

Item Nos. 01 & 02

(Court No. 1)

**BEFORE THE NATIONAL GREEN TRIBUNAL  
PRINCIPAL BENCH, NEW DELHI**

(By Video Conferencing)

Appeal No. 29/2021  
(I.A. No. 218/2021)

Citizens for Green Doon

Appellant

Versus

Union of India & Ors.

Respondent(s)

**WITH**

Original Application No. 240/2021  
(I.A. No. 180/2021)

Citizens for Green Doon

Applicant

Versus

Union of India & Ors.

Respondent(s)

Date of completion of hearing and reserving of order: 02.12.2021

Date of uploading of order on the website: 13.12.2021

**CORAM: HON'BLE MR. JUSTICE ADARSH KUMAR GOEL CHAIRPERSON  
HON'BLE MR. JUSTICE SUDHIR AGARWAL, JUDICIAL MEMBER  
HON'BLE DR. NAGIN NANDA, EXPERT MEMBER**

**ORDER**

**The Issue**

1. Both these matters involve common and overlapping issue of validity of diversion of forest land for non-forest purpose and cutting of trees for widening and elevated corridor construction for a part of NH 72A between Dehradun and Delhi, (Ganeshpur to Dat Kali Temple) KM 16.00 to KM 33.00 (New Change KM 0.000 to 16.160).

# VERDICTUM.IN

2. Appeal No. 29/2021 has been preferred against order dated 27.08.2021 passed by the Divisional Forest Officer, Saharanpur, in pursuance of stage I clearance by the MoEF&CC dated 24.12.2020, permitting use of 47.7054 ha forest land (5.1893 ha Protected Forest and 42.5161 ha Reserve Forest) for non-forest purposes under Forest (Conservation) Act, 1980 (FC Act) and cutting of 8588 obstructing trees (5354 trees and 3234 plants), for widening and elevated corridor construction of NH 72A (Ganeshpur to Dat Kali Temple) KM 16.00 to KM 33.00 (New Change KM 0.000 to 16.160).

3. OA No. 240/2021 seeks similar relief. The same was earlier dealt with vide order of the Tribunal dated 06.10.2021. The Tribunal rejected the application inter alia with the observation that remedy of appeal had not been taken against stage I clearance granted by the Central Government under section 2 of the FC Act and such remedy could not be taken indirectly by filing an application under sections 14/15 of the NGT Act.

4. On appeal, vide order of Hon'ble Supreme Court dated 16.11.2021 in Civil Appeal No. 6497-498/2021, *Citizens for Green Doon vs. Union of India & Ors.*, the said order has been set aside and matter remanded for fresh consideration. It was observed that remedy of appeal was also available against order of DFO, Saharanpur dated 27.8.2021, allowing felling of trees. The said order had not been placed in public domain and produced for the first time before the Hon'ble Supreme Court by the respondents.

5. Extracts from the order of the Hon'ble Supreme Court is as follows:

“1 to 11. xxx .....xxx.....xxx.....xxx

12. *The fact of the matter as it stands today is that the permission granted by the DFO for felling of trees has been placed on record in the form of a letter dated 27 August 2021, as noticed above. In terms of the provisions contained in the circular dated 28 August 2021, the order for tree cutting and commencement of work of linear projects is to be treated as an order under Section 2 of the FC Act. Evidently, therefore, the order dated 27 August 2021 is amenable to the remedy of an appeal, which would now lie before the Tribunal under Section 16(e) of the NGT Act. That an appeal lies before the Tribunal is clarified by the terms of the circular itself. In view of the availability of an appellate remedy, the appellant has stated that it would be willing to pursue the remedy of an appeal which lies before the Tribunal in terms of the provisions which have been noticed above. However, it has been urged that until the appeal is disposed of by the Tribunal, a stay of further activities of tree felling ought to be granted.*
13. *The request for the grant of an order of stay by this Court restraining the felling of trees has been opposed on behalf of the respondent. Mr K K Venugopal, learned Attorney General urged that any order of injunction at this stage would cause serious obstruction in the implementation of the project and it should not be granted, particularly when requisite permissions have been obtained and necessary safeguards are in place to protect the wildlife.*
14. *Since the order dated 27 August 2021 is amenable to an appellate remedy under Section 16(e) of the NGT Act, as well as under the provisions of Section 2A of the FC Act, when read in the context of circular dated 28 August 2015, it would be appropriate to grant liberty to the appellant to do so.*
15. *While the remedy of filing an appeal to the appellant has become available as a result of the supervening developments which have taken place during the pendency of the present proceedings, namely the order dated 27 August 2021 being placed on the record of this Court, we must express our view in regard to the reasons which weighed with the Tribunal in rejecting the original application. The Tribunal was moved by the appellant by invoking the jurisdiction under Section 14, under which it has jurisdiction to entertain civil cases where a substantial question relating to the environment, including enforcement of any legal right relating to the environment, is involved and such question arises out of the implementation of the enactments specified in Schedule I. The enactments which are specified in Schedule I include the FC Act. Thus, where a substantial question relating to the environment is raised involving the implementation of the FC Act, even the original jurisdiction of the Tribunal under Section 14 could have been invoked.*

16. **The Tribunal was not justified in rejecting the application filed by the appellants under Section 14 by observing that the appellant was attempting to circumvent the remedy of an appeal under Section 16. The Tribunal's decision in the case of Vimal Bhai vs Union of India<sup>1</sup> has placed the matter beyond doubt, by noting that "[t]he cause of action for filing an Appeal would commence only from the date when such publication is made in the newspapers, as well as from the date when the forest clearance and permission to use the Forest land for non-forest purpose is displayed in the website of the concerned State Government or the MoEF, as the case may be". However, for the sake of clarity, we have set the legal position at rest in the discussion in the earlier part of this judgment.**
17. *The Tribunal rejected the application filed by the appellants also on the ground that as far as linear projects are concerned, a simplified procedure is applicable and a Stage-I approval itself is considered as working permission for the cutting of trees. Hence, the Tribunal held that if the approval has been validly granted, this would not be treated as a violation of law. **At that stage before the Tribunal, the order for permitting the felling of trees, which was passed on 27 August 2021 by the DFO, had not been placed on the record nor was it in the public domain. Hence, consistent with the provisions of the law as they stand, we are of the view that the Tribunal was in error in rejecting the challenge to the Stage-I clearance by the invocation of the remedy under Section 14.***
18. *For the above reason, we allow the appeals and set aside the impugned judgment and order of the Tribunal dated 6 October 2021, and restore Original Application No 240 of 2021 to the file of the Tribunal for a decision afresh. In addition, we also grant liberty to the appellant to challenge the permission which has been granted for the felling of trees by the DFO on 27 August 2021, in terms of the provisions of Section 16(e) of the NGT Act read with the provisions of Section 2A of the FC Act (together with the contents of the circular dated 28 August 2015).*
19. *As regards the question of stay, we are inclined to grant some breathing room to the appellant to move the Tribunal, so as to allow them to urge all the submissions which are available to them to challenge the orders for the felling of trees. We are at this stage desisting from making any observation on the merits, so as not to preclude the rights and contentions of the parties. However, in order to allow the appellant to file an appeal before the Tribunal, in terms of the liberty granted above, **there shall be an interim***

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<sup>1</sup> 2012 SCC OnLine NGT 77, paras 30-32

***order restraining the further felling of trees, which shall remain in operation until 26 November 2021. However, we specifically direct that the appellant shall, in order to place the nature of their objections beyond doubt, file brief written submissions before the Tribunal cataloguing their grounds of challenge. The Tribunal is directed to pass a reasoned order on the merits, with reference to each of the grounds of challenge which is raised before it by the appellant in the course of their written submissions. In view of the fact that the order dated 27 August 2021 has been placed on the record only during the course of the proceedings in this Court, we also direct that if the appeal is filed within a period of one week, the Tribunal shall entertain the appeal on merits and shall not reject it on the ground of limitation. The appeal shall be listed before the Tribunal on the next working day after the filing of the appeal by the appellant. The appellant would be at liberty to move the Tribunal for interim orders.”***

6. The appellant filed the appeal on 24.11.2021 which came up for hearing on 25.11.2021 and notice was issued to the opposite parties for their response. Thereafter, hearing was concluded on 2.12.2021 and order was reserved. Liberty was also given for filing written submissions within one week. We have considered the issues raised during hearing as well as written submissions filed.

7. We note later development, as emerging from reply of NHAI, that the same has now been placed on the website on 25.11.2021 followed by formal order of the State Government dated 27.11.2021 under section 2 of the FC Act. The appellant has accordingly filed I.A. No. 225/2021 to amend the appeal so as to challenge the said order. The amendment being formal and challenge being in substance on same grounds, the amendment is allowed and challenge is being considered accordingly.

8. NHAI, UOI and States of UP and Uttarakhand are common respondents in the application as well as in appeal. However, DFO,

Saharanpur was impleaded as party in appeal by the Tribunal vide order dated 25.11.2021 while issuing notice.

## **Appellant/Applicant's case**

9. Substance of grounds of challenge to the Forest Clearance is

- that the Forest Clearance has been granted on misleading information in Form A on the issue of details of the Wildlife in and around the forest land proposed to be diverted. It was wrongly stated that there was no endangered species. Even though in the application seeking approval for use of forest land for non-forest purposes, Form A, details of wildlife are specified, against column whether there was rare/endangered/unique species of wildlife, answer mentioned is none.
- There is no ecological impact study while granting the approval as required under the Forest (Conservation) Rules, 2003. The area is ecologically sensitive which requires careful scrutiny.
- The approval is against the National Forest Policy which requires that tree cover should not be treated merely as a resource but as National asset to be safeguarded for the sustained benefit to the community.
- The cost benefit analysis is erroneous by over valuing the benefit and under valuing the cost. The Reserved Forest is part of Shivalik Forest Division which falls in Eco Class V which means "Sub-tropical Broad-Leaved Hill Forests, Sub-Tropical Pine Forests and Sub-Tropical Dry Evergreen Forests" and calculation of value should have been on that basis.
- Compensatory Afforestation Scheme proposed in the present case involves planting of trees in areas which are not degraded. There is no idea in afforestation on dense forest land.
- No carrying capacity of the Doon Valley was conducted to ascertain sustainability of the expansion of the Highway. The city is overburdened and its resources are already depleted. It is at no. 31 out of 100 most polluted cities in the world.
- There is no Environment Impact Assessment of the project which is required when the project covers 210 kms while exemption is upto 100 kms.

- There is no Biodiversity Impact Assessment as required under Section 36(4) of the Biological Diversity Act, 2002.
- Mitigation proposals do not consider the guidelines on the subject of height of the underpass. In the present case, height is 6 mtrs. as against minimum 7 mtrs. required.
- Efficacy of mitigation measures has not been duly verified.

10. Both the matters came up for hearing on 25.11.2021. The Tribunal issued notice to the opposite parties to enable filing of response by them and continued the interim order granted by the Hon'ble Supreme Court. Accordingly, response has been filed by MoEF&CC, DFO, Saharanpur and NHAI.

## **Stand of the Respondents**

### **MoEF&CC**

11. The stand of the MoEF&CC is that the proposal for diversion of forest land in question for widening of road and construction of elevated road was received by the Regional Office of MoEF&CC at Lucknow vide letter dated 23.11.2020. The same was placed for consideration before the Regional Empowered Committee (REC) on 23.12.2020. In-principle approval was granted on 24.12.2020 after considering:

- i. Area Statement/Land Schedule, cost benefit analysis and muck disposal
- ii. NBWL (National Board for Wildlife) clearance

12. Additional condition for approval dated 24.12.2020 was that "As far as possible, maximum number of trees shall be translocated by the user agency, according to a detailed scheme for translocation of suitable plants, prepared in consultation with State Forest Department and the cost for

the same shall be borne by the user agency.” Compliance of in-principle approval was provided by the UP Government vide letter dated 24.06.2021 which was examined by IRO, Lucknow and vide letter dated 20.07.2021, Stage-II approval was granted.

13. Further proposal was received from Uttarakhand Government vide letter dated 31.08.2020 for diversion of forest land in favour of NHAI for Improvement, upgradation and construction of Ganeshpur-Dehradun road (NH-72A) in the State of Uttarakhand (Km 16.115 to 19.746) to 4 lane configuration in District Dehradun. Earlier, Joint Inspection was carried out by Forest Department Uttarakhand and Project Director, NHAI on 17.07.2020. According to the joint inspection report, the total numbers of 2572 trees were to be felled on the proposed land for the project. The State Government vide letter dated 21.09.2020 submitted that the proposal in question is not part of Rajaji National Park. The proposed project falls in the Eco Sensitive Zone (‘ESZ’ for short) of Rajaji National Park and a separate proposal was sent by the State Government seeking clearance of NBWL (National Board for Wildlife) on instructions of the Government of India, New Delhi. REC considered Reduce Length Advice Option 3 that is the instant proposal of road alignment will reduce length, avoid huge hill cutting and generate less muck & disposal. Further, it comparatively facilitates a smaller number of trees-removal with minimum forest land diversion and enables safe passage of wild animals. It was noted that in all 2572 trees including 24 saplings are proposed to be felled in the project. Forest land proposed for diversion is located within 1 km of Protected Area but no rare and endangered species of flora and fauna have been reported in the area. Regarding the movement of elephants in the area, it was informed that a sufficient passage plan has already been provided in the proposal. It was informed that the proposed alignment had minimum



number of affected trees which was meeting the requirement of the project. According to the National Tiger Conservation Authority (NTCA), the road falls outside the Rajaji Tiger Reserve but the alignment passes along the western boundary of Rajaji Tiger Reserve. Further, the proposed road does not pass through any delineated Tiger Corridor. The recommendation under Section 38 (O) (1) (g) of the Wild Life (Protection) Act, 1972 is not mandatory in this case. Moreover, the user agency (NHAI) has been advised to take appropriate mitigation measures for maintaining the habitat connectivity and animal passage as suggested by the Chief Wild Life Warden (CWLW), Uttarakhand. (The copy conditions imposed by the NTCA and CWLW, Uttarakhand. Proposal of improvement upgradation and construction of Ganeshpur-Dehradun road (NH72A) in the State of Uttarakhand (km 16.115 to 19.746) to 4 lane configuration was recommended by the Standing Committee of National Board for Wild Life in its 60<sup>th</sup> meeting held on 05<sup>th</sup> January, 2021.

## **Stand of DFO, Saharanpur**

14. The stand of the DFO, Saharanpur is that the impugned order was passed in light of approvals already granted by the Central Government on 23.12.2020 and guidelines of the Central Government dated 28.08.2015 and 27.09.2017 to the effect that Stage-I permission itself is a working permission for cutting of trees and commencement of work. In the present case, after Stage-I Clearance by the Central Government on 23.12.2020, Stage-II Clearance was granted on 20.07.2021 and Wildlife Clearance was granted by Standing Committee of National Board for Wildlife by its order dated 01.02.2021. All forest and wildlife clearances by the competent authorities have been accorded to the project after due scrutiny. The mitigation measures as suggested by the study conducted by the Wildlife

Institute of India, Dehradun and proposed by CWLW, Uttar Pradesh and as mandated under wildlife clearance accorded by NBWL are being complied with by the user agency.

## **Stand of NHAI**

15. Reply of the NHAI is that all the requisite approvals have been issued by the statutory authorities after conducting detailed project specific survey manually as well as using camera and also data base available with them. The Proposal was processed after scrutinization and recommendation at various levels of State Govt. and Central Govt. and approval was granted on the recommendation of the quasi-judicial bodies - Regional Empowered Committee (REC), State Board for Wildlife (SBWL) and Standing Committee of National Board for Wildlife (NBWL). The anticipated impacts as per site condition were duly taken care as per respective Acts, Rules, provisions and guidelines issued by regulatory bodies to safeguard any kinds of ecological (Flora, Fauna and Land in question) damage. **Working permission was obtained as per the due procedure and thereafter uploaded on the Saharanpur District Website on 25.11.2021. Moreover, as per the Forest (Conservation) Act, 1980, the State Government has also issued the final order dated 27.11.2021 under Section 2 for permitting the use of land for the proposed project alongwith the conditions and safeguards imposed by the Central Government while according the Stage-I and Stage-II clearance.**

16. The present project is a part of Bharatmala Pariyojana which is the umbrella program for National Highway development focusing on improving the efficiency of road freight and passenger movement across the country by bridging critical infrastructure gaps in the highway

infrastructure, enabling economic development and prosperity of the Nation. The first phase of the flagship program was approved by the Cabinet Committee on Economic Affairs in 2017 for development of world class corridors of length 35,800 km at a total capital cost of INR 5.35 lakh crore. Out of total 34800 km, main arterial roads are Expressways and Economic Corridors across the Country totalling 9800 km. Delhi Dehradun is an important economic corridor so identified. The proposed Delhi-Dehradun Expressway of 210 KM which is being developed to provide seamless connectivity between Dehradun (Capital of Uttarakhand State) to Akshardham in the National Capital New Delhi, namely “Improvement, Up-gradation & Construction of Ganeshpur-Dehradun Road (NH-72 A) in the State of Uttar Pradesh (K.M. 0.0 to K.M. 16.160) and Uttarakhand (K.M. 16.160 to K.M. 19.785) to Four/Six Lane Configuration”.

17. The project has three segments – two segments each of 8 km within the State of Uttar Pradesh (around 16 km) and the rest falling within the State of Uttarakhand. This stretch of the NH-72A passes through the reserved forest of Shivalik Forest Division of Uttar Pradesh State and Dehradun Forest Division of Uttarakhand State. These areas are wildlife rich as per report of WII and data base available with concerned forest division. This is close to Rajaji National Park. The proposal envisages improvement and development of existing Intermediate / 2 Lane road into a 4 - lane road within restricted Right of Way (RoW) of 25-metres which is bare minimum requirement for project development. Project also involves 12 km long elevated corridor, 340m tunnel along with its approaches, 2 nos. of Elephant Under passes (2x200m) along with 6 underpasses for other animals for bare minimum tree felling, safeguard of animals and also conservation of their habitats. Out of 20 km section from Ganeshpur to

Dehradun, 18.5 km is forest area and out of this forest area, 15 km falls in UP and 3.5 km falls in Uttarakhand. In view of the existing road 20 KM (Ganeshpur to Dehradun) falling in Eco-sensitive zone (ESZ) of Rajaji National Park (“RNP”) and at a few stretches close with the boundary of Rajaji National Park, the NHAI preferred to conduct study for Wildlife mitigation from expert body Wildlife institute of India (“WII”), Dehradun during initial stage of project planning and also consulted with State and Central Govt. regarding all statutory clearances. NHAI designed the road as per suggestion and recommendations of statutory Organizations including Wildlife Institute of India. This study was conducted by Scientist Dr. Vibhas Pandav, Department of Endangered Species Management, WII, Dehradun and the detailed report was submitted by WII on 04.08.2020.

18. The project falls in two states namely State of Uttar Pradesh (UP) and State of Uttarakhand (UK). Ministry of Environment, Forest and Climate Change (MoEF&CC) granted In-principle approval under Section 2 of Forest Conservation Act (FCA), 1980 on 29.9.2020 for diversion of forest land from Dehradun Forest Division, State of Uttarakhand for the stretch (km 16.160 - km 19.785) (Package 3). The In-principle approval (Stage I) for the stretch (km 00.00 - km 16.160) falling under Shivalik Forest Division, Uttar Pradesh (Package 1 & 2) has been granted by MoEF&CC on 23/24.12.2020 under the Forest (Conservation) Act, 1980. On 31.12.2020, DFO Shivalik issued a letter communicating Stage-I approval dated 23/24.12.2020 of the UP portion to the answering Respondent/NHAI. On 05.01.2021, the 60th meeting of the Standing Committee of the National Board for Wildlife was held and after due deliberation, the Wildlife clearance was granted by the Standing Committee for project road (including both sections i.e. Road section located in Uttarakhand & Uttar Pradesh) for Package 1, 2 & 3. True copy

of 60<sup>th</sup> meeting dated 05.01.2021 of the Standing Committee of the National Board for Wildlife enclosed with letter dated 22.01.2021 issued by Ministry of Environment, Forest & Climate Change. On 07.01.2021, the answering Respondent sought working permission from DFO, Dehradun, Uttarakhand and annexed the compliance of all the conditions stipulated in Stage-I clearance letter. On 22.04.2021, the answering Respondent apprised DFO, Shivalik Forest Division, Saharanpur, UP that all the compliance stipulated under Stage-I have been done and accordingly requested to grant working permission as per guidelines dated 27.09.2017 issued by MoEF&CC. On 20.07.2021, the MoEF&CC issued Stage-II final approval under Section 2 of the Forest (Conservation) Act, 1980 for the UP stretch, granting permission for tree felling of total no. of 8588 trees and plants (5354 trees and 3234 plants). On 10.08.2021, Divisional Logging Manager, UP Forest Corporation Meerut wrote a letter to answering Respondent demanding Rs.45.54 lakh for cutting of trees in the UP stretch. In response, the answering Respondent vide its letter dated 13.08.2021 wrote to Divisional Logging Manager intimating the deposition of Rs.45.54 lakh for cutting of trees. On 27.08.2021, the Office of DFO, Shivalik Forest Division, Saharanpur, vide letter no. 506/14-10 granted permission to start work for the UP stretch of the project to Project Director, PIU-Vasant Vihar, Dehradun. On 27.08.2021, the DFO, Shivalik Forest Division, Saharanpur vide letter no.509/14-10 also intimated to Divisional Logging Manager, UP Forest Corporation, Meerut that the answering Respondent has already deposited the amount of demand raised for the purpose of logging and transportation and directed to start the work of logging of trees with utmost priority considering the importance of the project. Diversion of forest land for non-forest purpose is provided under Section 2(ii) of Forest Conservation Act, 1980. The non-

forest purpose is divided in two categories of activities, i.e. Linear projects and Localized/Non-linear projects.

(i) Linear projects: Rule 2 (cd) of Forest (Conservation) Rules 2003 defines linear projects as all projects involving strip / linear diversion of forest land for purposes such as roads, railways lines, pipelines, transmission lines etc. This type of project involves marginal area forest land and major area of non-forest (Private & Govt. land).

(ii) Localized/Non-linear projects: wherein diversion of major forest area from one or two/three forest divisions as per activity and requirement of the project which involves all the felling of trees for the proposed diversion area, hence, impact is appreciable extant for that area. Similarly, the impact on wildlife, if any, is also major concern.

19. The present project falls under the Linear project category as the proposed highway alignment from Ganeshpur to Dehradun of 20 km is carefully chosen near river bed and designed as Elevated highway (approx. 12 km long) to minimize footprint on ground. In this 12 km section passing in river bed/close to river bed, the cross slope across the project highway is about 5% which is far less than 25% and hence, is classified as plain terrain.

20. Power for grant of approval for non-forest purpose for the linear project has been delegated to regional offices of MoEF&CC vide Gazette Notification dated 10th October, 2014, in order to expedite the linear infrastructure of the country for sustainable development. In supersession of guidelines dated 07.05.2015, MoEF&CC vide notification dated 28.08.2015 issued fresh guidelines for diversion of forest land for non-

forest purpose under Forest (Conservation) Act, 1980 wherein a simplified procedure is detailed for grant of permission for felling of trees standing on forest land to be diverted for execution of linear project. The relevant para 2 is extracted hereunder-

*“2. Accordingly, in supersession of this Ministry’s, said letter/guidelines of even number dated 7th May, 2015, I am directed, to say as below:*

- (i) With a view to facilitate speedy execution of projects involving linear diversion of forest land such as laying of new roads, widening of existing highways, transmission lines, water supply lines, optic fiber cabling, railway lines etc., in-principle approval under the Forest (Conservation) Act, 1980 (FC Act) issued by the Central Government may be deemed as the working permission for tree cutting and commencement of work, if the required funds for compensatory afforestation, net present value (NPV), wildlife conservation plan, plantation of dwarf species of medicinal plants, and all such other compensatory levies specified in the in-principle approval are realised from the user agency and where necessary, for compensatory afforestation, transfer and mutation of non- forest/ revenue forest land in favour of State Forest Department is affected;*
- (ii) After the afore-mentioned compensatory levies specified in the in-principle approval are realised from the user agency and where necessary, for compensatory afforestation, transfer and mutation of non-forest /revenue forest land in favour of State Forest Department is affected, the State Government or a Senior Officer not below the Rank of a Divisional Forest Officer, having jurisdiction over the forest land proposed to be diverted, duly authorized in this behalf by the State Government, shall pass an order for tree cutting and commencement of work of a linear project in forest land for a period of one year. The Central Government may extend the permission for one more year subject to submission of reasonable progress report from the State Government as regards to the steps taken to comply with the remaining conditions stipulated in the inprinciple approval.*
- (iii) No non-forest activity in the forest area that is covered under Section 2 of the FC Act would be permitted and carried on in any manner whatsoever unless an order specified in para (ii) above has been passed by the competent authority of that State Government and is placed in the public domain by putting it on its website and all other requirements in accordance with law are complied with;”*

21. The DFO is empowered on behalf of State Government of UP to grant working and tree felling permission for linear projects, after realization of funds from the user agencies in favour of ADHOC CAMPA account of the State Government, which is in compliance to the conditions stipulated in the In-principle approval (Stage-I) granted by MoEF&CC. Hence, in the instant case, Govt. of UP vide Order dated 16.07.2015 empowered all the DFOs in the State of Uttar Pradesh to grant working/tree felling permission on behalf of State Government. Reference is also made to MOEF&CC Circular F.No.11-158/2017- FC dated 27.09.2017 by which power was granted to DFO (authorized by State Government) to issue working permission and order for felling of trees once the conditions stipulated in Stage-I FC are complied by the User Agency. The relevant extract is as under-

- “2. *In this regard it is clarified that as per the above referred guidelines read together the in-principle approval under FC Act may be deemed as the working permission for tree cutting and commencement of work if the required funds for Compensatory Afforestation, NPV, Wildlife Conservation Plan and all such compensatory levies specified in the in-principle approval are realized from the user agency and the transfer and mutation of non-forest land/ revenue forest land in favour of State Forest Department has been given effect to.*
3. *Such working permission and order for felling of tree will be issued by the Divisional Forest Officer, if authorised by the State Government by an order, once the conditions stipulated in Stage — I FC are complied by user agency and required compensatory levies specified in the in-principle approval are realised from the user agency and the transfer and mutation of non-forest land/ revenue forest land in favour of State Forest Department is effected.”*

22. The statutory scheme for granting of forest clearance was further detailed in the Handbook of Guidelines issued by MoEF&CC on 28.03.2019 for effective and transparent implementation of the provisions of Forest (Conservation) Act, 1980. The said guidelines have been issued in supersession of all guidelines issued by MoEF&CC in the past, and



provides a procedure of three stage approval for the grant of forest clearance as under:

- i. In-principal approval (Stage-I)
- ii. Final approval (Stage-II)
- iii. State Govt. Order under Section 2 of Forest (Conservation) Act, 1980 incorporating all the conditions stipulated by Central Govt. on the recommendation of State Govt.

23. The relevant provisions of 2019 guidelines are detailed below:

- i. Part-A/Para 6 of Forest (Conservation) Rules, 2003 amended upto August, 2017 the guidelines deals with Submission of proposal seeking approval of the Central Government under section 2 of the Act. It clearly stipulates step-by-step procedure for diversion of forest land and felling of trees for non-forest purpose under Section 2 of the Forest (Conservation) Act, 1980.
- ii. Part-A/Para 7 of the guidelines deals with Processing of proposals received by the Central Government. It provides the procedure for processing, appraisal and grant of clearance by the Central Government
- iii. Chapter No. I/Para 1.4 & 1.5/Pg.38-39 of handbook clearly stipulates that the approval for non-forest purpose will be granted by the Central Government and subsequently the State of UP Government will issue the diversion order. Basically, three steps are involved namely Stage-I, Stage-II and State Government Order.

Para 1.4 and 1.5 are extracted below-

**“1.4. Approval in two stages: MoEF&CC accords prior approval on proposals of the State/UT Government in two stages: first In-principle or Stage-I approval, and second on compliance to the conditions of the in-principle approval, final or Stage-II approval. Thereafter, as and when the State**

Government decides to permit the use of the forest land for non-forest purpose, it has to pass order to that effect along with the conditions and safeguards imposed by the Central Government while according Stage-I and Stage-II clearance (Ref: NGT principal bench order dated 7th November 2012 in appeal no. 7 of 2012).

**1.5. No additional condition after Centre issues final approval:** While issuing the diversion order, the State/UT government shall not impose any additional condition over and above the conditions stipulated by the Central government in their approval. However, subsequent to approval granted by the Central Government under FC Act, if the State/UT Government feels exceptional/unforeseen circumstances warrant imposition of additional condition(s), prior approval of the Central Government must be sought by the concerned State/UT Government justifying imposition of such additional condition(s).”

iv. The MoEF&CC directed States/UT for granting working permission and felling of trees after realization of all the levies from User Agencies in ADHOC CAMPA Fund of the concerned State Government account online. The DFO or any senior official of the State Government only can issue working permission of tree felling after realization of funds (**Chapter 11/Pg.84**). The relevant para 11.2 is extracted hereunder-

*“11.2 Any proposal for linear projects such as roads, railway line, transmission lines, etc. need to be processed in their entirety for comprehensive assessment of requirement of forest land and consequences if approval for any forest land is not granted. No work on forest land shall be taken up unless diversion of forest land is ordered by the concerned State /UT Government after obtaining approval of the Central Government under the Forest (Conservation) Act, 1980.*

*Provided that consequent to grant of Stage I approval in respect of linear projects such as laying of new roads, widening of existing highways, transmission lines, water supply lines, optic fiber cabling, railway lines etc. by the Central Government under FCA, the State Government or a Senior Officer not below the Rank of a Divisional Forest Officer, having jurisdiction over the forest land proposed to be diverted, duly authorized in this behalf by the State Government can pass an order for tree cutting and commencement of work of a linear project in forest land for a period of one year.*

*Such orders shall be passed only after full realization of funds for compensatory afforestation, Net Present Value (NPV), wildlife conservation plan, plantation of dwarf species of*

*medicinal plants, and all such other compensatory levies, specified in the Stage I (inprinciple) approval from the UA, and wherever applicable, transfer and mutation of non-forest/ revenue forest land in favour of State Forest Department.”*

24. Delhi Dehradun Highway including NH-72A is an important highway connecting Delhi, Haryana and Western UP to Dehradun and higher reaches of Himalayas through Dehradun. Hence, **the capacity augmentation of this highway is not only important for connecting State Capital of Uttarakhand with National Capital, but is also vital for Strategic defence purpose for timely and seamless movement of Army/ warheads to higher reaches of Himalayas in Country Northern border. The present stretch carries traffic more than 20,000 equivalent passenger car units (PCUs) per day which is much beyond the 2-lane capacity of 10500 PCU, necessitating urgent upgradation of highway capacity. As a result, the travel time between the two cities on the existing Highway (NH-72A) currently is 6-7 hours in the Non-Peak Hours and more than 8 hours during the Peak Hours. The average travelling time between Ganeshpur to Dehradun (20.7KM Stretch) is 45 – 60 mins during Tourist/Yatra season, which extends to 2 hours leading to frequent traffic jams, resulting in significant increase in Air & Sound pollution in the area and also safety hazards to road users. Longer Travel time of vehicles in forest zone means longer time of disturbance to wildlife also.** Another major reason necessitating the development of the project site is the poor geometrics of the existing road which leads to occurrence of road accidents in this stretch. There are total 120 horizontal curves & about 50% of them are deficient in terms of geometrics as per NH standards, catering for less than 30 KM/hour speed. Presently, there is no safe passage for wild animals to cross the road as both side of existing road is forest, and due to

presence/movement of wild animals on the road, they are vulnerable to accidents and several animals are killed from the vehicles while crossing the road. However, the proposed 12 km long elevated highway in the instant case is the longest wildlife corridor, not in India but in Asia too, is an example of co-existence of development and vis-a-vis preserving nature.

25. With the present proposed development of the site, the travel time from Ganeshpur to Dehradun would be seamless and would also ensure safety of wild animals. With ease of traffic movement due to project highway, there would be reduction in carbon emission in forest area along with disturbance to wildlife. The NHAI carried out detailed study of the Project area between Ganeshpur to Dehradun after extensive interaction with WII, Forest and wildlife Authorities of State of Uttar Pradesh and Uttarakhand and also with Central Govt. Based on the survey, a proposal was made of elevated structure in substantial length of the project (12 km) along river bed with sufficient vertical clearance for animals considering the opening required for largest species present in this landscape (Asian elephants) as per guidelines of MoEF&CC “Eco-friendly measures to mitigate impacts of Linear Infrastructure on Wildlife”. The alignment was so chosen was to avoid any part of the Rajaji National Park and to minimize cutting of trees. WII, Dehradun conducted a detailed scientific study during 25.04.2020 to 04.07.2020 to identify all the animal trails on both sides of the project road and submitted a report dated 04.08.2020. To conduct the study, 81 camera traps were deployed along the identified trails to detect wild animals using the area and crossing events. Detailed study was carried out in the entire 20 KM stretch of NH-72 between Ganeshpur to Dehradun. The road in this 20 km stretch has been classified into three distinct zones based on their geographical features

and sensitivity of fauna. Site specific zoning map prepared by WII is enclosed.

- Zone I (Length: 4.9 km) from Ganeshpur to Mohand, it is a flat terrain and lies entirely in Shivalik Forest Division (Uttar Pradesh).
- Zone II (Length 13.3 km) Mohand (U.P.) to Asarodi Police Checkpost in Uttarakhand.
- Zone III (Length 1.8 km) Asarodi police checkpost upto the edge of Mohbewala settlement in Doon valley, Dehradun.

26. The findings of Wildlife Institute of India are that 25 different Wild species were reported to be crossing this highway at different locations. The result of all the wildlife animals which are crossing in this zone are furnished on Page No.7 of the report of WII. True copy of the Report of WII is annexed and marked as Annexure R-18 (Pg.324-382). The Proposed mitigation measures are furnished at internal Page No.19 of the report of Wildlife Institute of India. After detailed study of different wildlife crossings, Wildlife Institute of India proposed a total length of openings/elevated structures in a length of 10.3 km in the stretch falling in UP portion & at least 2 openings of minimum 200 m length each in the State of Uttarakhand. However, NHAI has provided more length & number of openings over and above the suggestions of WII. It was envisaged to construct one 2 lane tunnel in the project highway to facilitate the free movement of animals over it. The tunnel will be adjacent to existing 2 lane tunnel in 340m length near Daat ki devi Temple located on the border of UP / Uttarakhand. The approach to tunnels (approx. 2.16 km putting together either side of the tunnel) have to be taken along hill cutting as per topography of the area and engineering requirement for tunnel. It is pertinent to state that except tunnel and its approaches, nowhere else the

topography along proposed highway comes under category of mountainous terrain. The length of section after the end of approach to tunnel towards Dehradun side is about 2.8 km, which passes through Plain/rolling terrain. Whereas 2 Elephant Underpasses & 3 animal underpasses are designed to enable free and safe passage of animals including elephants beneath the Highway. The elevated highway will prove to be a safe passage for Asian Elephants to cross the road, since presently due to heavy traffic there is more scope for the animal man conflict. For construction of elevated corridor or at ground road except at curves & cutting section, 25m width of land is required. Hence, in both the conditions, almost same number of tree felling shall be needed. To minimize the number of trees cutting, the approaches of the EUPs have been proposed on the Retaining Earth walls as against the general practice of sloping embankments. As per the WII report, it was suggested to have an 850m integrated structure with at least two openings of 200m each at designated sites in Uttarakhand. In compliance to this suggestion, from km 17.940 to km 19.785 (Total length 1.885 KM) is raised including 2 Elephant Underpasses along with its approaches. Therefore, out of the 3.5 km section in Uttarakhand, 1.88 km has already been planned to be raised above natural ground level. In the remaining portion of 1.6 km of the highway, 3 Animal Underpass, 3 Minor bridges, 5 Box culverts & 8 Pipe culverts have also been provided which shall be used by different animals and reptiles etc. for crossing beneath the highway. Entry in Uttarakhand is proposed through a tunnel. The geometry of the highway after tunnel is sloping towards Dehradun. The project has already been designed on limiting gradient for elevation profile. Any further increase in elevation will result in extending the approaches towards Dehradun city inside. The said WII Report (internal page 20) mentions presence of wild animal species in

the larger landscape including Haryana Himanchal Pradesh & Uttarakhand area. **The species identified by the NHAI as per Schedule-I of the Wild Life (Protection) Act, 1972 are 'Common Leopard, Leopard Cat, Kalij Pheasant, Peafowl and Rusty Spotted Cat'. They are not categorized under endangered as per definition of International Union for Conservation of Nature (IUCN). The International Union for Conservation of Nature is an international organization working in the field of nature conservation and sustainable use of natural resources.** Presently the species crossing the existing ground level road causes human-animal conflict. In the proposed project, the road is either elevated or raised along with tunnel and its approaches which will ensure minimal human wildlife conflict. Normally in Hills, answering Respondent opt for widening of Highways through cutting of hills, requiring huge cutting of earth/rock and trees. However, in the present project, NHAI initially opted for elevated highway from Mohand (6 km from Ganeshpur) till the approach to tunnel at Dat ki devi, i.e. in about 8 km. Since, WII has suggested to provide elevated road from start of forest till Mohand also to enable crossing of animals beneath the highway in this 4.5 km section. NHAI agreed with the proposal and provisioned for elevated highway from start of forest till the approach to the tunnel i.e. in 12 km length. Sufficient clearance has been kept all along the elevated highway to cross the animals including Asian Elephant beneath the highway in entire 12 km. After tunnel approach end towards Dehradun, the highway is kept above ground level to provide 2 elephant underpasses of 200m each and other 3 animal passes. All animal passages are designed as per suggestions and recommendations of WII, State Government and Central Government. The proposed road has saving of about 30,000 trees, saving of about 9 lakh tons of earth/rock cut as

compared to widening of existing road in hills. Further, animals are free to move beneath the highway avoiding complete man animal conflicts. Further, noise barriers have been provisioned in elevated section along the highway to avoid disturbance of animals from vehicle noise. The proposed 20 km project comprising of elevated road and tunnel is about Rs.1500 Cr. as against about Rs.500 Cr. for widening of existing road in hills in normal case. The Highway section between Ganeshpur to Dehradun is environment and Wildlife friendly, requiring least felling of trees and least hill slope cut, because of which the capital cost towards the project is very high. Instead of adopting the traditional approach of widening of existing road in hills resulting into massive cutting of hills and trees at quite lesser cost and with no respite to animals crossing at grade, the NHAI has adopted the design principle which is conducive to Forest, Environment, Wildlife and Road users. All suggestions from WII Dehradun, Forest and wildlife Authorities of UP & Uttarakhand and also from the Central Govt. have been duly incorporated in project design elements to protect the entire landscape and ecology in and around the project corridor. Proceedings for the Compensatory Afforestation are being followed as per chapter 2, Part B of Handbook of guidelines for effective and transparent implementation of the provisions of Forest Conservation Act, 1980 issued by Government of India, Ministry of Environment, Forest and Climate Change. That as the said project is covered under clause 2.5 of the said chapter, which deals with “Special provisions for CA for certain categories of projects”, therefore in lieu of 9.6224 ha of forest land proposed for diversion, compensatory afforestation has been proposed on 20 hectare of degraded Forest land which is twice in extent of area of diverted forest land. This 20 hectare patch for compensatory afforestation has been proposed in Carbery compartment of Malhan Range in Dehradun Forest



Division. As per the norms of planting 2000 plants per hectare under compensatory afforestation, total 40000 (Forty Thousand) plants will be planted on proposed Compensatory Afforestation site against 2572 number of trees (including Sal trees) proposed to be felled, for single tree to be felled, 15 new saplings will be planted. Forest Division, Dehradun is responsible for the maintenance of the Sal trees. The replanting of Sal trees will not be carried out as artificial regeneration of Sal trees has not been successful due to various biotic and anthropogenic factors. Thus, there will be planting of local native species under compensatory afforestation scheme. Further, the plantation activities will not be carried out in Rajaji National park in fact, it will be done in the Degraded Forest land situated at Carbary compartment of Malhan Range in Dehradun Forest Division of Dehradun district only. The proposed planting site is located at an aerial distance of approx 6 km from outer boundary of Rajaji National Park and 6.012 Km from the site where trees are to be felled.

27. NHAI has taken utmost care in deciding project elements considering concerns of flora and fauna in consultation with expert Wildlife Institute, RNP and State Government Forest/Wildlife officials of both the States, which has resulted in cutting of lesser no. of trees, avoiding cutting of hills to great extent, enabling crossing of animals beneath the highway. This stretch of Highway is setting an example of co-existence of development and preserving nature, in fact highway would be complementing the Wildlife as compared to existing highway.

28. The abundance of Wildlife in and round the project corridor is found as per report of WII. The listed species as per WII report and the site inspection report of concerned forest officials, implies that the wildlife does

not seem to fall under category of endangered species as per classification/categorization of species mentioned above.

29. Site inspection was carried out by the DFO (Saharanpur, UP) on 09.11.2020 who did not find any endangered species during inspection, which is in consonance with the study carried out by WII. It may be noted that the Conservator of Forest (UP) also did not find any endangered species during the site inspections dated 11.11.2020. Hence, as per procedure, in the Form A (para "8 v") filled by concerned DFO for grant of forest clearance, the DFO has mentioned that no endangered species is found though the area has an abundance of wildlife. It is pertinent to mention that while recommending the proposal for approval, the DFO has mentioned therewith the list of wildlife species which is found in this area. Considering the report of Wildlife Warden and the project design elements, State wildlife Boards of UP and Uttarakhand have recommended the proposals to National Board of Wildlife (NBWL) and, Central Government had also accorded approval on the recommendation of NBWL. With the planning of road as elevated and tunnel, all species of animals including endangered can freely pass beneath the elevated road/ over the tunnel, without the danger of hitting with vehicles, thus avoiding complete man-animal conflict. Due scrutiny has been undertaken in the process of grant of Wildlife Clearance by the Experts in the National Board of Wildlife. Presence of wildlife species in and around the project have been duly noted but the said species are not in the category of endangered species as such. Ecological impact has been duly considered by the REC particularly the proposed compensation of the ecological loss as mentioned in the Cost Benefit Analysis. Forest Policy has been duly considered and the project has been approved having regard to the benefit thereof to the public at large. Compensatory Afforestation is as per guidelines is provision for the

replacement of causalities so as to reach the goal of survival of 85-90%. The carrying capacity has been considered to the extent required. Its major component i.e. current traffic due to increased commercial activities has been taken into account. The project will add to the existing capacity to carry the traffic. **There has been Environmental Impact Assessment in the form of EIA/EMP which are part of DPR. Even though the project is exempted from EIA Notification dated 14.09.2006 vide Notification dated 22.08.2013.**

30. The Biodiversity Impact Assessment is not applicable to development of a highway in view of Section 23 of the Act as there is no commercial utilization of bio-resources. Mitigation measures are as per guidelines for Conservation of Wildlife which have been duly verified by the REC, as already mentioned. There are wider underpasses with light and sound barrier, fencing, increased span and heights of minor, major bridges and including culverts.

### **Summary of river contentions**

31. Rival contentions of the parties are clear from following table based on the pleadings:

<b>Sl. No.</b>	<b>Points raised by the appellant</b>	<b>Response of the NHAI</b>
1	<ul style="list-style-type: none"> <li>that the Forest Clearance has been granted on misleading information in Form A on the issue of details of the Wildlife in and around the forest land proposed to be diverted. It was wrongly stated that there was no endangered species. Even though in the application seeking approval for use of forest land for non-forest purposes, Form A, details of wildlife are specified, against column whether there was rare/endangered /unique species of wildlife, answer mentioned is none.</li> </ul>	<p>Details of the wildlife have been duly given though it does not fall in the category of endangered species which is not separately defined. The State Board of Wildlife scrutinized the proposal and made recommendation which has been approved by the National Board of Wildlife.</p>
2	<ul style="list-style-type: none"> <li>There is no ecological impact study while granting the approval as required under</li> </ul>	<p>REC duly examined the details of flora and fauna in and around the</p>

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	<i>the Forest (Conservation) Rules, 2003. The area is ecologically sensitive which requires careful scrutiny.</i>	<i>project based on DSS software developed by SFI as well as information furnished by the State and DGPS map of the corridor. Cost benefit analysis is as per MoEF&amp;CC guidelines dated 01.08.2017.</i>
3	<ul style="list-style-type: none"> <li><i>The approval is against the National Forest Policy which requires that tree cover should not be treated merely as a resource but as National asset to be safeguarded for the sustained benefit to the community.</i></li> </ul>	<i>Approval is as per National Forest Policy. REC has duly considered the entire data in the light of said policy.</i>
4	<ul style="list-style-type: none"> <li><i>The cost benefit analysis is erroneous by over valuing the benefit and under valuing the cost. The Reserved Forest is part of Shivalik Forest Division which falls in Eco Class V which means "Sub-tropical Broad-Leaved Hill Forests, Sub-Tropical Pine Forests and Sub-Tropical Dry Evergreen Forests" and calculation of value should have been on that basis.</i></li> </ul>	<i>Cost benefit analysis is based on MoEF&amp;CC guidelines and due care has been taken to compensate ecological loss. NPV calculation is as per norms.</i>
5	<ul style="list-style-type: none"> <li><i>Compensatory Afforestation Scheme proposed in the present case involves planting of trees in areas which are not degraded. There is no idea in afforestation on dense forest land.</i></li> </ul>	<i>Proposed compensatory afforestation is as per norms and monitoring can be done through satellite to ascertain growth, health, survival and maintenance of the forest. Suitability of the land has been checked by DSS analysis.</i>
6	<ul style="list-style-type: none"> <li><i>No carrying capacity of the Doon Valley was conducted to ascertain sustainability of the expansion of the Highway. The city is overburdened and its resources are already depleted. It is at no. 31 out of 100 most polluted cities in the world.</i></li> </ul>	<i>Carrying capacity has been duly kept in mind and 4 lane highway has been found necessary to meet the traffic requirement.</i>
7	<ul style="list-style-type: none"> <li><i>There is no Environment Impact Assessment of the project which is required when the project covers 210 kms while exemption is upto 100 kms.</i></li> </ul>	<i>EIA/EMP is part of DPR even though Notification dated 14.09.2006 is not applicable.</i>
8	<ul style="list-style-type: none"> <li><i>There is no Biodiversity Impact Assessment as required under Section 36(4) of the Biological Diversity Act, 2002.</i></li> </ul>	<i>Biodiversity impact assessment is required not in view of Section 23 of the Biodiversity Act.</i>
9	<ul style="list-style-type: none"> <li><i>Mitigation proposals do not consider the guidelines on the subject of height of the underpass. In the present case, height is 6 mtrs. as against minimum 7 mtrs. required.</i></li> </ul>	<i>Mitigation measures are based on study by WII. Accordingly, 12 km of elevated corridor is proposed. Mitigation measures are higher than guidelines on the subject.</i>
10	<ul style="list-style-type: none"> <li><i>Efficacy of mitigation measures has not been duly verified.</i></li> </ul>	<i>Efficacy of the mitigation measures is based on independent assessment by the REC. Earlier such</i>

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	<i>underpasses have been constructed at other places, including at Pench.<sup>2</sup></i>
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## Written Submissions

32. In the written submissions filed by the appellant, submissions already made have been reiterated. In the written submissions filed on behalf of the NHAI, apart from reiterating the submissions already made, there is a further explanation about the limitation of 7 meters on the width of the carriageway, as follows:

*“18. The grievance of the Applicant in respect of UK stretch, is that in terms of MoRTH Circular dated 23.03.2018 [Pages 94-96/OA], the maximum width of carriageway in hilly areas ought to be 7 metres with paved shoulders.*

*19. The reliance placed on the Circular dated 23.03.2018, is misplaced for the following reasons:-*

- i. The said Circular limits the width of carriageway to 2 lanes plus paved shoulders in "mountainous terrain" typically in context of higher elevation (for e.g., Char dham highway passing entirely in Himalayan region) so as to restrict the hill slope cut, cutting of trees, etc.*
- ii. The mountainous/hilly terrain is classified as per Indian Road Congress (IRC) codes as having cross slope more than 25% i.e., 1(V):4(H) across the highway alignment, whereas the terrain having cross slope below 25% is classified as Plain/rolling terrain.*
- iii. As per IRC, a Highway project passing in different terrain shall be designed based on maximum classification of terrain type in a highway alignment. In case of stretches where hilly terrain intervenes for short and/or isolated stretches in plain/rolling terrain, the criteria for such stretches shall be as per standards for plain/rolling terrain. The uniform application of design standards is desirable for safe and smooth flow of traffic. (ref: Clause 6.1 of IRC:52 - 2019). Therefore, the entire Delhi Dehradun Highway has been designed considering "plain/rolling terrain".*
- iv. The total length of the proposed Delhi Dehradun Economic Corridor (Highway) is 210 km, in which last 20 km is the section between Ganeshpur to Dehradun.*

<sup>2</sup> (i). [https://m.economictimes.com/industry/transportation/roadways/how-an-elevated-stretch-of-nh-44-through-pench-tiger-reserve-earned-a-distinction/amp\\_articleshow/74260122.cms](https://m.economictimes.com/industry/transportation/roadways/how-an-elevated-stretch-of-nh-44-through-pench-tiger-reserve-earned-a-distinction/amp_articleshow/74260122.cms)  
(ii). <https://nhai.gov.in/nhai/sites/default/files/2021-08/india%20today.pdf>  
(iii). <https://youtu.be/OXomygmb3U0>

*Dehradun is a foothill of Himalayas and its elevation is about 700m from the mean sea level. The existing road, which is primarily 2 lane/less than 2 lanes, passes through hill in about 11 km. These hills are connecting Dehradun with Plains, having lower elevation as compared to Himalayas range beyond Dehradun.”*

33. With regard to different zones for mitigation measures for protection of wildlife, further explanation furnished is as follows:

“21. xxx .....xxx.....xxx

- v. *To conduct the study, 81 camera traps were deployed along the identified trails to detect wild animals using the area and crossing events. Detailed study was carried out in the entire 20km stretch of NH-72 between Ganeshpur to Dehradun. The road in this 20 KM stretch has been classified into three distinct zones based on their geographical features.*
  - a. *Zone I (Length: 4.9 KM) from Ganeshpur to Mohand, it is a flat terrain and lies entirely in Shivalik Forest Division (UP).*
  - b. *Zone II (Length 13.3 km) Mohand (U.P.) to Asarodi Police Checkpost in Uttarakhand.*
  - c. *Zone III (Length 1.8 km) Asarodi police check post up to the edge of Mohbewala settlement in Doon valley, Dehradun.”*

34. With regard to muck disposal, copy of muck disposal plan submitted by the NHAI to the State of Uttarakhand on 20.07.2020 and to the State of UP on 27.08.2020, said to be available on the Parivesh Portal has been annexed. The said plan inter-alia mentions following muck disposal plan:

**“QUANTITY OF MUCK TO BE GENERATED**

*Based on the geological nature of the rocks and engineering properties of the soil, a part of the muck generated can be used as construction material in road work. The balance needs to be suitably disposed. Normally, muck is disposed in low-lying areas or depressions. Trees, if any, are cut before muck disposal, however, shrubs, grass or other types of undergrowth in the muck disposal at sites persist. The muck disposal sites will be suitably stabilized on completion of the muck disposal.*

**MUCK GENERATION FROM PROJECT COMPONENTS AND UTILIZATION**

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SL	Project Component	Muck Generation Quantity	Project Component	Muck utilization Quantity
1	Road and tunnel	488307.00	For road work	<b>517975.00</b>
2	For foundation work	39283.00	-	--
	Total	<b>527590.00</b>		<b>517975.00</b>
	Balance Quantity	<b>9615.00</b>		

Total quantity of generated muck to be disposed is **9615.00 Cum**  
Add Swell factor 25% for Rock/Earth material

So, Bank material is  $100\%/100=1$

Loose Material = Bank Material + Swell

Or

Loose =  $1 + (25/100) = 1.25$

Total Material to be disposed=considering swell factor =**9615.00 x 1.25= 12,018.75Cum**"

DISPOSAL OF MUCK

As detailed above total quantity of muck to be generated is 527590.00 cum. Out this 527590.00 cum quantity of muck, 517975.00 cum muck will be utilized in project work itself. Remaining quantity of muck 9615.00 cum need to be disposed off safely which will be 12,018.75 cum after addition of swell factor @ 25 %.

This is a very less in quantity and will be further utilized in construction camp / making haul road/ approach road.

In case, there is remaining material (muck), it will be re-utilized in another section of this road km 16+115 to 19+746 (Uttarakhand Part) for raising embankment near elephant underpass at two locations.

As, muck is property of Forest Department royalty will be paid as per prevailing norm"

SL	Particulars	Remarks
1	Calculation of muck to be generated. Swell factor to be applied.	Total quantity of generated muck to be disposed is <b>9615.00 Cum</b> . Add Swell factor 25% for Rock/Earth material So, Bank material is $100\%/100=1$ Loose Material = Bank Material + Swell Or Loose = $1 + (25/100) = 1.25$ Total Material to be disposed=considering swell factor = <b>9615.00 x 1,25= 12,018.75 Cum</b> Note- Component wise quantification is given in above table.
2.	Quantity of muck to be utilized in the project activities	<b>517975.00 Cum</b>

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3.	Balance quantity of muck which requires disposal/ management plan.	Without swell factor/original quantity = <b>9615.00</b> Cum With swell factor (@25%) = <b>12018.75</b> Cum
4	Carriage of muck from the muck generation site to the dumping site.	As per contract condition muck will be carried by contractor at their own cost which will be
5.	Ownership of land and the consent of land owners in case muck disposal is proposed on non-forest land.	With NHAI-PIU Dehradun.
6	Photograph & carrying capacity of proposed	Carrying capacity of proposed site is much more than required disposal quantity ( <b>12018.75</b> cum).
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. 6.
8	Rehabilitation of dumping site like leveling, planting of grass, shrubs and tree species.	Not applicable, due to above mentioned reason in column no. 6.

*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. - included under civil cost. 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- Agreed*
- 2. The proposed dumping site is located away from river/stream/ Nala.-Yes”*

35. NHAI has filed separate written submissions on 09.12.2021 in Appeal No. 29/2021. On the subject of EIA/EMP, details of the amount allocated for mitigation measures has been given which is also said to have been placed on the website. Relevant extract from the submission on this aspect is as follows:

*“xxx .....xxx .....xxx*

*34. The Ganeshpur Dehradun section of 20 km passes through forest and Wildlife. During DPR preparation, the Environment Impact Assessment (EIA) & Environment Mitigation Plan (EMP) have been prepared as part of DPR study. While designing the project, special emphasis have been kept to minimize the impact on flora & fauna of the region by providing elevated road, tunnel, numbers of animal & elephant underpasses as elaborated in above paras. The additional*



cost of about Rs.1000 crores is involved in providing these elevated structures and tunnels, animal under passes and also as per engineering requirement. The exclusive cost of 5% of project cost has been provisioned for mitigation measures for flora and fauna as per table given below:-

<b>S. No.</b>	<b>Details</b>	<b>Total</b>	<b>UP Portion</b>	<b>Uttarakhand Portion</b>
1	Compensatory Afforestation (CA) and Net Present Value (NPV) Cost	7.82	6.14	1.68
2	Plantation of Native Species	1.67	0.97	0.70
3	Environmental Monitoring and other Mitigation measures	1.35	0.90	0.45
4	Muck Disposal Cost (about 1.7 lakh MT muck to be disposed off with 40 Km lead)	5.8	2.90	2.90
5	Cost of Structure exclusively for Wildlife	-		
(i)	3 nos. Animal Passes (3.5 m vertical clearance x 12 m span) each in Uttar Pradesh	4.85	4.85	-
(ii)	3 Nos. Animal Passes (2.5 m vertical clearance x (2x10) m span (2 Nos.) and 2.5 m vertical clearance x (2x6) m span (1 No.)) in Uttarakhand	7.87	-	7.87
(iii)	2 nos. Elephant Underpasses (6 m vertical clearance x 200 m span) each in Uttarakhand	67.29	-	67.29
(iv)	Reptile crossing culverts in Uttarakhand	3.81	-	3.81
	<b>Total</b>	<b>100.46</b>	<b>15.76</b>	<b>84.70</b>

The EIA & EMP report detailing out the monitoring mechanism and detailed mitigation plan is available on NHAI website [https://nhai.gov.in/#/general/environment-forest-wild-life-clearance.](https://nhai.gov.in/#/general/environment-forest-wild-life-clearance)”

### **Consideration of rival submissions**

36. We have heard learned Counsel for the parties.

37. Question for consideration is whether grant of FC for use of forest land for non-forest purposes is justified for the project in question. Further question is whether the mitigation measures proposed are adequate.

### **Significance of forest and approach in dealing with diversion for non-forest purpose**

38. We have to be mindful that diversion of forest land for non-forest purposes is not to be easily allowed. Significance of forests is recognised in this country since time immemorial. In era of climate change it is much more. This aspect has received attention of the Hon'ble Supreme Court as well as policy makers repeatedly. Reference in this regard may be made to few observations.

39. In **T.N. Godavarman Thirumulpad v. Union of India, (2002) 10 SCC 606**, it was observed:

*“Since time immemorial, natural objects like rivers enjoyed a high position in the life of the society. They were considered as goddesses having not only purifying capacity but also self-purifying ability. Fouling of the water of a river was considered a sin and it attracted punishments of different grades which included penance, outcasting, fine etc. The earth or soil also equally had the same importance, and the ancient literature provided the means to purify the polluted soil. The above are some of the many illustrations to support the view that environmental pollution was controlled rigidly in the ancient times. It was not an affair limited to an individual or individuals but the society as a whole accepted its duty to protect the environment. The “dharma” of environment was to sustain and ensure progress and welfare of all. The inner urge of the individuals to follow the set norms of the society, motivated them to allow the natural objects to remain in the natural state. Apart from this motivation, there was the fear of punishment. There were efforts not just to punish the culprit but to balance the ecosystems. The noteworthy development in this period was that each individual knew his duty to protect the environment and he tried to act accordingly. Those aspects have been highlighted by a learned author C.M. Jariwala in his article “Changing Dimensions of the Indian Environmental Law” in the book Law and Environment by P. Leelakrishnan.*

18. Industrialisation, urbanisation, explosion of population, overexploitation of resources, depletion of traditional sources of energy and raw materials, and the search for new sources of energy and raw materials, the disruption of natural ecological balances, the

*destruction of a multitude of animal and plant species for economic reasons and sometimes for no good reason at all are factors which have contributed to environmental deterioration. While the scientific and technological progress of man has invested him with immense power over nature, it has also resulted in the unthinking use of the power, encroaching endlessly on nature. If man is able to transform deserts into oasis, he is also leaving behind deserts in the place of oasis. In the last century, a great German materialist philosopher warned mankind:*

*“Let us not, however, flatter ourselves overmuch on account of our human victories over nature. For each such victory nature takes its revenge on us. Each victory, it is true, in the first place brings about the results we expected, but in the second and third places it has quite different, unforeseen effects which only too often cancel the first.”*

*Ecologists are of the opinion that the most important ecological and social problem is the widespread disappearance all over the world of certain species of living organisms. Ecologists forecast the extinction of animal and plant species on a scale that is incompatibly greater than their extinction over the course of millions of years. It is said that over half the species which became extinct over the last 2000 years did so after 1900. The International Association for the Protection of Nature and Natural Resources calculates that now, on average, one species or subspecies is lost every year. It is said that approximately 1000 birds and animal species are facing extinction at present. It is for this that the environmental questions have become urgent and they have to be properly understood and squarely met by man. Nature and history are two components of the environment in which we live, move and prove ourselves. This Court in *Sachidanand Pandey v. State of W.B.*<sup>7</sup> and *Virender Gaur v. State of Haryana*<sup>8</sup> has highlighted these aspects.”*

40. Again in ***T.N. Godavarman Thirumulpad (87) v. Union of India, (2006) 1 SCC 1***. It was observed that

*“Forests are a vital component to sustain the life support system on the earth. Forests in India have been dwindling over the years for a number of reasons, one of it being the need to use forest area for development activities including economic development. Undoubtedly, in any nation development is also necessary but it has to be consistent with protection of environments and not at the cost of degradation of environments. **Any programme, policy or vision for overall development has to evolve a systemic approach so as to balance economic development and environmental protection. Both have to go hand in hand. In the ultimate analysis, economic development at the cost of degradation of environments and depletion of forest cover would not be long-lasting. Such development would be counterproductive. Therefore, there is an absolute need to take all precautionary measures when forest lands are sought to be directed for non-forest use.***

*Forest sustainability is an integral part of forest management and policy that also has a unique dominating feature and calls for forest owners and society to make a long-term (50 years or longer) commitment to manage forests for future generations. One of the viewpoints for sustaining forest is a naturally functioning forest ecosystem. This viewpoint takes the man and nature relationship to the point of endorsing, to the extent possible, the notion of letting the forest develop and process without significant human intervention. A strong adoption of the naturalistic value system that whatever nature does is better than what humans do, this is almost the “nature dominates man” perspective. Parks and natural reserve creations; non-intervention in insect, disease and fire process; and reduction of human activities are typical policy situations. This viewpoint has been endorsed by the 1988 Forest Policy of the Government of India.*

***Yet another viewpoint recognises the pragmatic reality faced by the Governments and the administration, namely, trees don't vote while people do.*** Some of the criteria reflecting key elements of ecological, economic and social sustainability are:

1. *Conservation of biological diversity.*
2. *Maintenance of productive capacity of forest ecosystems.*
3. *Maintenance of forest ecosystem health and vitality.*
4. *Conservation and maintenance of soil and water resources.*
5. *Maintenance of forest contribution to global carbon cycles.*
6. *Maintenance and enhancement of long-term multiple socio-economic benefits to meet the needs of societies.*
7. *Legal, institutional and economic framework for forest conservation and sustainable management.*

*An expert dealing with principles and applications of forest valuation, on the aspect of value of inputs and outcomes and conditions, says:*

***“Decision-making in forest management requires that we understand the relative values of inputs, outcomes and conditions. Cost values for inputs such as labour, capital, interest, supplies, legal advice, trades and other management activities as well as the market value of existing timber stands are relatively easy to obtain. Outcomes or resulting condition values are more difficult, but we need measures of the values of timberland, recreation, water, wildlife, visual amenities, biodiversity, environmental services, and ecological process to help guide management decisions. By understanding market, social and other values of forests, we can better allocate our scarce and valuable resources to attain the desired mix of outcomes and conditions.”***

*The emphasis is on ecosystem, management philosophy that has greater emphasis on integration, biological diversity and ecological processes.*

*In respect of working economic values of the outcome, it is said:*

*“In real world forest management situations, decision-makers are faced with several alternatives and potentially large sets of criteria related to the ecological, economic and social impacts of these*

*alternatives. It would be very easy to generate a nearly incomprehensible table that documented every physical, biological, economic, and social outcome and condition resulting from each management alternative. Such information could include outcome levels for water yield, sediment production, and timber growth; population trends for important wildlife species; and recreation use for backcountry and developed recreation sites. Similarly, information on the economic value of these outcomes can be estimated by means of the methods discussed in Chapter 8 and added to our impact table. To this avalanche of information, we could add the impacts on the social well-being of local and regional communities. The forest management analyst can easily overwhelm the decision-makers and stakeholders with information.”*

*Dealing with the fundamentals of decision analyses to achieve ecological, economic and social goals, it is said that what is to be broadly kept in view is:*

*“Ecological and environmental goals are important to forest managers, landowners, and their stakeholders, we need information about how decision alternatives affect such goals. **These goals can be broadly stated***

- 1. Maintaining and enhancing forest productivity**
- 2. Conservation of biological diversity**
- 3. Protecting and enhancing environmental conditions.”**

## **Safeguards, Balancing and proportionality**

41. It was, however, noted that use of forest for non-forest purpose becomes inevitable and in such a situation, safeguards have to be adopted to replenish the loss of ecology. It was observed:

**“Reverting now specifically to forests, if it becomes necessary for economic development to use the same for non-forest purposes, then before grant of permission for diversion of forest land, there should be some scheme whereunder loss occurring due to such diversion can be made up by adopting both short-term measures as well as long-term measures, one of it being a regeneration programme. Natural regeneration is a long process. It requires huge amounts. It requires a policy and direction. It requires proper use of funds for regeneration of depleted forest and ecology. Natural resources like forests are in trust with the present generation. In this light, various statutes noted above have been enacted by Parliament. Keeping in view the letter and spirit of those statutes and constitutional provisions, the legality of CAMPA and the power to issue directions for natural regeneration and utilisation of funds is required to be appreciated.** The body set up or fund generated to protect ecology and provide for regeneration cannot in the constitutional scheme of things be considered and treated as a fund under Article 266 or Article 283 or Article 284 of the Constitution.

When seen in this light, neither Article 110 nor Article 199 and/or Article 294 or 195 would have any application.

**When permission is granted by the Government of India to use forest land for non-forest purposes, it is not unconditional. Conditions are attached mainly with a view to protect the environment and to make good the loss likely to occur by grant of such permission. The payment into such a fund or imposition of conditions are for the protection of natural resources. The notification dated 23-4-2004 sets up a body to which payment is made so that the said body can carry out the statutory and constitutional obligations. Since the amount does not go to the accounts postulated by Article 283, the said provision shall have no application. Similarly, the provisions of the CAG Act would also have no application. At the same time, it may be noted that clause 6.3 stipulates the audit through chartered accountants on the panel of CAG. In order to provide for financial discipline, transparency and accountability, it would be appropriate to provide for corporate accounting on the principles of double-entry system. We are further of the view that the accounts of the fund shall be subjected to internal statutory audit, the statutory auditors to be taken from the panel of CAG. The internal audit shall be conducted every six months.**

The duty to preserve natural resources in pristine purity has been highlighted in *M.C. Mehta v. Kamal Nath*. After considering the opinion of various renowned authors and decisions rendered by other countries as well on environment and ecology, this Court held that the notion that the public has a right to expect certain lands and natural areas to retain their natural characteristics is finding its way into the law of the land. The Court accepted the applicability of public trust doctrine and held that it was founded on the ideas that certain common properties such as rivers, seashore, forests and the air were held by the Government in trusteeship for the free and unimpeded use of the general public. **These natural resources have a great importance to the people as a whole that it would be wholly unjustified to make them subject to private ownership. These resources being a gift of nature, should be made freely available to everyone irrespective of their status in life. The doctrine enjoins upon the Government to protect the resources for the enjoyment of the general public rather than to permit their use for private ownership or commercial purposes. It was held that our legal system — based on English common law — includes the public trust doctrine as part of its jurisprudence. The State is the trustee of all natural resources which are by nature meant for public use and enjoyment. The public at large is the beneficiary of these resources. The State as a trustee is under a legal duty to protect these natural resources.** Summing up the Court said: (SCC p. 413, para 35)

We are fully aware that the issues presented in this case illustrate the classic struggle between those members of the public who would preserve our rivers, forests, parks and open lands in their pristine purity and those charged with administrative responsibilities who,

under the pressures of the changing needs of an increasingly complex society, find it necessary to encroach to some extent upon open lands heretofore considered inviolate to change. The resolution of this conflict in any given case is for the legislature and not the courts. If there is a law made by Parliament or the State Legislatures the courts can serve as an instrument of determining the legislative intent in the exercise of its powers of judicial review under the Constitution. But in the absence of any legislation, the executive acting under the doctrine of public trust cannot abdicate the natural resources and convert them into private ownership, or for commercial use. The aesthetic use and the pristine glory of the natural resources, the environment and the ecosystems of our country cannot be permitted to be eroded for private, commercial or any other reasons.

**The basic objectives leading to the laying down of the National Forest Policy, 1988 may also be noted and also the need and requirement for its enforcement. This policy was framed on realising that the 1952 Forest Policy for the management of State forest in the country had not halted the depletion of forests. It was, therefore, considered necessary to evolve a fresh policy for the future to lay down new strategies of forest conservation which had become imperative. Conservation includes preservation, maintenance, sustainable utilisation, restoration and enhancement of the natural environment. The principal aim of the Forest Policy is to ensure environmental stability and maintenance of ecological balance including atmospheric equilibrium which are vital for sustenance of all life forms, human, animal and plant. The derivation of direct economic benefit must be subordinated to this principal aim.**

The Forest Policy has a statutory flavour. The non-fulfilment of the aforesaid principle aim would be violative of Articles 14 and 21 of the Constitution. The basic objectives of the Forest Policy, 1988 are: “2.1. The basic objectives that should govern the National Forest Policy are the following:

- Maintenance of environmental stability through preservation and, where necessary, restoration of the ecological balance that has been adversely disturbed by serious depletion of the forests of the country.
- Conserving the natural heritage of the country by preserving the remaining natural forests with the vast variety of flora and fauna, which represent the remarkable biological diversity and genetic resources of the country.
- Checking soil erosion and denudation in the catchment areas of rivers, lakes and reservoirs in the interest of soil and water conservation, for mitigating floods and droughts and for the retardation of siltation of reservoirs.
- Checking the extension of sand dunes in the desert areas of Rajasthan and along the coastal tracts.
- Increasing substantially the forest/tree cover in the country through massive afforestation and social forestry programmes, especially on all denuded, degraded and unproductive lands.
- Meeting the requirements of fuelwood, fodder, minor forest produce and small timber of the rural and tribal populations.

- Increasing the productivity of forests to meet essential national needs.
- Encouraging efficient utilisation of forest produce and maximum substitution of wood.
- Creating a massive people's movement with the involvement of women, for achieving these objectives and to minimise pressure on

Creating a massive people's movement with the involvement of women, for achieving these objectives and to minimise pressure on existing forests.

**2.2. The principal aim of the Forest Policy must be to ensure environmental stability and maintenance of ecological balance including atmospheric equilibrium which are vital for sustenance of all life forms, human, animal and plant. The derivation of direct economic benefit must be subordinated to this principal aim."**

It has been recognised that one of the essentials for forest management is the conservation of total biological diversity, the network of national parks, sanctuaries, biosphere reserves and other protected areas to be strengthened and extended adequately. The strategy under the Forest Policy is to have a minimum of one-third of the total land area of the country under forest or tree cover. In the hills and in mountainous regions, the aim should be to maintain two-thirds of the area under such cover in order to prevent erosion and land degradation and to ensure the stability of the fragile ecosystem. Clause 4.3 lays down the aspects of management of State forests. It would be instructive to reproduce hereunder certain parts of the policy with a view to have clarity in the aim to be achieved:

**"4.3.1. Schemes and projects which interfere with forests that clothe steep slopes, catchments of rivers, lakes, and reservoirs, geologically unstable terrain and such other ecologically sensitive areas should be severely restricted. Tropical rain/moist forest, particularly in areas like Arunachal Pradesh, Kerala, Andaman and Nicobar Islands should be totally safeguarded.**

**4.3.2. No forest should be permitted to be worked without the Government having approved the management plan, which should be in a prescribed format and in keeping with the National Forest Policy. The Central Government should issue necessary guidelines to the State Government in this regard and monitor compliance.**

\* \* \*

**4.4.1. Forest land or land with tree cover should not be treated merely as a resource readily available to be utilised for various projects and programmes, but as a national asset which requires to be properly safeguarded for providing sustained benefits to the entire community. Diversion of forest land for any non-forest purpose should be subject to the most careful examinations by specialists from the standpoint of social and environmental costs and benefits. Construction of dams and reservoirs, mining and industrial development and expansion of agriculture should be consistent with the need for conservation of trees and forests. Projects which involve such diversion**



**should at least provide in their investment budget, funds for regeneration/compensatory afforestation.**

4.4.2. Beneficiaries who are allowed mining and quarrying in forest land and in land covered by trees should be required to repair and revegetate the area in accordance with established forestry practice. No mining lease should be granted to any party, private or public, without a proper mine management plan appraised from the environmental angle and enforced by adequate machinery.

\* \* \*

**4.6. Having regard to the symbiotic relationship between the tribal people and forests, a primary task of all agencies responsible for forest management, including the forest development corporations should be to associate the tribal people closely in the protection, regeneration and development of forests as well as to provide gainful employment to people living in and around the forest. While safeguarding the customary rights and interests of such people, forestry programmes should pay special attention to the following—**

**— one of the major causes for degradation of forest is illegal cutting and removal by contractors and their labour. In order to put an end to this practice, contractors should be replaced by institutions such as tribal cooperatives, labour cooperatives, government corporations, etc. as early as possible;**

— protection, regeneration and optimum collection of minor forest produce along with institutional arrangements for the marketing of such produce;

— development of forest villages on a par with revenue villages;

— family-oriented schemes for improving the status of the tribal beneficiaries; and

— undertaking integrated area development programmes to meet the needs of the tribal economy in and around the forest areas, including the provision of alternative sources of domestic energy on a subsidised basis, to reduce pressure on the existing forest areas.

\* \* \*

4.8.1. Encroachment on forest lands has been on the increase. This trend has to be arrested and effective action taken to prevent its continuance. There should be no regularisation of existing encroachments.

\* \* \*

4.9. The main considerations governing the establishment of forest-based industries and supply of raw material to them should be as follows:

**— As far as possible, a forest-based industry should raise the raw material needed for meeting its own requirements, preferably by establishment of direct relationship between the factory and the individuals who can grow the raw material by supporting the individuals with inputs including credit, constant technical advice and finally harvesting and transport services.**

— No forest-based enterprise, except that at the village or cottage level, should be permitted in the future unless it has been first cleared after a careful scrutiny with regard to assured availability of raw material. In any case, the fuel, fodder and timber requirements of the local population should not be sacrificed for this purpose.

— Forest-based industries must not only provide employment to local people on a priority but also involve them fully in raising trees and raw material.

— Natural forests serve as gene pool resources and help to maintain ecological balance. Such forests will not, therefore, be made available to industries for undertaking plantation and for any other activities.

— Farmers, particularly small and marginal farmers would be encouraged to grow, on marginal/degraded lands available with them, wood species required for industries. These may also be grown along with fuel and fodder species on community lands not required for pasture purposes, and by the Forest Department/corporations on degraded forests, not earmarked for natural regeneration.

— The practice of supply of forest produce to industry at concessional prices should cease. Industry should be encouraged to use alternative raw materials. Import of wood and wood products should be liberalised.

— The above considerations will, however, be subject to the current policy relating to land ceiling and land laws.

\* \* \*

4.16. The objective of this revised policy cannot be achieved without the investment of financial and other resources on a substantial scale. Such investment is indeed fully justified considering the contribution of forests in maintaining essential ecological processes and life support systems and in preserving genetic diversity. Forest should not be looked upon as a source of revenue. Forests are a renewable natural resource. They are a national asset to be protected and enhanced for the well-being of the people and the nation.”

It is clearly a constitutional imperative to preserve and enhance forest cover as a natural gene pool reserve.

As opposed to the above, the ground reality has been depletion of forest.

42. Thus, balancing approach has to be guided by above observations and cutting of trees cannot be allowed without strictest scrutiny only when inevitable and subject to appropriate conditions, ensuring replenishment of forest cover and also preserving biodiversity and wildlife. In **Lafarge Umiam Mining (P) Ltd. v. Union of India, (2011) 7 SCC 338**, it was observed:

**“75. Universal human dependence on the use of environmental resources for the most basic needs renders it impossible to refrain from altering the environment. As a result, environmental conflicts are ineradicable and environmental protection is always a matter of degree, inescapably requiring choices as to the appropriate level of environmental protection and**

**the risks which are to be regulated. This aspect is recognised by the concept of “sustainable development”.** It is equally well settled by the decision of this Court in *Narmada Bachao Andolan v. Union of India* that environment has different facets and care of the environment is an ongoing process. These concepts rule out the formulation of an across-the-board principle as it would depend on the facts of each case whether diversion in a given case should be permitted or not, barring “no go” areas (whose identification would again depend on undertaking of a due diligence exercise). In such cases, the margin of appreciation doctrine would apply.

- 76. Making these choices necessitates decisions, not only about how risks should be regulated, how much protection is enough, and whether ends served by environmental protection could be pursued more effectively by diverting resources to other uses. Since the nature and degree of environmental risk posed by different activities varies, the implementation of environmental rights and duties requires proper decision-making based on informed reasons about the ends which may ultimately be pursued, as much as about the means for attaining them. Setting the standards of environmental protection involves mediating conflicting visions of what is of value in human life.**

*It cannot be gainsaid that utilisation of the environment and its natural resources has to be in a way that is consistent with principles of sustainable development and intergenerational equity, but balancing of these equities may entail policy choices. In the circumstances, barring exceptions, decisions relating to utilisation of natural resources have to be tested on the anvil of the well-recognised principles of judicial review. Have all the relevant factors been taken into account? Have any extraneous factors influenced the decision? Is the decision strictly in accordance with the legislative policy underlying the law (if any) that governs the field? Is the decision consistent with the principles of sustainable development in the sense that has the decision-maker taken into account the said principle and, on the basis of relevant considerations, arrived at a balanced decision? Thus, **the Court should review the decision-making process to ensure that the decision of MoEF is fair and fully informed, based on the correct principles, and free from any bias or restraint. Once this is ensured, then the doctrine of “margin of appreciation” in favour of the decision-maker would come into play.***

*The time has come for this Court to declare and we hereby declare that the **National Forest Policy, 1988 which lays down far-reaching principles must necessarily govern the grant of permissions under Section 2 of the Forest (Conservation) Act, 1980 as the same provides the road map to ecological protection and improvement under the Environment (Protection) Act, 1986. The***

*principles/guidelines mentioned in the National Forest Policy, 1988 should be read as part of the provisions of the Environment (Protection) Act, 1986 read together with the Forest (Conservation) Act, 1980. This direction is required to be given because there is no machinery even today established for implementation of the said National Forest Policy, 1988 read with the Forest (Conservation) Act, 1980. Section 3 of the Environment (Protection) Act, 1986 confers a power coupled with duty and, thus, it is incumbent on the Central Government, as hereinafter indicated, to appoint an appropriate authority, preferably in the form of regulator, at the State and at the Central level for ensuring implementation of the National Forest Policy, 1988.*

***The basic objectives of the National Forest Policy, 1988 include positive and proactive steps to be taken. These include maintenance of environmental stability through preservation, restoration of ecological balance that has been adversely disturbed by serious depletion of forests, conservation of natural heritage of the country by preserving the remaining natural forests with the vast variety of flora and fauna, checking soil erosion and denudation in the catchment areas, checking the extension of sand dunes, increasing the forest/tree cover in the country and encouraging efficient utilisation of forest produce and maximising substitution of wood.”***

43. We have thus to consider the issue in the light of above observations and whether permission for use of forest for non-forest is unavoidable for the project at hand and if so, mitigation measures to offset the same. We have also to consider the compliance of statutory requirements.

#### **The project : Bharatmala Pariyojana**

44. The said project has been discussed in **Project Implementation Unit v. P.V. Krishnamoorthy, (2021) 3 SCC 572** as follows:

***“The Project (Bharatmala Pariyojana-Phase I) has been conceived as a new umbrella programme for the highways sector that focuses on optimising efficiency of freight and passenger movement across the country by bridging critical infrastructure gaps through effective interventions like development of Economic Corridors, Inter Corridors and Feeder Routes (“ICFR”), National Corridor Efficiency Improvement, border and international connectivity roads, coastal and port connectivity roads and greenfield expressways, traversing across around 24,800 km in Phase I. In addition, Phase I also includes 10,000 km of balance road works under National Highways Development Project (“NHDP”). The estimated outlay for Phase I came to be specified as Rs 5,35,000 crores spread over 5 years. The***

**objective of the programme is stated as optimal resource allocation for a holistic highway development/improvement initiative.**

.....

**58.** *The requirement of a national highway within the country as a whole and State-wise, in particular, is to alleviate evolving socio-economic dynamics, for which such a wide power has been bestowed upon the Central Government. The Central Government is obliged to do so to facilitate it to discharge its obligations under Part IV of the Constitution. There is nothing in the Constitution of India or for that matter, the 1956 Act to limit that power of the Central Government only in respect of existing roads/highways within the State. To say so would be counter-productive and would entail in a piquant situation that the Central Government cannot effectively discharge its obligations under Part IV of the Constitution unto the remote inaccessible parts of the country until the State Government concerned constructs a road/highway within the State. On the other hand, if the State concerned, due to reasons beyond its control or otherwise, is unable/flounder to provision a road/highway in a given segment of the State; despite being imperative to do so to assuage the perennial difficulties faced by the locals in that belt due to lack of access, the Central Government may come forward and step in to construct a national highway and connect the area with the other parts of the country. By its very nomenclature, a **national highway is to link the entire country and provide access to all in every remote corner of the country for interaction and to promote commerce and trade, employment and education including health related services.** This approach would enhance and further the federal structure. This is because, the **existence of a national highway in the neighbourhood paves way for the fulfilment of aspirations of the locals and their empowerment. It not only brings with it opportunity to travel across, but also propels the economy of that region and the country as a whole. It gives impetus to myriads of social, commerce and more importantly, access to other activities/facilities essential for the health, education and general well-being of the locals, in particular.**”*

45. The mitigation measures suggested in the report of WII are:

**“Proposed Mitigation Measures:**

*As is evident from the results of this study, the 20 km stretch of NH72 between Ganeshpur and Dehradun passes through an extraordinarily rich wildlife area. Proximity of this road to Rajaji Tiger Reserve and the adjoining wildlife rich area of Shivalik Forest Division, UP (Johnsingh et al. 2004) are largely responsible for this rich assemblage of wildlife species along this stretch of road. Any mitigation measures proposed as part of expansion of this stretch of highway needs careful consideration. Based on the intensity of captures of all wild animals on the three zones of NH 72 between Ganeshpur and Dehradun, wildlife crossing zones were demarcated.*

The details of these crossing zones where mitigation measures may be built are provided below (Table 2 and Figure 14).

## **a. Zone I as a critical section for mitigation:**

Wild animal mortality due to collisions with vehicles are a threat to biodiversity, and are among the major threats to animals in human-dominated landscapes. However, collisions of vehicles with large-bodied animals can also be a threat to the safety of humans, and also has economic implications. While data on wild large mammal-driven road accidents are not available for India, the number of large mammal-vehicle collisions in the United States and Europe has been estimated at 1-2 million and 507,00 (Huijser et al. 2008) respectively. These kinds of fatal accidents mostly occur in rural areas adjoining forests where large mammals are abundant. These cases could also result in road authorities being held accountable for the loss of life and property (Abra et al., 2019).

Given that NH 72 abuts the Rajaji National Park that is abundant in large mammals such as the Asiatic elephant, sambar, chital, nilgai, leopard and wild pigs, the potential fatality and injury risk to humans and damage to vehicles as a result of collision cannot be ruled out. Moreover, 91% of captures of wild animals near the road were of large mammals that have the potential to cause accidents fatal for human. It is therefore imminent to align the goal mitigation on NH 72 not only for wild animal safety and connectivity, but also to reduce risks to human safety. Similar approach has been used earlier for proposing the world's largest and India's first ever mitigation measures on NH 7 (now NH 44) passing through important wildlife areas near Pench Tiger Reserve, Maharashtra India (Habib et al., 2015; 2016). The mitigation measures have been proved to be effective and in last nine months till December 2019 a total of 18 wild animal species were found to use underpasses resulting in 5450 captures including 89 captures of 11 unique individual tigers (Habib and Saxena 2020).

Considering the above mentioned large bodied animals only, of the 4.9 km stretch of Zone I on NH 72, about 3.5 km of the road is considered high risk with respect to risk of large mammal-vehicle collisions that could result in human fatalities (Figure 15). This is a flat segment of the road which is also critical as a crossing zone for wildlife that are endangered, vulnerable and near threatened.

It is therefore suggested that a contiguous crossing structure (Animal Under Pass) be provided in this critical road segment. The minimum length of the structure should be 3,500 m (opening of about 3200m) with at least 7m height from the ground either on the existing alignment or on a new alignment. The remaining stretch of road in this zone should have barrier walls of adequate height (ca. 3m with a trapezoidal cross-section) to help animals funnel through the underpass. Possibility of exploring an alternate alignment on the river bed (Mohand rau) should be attempted and the road can be elevated in Zone I after 1.4 km from the forest boundary (from Ganeshpur).

## **b. Mitigation measures in Zone II**

*Two stretches of 2.8km (immediately after Mohand) and 4.0km (ending with the tunnel near Dat Kali) were identified as critical wildlife crossing zones in this stretch. A large part of this second wildlife crossing zone is attributed to the ridge line above the existing tunnel that already facilitates lot of animal movement. As per the plan provided by NHAI, it is understood that a large section of this stretch in Zone II will be an elevated structure that also takes care of the critical wildlife crossings and any additional structure may not be required.*

### **c. Mitigation measures in Zone III**

*One stretch of 850m was identified as a critical wildlife crossing zone in this section of the road. It is proposed to have an 850m of integrated structure with at least two openings of 200m each (Animal Under Pass with minimum of 7m height from the ground) at the designated sites (Location I - N30°15'07.76" E77°58'35.80" and Location II – N30°15'25.41" E77°58'39.76")."*

## **Analysis and Finding**

46. NHAI as well as MoEF&CC have explained that the project involves improvement and development of existing Intermediate / 2 Lane road into a 4 - lane road within restricted Right of Way (RoW) of 25-metres which is bare minimum requirement for project development. Project also involves 12 km long elevated corridor, 340m tunnel along with its approaches, 2 nos. of Elephant Under passes (2x200m) along with 6 underpasses for other animals for bare minimum tree felling, safeguard of animals and also conservation of their habitats. Out of 20 km section from Ganeshpur to Dehradun, 18.5 km is forest area and out of this forest area, 15 km falls in UP and 3.5 km falls in Uttarakhand. In view of the existing road 20 KM (Ganeshpur to Dehradun) falling in ESZ of Rajaji National Park and at a few stretches close with the boundary of Rajaji National Park. NHAI got conducted study for Wildlife mitigation from "WII", Dehradun. Standing Committee of the National Board for Wildlife granted Wildlife clearance for project road (including both sections i.e. Road section located in

Uttarakhand & Uttar Pradesh) for Package 1, 2 & 3. The proposal will reduce length, avoid huge hill cutting and generate less muck & disposal. It involves comparatively smaller number of trees-removal with minimum forest land diversion and enables safe passage of wild animals. Stretch of the NH-72A passes through the reserved forest of Shivalik Forest Division of Uttar Pradesh State and Dehradun Forest Division of Uttarakhand State which are wildlife rich as per report of WII and data base available with concerned forest division. The capacity augmentation of this highway is not only important for connecting State Capital of Uttarakhand with National Capital, but is also vital for Strategic defence purpose for timely and seamless movement of Army/ warheads to higher reaches of Himalayas in Country Northern border. The present stretch carries traffic more than 20,000 equivalent passenger car units (PCUs) per day which is much beyond the 2 lane capacity of 10500 PCU, necessitating urgent upgradation of highway capacity. As a result, the travel time between the two cities on the existing Highway (NH-72A) currently is 6-7 hours in the Non Peak Hours and more than 8 hours during the Peak Hours. The average travelling time between Ganeshpur to Dehradun (20.7KM Stretch) is 45 – 60 mins during Tourist/Yatra season, which extends to 2 hours leading to frequent traffic jams, resulting in significant increase in Air and Sound pollution in the area and also safety hazards to road users. Longer Travel time of vehicles in forest zone means longer time of disturbance to wildlife also. Another major reason necessitating the development of the project site is the poor geometrics of the existing road which leads to occurrence of road accidents in this stretch. There are total 120 horizontal curves & about 50% of them are deficient in terms of geometrics as per NH standards, catering for less than 30 KM/hour speed. Presently, there is no safe passage for wild animals to cross the road as both side of existing



road is forest, and due to presence/movement of wild animals on the road, they are vulnerable to accidents and several animals are killed from the vehicles while crossing the road. However, the proposed 12 km long elevated highway in the instant case is the longest wildlife corridor, not in India but in Asia too, is an example of co-existence of development and vis-a-vis preserving nature. These considerations are not in any manner challenged in the appeal.

47. It is argued that there is no application of minds in granting Stage-I and Stage-II Clearances as well as permission for felling of trees; the data has not been correctly furnished and considered; cost Benefit Analysis is not rational. Compensatory Afforestation is not proper; city is already over congested which has no carrying capacity for expansion of the road; and there is no scientific assessment of various aspects of environment.

48. We are of the view that there is no material to substantiate the arguments. The plea that since against column for 'endangered species', reply in Form A is 'nil', the information is incomplete is incorrect. There is no separate list in the Wildlife Act, 1972 for such 'endangered' species. Scheduled animals are specified in Chapter VA of the Act for prohibiting trade and commerce. While it is true that the forest clearance format under Forest Rules has column for "rare /endangered/unique species of flora and fauna" against which answer mentioned is "No", in separate column in same form all details of wildlife have been duly given. Relevant extract from Form-A is as follows:

*"8. Significance of the forest land proposed for diversion form wildlife point of view*

*(i). Details of wildlife present in and around the forest land proposed for diversion : **Common Leopard 93 Nilgai 306 Sambar 5398 Chital 2633 Barking Deer 958 Goral 2 wild Pig 395 Jackal 22 Indian crested Porcupine 352 Leopard Cat 8 Jungle Cat 4 51 Asian Palm Civet 28 Masked Palm Civet 3 Yellow***

**Throated Marten 9 Indiana grey mongoose 30 Asian Elephant 55 Gray Langur 538 Rhesus macaque 2499 Monitor Lizard 7 Red Junglefowl 145 Kalih Pheasant 39 Peafowl 435 Indian hare 39 Risty spotted cat 3 as per WIL study for wild life** Mediation for monitoring (Camera Trapping).

(ii)to(iv) .....xxx.....xxx.....xxx

(v). **Whether any rare/endangered/unique species of flora and fauna found in the area: No”**

Thus, all necessary information for appraisal of the proposal is given and nothing is withheld nor is misleading, as submitted on behalf of the appellant.

## **WII Study**

49. Executive Summary of WII study is as follows:

*“The 20km stretch of NH72A between Ganeshpur and Dehradun passes through the wildlife rich habitats of Shivalik Forest Division, Uttar Pradesh and Rajaji Tiger Reserve as well as Dehradun Forest Division of Uttarakhand. This stretch of NH72A is being considered for expansion in order to provide better road connectivity between Delhi and Dehradun. Based on the request of National Highway Authority of India (NHAI), the Wildlife Institute of India (WII) carried out a rapid assessment of wildlife use along the road based on which appropriate mitigation measures are suggested in order to maintain the ecological integrity of the area. The road was categorized in to three distinct zones based on geographical and ecological features and 81 camera traps were deployed to sample the intensity of animal use in these three zones. To standardize the camera trap efforts, we determined the length of each road segment, and divided the species capture rates by the road length of each zone to get species capture rate per km length of road. Hotspots of animal use were generated using Kernel Density tool in ArcGIS Pro for all the camera trap points. We calculated the distance of the intensive use areas of heatmaps to get species specific and over all intensive crossing zones. We also identified consolidated crossing zones for important species and for species which are risky to human life/damage to vehicle owing to their large body size.*

*“The overall per kilometre capture rate of wild animals was highest in Zone III (between Asarodi and Dehradun) among the three road stretches. This was largely due to abundance of primates (mainly rhesus macaques) on this stretch which largely remain on the highway owing to food provisioning by humans. However, per kilometre capture rates were highest for most other animals groups viz. pheasants (including red jungle fowl, peafowl and Kalij pheasant), ungulates (chital, sambar, nilgai, wild pig, barking deer), elephant, small mammals (including Indian crested porcupine and*

*Indian hare) and leopard in Zone I (between Ganeshpur and Mohand) of NH 72A.”*

*Based on the data generated, we suggest to elevate the road at least for a stretch of 3.5km in Zone I (between Ganeshpur and Mohand) with minimum of 7m height at the openings from the ground either in its existing alignment or in a new alignment along the river. The wildlife crossings in zone II (between Mohand and Asarodi) are largely taken care by the elevated road proposed by NHAI between Mohand and Dat Kali temple. We identified a 850m intensive animal use area in zone III (between Asarodi and Dehradun) and propose two Animal Under Passes of 200m each at critical crossing points.*

*Our study clearly indicates that this 20km stretch of NH72A passes through a wildlife rich area. Appropriate mitigation measures as suggested are a must in order to maintain ecological integrity of the area, which is part of high priority conservation landscape, both locally as well as globally.*

*The short-term study carried out by us only provides a snapshot of wildlife use of the area adjoining the road owing to the restricted duration of sampling.”*

## **Appraisal by Standing Committee of National Wildlife Board**

50. Appraisal has been duly made by the Standing Committee of National Wildlife Board. Minutes are quoted below:

**“60.5.7 Improvement, upgradation and construction of Ganeshpur- Dehradun road (NH72A) in the State of Uttarakhand (km 16.115 to 19.746) to 4 lane configuration. [File No. 6-129/2020WL; Proposal No. FP/UK/ROAD/45283/2020]**

*The Member Secretary briefed the Standing Committee and stated that the proposal is for use of 9.6224 ha forest land for improvement, upgradation and construction of Ganeshpur-Dehradun road (NH-72A) in the State of Uttarakhand (Km 16.115 to Km 19.746) to 4 lane configuration. The proposal has been recommended by the Chief Wild Life Warden and the State Board for Wild Life. The representative of NHAI present during the meeting agreed with the mitigation measures suggested by the Chief Wild Life Warden.*

**Decision taken:** *After discussions, the Standing Committee decided to recommend the proposal subject to following:*

*A. Conditions imposed by the Chief Wild Life Warden:*

- 1. Barrier on both side of road to block and absorb noise and light pollution.*

2. Staggered plantation (preferably bamboo plantation) needs to be done on both sides of road to funnel animals toward the underpasses and culvert.
3. Dedicated monitoring for next 2-3 years to monitor animal road kills and man-wildlife conflict in nearby areas.
4. Funds for the (2) & (3) need to be provided to the forest department by the user agency.

**B. Condition imposed by the NTCA:**

1. Project proponent shall take appropriate mitigation measures for maintaining the habitat connectivity and animal passage as suggested by the Chief Wild Life Warden, Uttarakhand.
- C. The animal passage plan submitted by the Project Proponent shall be implemented in toto.
- D. The annual compliance certificate on the stipulated conditions should be submitted by the project proponent to the State Chief Wild Life Warden and an annual compliance certificate shall be submitted by the State Chief Wild Life Warden to Government of India.”

xxx .....xxx.....xxx

**“60.5.9 Improvement, upgradation and construction of Ganeshpur-Dehradun road (NH72A) in the state of Uttar Pradesh (Km 0.0 to Km 16.160) to 4 lane configuration, Uttar Pradesh. [File No. 6-168/2020WL; Proposal No. FP/UP/ROAD/45282/2020]**

The Member Secretary briefed the Standing Committee and stated that the proposal is for use of 47.7054 ha forest land for improvement, upgradation and construction of Ganeshpur-Dehradun road (NH72A) in the state of Uttar Pradesh (Km 0.0 to Km 16.160) to 4 lane configuration. The proposal has been recommended by the Chief Wild Life Warden and the State Board for Wild Life. The representative of NHAI present during the meeting agreed with the mitigation measures suggested by the Chief Wild Life Warden.

**Decision taken:** After discussions, the Standing Committee decided to recommend the proposal subject to following:

**A. Conditions imposed by the Chief Wild Life Warden:**

1. As forest land and trees standing over it are also involved in the project, Forest Clearance as per provisions of Forest (Conservation) Act 1980 will also be required.
2. User agency will comply with all conditions stipulated in forest clearance under Forest (Conservation) Act 1980.
3. User agency shall provide 2% of the project’s proportionate cost of the area falling in eco-sensitive zone for mitigation of negative impact and ecological development of wildlife habitat area as per guide line of Government of India.

4. *Apart from above the conditions, following wildlife mitigation measures shall to be followed by user agency:*
  - a. *Protection and mitigation measures for wildlife should be ensured as standard practice in such case.*
  - b. *Land shall not be used for any other purpose other than specified in the proposal.*
  - c. *Rules and regulation of the concerned department for establishing the project shall be complied.*
  - d. *The instruction/orders passed by the State Government/Central Government and the directions passed by Hon'ble Court/Supreme Court from time to time regarding such project shall be complied with.*
  - e. *User agency will ensure that the project personnel engaged in the project shall observe the provisions of the Wild Life (Protection) Act 1972 & Rules made thereafter.*
  - f. *Construction waste materials will not be thrown inside the eco-sensitive zone area or the movement corridor of wildlife.*
  - g. *User agency will take all precautions including technical measures to contain the noise and air pollution, protection from fire due to construction activities.*
  - h. *The project proponent shall obtain consent to establish and to operate from U.P. Pollution Control Board and effectively implement all the conditions stipulated therein.*
  - i. *The project proponent shall undertake plantation/forestation work by planting the native species in the area adjacent to project area/sanctuary for which necessary finance will be provided by the user agency.*
  - j. *No labour camp shall be established in the sanctuary/forest area of other sensitive areas.*
  - k. *Blasted Ammunition Materials will not be carried by user agency in wildlife area.*
  - l. *In addition to this, mitigation measures for development of Delhi - Dehradun Highway (NH-72A) in the Shivalik hills have been provided by WII, Dehradun.*
  - m. *No work shall be allowed from sunset to sunrise.*
  - n. *The user agencies shall extend all support to forest department in case of any forest & wildlife offence.*

## **B. Condition imposed by the NTCA**

1. *The project proponent shall take appropriate mitigation measures for maintaining the habitat connectivity and animal passage as suggested by the Chief Wild Life Warden, Uttar Pradesh.*
- C. *The animal passage plan submitted by the Project Proponent shall be implemented in toto.*

*D. The annual compliance certificate on the stipulated conditions should be submitted by the project proponent to the State Chief Wild Life Warden and an annual compliance certificate shall be submitted by the State Chief Wild Life Warden to Government of India.”*

51. **Appraisal by REC** is as follows:

S. No.	Name of Proposal	Dist.	Area (Ha.)	Decisions taken
52.1 UP	<i>Letter No.8B/U.P./06/120/2020/F.C.Online Proposal No FP/UP/Road/38699/2019 in respect of the permission of non-forestry use of the Protected forest land measuring 10.535 ha. of Hapur Forest Division for the widening /strengthening of 06 lane Hapur Bypass-Moradabad Section (NH-24) upto 85.850 km and for the felling of 573 trees located on that and Protected Forest Land measuring 14.448 ha. in Amroha Forest Division and felling of 321 trees located on it and non-forestry use of the total 25.023 ha. Protected Forest Land and felling of total 894 tress located on it.</i>	<i>Hapur/ Amroha</i>	<i>25.023 ha.</i>	<i>The proposal was recommended for approval on normal terms and conditions including following additional conditions- As far as possible maximum number of trees shall be translocated by the user agency, according to a detailed scheme for translocation of suitable plants, prepared in consultation with the State Forest Department and the Cost for the same shall be borne by the User Agency.</i>

52. **Summary of cost benefit analysis** is as follows:

*“Summary of Cost-Benefit Analysis for the Project.*

Sl. No.	Loss (in Lakhs)	Benefit (in lakhs)
1.	<i>Ecosystem services losses Rs. 373.8 Lakh</i>	<i>Ecological gain from compensatory afforestation on 95.4108 (atleast) hectare on degraded land would be Rs. 8464.65 lakh</i>
2.	<i>Loss of animal husbandry productivity, including loss of fodder = Rs. 37.38 lakh</i>	<i>240000- Man days will be generated for unskilled/semi-skilled worker in terms of Salary and Wages @ Rs. 500/day (average) = Rs. 1200.0 lakh</i>  <i>(# Minimum wages in Uttar Pradesh is Rs. 174.00, but for considering actual practical wages including lodging the average cost per day for semiskilled/labourer is approx. Rs. 500 per day)</i>  <i>Basic living amenities including alternative fuel (LPG, Solar Cooker etc.) will be supplied to labours/workers</i> <i>Construction period – 2 years</i> <i>Number of labours at peak time – 400</i> <i>Approx. 20% labour assume to be local</i>

		<i>Per head cost of fuel – Rs. 20/per day for rest 320 labours Total cost = Rs. 20x320 labours x 730 days = Rs. 2190000/- or Rs. 46.72 lakhs</i>
3.	<i>Loss of public facilities = 500 lakh</i>	---
4.	<i>Possession Value of Forest land diverted = 5152.18 lakh.</i>	----
5.	<i>Habitat fragmentation cost = 186.9 lakh</i>	---
6.	<i>Compensatory afforestation and soil &amp; moisture conservation cost = 766.14 lakh</i>	----
	<i>Total cost/Loss = Rs. 373.8 Lakh + Rs. 37.38 lakh + Rs. 500 lakh + Rs. 5152.18 lakh + 186.9 lakh + 766.14 lakh = 7016.4 lakh</i>	<i>Total gain/benefit from project = Rs. 8464.65 lakh + Rs. 1200.0 lakh + Rs. 46.72 lakhs = 9711.37 lakh</i> ”

53. Relevant **extracts from muck disposal plan** on muck disposal are as follows:

### **“QUANTITY OF MUCK TO BE GENERATED**

*Based on the geological nature of the rocks and engineering properties of the soil, a part of the muck generated can be used as construction material in road work. The balance needs to be suitably disposed. Normally, muck is disposed in low-lying areas or depressions. Trees, if any, are cut before muck disposal, however, shrubs, grass or other types of undergrowth in the muck disposal at sites perish. The muck disposal sites will be suitably stabilized on completion of the muck disposal.*

### **MUCK GENERATION FROM PROJECT COMPONENTS AND UTILIZATION**

SL	Project Component	Muck Generation Quantity (Cum)	Project Component	Muck utilization Quantity (Cum)
1.	<i>Tunnel from km 16+110 to km 16+270</i>	22628.50	<i>Tunnel from km 16+110 to km 16+270</i>	00
	<i>Road widening/Hill cutting and raising from km 16+270 to km 18+420</i>	410794.00	<i>Road widening/hill cutting and raising from km 16+270 to km 18+420</i>	68468.14
3.	<i>Elephant Underpass from km 18+420 to km 18+570</i>	00	<i>From km 18+420 to km 18+570 Elephant underpass</i>	00
4.	<i>Road widening work from km 18+570 to km 19+010</i>	00	<i>Road widening work from km 18+570 to km 19+010</i>	194261.74
5.	<i>Elephant Underpass from km 19+010 to km 19+190</i>	00	<i>Elephant Underpass from km 19+010 to km 19+190</i>	00

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6.	Road Widening work from km 19+190 to 19+746	3.023	Road widening work from km 19+190 to km 19+746	105095.73
	<b>Total</b>	433425.64		367825.6
	<b>Balance Quantity</b>	<b>65600.03</b>		

Loose Material= Bank Material+ Swell

Or

Loose=  $1 + (25/100) = 1.25$

Total Material to be disposed=considering swell factor= $65600.03 \times 1.25 = 82000.03$  Cum

## DISPOSAL OF MUCK

As detailed above total quantity of muck likely to be generated is 433425.64cum. Out this 433425.64 Cum quantity of muck, 367825.6 Cum muck will be utilized in project work itself. Remaining/ balance quantity of muck measuring 65600.03 cum need to be disposed off which will be 82000.03 Cum after addition of swell factor @ 25 %.

This is a not a very less in quantity and will be further utilized in construction camp making haul road/balancing work in additional area taken for temporary Work and approach road. In case, there is remaining material (muck), it will be re-utilized in another section of this road km 00+00 to 16+115 (Uttarakhand Part) for raising embankment near elephant underpass and approach roads

Further, in case of additional generation of muck due to unpredicted calculation like land slide etc, the generated muck will be utilized in another green field road project namely "Eastern peripheral Expressway to Saharanpur bypass road project. This road section is also proposed to be constructed along with this project road and are located at a distance of about 50 km. Being a green field road having 118 km road length, requires large quantity of material and remaining quantity of muck/ disposal material of Ganeshpur - Dehradun road project will be used in this road section as filling material/other suitable use. The cost for transportation of muck is included in contract agreement of contractor/concessionaire. No separate muck disposal area and plan is required.

As, muck is property of Forest Department royalty will be paid as per prevailing norm.

SL	Particulars	Remarks
1.	Calculation of muck to be generated. Swell factor to be applied	Total quantity of generated muck is 433425.64Cum. Add Swell factor 25% for Rock/Earth material So, Bank material is $100\%/100 = 1$ Loose Material = Bank Material + Swell Or $Loose = 1 + (25/100) = 1.25$ Total Material to be disposed ( $433425.64 - 367825.6 = 65600.03$ ) considering swell factor = $65600.03 \times 1.25 = 82000.03$ Cum Note- Component wise quantification is given in above table



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2.	<i>Quantity of muck to be utilized in the project activities</i>	367825.6Cum
3.	<i>Balance quantity of muck which requires disposal/ management plan.</i>	Without swell factor/original quantity = 433425.64Cum  With swell factor (@25%)=82000.03 Cum
4.	<i>Carriage of muck from the muck generation site to the dumping site.</i>	As per Contract condition muck will be carried by contractor at their own cost which will be included in civil cost.
5.	<i>Ownership of land and the consent of land Owners in case muck disposal is proposed on non-forest land.</i>	Another section of this same road (Ganeshpur-Dehradun) is under ownership of NHAI.  For Construction of road namely "Eastern peripheral Expressway to Saharanpur bypass road project", is being acquired and will be under ownership of NHAI.
6.	<i>Photograph &amp; carrying capacity of proposed dumping site (Muck disposal site)</i>	Carrying capacity of proposed site is much more than required disposal quantity (82000.03 Cum). The length of green field 4 lane road is 118 km and average embankment height is 2 meter with 60-meter width/RoW.
7.	<i>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.</i>	Not applicable, due to above mentioned reason in column no. 6.
8.	<i>Rehabilitation of dumping site like leveling, planting of grass, shrubs and tree species.</i>	Not applicable, due to above mentioned reason in column no. 6.

## **EIA/EMP**

54. EIA in terms of notification dated 14.9.2006 is not required for the project in question but for present project there are claimed to be EIA/EMP as part of DPR and 5% of project cost is said to be allocated for the environment protection measures. Contention that the entire project is more than 100 kms and, thus, exemption applicable to linear project upto 100 kms is not correct. Overall road connectivity cannot be taken to be one project for the purpose but in any case, EIA may be required when the project impacts environment even on precautionary principle, even if not under statutory notification. Such impact is studied by the National Board for Wildlife as well as REC while granting FC. Location for afforestation cannot be faulted merely on the ground that some vegetation already exists at such location. Replenishment plantation is a well-known strategy to

increase the forest density. Biodiversity impact study is also not technically required as the project is public project and not for any commercial exploitation. As regards carrying capacity study, it is undisputed that there is heavy traffic on the road stretch in question. The applicant also states that the city is congested. The project proposes decongestion based on study of the situation. City congestion is not shown to be adversely affected by the project of road widening. Seven-meter height for elevation applicable in Himalaya is not shown to apply to the present elevated road. In any case, to give effect to precautionary principle we propose to appoint Oversight Committee to ensure that mitigations are effective on the ground and during construction of the project no damage is caused to the environment by way of unscientific muck dumping or obstruction of animal corridor.

## **Conclusion**

55. In view of above, we find it difficult to hold that there is no application of mind in appraisal by the MoEF&CC in granting FC. Once the project is held to be duly appraised, stage II/tree felling clearance are consequential. We may, however, observe that for the sake of transparency, stage II clearance/tree cutting permission must be prompt after stage I and it must be uploaded on the website forthwith. Even while upholding FC clearance, we find it necessary that mitigation measures are effectively implemented and monitored on the ground by the NHAI and the same are overseen by an independent mechanism. Accordingly, we appoint an independent twelve-member Expert Committee to be headed by Chief Secretary, Uttarakhand with nominees of WII, CPCB, Uttarakhand State PCB, Chief Wild Life Wardens, Uttarakhand and UP, SEIAA Uttarakhand, FRI, Dehradun, Divisional Commissioners, Saharanpur and Dehradun

and Conservators of Forest, Dehradun and Saharanpur as members. Chief Wild Life Wardens, Uttarakhand and UP will be the nodal agency in the respective States. The Committee may meet within two weeks to take stock of the situation and plan further course of action. The Committee may thereafter meet atleast once in a month or at such earlier intervals as found necessary. Except physical inspection, the Committee is free to hold virtual/hybrid meetings. Any stakeholder will be free to represent to the Committee to consider remedial measures and if any grievance survives, to take remedies in accordance with law. We further direct that additional compensatory afforestation may be undertaken by NHAI through concerned Forest Departments on 10 ha of land each in Uttarakhand and UP, adjoining the stretch in question, preferably in more degraded area. NHAI may also deposit a sum of Rs. 1 crore over and above the EMP with FRI, Dehradun in a separate account for research of Sal regeneration, in collaboration with Forest Departments of Uttarakhand and UP and any other institution, as may be found necessary. Adequate provision may be made for mitigation measures for protection of wildlife in case funds allocated for the purpose are found inadequate by the Committee. Steps to be monitored will also include cordoning of elevated roads and other ecological sensitive stretches with proper barriers to absorb light and noise, fitting of cameras at strategic locations to monitor protection of wildlife movement and their habitats, mechanism for rescuing animals in case of any accidents, awareness for care and protection of wildlife.

The Appeal and the Application stand disposed of accordingly.

All pending I.A.s also stand disposed of.

A copy of this order be forwarded to the Chief Secretary, Uttarakhand, WII, CPCB, Uttarakhand State PCB, Chief Wild Life

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Wardens, Uttarakhand and UP, SEIAA Uttarakhand, FRI, Dehradun, Divisional Commissioners, Saharanpur and Dehradun and Conservators of Forest, Dehradun and Saharanpur by e-mail for compliance.

Adarsh Kumar Goel, CP

Sudhir Agarwal, JM

Dr. Nagin Nanda, EM

December 13, 2021  
Appeal No. 29/2021  
(I.A. No. 218/2021) and connected matter  
SN & DV