



सत्यमेव जयते

File No: 10/78/2023-IA.III
Government of India
Ministry of Environment, Forest and Climate
Change
IA Division



Dated 17/02/2024



To,

M/s National Highway Authority of India
D.NO. 331/2RT, 2nd Floor, P.S. Nagar, Masab Tank, Hyderabad , Telangana-500057
nhaihyd@gmail.com

Subject: The project is widening and improvement of the NH-163 starts from Hyderabad [ORR near Appa Junction at design km.14+000 and end at near Mannegudda (design km.60+405) in Telangana State. The total Length is 45.5 km in the State of Telangana under NH (O) on Hybrid Annuity Mode by M/s National Highway Authority of India -regarding.

Sir/Madam,

This is in reference to your application for Grant of Terms of Reference under the provision of the EIA Notification 2006-regarding in respect of project Four laning of NH-163 from Hyderabad [ORR near Appa Junction at design Km.14+000 (existing Km.14+000)] to Manneguda [design Km.60+405 (existing Km.59+500)] in the State of Telangana under NH(O) on Hybrid Annuity Mode submitted to Ministry vide proposal number IA/TG/INFRA1/457022/2024 dated 15/02/2024.

2. The particulars of the proposal are as below :

(i) TOR Identification No.	TO23A3604TG5148457N
(ii) File No.	10/78/2023-IA.III
(iii) Clearance Type	TOR
(iv) Category	A
(v) Project/Activity Included Schedule No.	7(f) Road
(vi) Sector	INFRA-1
(vii) Name of Project	Four laning of NH-163 from Hyderabad [ORR near Appa Junction at design Km.14+000 (existing Km.14+000)] to Manneguda [design Km.60+405 (existing Km.59+500)] in the State of Telangana under NH(O) on Hybrid Annuity Mode
(viii) Name of Company/Organization	PIU HYDERABAD
(ix) Location of Project (District, State)	RANGA REDDY, TELANGANA

(x) Issuing Authority	MoEF&CC
(xii) Applicability of General Conditions	no
(xiii) Applicability of Specific Conditions	no

3.3. The above mentioned proposal was considered by the Expert Appraisal Committee (EAC) for Infrastructure, CRZ and other miscellaneous projects in its 353rd meeting held on 10th and 12th January, 2024. In the Ministry of Environment Forest and Climate Change, New Delhi. The project proponent made a presentation in the Ministry and provided the following information:-

I. The project is widening and improvement of the NH-163 starts from Hyderabad [ORR near Appa Junction at design km.14+000 and end at near Mannegudda (design km.60+405) in Telangana State. The total Length is 45.5 km in the State of Telangana under NH(O) on Hybrid Annuity Mode by M/s National Highway Authority of India.

II. The proposed widening and improvement of the NH-163 starts from Hyderabad [ORR near Appa Junction at design km.14+000 and end at near Mannegudda (design km.60+405) in Rangareddy district of Telangana State. Total length of the project is 46.4 km. The alignment start at 17°20'56.61"N 78°21'29.30"E and ends at longitudes of 17°17'53.21"N 77°59'30.74"E.

III. The Hon'ble National Green Tribunal Judgment dated 6th November, 2023 in the matter of Balantrapu Vs. Union of India and NHA 6th November, 2023 in Original Application No.242 of 2021(SZ) I.A. Nos.17 & 75 of 2023 (SZ) directed as following:

(i) *The NHA (Respondent No.2) is directed to undertake an Environmental Impact Assessment (EIA) Study to minimize the loss to the trees before proceeding further.*

(ii) *The MoEF&CC (Respondent No.1) is directed to issue the Terms of Reference (ToR) at the earliest and complete the process in 4 (Four) months time.*

IV. Accordingly the M/s NHA on 02/01/2024 submitted the online application on PARIVESH Portal. The proposal was considered in the 353rd EAC meeting held on 10th & 12th January, 2024.

V. As directed by the Hon'ble NGT, The proposed project considered under Schedule 7(f), Highways, Category "A" of EIA Notification 2006. Total estimated civil cost of the project is about Rs. 928.41 Cr.

VI. Land use pattern of 10 km radius of the project road is contributed by the agricultural, forest, vegetation built up and barren land.

VII. Terrain and topographical features: The project mostly follows 'plain and rolling' terrain. The elevation varies from ~565 m to ~687 m above MSL at different locations. Average elevation of the project stretch is ~626 m above MSL.

VIII. Right of Way (RoW): The proposed RoW is 45m on existing road and 60m in bypasses RoW except Rest Areas, and entry/exit toll plazas).

IX. Details of water bodies, impact on drainage: The project stretch passes through 2 Nalla. Minor Bridges shall be provided at all the crossings.

X. Water requirements: About 2000 KLD of water for 24 months shall be required for construction of the project. Water shall be sourced from surface water bodies through Tanker after necessary approval. No groundwater extraction is proposed. However, if potable water is required same shall be extracted after necessary permission from appropriate authority.

XI. Tree cutting: About 11669 trees are falling within PROW. The tree enumeration for affected trees shall be undertaken during detailed EIA Study. The inventory will include tree species, girth and height.

XII. Diversion of forest land: 42.74 Ha of forest land is required for the project. Stage-II approval has been obtained from the IRO, MoEF&CC vide letter no.4-TSB132/2018-CHN/93 dated 20th October, 2021.

XIII. The existing road is passing through along the boundary of Murgavani National Park. However, there is no widening proposed along the Murgavani National Park. The project is passing through the ESZ area of Mrugavani National Park. However, there is no widening proposed along the boundary of Murgavani National Park.

XIV. Land acquisition and R&R issues involved: Approx. 257.41 ha. land is required for the project. The land acquisition has been done as per NH Act, 1956 and RFCT LARR Act, 2013.

XV. Employment potential: Project shall provide employment opportunities for ~300 population (including permanent and temporary) based on Ministry of Road Transport & Highways Press.

XVI. Benefits of the project: Will provide easy access to commuters of the settlement located along the road; Will provide easy accessibility for school, medical facilities, etc. for the nearby settlements with urban centres (Hyderabad, Moinabad and Chevella; Project Road would bring about all-round development activities in the region, such as movement of people and goods, agriculture, commerce, education, health and social welfare, or even maintenance of law and order and security.

During the meeting, EAC observed the following

(i) During the meeting PP mentioned that about 759 Banyan trees existing on either side of the road and as far as the alignment and realignment is concerned, it was decided to lay the road in such a manner on account of the eccentric laying where ever possible to save the trees and this has now resulted in saving 209 number of trees.

(ii) The Committee also observed that the alignment seems to be passing through ESZ of Mrugavani National Park and forest area.

(iii) Alignment in forest area has already been examined by the competent authority in state forest department .

(iv) Committee also desired to know the complete alignment and understand the issue comprehensively since expansion of existing road(s) in will be influencing cutting of large no of trees as well as passing through forest area.

(v) The EAC was of the opinion that after seeing the presentation prima facie there is some more scope for saving the trees, especially banyan trees

(vi) The Committee opined that Banyan tree can be translocate and having the very good survival rate.

(vii) Considering the sensitive nature of the alignment a sub-committee will make a site visit before finalisation of the EIA/EMP report. The alignment shall be finalized once the site visit report is submitted.

4. The EAC based on the information submitted and clarifications provided by the project proponent and detailed discussions held on all the issues during 353rd meeting held on 10th and 12th January, 2024 and **recommended** the project for grant of Terms of Reference (ToR) with stipulated specific conditions along with other Standard ToR Conditions.

5. The Ministry of Environment, Forest and Climate Change has considered the proposal based on the recommendations of the Expert Appraisal Committee (Infrastructure, CRZ and other Miscellaneous projects) and hereby decided to grant Terms of Reference for the 'project is widening and improvement of the NH-163 starts from Hyderabad [ORR near Appa Junction at design km.14+000 and end at near Mannegudda (design km.60+405) in Telangana State. The total Length is 45.5 km in the State of Telangana under NH (O) on Hybrid Annuity Mode by M/s National Highway Authority of India' and for preparation of EIA/EMP report with public consultations under the EIA Notification, 2006 as amended, subject to strict compliance of the following specific conditions, in addition to all standard ToR conditions applicable for such projects.

4. 6. This issues with the approval of the Competent Authority.

Copy To

- 1. The Member Secretary, Telangana State Pollution Control, Paryavarana Bhavan, A-3, I.E., Sanath Nagar, Hyderabad - 500 018.
- 2. Inspector General of Forests, Ministry of Environment, Forest and Climate Change, Integrated Regional Office, Hyderabad 3rd Floor, Aranya Bhawan, Opp. RBI, Safiabab – 500004, Hyderabad, Telangana.
- 3. Parivesh Portal
- 4. Guard File.

Annexure 1

Specific Terms of Reference for (Road)

1. Specific Conditions

S. No	Terms of Reference
1.1	<ul style="list-style-type: none">1. Alignment of road and its design in non-forest area shall be revised so as to avoid cutting of trees, especially the banyan trees.2. Alignment in Forest area is already examined by SFD and MOEFCC while granting Forest Clearance. However, PP shall explore the possibility of reducing the width of median as well as adding animal underpasses for facilitating the free movement of wildlife.3. Subcommittee of the EAC shall make the site visit before the end of January 2024 for finding out possible changes in the alignment and road design and submit report and recommendations so as to enable the EAC to issue an additional TOR if required.4. The proponent, with the help of an independent institution of national repute shall carry out the impact studies of proposed alignment (once finalized after the sub-committee visit) on biodiversity with focus on fauna and flora within 10 km distance of proposed alignment and prepare a detailed Conservation Plan along with adequate mitigation measures. The plan shall be duly prepared in consultation of Chief Wildlife Warden of Telangana.5. After finalisation of alignment and road design the PP shall, in consultation with concerned Divisional Forest Officers of the state forest department, shall identify and translocate the banyan trees to suitable site through an expert tree translocation agency.6. The alignment of road should be such that the cutting of trees is kept at bare minimum and for this the proponent shall obtain permission from the competent authorities.7. Project alignment should be such that felling of the Heritage/old trees are avoided as far as possible. All such trees should be geo-tagged.8. The proponent, with the help of an independent institution of national repute, shall carry out a comprehensive socio-economic assessment with emphasis on impact of ongoing land acquisition on the local people living around the proposed alignment. The Social Impact Assessment should have social indicators which can reflect on impact of acquisition on fertile land. The Social Impact Assessment shall take into consideration of key parameters like people’s dependency on

S. No	Terms of Reference
	<p>fertile agricultural land, socio-economic spectrum, impact of the project at local and regional levels.</p> <p>9. A comprehensive assessment of water catchment, hydrology and drainage pattern within 10km of the alignment, impacts of project on the same and its mitigation with requisite financial allocation.</p> <p>10. The proponent, with the help of an independent institute of national repute, shall carry out a detailed traffic study to assess inflow of traffic from adjoining areas like airport/urban cities. The detailed traffic planning studies shall include complete design, drawings and traffic circulation plans (taking into consideration integration with proposed alignment and other state roads etc.). Wherever required adequate connectivity in terms of VUP (vehicle underpass)/PUP (Pedestrian underpass) needs to be included.</p> <p>11. Road safety audit (along with accident/black spots analysis) by any third-party competent organization at all stages namely at detailed design stage, construction stage and pre-opening stage to ensure that the project road has been constructed considering all the elements of road safety.</p> <p>12. Rain water harvesting structures to be constructed at the either sides of the road with special precaution of oil filters and de-silting chambers.</p> <p>13. Provide compilation of road kill data on existing roads (national and state highways) in the vicinity of the proposed project. Provide measures to avoid road kills of wildlife by the way of road kill management plan.</p> <p>14. Trees with heronry (breeding ground for herons, egrets, etc), pelicanary or community nesting of birds like Painted Storks, Ibis, Egrets, Pelican, etc will not be allowed to fell. In case of presence of such, alignment will be required to be changed to save such trees.</p> <p>15. A comprehensive plan for plantation of three rows of native species, as per IRC guidelines, shall be provided. Such plantation alongside of forest stretch will be over and above the compensatory afforestation. Tree species should be same as per the forest type.</p> <p>16. As per the Ministry's Office Memorandum F. No. 22-65/2017-IA.III dated 30th September, 2020, the project proponent, based on the commitments made during the public hearing, shall include all the activities required to be taken to fulfill these commitments in the Environment Management Plan along with cost estimates of these activities, in addition to the activities proposed as per recommendations of EIA studies and the same shall be submitted to the ministry as part of the EIA Report. The EMP shall be implemented at the project cost or any other funding source available with the project proponent.</p> <p>17. In pursuance of Ministry's OM No stated above the project proponent shall add one annexure in the EIA Report indicating all the commitments made by the PP to the public during public hearing and submit it to the Ministry and the EAC.</p> <p>18. The PP shall not use groundwater/surface water without obtaining approval from CGWA/SGWA as the case may be. The project proponent shall apply to the Central Ground Water Authority (CGWA)/State Ground Water Authority (SGWA)/Competent Authority, as the case may be, for obtaining No Objection Certificate (NOC), for withdrawal of ground water.</p> <p>19. The Action Plan on the compliance of the recommendations of the CAG as per Ministry's Circular No. J-11013/71/2016-IA.I (M), dated 25th October, 2017 needs to be submitted at the time of appraisal of the project and included in the EIA/EMP Report.</p>

1. Project Details

S. No	Terms of Reference
1.1	Examine and submit a brief description of the project, project name, nature, size, its importance to the region/state and the country.
1.2	Submit detailed alignment plan, with details such as nature of terrain (plain, rolling, hilly), land use pattern, habitation, cropping pattern, forest area, environmentally sensitive places, mangroves, notified industrial areas, sand dunes, sea, river, lake, details of villages, teshils, districts and states, latitude and longitude for important locations falling on the alignment by employing remote sensing techniques followed by ground truthing and also through secondary data sources.
1.3	Describe various alternatives considered, procedures and criteria adopted for selection of the final alternative with reasons.
1.4	If the proposed route is passing through a city or town, with houses and human habitation on the either side of the road, the necessity for provision of bypasses/diversions/under passes shall be examined and submitted. The proposal should also indicate the location of wayside amenities, which should include petrol station/service centre, rest areas including public conveyance, etc. Noise reduction measures should also be indicated.
1.5	Submit details about measures taken for the pedestrian safety and construction of underpasses and foot-over bridges along with flyovers and interchanges. If any.
1.6	Assess whether there is a possibility that the proposed project will adversely affect road traffic in the surrounding areas (e.g. by causing increases in traffic congestion and traffic accidents). Specific care be also taken to ensure that by passes have a sufficient buffer to prevent unwanted obstructions defying the purpose of the by pass
1.7	If the proposed route involves cutting of earth, the details of area to be cut, depth of cut, locations, soil type, volume and quantity of earth and other materials to be removed with location of disposal/ dump site along with necessary permission.
1.8	If the proposed route is passing through low lying areas, details of fill materials and initial and final levels after filling above MSL, should be examined and submit.
1.9	Examine and submit the water bodies including the seasonal ones within the corridor of impacts along with their status, volumetric capacity, quality likely impacts on them due to the project.
1.10	Examine and submit the details of use of fly ash in the road construction, if the project road is located within the 100 km from the Thermal Power Plant.
1.11	Explore the possibilities of utilizing the debris/ waste materials available in and around the project area.

2. Forest

S. No	Terms of Reference
2.1	In case the project involves diversion of forests land, guidelines under OM dated 20.03.2013 may be followed and necessary action taken accordingly.
2.2	The information should be provided about the details of the trees to be cut including their species and whether it also involves any protected or endangered species. Measures taken to reduce the number of the trees to be removed should be explained in detail. Submit the details of compensatory plantation.
2.3	Necessary green belt shall be provided on both sides of the highway with proper central verge and cost provision should be made for regular maintenance
2.4	If there is a possibility that the construction/widening of road will cause impact such as destruction of forest, poaching, reductions in wetland areas, if so, examine the impact and submit details.

3. Court Matters

S. No	Terms of Reference
3.1	Details of any litigation(s) pending against the project and/or any directions or orders passed by any court of law/any statutory authority against the project to be detailed out.

4. Land Environment

S. No	Terms of Reference
4.1	Submit Land use map of the study area to a scale of 1: 25,000 based on recent satellite imagery delineating the crop lands (both single and double crop), agricultural plantations, fallow lands, waste lands, water bodies, built-up areas, forest area and other surface features such as railway tracks, ports, airports, roads, and major industries etc.
4.2	submit a detailed ground surveyed map on 1:2000 scale showing the existing features falling within the right of way namely trees, structures including Archeological& religious, monuments etc. if any.
4.3	If the proposed route is passing through any hilly area, examine and submit the stability of slopes, if the proposed road is to pass through cutting or embankment / control of soil erosion from embankment. Landslide, rock fall protection measures to be indicated.

5. Wildlife

S. No	Terms of Reference
5.1	The projects is located within 10km. of the sanctuary a map duly authenticated by Chief Wildlife Warden showing these features vis-à-vis the project location and the recommendations or comments of the Chief Wildlife Warden thereon should be furnished at the stage of EC.
5.2	Details of blasting if any, methodology/technique adopted, applicable regulations/permissions, timing of blasting, mitigation measures proposed.keeping in view mating season of wild life.

S. No	Terms of Reference
5.3	Explore the possibilities of relocating the existing trees. Animal and wild life crossings to be provided in areas inhabited by wild life.
5.4	Study regarding the Animal bypasses / underpasses etc. across the habitation areas shall be carried out. Adequate cattle passes for the movement of agriculture material shall be provided at the stretches passing through habitation areas.
5.5	Provide compilation of road kill data on the wildlife on the existing roads (national and state highways) in the vicinity of the proposed project. Provide measures to avoid road kills of wildlife by the way of road kill management plan.

6. Soil Quality Analysis

S. No	Terms of Reference
6.1	Submit the details on compliance with respect to Research Track Notification of MoRTH 20) Examine and submit the details of sand quarry and borrow area as per OM no.2-30/2012-IA-III dated 18.12.2012 on 'Rationalization of procedure for Environmental Clearance for Highway Projects involving borrow areas for soil and earth as modified vide OM of even no. dated March 19, 2013.

7. Climate And Meteorology

S. No	Terms of Reference
7.1	Climate and meteorology (max and min temperature, relative humidity, rainfall, frequency of tropical cyclone and snow fall); the nearest IMD meteorological station from which climatological data have been obtained to be indicated.

8. Air Environment

S. No	Terms of Reference
8.1	The air quality monitoring should be carried out as per the new notification issued on 16th November, 2009.
8.2	Examine the impact during construction activities due to generation of fugitive dust from crusher units, air emissions from hot mix plants and vehicles used for transportation of materials and prediction of impact on ambient air quality using appropriate mathematical model.
8.3	Description of model, input requirement and reference of derivation, distribution of major pollutants and presentation in tabular form for easy interpretation shall be carried out.

9. Noise Environment

S. No	Terms of Reference
9.1	Identify project activities during construction and operation phases, which will affect the noise levels and the potential for increased noise resulting from this project.
9.2	Discuss the effect of noise levels on near by habitation during the construction and operational phases of the proposed highway
9.3	Identify noise reduction measures and traffic management strategies to be deployed for reducing the negative impact if any.
9.4	Prediction of noise levels should be done by using mathematical modeling at different representative locations.
9.5	Also examine and submit the details about the protection to existing habitations from dust, noise, odour etc. during construction stage.

10. Water Environment

S. No	Terms of Reference
10.1	Examine and submit details of water quantity required and source of water including water requirement during the construction stage with supporting data and also categorization of ground water based on the CGWB classification
10.2	Examine and submit the details of measures taken during constructions of bridges across river/canal/major or minor drains keeping in view the flooding of the rivers and the life span of the existing bridges.
10.3	In case of river/ creek crossing, details of the proposed bridges connecting on either banks, the design and traffic circulation at this junction with simulation studies.
10.4	Details to ensure free flow of water in case the alignment passes through water bodies/river/ streams etc.

11. Drainage

S. No	Terms of Reference
11.1	If there will be any change in the drainage pattern after the proposed activity, details of changes shall be examined and submitted.
11.2	If the proposed route involves tunneling, the details of the tunnel and locations of tunneling with geological structural fraction should be provided. In case the road passes through a flood plain of the river, the details of micro drainage, flood passages and information on high levels flood periodicity at least of last 50 years in the area should be examined.

12. Rain Water Harvesting

S. No	Terms of Reference
12.1	Rain water harvesting pit should be at least 3 - 5 m. above the highest ground water table.
12.2	Provision shall be made for oil and grease removal from surface runoff

13. Road And Traffic

S. No	Terms of Reference
13.1	Submit the details of road safety, signage, service roads, vehicular under passes, accident prone zone and the mitigation measures.
13.2	IRC guidelines shall be followed for widening & upgradation of road.
13.3	IRC guidelines to be followed for traffic safety while passing through the habitat.
13.4	Provision of speed breakers, safety signals, service lanes and foot paths should be examined at appropriate locations throughout the proposed road to avoid the accidents.
13.5	In case of bye passes, the details of access control from the nearby habitation/habitation which may come up after the establishment of road.
13.6	Submit details of social impact assessment due to the proposed construction of road.
13.7	Examine road design standards, safety equipment specifications and Management System training to ensure that design details take account of safety concerns and submit the traffic management plan.
13.8	Accident data and geographic distribution should be reviewed and analyzed to predict and identify trends - incase of expansion of the existing highway and provide Post accident emergency assistance and medical care to accident victims.
13.9	The proponent shall carry out a detailed traffic flow study to assess inflow of traffic from adjoining areas like airport/urban cities. The detailed traffic planning studies shall include complete design, drawings and traffic circulation plans (taking into consideration integration with proposed alignment and other state roads etc.). Wherever required, adequate connectivity in terms of VUP (vehicle underpass)/ PUP (Pedestrian underpass) needs to be included.

14. Land Acquisition And R&R

S. No	Terms of Reference
14.1	Details of the properties, houses, businesses religious and social places etc. activities likely to be effected by land acquisition and their financial loses annually.
14.2	Detailed R&R plan with data on the existing socio-economic status of the population in the study area and broad plan for resettlement of the displaced population, site for the resettlement colony, alternative livelihood concerns/employment and rehabilitation of the displaced people, civil and housing amenities being offered, etc and the schedule of the implementation of the project specific.

S. No	Terms of Reference
14.3	whether governmental or on the basis of BOT etc and provide details of budget provisions (capital & recurring) for the project specific R&R Plan.
14.4	Examine and submit the details of sand quarry, borrow area and rehabilitation
14.5	If the proposed project involves any land reclamation, details to be provided for which activity land to reclaim and the area of land to be reclaimed.

15. Socio-economic Environment

S. No	Terms of Reference
15.1	The proponent shall carry out a comprehensive socio-economic assessment and also impact on biodiversity with emphasis on impact of ongoing land acquisition on the local people living around the proposed alignment. The Social Impact Assessment should have social indicators which can reflect on impact of acquisition on fertile land. The Social Impact Assessment shall take into consideration of key parameters like people's dependency on fertile agricultural land, socio-economic spectrum, impact of the project at local and regional levels.
15.2	As per the Ministry's Office Memorandum F.No.22-65/2017-IA.III dated 30th September, 2020, the project proponent, based on the commitments made during the public hearing, shall include all the activities required to be taken to fulfil these commitments in the Environment Management Plan along with cost estimates of these activities in addition to the activities proposed as per recommendations of EIA Studies and the same shall be submitted to the ministry as part of the EIA Report. The EMP shall be implemented at the project cost or any other funding source available with the project proponent.

16. Environmental Monitoring and Management

S. No	Terms of Reference
16.1	Estimated cost of the project including environmental monitoring cost and funding agencies. Submit environmental management and monitoring plan for all phases of the project viz. construction and operation.
16.2	The cost of the Project (capital cost and recurring cost) as well as the cost towards implementation of EMP should be clearly spelt out.
16.3	Any further clarification on carrying out the above studies including anticipated impacts due to the project and mitigative measure.

17. Alignment, Esz & Crz

S. No	Terms of Reference
17.1	In case of alignment passing through coastal zones

S. No	Terms of Reference
17.2	HTL/LTL map prepared by authorized agencies superimposed with alignment and recommendation of Coastal Zone Management Authority
17.3	Details of CRZ-I areas, mangroves required to be removed for the project along with the compensatory afforestation, area and location with budget
17.4	Details of road on stilt in CRZ-I areas, design details to ensure free tidal flow

18. Employment

S. No	Terms of Reference
18.1	Details of Labour camps, machinery location.

19. Miscellaneous

S. No	Terms of Reference
19.1	The Action Plan on the compliance of the recommendations of the CAG as per Ministry's Circular No. J-11013/71/2016-IA. I (M), dated 25th October, 2017 needs to be submitted at the time of appraisal of the project and included in the EIA/EMP Report.

