(Binod Kachhap)

Executive Engineer

Nation Highway Division Chaibasa

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Signature & Seal

Annexure –11

ARCHEOLOGICAL IMPORTANCE CERTIFICATE
(Certificate of Project Authority)

This is to certify that total **2.7355** -hectare, of Forest Land is required to be diverted for the project namely Up-gradation of Package -I (Existing km 0+000 to 45+000 & Design Km 0+000 to 42+250) Hatgamharia Jagannathpur - Baraiburu- saddle - Manoharpur -Anandpur - Bano - Kalebira Road (New NH-320G) in the state of Jharkhand to 2/4 lane with paved shoulder configuration". And it is very unlikely to affect any monument site of cultural, historical, religious archeological or recreational importance as during survey & investigation no such area is identified.

Date: 17/12/2022

Place: - Chaibasa



(Binod Kachhap)

Executive Engineer

Nation Highway Division Chaibasa

EXECUTIVE ENGINEER
N. H. DIVISION
CHAIBASA

Signature & Seal

Annexure –12

JUSTIFICATION FOR ALTERNATIVE ALIGNMENTS (Certificate of Project Authority)

This is to certify Proposal for Diversion of **2.7355**-hectare forest land for the project namely **Up-gradation of Package -I (Existing km 0+000 to 45+000 & Design Km 0+000 to 42+250) Hatgamharia Jagannathpur - Baraiburu- saddle - Manoharpur -Anandpur - Bano - Kalebira Road (New NH-320G) in the state of Jharkhand to 2/4 lane with paved shoulder configuration"** is already an existing single/intermediate lane road. Since Existing Road is already available, minimum land acquisition, minimum forest land demand and least tree cutting is investigated.

Further, due to increase in traffic and to enhance connectivity for passengers and goods carrier this project road is planned. This alignment is chosen because of;

- It is the best suitable alignment from technical point of view and requiring minimum forest area avoiding rehabilitation and resettlement in populated area
- Earthwork cutting and banking is minimum.
- Minimum possible numbers of trees are affected.
- Road gradients are suitable for traffic.
- There is no suitable alternative non-forest land to construct the road and avoid laying of alignment in Forest Area.
- The proposed widening of project road is significantly on existing road.

Accordingly, alternatives examined for this project is **NOT** enclosed in the Diversion of forest land Proposal under forest (Conservator) Act 1980.

Date: 17/12/2022

Place: - Chaibasa



(Binod Kachhap)

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Annexure- 13

Status of settlement of rights under the Forest Right Act, 2006 (Certificate/Undertaking of Project Authority)

As per the provision and in compliance of the Ministry of Environment Forest & Climate Change (MoEFCC), Government of India, letter no. 11-09/98-FC(pt.) dated 3rd August 2009 wherein the MoEF issued guidelines on submission of evidences for having initiated and completed the processes of settlement of right under the scheduled Tribe and Other Traditional Forest Dweller (Recognition of Forest Right) Act 2006 ("FRA for short") on the forest land proposed to be diverted for non-forest purpose with MoEFCC's letter dated 5th February 2013 wherein MoEFCC issued certain relaxation in respect of liner projects.

This is certified that at the time of uploading forest land diversion proposal, "FRA" is not completed and is under progress for the project namely **Up-gradation of Package -I (Existing km 0+000 to 45+000 & Design Km 0+000 to 42+250) Hatgamharia Jagannathpur - Baraiburu- saddle - Manoharpur -Anandpur - Bano - Kolebira Road (New NH-320G) in the state of Jharkhand to 2/4 lane with paved shoulder configuration"**.

Further, we hereby please to give the undertaking that the procedure will be followed as per provision and the "FRA" certificate will be uploaded/submitted to concerned Forest Department in prescribed format (Form-1, for linear projects).

Date: 17/12/2022

Place: - Chaibasa



(Binod Kachhap)

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Signature & Seal

Annexure – 14

Muck Disposal Plan

Name of Project: - Up-gradation of Package -I (Existing km 0+000 to 45+000 & Design Km 0+000 to 42+250) Hatgamharia Jagannathpur - Baraiburu- saddle - Manoharpur -Anandpur - Bano - Kalebira Road (New NH-320G) in the state of Jharkhand to 2/4 lane with paved shoulder configuration”.

SL	Particulars	Remarks
1	Calculation of muck to be generated. Swell factor to be applied.	Since, the project road alignment is located in plane and rolling terrain, having no scope of tunneling or major hill cutting / deep excavation and accordingly NO muck will be generated due to additional widening of project road. Accordingly, no calculation and swell factor is applicable. It is to be noted that to raise Final Road/ Level (FRL)/ Road Embankment/ Bypasses, significant quantity of earth material will be required instead of generation of muck.
2.	Quantity of muck to be utilized in the project activities	As stated in above column, generation of Muck is very unlikely. However, some construction debris are likely to be generated and which will be utilized (like leveling, making approach road, worker camp etc) in project work and no disposal is required.
3.	Balance quantity of muck which requires disposal/ management plan.	No Balance quantity is estimated, construction related debris will be utilized in project work.
4	Carriage of muck from the muck generation site to the dumping site.	Not applicable, due to above mentioned reason in column no. 1 & 2.
5.	Ownership of land and the consent of land owners in case muck disposal is proposed on non-forest land.	Not applicable, due to above mentioned reason in column no. 1 & 2.
6	Photograph & carrying capacity of proposed dumping site (Muck disposal site)	Not applicable, due to above mentioned reason in column no. 1 & 2.
7	Development of dumping site-construction of retaining walls and other structure as per requirement of the site. The objective is to completely stop rolling down of the muck.	Not applicable, due to above mentioned reason in column no. 1 & 2.
8	Rehabilitation of dumping site like leveling, planting of grass, shrubs and tree species.	Not applicable

Note: - Cost to be incurred on the above activities has to be given component wise. Details of dumping site including length, width and height of structures to be erected must be mentioned.

Undertaking by user agency has to be given to the effect that:

1. Muck management plan will be implemented by user agency and in case of non-implementation of plan; they will be liable to penalty / action at their cost

2. The proposed dumping site is located away from river/ stream/ Nala.

Date: 17/12/2022

Place: - Chaibasa



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Annexure- 15

Undertaking/ Certificate for NO Muck Generation and Disposal
(Project Authority)

This is to certify that as the project road alignment of the project **Up-gradation of Package -I (Existing km 0+000 to 45+000 & Design Km 0+000 to 42+250) Hatgamharia Jagannathpur - Baraiburu- saddle - Manoharpur -Anandpur - Bano - Kalebira Road (New NH-320G) in the state of Jharkhand to 2/4 lane with paved shoulder configuration".** Is located in plane and rolling terrain having no scope of tunneling or major hill cutting / deep excavation. Filling is much more than cutting. It is estimated cutting material will entirely be re-utilized in project work itself and additional NO generated muck will be left of its safe disposal other than its re-utilization in project. Construction debris are likely to be generated which will be utilized (like leveling, making approach road, haul road worker camp/ construction yard etc) in project work and no disposal is required.

Date: 17/12/2022

Place: - Chaibasa



(Binod Kachhap)

Executive Engineer

Nation Highway Division Chaibasa

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N. H. DIVISION
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Signature & Seal

Undertaking to adhere Standard Conditions stipulated by Forest Department

Name of Project: Up-gradation of Package -I (Existing km 0+000 to 45+000 & Design Km 0+000 to 42+250) Hatgamharia Jagannathpur - Baraiburu- saddle - Manoharpur -Anandpur - Bano - Kalebira Road (New NH-320G) in the state of Jharkhand to 2/4 lane with paved shoulder configuration”.

This to certify and undertake that all applicable standard conditions as prescribed by MoEFCC for forest land diversion in relation to road project shall be acceptable to Proponent. The conditions to be imposed at the time of according Stage-I approval and to be complied with before Stage II approval shall be agreed and acceptable.

The General and Standard conditions prescribed by MoEFCC and will be acceptable to proponent are as follows;

General Conditions

- i. Cost of compensatory afforestation as per the CA scheme may be realized from the user agency;
- ii. Net Present Value (NPV) of the forest land being diverted for non-forestry purpose may be realized from the user agency, as per Ministry's directions issued vide letters No. 5-3/2007-FC dated 5th February 2009 and Hon'ble Supreme Court of India's Order dated 30th October 2002, 28th March, 2008, 24th April, 2008 and 9th May 2008;
- iii. As per orders of the Government of India vide letter No. 5-2/2010- CAMPA dated 24.06.2011, the net present value of the forest land and all other CA levies shall be deposited in State specific CAMPA account (s) maintained by the Ad-hoc CAMPA at New Delhi and this office may be informed along with a duly filled in prescribed proforma;
- iv. The user agency shall furnish an undertaking to pay additional amount of NPV, if so determined as per final decision of the Hon'ble Supreme Court of India; and
- v. A certificate in respect of complete settlement of rights, in terms of the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006, if any, on the forest land proposed to be diverted along with documentary evidence stipulated by the Ministry in its letter No. 11-09/1998-FC (pt) dated 3rd August, 2009, 5th February, 2013, and 5th July, 2013, as applicable to this project, be submitted.

The use of forest land will not be allowed till final approval is accorded.

To be complied with after Stage II approved is accorded (These Conditions shall also be Imposed at the time of according Stag-II Approval)

(1) General condition

1. Legal status of the forest land will remain unchanged;
2. The forest land will not be used for any other purpose than that mentioned in the proposal;
3. The forest land proposed to be diverted shall under no circumstances be transferred to any other agency, department, or person without approval of the competent authority.
4. The layout plan of the proposal shall not be changed without the prior approval of the Central Government.
5. No damage will be done to the adjoining forest land;
6. No labour camp shall be established on the forest land;
7. Compensatory afforestation will be done within one year from the date of issue of final approval over the extent of land as approved, out of the funds provided by the user agency;
8. The user agency shall carry out muck disposal at pre-designated sites in such a manner so as to avoid its rolling down and should be taken up as per the scheme approved by the Forest Department
9. As recommended by the Geologist and Task Force, the required soil conservation measures should be taken up by the user agency for which fund should be provided as per the current rate of works;
10. The User Agency shall provide firewood preferably alternate fuels to the laborers and the staff working at the site so as to avoid any damage and pressure on the nearby forest areas;

11. The boundary of the forest land being diverted shall be demarcated on ground at the project cost, using four feet high RCC pillars, each pillar inscribed with the serial number, DGPS coordinates, forward and backward bearings and distance from pillar to pillar etc.;

12. The User Agency shall ensure that because of this project, no damage is caused to the flora and the wildlife available in the area;

13. The user agency will assist the State Government in conservation and preservation of flora and fauna of the area in accordance with the plan prepared by the Chief Wildlife Warden of the State.

14. The user agency in consultation with the State Government shall create and maintain alternate habitat/home for the avifauna: whose nesting trees are to be cleared in this project. Bird's nests artificially made out of eco-friendly material shall be used in the area, including forest area and human settlements, adjoining the forest area being diverted for the project;

15. Any other condition that this Regional Office may stipulate, from time to time, in the interest of conservation, protection and development of forests & wildlife;

16. The User agency shall submit the annual self-compliance report in respect of the above conditions to the State Government and to the concerned Regional Office of the Ministry regularly.

17. It will be the responsibility of the State Government/User Agency to obtain all other prior approvals/clearances under all other relevant Acts/Rules/Court's Rulings/instructions, etc., including environmental clearance, as applicable to this proposal.

18. The Regional Office may revoke/suspend the clearance, if implementation of any of the above conditions is not satisfactory. State Government will ensure compliance of these conditions through forest department.

(Specific Conditions for Road Project)

i. User agency shall endeavor to avoid felling of trees existing on the forest land proposed to be utilized. If unavoidable, in any cases not more than.....trees andplants will be removed; (Number of trees to be jointly verified)

ii. The trees should be felled under strict supervision of the State Forest Department;

iii. The User agency shall consult organization(s) having experience in construction of roads in hilly areas to avoid frequent road blockade due to landslides, etc., and shall provide breast walls and retaining walls wherever necessary.

iv. The user agency shall raise strip plantation on both sides and central verge of the road at the project cost as per IRC specifications with maintenance of seven to ten years. User agency shall also submit design of providing at least two to three rows of long rotation indigenous trees, as per provisions of IRC-SP -21-2009 (guidelines on landscaping and tree plantations) on either side of road before final clearance;

v. The User Agency shall not collect any toll from the vehicles carrying forest officers on duty;

vi. A study may be commissioned by the Government to assess the impact of tree felling along the roads including resultant impact of winds and storms due to likely loss of shelter belt.

Date: 17/12/2022

Place: - Chaibasa



(Binod Kachhap)

Executive Engineer

Nation Highway Division Chaibasa

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Signature & Seal

Annexure- 17

Undertaking to adhere Task Force Recommendations

Name of Project- Up-gradation of Package -I (Existing km 0+000 to 45+000 & Design Km 0+000 to 42+250) Hatgamharia Jagannathpur - Baraiburu- saddle - Manoharpur -Anandpur - Bano - Kalebira Road (New NH-320G) in the state of Jharkhand to 2/4 lane with paved shoulder configuration”.

This is to certify that the recommendations of “Task Force” constituted by Planning Commission as detailed below and whatsoever applicable in above said project road are fully acceptable to this office.

1. Lay out of the Land be followed as far as possible
2. Heavy cutting/filling be avoided as far as possible. The technology of cut and fill method is to be adopted. Steep hill slopes also be avoided.
3. Unstable/Slide-Prone areas to be avoided. For identifying such areas, the advice of Geotechnical engineers and geologists to be taken during the survey for the alignment.
4. Comparison of various possible alignments with reference to erosion potential be made and the alignment involving minimum erosion risk be performed.

Apart from the stage of planning the road alignment, effective steps are also required to be taken by ground engineer during the process of road construction for minimized ecological disturbance to the hill roads. Broadly the measures to be taken have been identified as;

- a. Cut and Fill method to be adopted while excavating for road formation and heavy earth cutting is to be avoided. Box cutting is to be avoided to the extent possible.
- b. Blasting by explosives is to be restricted to the minimum. Lay out of holes to be drilled for blasting is to be planned keeping in the view of line of least resistance and the existence of Joints. Controlled Blasting should be repeated using low charge and care to be taken to avoid activating slide zones or widening fissures and cracks in rock. Use of delay detonators in large scale blasting work is to be made for aniline dispersion of shock waves so that minimum disturbance is caused to the rock stratum as a result of the blasting process.
- c. All cut slopes, unusable hill side and slide prone erosion prone areas are to be provided with suitable correction measures by using one or the other of the techniques developed by CRRI. Several techniques have been sponsored by CRRI like simple vegetative turning, bitumen much treatment and slide treatment by jute netting coir netting of these simple vegetative turning seems to be the most appropriate preventive measure in many situations. This should be established in the denuded slopes immediately after the excavation is made
- d. Adequate drainage measures and protective structures like intercepting catch water drains, longitudinal drains/culverts, breast walls, retaining walls are provided for purposes of establishing the slips. Growth vegetative cover is stimulated in the disturbed hill slops above the road level by planting suitable fast-growing shrubs and plants. In certain selected unstable areas terraced has also been plasticized as a stabilizing measure with good results
- e. Over the past few years, the roads wing of the Ministry of Shipping and transport has issued instruction laying down broad guidelines and check list of the preparation of road construction projects which provide an inbuilt mechanism of tackling landslides/erosion control for the guidance and follow up action by engineers of state 'PWD' Border Roads Organization and other engaged in construction of hill roads, these should be observed.

Date: 17/12/2022

Place: - Chaibasa



(Binod Kachhap)

Executive Engineer

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Signature & Seal

Annexure – 18

Undertaking/certificate for bearing additional cost for increased NPV rate in future

Name of Project- Up-gradation of Package -I (Existing km 0+000 to 45+000 & Design Km 0+000 to 42+250) Hatgamharia Jagannathpur - Baraiburu- saddle - Manoharpur -Anandpur - Bano - Kalebira Road (New NH-320G) in the state of Jharkhand to 2/4 lane with paved shoulder configuration”.

Certify that in future, if the rate of NPV is increased by Honourable Supreme Court of India / Government of India, the project proponent is fully agreed to bear it and will be reimbursed / paid the same to the Forest Department on time.

Date: 17/12/2022

Place: - Chaibasa



(Binod Kachhap)

Executive Engineer

Nation Highway Division Chaibasa

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Signature & Seal

Annexure - 19

Land ownership Certificate /Undertaking

Name of Project- Up-gradation of Package -I (Existing km 0+000 to 45+000 & Design Km 0+000 to 42+250) Hatgamharia Jagannathpur - Baraiburu- saddle - Manoharpur -Anandpur - Bano - Kolebira Road (New NH-320G) in the state of Jharkhand to 2/4 lane with paved shoulder configuration”.

Certified that land on/along within Right of Way of above said road is under Jurisdiction, control and ownership of National Highway Division, Chaibasa, Jharkhand.

Date: 17/12/2022

Place: - Chaibasa



(Binod Kachhap)

Executive Engineer

Nation Highway Division Chaibasa

EXECUTIVE ENGINEER
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Signature & Seal

Annexure – 20

Commitment certificate in case of violation
(उल्लंघन के मामले में प्रतिबद्धता प्रमाण-पत्र)

Name of project: - Up-gradation of Package -I (Existing km 0+000 to 45+000 & Design Km 0+000 to 42+250) Hatgamharia Jagannathpur - Baraiburu- saddle - Manoharpur -Anandpur - Bano - Kalebira Road (New NH-320G) in the state of Jharkhand to 2/4 lane with paved shoulder configuration”.

Certified that in case of violation of Forest Conservation Act 1980, *office of the Executive Engineer, National Highway Division, Chaibasa, Jharkhand* is committed to adhere the conditions of Government of India / Government of Jharkhand on Imputed tree plantation and defrayal of its cost for the above said project.

Date: 17/12/2022

Place: - Chaibasa



(Binod Kachhap)

Executive Engineer

Nation Highway Division Chaibasa

EXECUTIVE ENGINEER
N. H. DIVISION
CHAIBASA

Signature & Seal

Annexure – 21
Commitment certificate
(वचनबद्धता प्रमाण-पत्र)

Name of project: - Up-gradation of Package -I (Existing km 0+000 to 45+000 & Design Km 0+000 to 42+250) Hatgamharia Jagannathpur - Baraiburu- saddle - Manoharpur -Anandpur - Bano - Kalebira Road (New NH-320G) in the state of Jharkhand to 2/4 lane with paved shoulder configuration”.

Certified that *office of the Executive Engineer*, National Highway Division, Chaibasa, Jharkhand is committed for defrayal of the cost against removal of trees (ten trees for each tree cut down) and maintenance till ten years for the above said project.

Date: 17/12/2022

Place: - Chaibasa



(Binod Kachhap)

Executive Engineer

Nation Highway Division Chaibasa

EXECUTIVE ENGINEER
N. H. DIVISION
CHAIBASA

Signature & Seal

CERTIFICATE FOR NO CIVIL WORK COMMENCEMENT IN FOREST AREA
(Project Authority)

This is to certify that no civil work has been started in forest area proposed to be diverted for the project namely Up-gradation of Package -I (Existing km 0+000 to 45+000 & Design Km 0+000 to 42+250) Hatgamharia Jagannathpur - Baraiburu- saddle - Manoharpur -Anandpur - Bano - Kolebira Road (New NH-320G) in the state of Jharkhand to 2/4 lane with paved shoulder configuration”.

Also, undertake that unless forest clearance is accorded, civil work will not be started in those forest areas for which forest land diversion proposal has been submitted.

Further, it is also to undertake that in case diversion of forest land is denied, project shall be executed along alternate/on existing alignment and work on non-forest land shall not be cited as a reason for grant of approval of diversion of forest land under the Forest (Conservation) Act, 1980. Work on non-forest land will not confer any right on the User Agency with regard to grant of approval under the Forest Act. Further, in case approval under the Act is declined for widening of road, width of the portion of road falling in the forest land will be maintained at its existing level.

Date: 17/12/2022

Place: - Chaibasa



(Binod Kachhap)

Executive Engineer

Nation Highway Division Chaibasa

EXECUTIVE ENGINEER
N. H. DIVISION
CHAIBASA

Signature & Seal