F. No. 10-30/2019-IA.III

Government of India Ministry of Environment, Forest and Climate Change (Impact Assessment Division)

> Indira Paryavaran Bhawan, Jor Bagh Road, Aliganj New Delhi - 110 003

> > Dated: 19 July, 2019

То

The Project Director

Ministry of Road Transport & Highways National Highways Authority of India (PIU), Dwarka 201 E/A, 2nd Floor, D 21, Corporate Park Near Dwarka Sector-8 Metro Station Sector – 21, Dwarka **New Delhi** – 110 075

Sub: Development of Urban Extension Road-II (NH-344M) from Design chainage Km 0.000 to Km 38.111. Development of link road (new NH-344P) (Km 0.000 to Km 29.600) between Bawana Industrial Area Delhi (from Km 7.750 of UER II) till bypass of NH-352A at village Barwasni, Sonipat in Haryana as spur of Urban Extension Road-II (NH-344M) in the state of Delhi/Haryana. Development of link road (new NH-344N) (Km 0.000 to Km 7.500) between Dichaon Kalan till Bahadurgarh Bypass/NH-10 in the state of Delhi/Haryana. (Total Length of Project: 75.211 Km) by M/s National Highways Authority of India (NHAI) – Terms of Reference.

Sir,

This has reference to your letter no. PIU/UER-II/31/01//567, submitting above mentioned proposal online on 13th May, 2019, for seeking Terms of Reference (TOR) as per the provisions of the Environment Impact Assessment (EIA) Notification, 2006 and subsequent amendments under the Environment (Protection) Act, 1986.

2. The above mentioned proposal was considered by the Expert Appraisal Committee (EAC) for Industrial Estate/Area, SEZ and Highways projects in its 217th meeting held on 27th June, 2019 in the Ministry of Environment, Forest and Climate Change, New Delhi.



3. The project proponent along with the EIA consultant M/s Amaltas Enviro Industrial Consultants LLP (AEC), New Delhi, made a presentation and provided the following information to the Committee:

(i) To decongest the traffic from Delhi, Delhi Development Authority (DDA) as part of the Delhi Master Plan 2021 proposed Urban Extension Road (UER) – II as 3rd ring road of Delhi connecting all the major National Highways in the western side of Delhi including NH-1, NH-10, NH-8 and NH-2. The RoW for UER was decided as 100 m. Although substantial chunk of land was acquired in western part of Delhi between NH-1 and NH-8 including construction of road for a length of 16 Km (approximately) however, no progress was made in the section between NH-8 and NH-2. Also the section between NH-8 and NH-1 has major hindrances in terms of land acquisition including built up structures. DDA then decided to get the UER-II section between NH-8 and NH-1 to be developed by National Highway Authority of India (NHAI).

NHAI entrusted to develop Urban Extension Road-II (UER-II). "The highway starting from its junction with NH-44 near Bankoli Village connecting Narela, Mundka, Najafgarh, Dwarka and terminating at its junction with NH-248 BB near Bhartal Chowk in the NCT of Delhi". This section of UER-II is declared as NH-344M vide Ministry of Road Transport and Highways Gazette Notification S.O. 1466(E) dated 3rd April, 2018.

This section of UER-2 has two Spurs (1) spur to Barwasni By-pass (Sonipat), length is 29.600 Km & (2) Spur to Bahadurgarh By-pass, length is 7.500 Km.

- Spur to Barwasni By-pass (Sonipat) is declared as NH-344P vide Ministry of Road Transport and Highways Gazette Notification S.O. 969(E) dated 22nd February, 2019 "The highway starting from its junction with NH-344M near Bawana Industrial Area in NCT of Delhi and terminating at its junction with NH-352A near Barwasini village (Sonipat) in the State of Haryana.".
- Spur to Bahadurgarh By-pass is declared as NH-344N vide Ministry of Road Transport and Highways Gazette Notification S.O. 969(E) dated 22nd February, 2019 "The highway starting from its junction with NH-344M near Dichaun Kalan in NCT of Delhi and terminating at its junction with NH- 9 near Balaur village (Bahadurgarh Bypass) in the state of Haryana".

Thus, total length of project road is 75.211 Km. Project Road is traversing through two states i.e. Delhi and Haryana.

 (ii) The proposed project road alignment of UER-II takes off from NH-44 (old NH-1) at Ch. 23+800 near village Bankoli connecting Narela, Mundka, Najafgarh, Dwarka and terminates near the junction of NH-248BB at Sector 24 in Dwarka near Bharthal Chowk in the NCT of Delhi. Spur (NH-344P) to Barwasni Bypass (Sonipat) starting from its junction with new NH-344M near Bawana Industrial Area in NCT of Delhi and terminating at its junction with NH-352A near Barwasini village (Sonipat) in the State of Haryana. Spur (NH-344N) to Bahadurgarh starting from its junction with new NH-344M near Dichaun Kalan in NCT of Delhi and terminating at its junction with NH-9 (old NH-10) near Balaur village (Bahadurgarh Bypass) in the State of Haryana.

S. No.	State	District	Tehsil	Villages
1.	Delhi	North, North West, West and South West	Narela & Bawana, Kanjhawala, Nangloi, Najafgarh & Kapashera.	Bankoli, Holambi Kalan, Holambi Khurd, Khera Khurd, Bawana, Dariyapur Kalan, Harweli, Karala, Mohammad Pur Majari, Madan Pur Dabas, Rani Khera, Rasulpur, Mundka, Bakkarwala, Dichaon Kalan, Jaroda Kalan, Neelwal Nangli Sakrawati, Masoodabad, Najafgarh, Roshanpura, Dindarpur, Tajpur, Chhawala, Dhulsiras in NCT of Delhi
2.	Haryana	Sonepat and Jhajjar	Kharkhoda & Sonepat, Bahadurgarh	Jhinjoli, Halalpur, Nahara, Mandora, Garhi Bala, Mohammadabad, Bindroli,

(iii) **Location:** State-wise location is given in the table below:

- (iv) Land Use of the Site and around the site up to 10 km radius: The alignment is passing through plain terrain. The predominant land use along the alignment is agricultural followed by residential & commercial and mix land use.
- (v) Land Acquisition and RoW: Total land acquisition for the proposed project is 234.4522 ha, out of which 57.2318 ha is government land and 177.2204 ha is private land. The existing RoW of UER-II (NH-344M) varies between 55 m to 100 m except approx. 8 Km of length has no available ROW and Proposed ROW varies from 35 m to 200 m (200m ROW proposed at toll plaza). There is no existing RoW available for Spur to Bahadurgarh By-pass (NH-344N) and Proposed ROW varies from 35 m to 60 m. The existing RoW of Spur to Sonipat By-pass (NH-344P) varies between 30 m to 45 m and Proposed ROW varies from 30 to 170m (170m ROW proposed at toll plaza).

Bypass / realignment has been proposed at 4 locations –a) Realignment from design Ch. 15+000 to Ch. 20+400 (5.4 km), b) Realignment from design Ch. 27+000 to 27+100 (0.1 km), c) Realignment from design Ch. 27+600 to 27+900 (0.3 km) and d) Realignment from design Ch. 30+200 to 32+200 (2 km) is proposed.

(vi) Justification for selection of the site:

- a. The alignment of UER 2 takes off from NH 1 (Ch. 23+800) near village Bankoli and terminates near the junction of Sector 24 in Dwarka. The present alignment is proposed to connect NH 1 with NH 8 passing through Bawana Industrial Area, Rohini Sector 34, 35, 36, 37, Mundka Industrial Area, Najafgarh & Dwarka. The proposed alignment crosses the Delhi-Karnal Railway Line, NH 10 and Delhi-Rohtak Railway Line and merges with the contract package of UER 2 taken up with Dwarka Expressway at Sector 24 which further connects it with Shiv Murti at NH-8.
- b. Sonipat is proposed to be connected with UER 2 by a spur road which will take off at the crossing of UER 2 with Bawana Industrial Area (Sector 3/4). The same spur will connect UER 2 with Barwasni By-pass NH 252-A (near Sonipat). Length of the spur has been worked out to be 28.3 km. This road will assist in reducing the traffic load on NH-1, as this section will serve as an alternate connectivity between Delhi &Sonipat further connecting Sonipat with Gurgaon.
- c. Spur to Bahadurgarh By-pass is proposed to be developed as an additional road along with the proposed UER 2. The proposed section will have a total length of approx. 7.6 km from UER 2 (km 26+600) to Bahadurgarh By-pass (near Village Balaur, NH-10). This spur will provide direct connectivity to commuters from Bahadurgarh & Rohtak to areas of Delhi (including Vasant Kunj, Hauz Khas, Green Park etc.) & parts of Gurgaon via UER 2 and Dwarka Expressway.

(vii) Proposed development:

- Bridge & Culverts: 1 major bridges, 23 minor bridges and 30 culverts
- Interchanges: Ch. 0+000 of NH-344M, Ch. 1+750 of NH-344M, Ch. 5+200 of NH-344M, Ch. 7+750 of NH-344M, Ch. 11+300 of NH-344M, Ch. 26+135 of NH-344M, Ch. 29+300 of NH-344P and Ch. 7+300 of NH-344N
- Flyover & VUP: 43 Grade separator structure; 10 Vehicular Underpasses, 12 Light Vehicular Underpasses, 8 Pedestrian Subway
- ROB: 6-lane ROB at Ch. 3+505 (UER-II) and Ch. 20+700 (UER-II)
- Junction: 19 major junctions and 74 minor junctions
- Slip/Service Roads: (104.966) km
- Toll Plaza: 2 toll plazas at Ch. 23+100 of 344M and Ch. 9+300 of 344P
- Bus Byes: 29 Locations
- (viii) **Total water requirement and its source:** Total water requirement for 30 months of construction period is 23,11,572 KL. Major quantity of water would

be sourced from Delhi Jal Board. The required permission will be obtained by the Contractor prior to construction as per law/agreement.

- (ix) Material Requirement: The expected quantity of materials required during the construction phase of the project on per km basis shall be Aggregate: 30,51,634 MT, Steel: 1,23,478 MT, Earth Fill: 67,91,587 Cum, Cement: 5,88,405 (MT), Bitumen: 30,411 MT. The construction material will be sourced from government approved quarries and borrow areas identified along the proposed project road.
- (x) **Water bodies, diversion if any:** The proposed alignment is crossing various water bodies. Details are given below:

UER-II

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- Drain No 6: Chainage: Km. 0+550
- Nahri Major Distributary: Chainage: Km. 0+835
- Drain: Chainage: Km. 2+315
- Western Yamuna Canal: Chainage: Km. 7+100
- Water Body 1: Chainage: Km. 14+400
- Water Body 2: Chainage: Km. 15+900
- Mungashpur Drain: Chainage: Km. 27.100 to 27+200
- Pond: Chainage: Km. 33+500
- Najafgarh Drain: Chainage: Km. 37+400

SPUR-1

- Twin Drain Chainage: Km. 15+700, Km. 19+477, Km. 29+293
- Distributary/Canal: Chainage: Km. 15+508, Km. 23+908, Km. 25+252, Km. 28+756, Km. 23+200 to 24+325

SPUR-2

- Mungashpur Drain: Chainage: Km. 5+400
- (xi) Waste water generation, treatment and disposal: Mobile toilets with package STP will be provided for the workers in construction phase. Toilets and STPs shall be provided in the amenities area during the operation phase. Details will be furnished in EIA report.
- (xii) Municipal solid waste generated disposal facility: 1000 kg of municipal waste is expected to be generated during construction considering 2500 labour. During operation phase, the municipal solid waste shall be generated from the amenities proposed along the alignment. Waste management during construction and operational phase shall be done as per Solid Waste Management Rules, 2016.

Wastes generated within the site would be of food items, paints, cement, grit, bitumen, tar, cement, concrete, oil & grease etc. Waste shall be segregated and collected in separate bins and disposed-off according to MoEF&CC regulations.



- (xiii) **Terrain, level with respect to MSL, requirement of filling if any:** The alignment is mainly passing through plain terrain with elevation ranges from 210m to 230m AMSL.
- (xiv) **Tree cutting, types, numbers, girth size etc.:** The alignment will require cutting of approximately 10,000 no. of trees (including forest area). Detailed assessment shall be made during detailed study.
- (xv) Rehabilitation involved if any: Approximately 40-50 structures likely to be affected along the project road. Affected Structure will be compensated as per NH Act, 1956.
- (xvi) Rain water harvesting: As per IRC guidelines
- (xvii) Whether the project is in Critically Polluted area: No.
- (xviii) National Park/ Wild Life Sanctuary in 10 km radius area: There are no National Park, Wildlife Sanctuary, Biosphere Reserved etc. within 10 km radius of the alignment of the Proposed Project Road.
- (xix) Eco-Sensitive Zone in 10 km radius area: Not applicable.
- (xx) If the project involves diversion of forest land, extend of the forest land: Approximately 15 ha of forest land will be diverted.
- (xxi) Investment/Cost of the project: Rs. 3,988.22 Crore.
- (xxii) **Benefits of the project:** Proposed project will improve the road network benefiting the local people & tourist; reduce the travel time, distance as well as transportation cost; boost socio-economic and tourism development along the project road; income of vulnerable and poor people will be increased; increase possibility of employment of semi-skilled and unskilled people living along the project road and its adjoining villages during the construction and operational period; will provide better driving conditions and road safety.
- (xxiii) **Employment potential:** Approx. 2500 during construction and approx. 50 during operation phase.

(xxiv) If any court case pending for violation of the environmental laws: No.

4. Based on the deliberations in the 217th meeting held on 27th June, 2019 and information provided by the proponent in support of the project, the EAC recommended for grant of TOR. As per the recommendation of the EAC, the Ministry of Environment, Forest and Climate Change hereby accords TOR for 'Development of Urban Extension Road-II (NH-344M) from Design chainage Km 0.000 to Km 38.111. Development of link road (new NH-344P) (Km 0.000 to Km 29.600) between Bawana Industrial Area Delhi (from Km 7.750 of UER II) till bypass of NH-352A at village Barwasni, Sonipat in Haryana as spur of Urban Extension Road-II (NH-344M) in the state of Delhi/Haryana. Development of link road (new NH-344N) (Km 0.000 to Km 7.500) between Dichaon Kalan till Bahadurgarh Bypass/NH-10 in the state of Delhi/Haryana. (Total Length of Project: 75.211 Km) by M/s National Highways Authority of India (NHAI)' and for preparation of

EIA/EMP report with public consultations subject to compliance of all conditions as notified in the standard ToR applicable for highways and specific conditions, as mentioned below.

A. Project Specific Conditions:

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- (i) Carry out detailed traffic study to assess inflow of traffic from adjoining areas like airport/urban cities.
- (ii) Study to be carried out on Acoustic and Light Proofing measures considering the Wildlife Institute of India manual and other studies by the reputed institutes on the matter. The study shall be carried by the qualified professionals, scientists from any national institute having requisite experience to conduct such study.
- (iii) Rain water harvesting structures to be constructed at the either sides of the road with special precaution of oil filters and de-silting chambers.
- (iv) Provide compilation of road kill data on existing roads (national and state highways) in the vicinity of the proposed project.
- (v) Provide measures to avoid road kills of wildlife by the way of road kill management plan.
- (vi) 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.
- (vii) A comprehensive plan for plantation of three rows of native species, as per IRC guidelines, shall be provided. Within the boundaries of Delhi/NCR, the project proponent has to plant 10 trees against each tree to be cut along the proposed alignment.
- (viii) The activities and budget earmarked for Corporate Environmental Responsibility (CER) shall be as per ministry's O.M No 22-65/2017-IA.II (M) dated 1st May, 2018 and the action plan on the activities proposed under CER shall be submitted at the time of appraisal of the project included in the EIA/EMP Report.
- (ix) 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.
- (x) 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.



B. General Conditions:

- (i) A brief description of the project, project name, nature, size, its importance to the region/state and the country shall be submitted.
- (ii) In case the project involves diversion of forests land, guidelines under OM dated 20.03.2013 shall be followed and necessary action be taken accordingly.
- (iii) 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.
- (iv) Detailed alignment plan, with details such as nature of terrain (plain, rolling, hilly), land use pattern, habitation, cropping pattern, forest area, environmentally sensitive areas, mangroves, notified industrial areas, sand dunes, sea, rivers, lakes, 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 shall be submitted.
- (v) Describe various alternatives considered, procedures and criteria adopted for selection of the final alternative with reasons.
- (vi) 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. alongwith detailed ground survey map on 1:2000 scale showing the existing features falling within the right of way namely trees, structures including archaeological & religious, monuments etc. if any, shall be submitted.
- (vii) If the proposed route is passing through any hilly area, the measures for ensuring stability of slopes and proposed measures to control soil erosion from embankment shall be examined and submitted.
- (viii) 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 a river, the details of microdrainage, flood passages and information on flood periodicity at least of the last 50 years in the area shall be examined and submitted.
- (ix) If the project is passing through/located within the notified ecologically sensitive zone (ESZ) around a notified National Park/Wildlife Sanctuary or in the absence of notified ESZ, within 10 km from the boundary of notified National Park/Wildlife Sanctuary, the project proponent may simultaneously apply for the clearance for the standing committee of NBWL. The EC for such project would be subject to obtaining the clearance from the standing committee of NBWL.

- (x) 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. Underpasses shall be provided for the movement of Wild animals.
- (xi) Study regarding in line with the recent guidelines prepared by Wildlife Institute of India for linear infrastructure with strong emphasis on animal movement and identifying crossing areas and mitigation measures to avoid wildlife mortality.
- (xii) The information shall 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. The details of compensatory plantation shall be submitted. The possibilities of relocating the existing trees shall be explored.
- (xiii) 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.
- (xiv) If the proposed route is passing through a city or town, with houses and human habitation on 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 stations/service centres, rest areas including public conveyance, etc.
- (xv) Details about measures taken for the pedestrian safety and construction of underpasses and foot-over bridges along with flyovers and interchanges shall be submitted.
- (xvi) The 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) shall be addressed.
- (xvii) 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 shall be examined and submitted.
- (xviii) The possibilities of utilizing debris/waste materials available in and around the project area shall be explored.
- (xix) The details on compliance with respect to Research Track Notification of Ministry of Road, Transport and Highways shall be submitted.
- (xx) 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

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modified vide OM of even No. dated March 19, 2013, shall be examined and submitted.

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- (xxi) Climate and meteorology (max and min temperature, relative humidity, rainfall, frequency of tropical cyclones and snow fall); the nearest IMD meteorological station from which climatological data have been obtained to be indicated.
- (xxii) The air quality monitoring shall be carried out as per the notification issued on 16th November, 2009. Input data used for Noise and Air quality modelling shall be clearly delineated.
- (xxiii) The project activities during construction and operation phases, which will affect the noise levels and the potential for increased noise resulting from this project shall be identified. Discuss the effect of noise levels on nearby habitations during the construction and operational phases of the proposed highway. Identify noise reduction measures and traffic management strategies to be deployed for reducing the negative impact if any. Prediction of noise levels shall be done by using mathematical modelling at different representative locations.
- (xxiv) 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, description of model, input requirement and reference of derivation, distribution of major pollutants and presentation in tabular form for easy interpretation shall be examined and carried out.
- (xxv) The details about the protection to existing habitations from dust, noise, odour etc. during construction stage shall be examined and submitted.
- (xxvi) 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 sites along with necessary permission.
- (xxvii) If the proposed route is passing through low lying areas, details of filling materials and initial and final levels after filling above MSL, shall be examined and submitted.
- (xxviii) The water bodies including the seasonal ones within the corridor of impacts along with their status, volumetric capacity, quality and likely impacts on them due to the project along with the mitigation measures, shall be examined and submitted.
- (xxix) The details of water quantity required and source of water including water requirement during the construction stage with supporting data and also classification of ground water based on the CGWA classification, shall be examined and submitted.

- (xxx) The details of measures taken during constructions of bridges across rivers/ canals/major or minor drains keeping in view the flooding of the rivers and the life span of the existing bridges shall be examined and submitted. Provision of speed breakers, safety signals, service lanes and foot paths shall be examined at appropriate locations throughout the proposed road to avoid accidents.
- (xxxi) If there will be any change in the drainage pattern after the proposed activity, details of changes shall be examined and submitted.
- (xxxii) Rain water harvesting pit shall be at least 3 5 m above the highest ground water table. Provisions shall be made for oil and grease removal from surface runoff.
- (xxxiii) If there is a possibility that the construction/widening of road may cause an impact such as destruction of forest, poaching or reduction in wetland areas, examine the impact and submit details.
- (xxxiv) The details of road safety, signage, service roads, vehicular under passes, accident prone zones and the mitigation measures, shall be submitted.
- (xxxv) IRC guidelines shall be followed for widening & upgradation of roads.
- (xxxvi) The details of social impact assessment due to the proposed construction of the road, shall be submitted.
- (xxxvii) Examine the 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.
- (xxxviii) Accident data and geographic distribution shall be reviewed and analyzed to predict and identify trends - in case of expansion of the existing highway and provide Post accident emergency assistance and medical care to accident victims.
- (xxxix) If the proposed project involves any land reclamation, details shall be provided of the activity for which land is to be reclaimed and the area of land to be reclaimed.
- (xl) Details of the properties, houses, business activities etc likely to be effected by land acquisition and an estimation of their financial losses, shall be submitted.
- (xli) 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 specific project, shall be submitted.
- (xlii) The environment management and monitoring plan for construction and operation phases of the project shall be submitted. A copy of your corporate



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policy on environment management and sustainable development, shall also be submitted.

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- (xliii) Estimated cost of the project including that of environment management plan (both capital and recurring) and source of funding. Also, the mode of execution of the project, viz, EPC, BOT, etc, shall be submitted.
- (xliv) A copy of your CSR policy and plan for meeting the expenditure to address the issues raised during Public Hearing, shall be submitted.
- (xlv) Details of blasting if any, methodology/technique adopted, applicable regulations/permissions, timing of blasting, mitigation measures proposed keeping in view mating season of wildlife.
- (xlvi) 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.
- (xlvii) Details to ensure free flow of water in case the alignment passes through water bodies/river/streams etc.
- (xlviii) In case of bye passes, the details of access control from the nearby habitation/habitation which may come up after the establishment of road.
- (xlix) Bridge design in eco sensitive area /mountains be examined keeping in view the rock classification hydrology etc.
- (I) Details of litigation pending against the project, if any, with direction/order passed by any Court of Law against the Project should be given.
- (li) The cost of the Project (capital cost and recurring cost) as well as the cost towards implementation of EMP should be clearly spelt out.
- (lii) In case of alignment passing through coastal zones:
 - a. HTL/LTL map prepared by authorized agencies superimposed with alignment and recommendation of Coastal Zone Management Authority.
 - b. Details of CRZ-I (I) areas, mangroves required to be removed for the project along with the compensatory afforestation, area and location with budget.
 - c. Details of road on stilt in CRZ-I areas, design details to ensure free tidal flow.
 - d. Details of Labour camps, machinery location.
- (liii) Any further clarification on carrying out the above studies including anticipated impacts due to the project and mitigative measure, project proponent can refer to the model ToR available on Ministry website "http://moef.nic.in/Manual/Highways".
- 5. Following general guidelines shall be strictly adhered:
 - (i) The EIA document shall be printed on both sides, as for as possible.

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- (ii) All documents should be properly indexed, page numbered.
- (iii) Period/date of data collection should be clearly indicated.
- (iv) Authenticated English translation of all material provided in Regional languages.
- (v) The letter/application for EC should quote the MoEF&CC File No. and also attach a copy of the letter prescribing the TOR.
- (vi) The copy of the letter received from the Ministry on the TOR prescribed for the project should be attached as an annexure to the final EIA-EMP Report.
- (vii) The final EIA-EMP report submitted to the Ministry must incorporate the issues in TOR and that raised in Public Hearing. The index of the final EIA-EMP report, must indicate the specific chapter and page no. of the EIA-EMP Report where the specific TOR prescribed by Ministry and the issue raised in the P.H. have been incorporated. Questionnaire related to the project (posted on MoEF&CC website) with all sections duly filled in shall also be submitted at the time of applying for EC.
- (viii) Grant of TOR does not mean grant of EC.
- (ix) Grant of TOR/EC to the present project does not mean grant of approvals in other regulations such as the Forest (Conservation) Act 1980 or the Wildlife (Protection) Act, 1972.
- (x) Grant of EC is also subject to Circulars and Office Memorandum issued under the EIA Notification 2006 and subsequent amendments, which are available on the MoEF&CC website: <u>www.envfor.nic.in.</u>
- (xi) The status of accreditation of the EIA consultant with NABET/QCI shall be specifically mentioned. The consultant shall certify that his accreditation is for the sector for which this EIA is prepared.
- (xii) On the front page of EIA/EMP reports, the name of the consultant/consultancy firm along with their complete details including their accreditation, if any shall be indicated. The consultant while submitting the EIA/EMP report shall give an undertaking to the effect that the prescribed TOR (TOR proposed by the project proponent and additional TOR given by the MoEF) have been complied with and the data submitted is factually correct (Refer MoEF office memorandum dated 4th August, 2009).
- (xiii) While submitting the EIA/EMP reports, the name of the experts associated with/involved in the preparation of these reports and the laboratories through which the samples have been got analysed should be stated in the report. It shall clearly be indicated whether these laboratories are approved under the Environment (Protection) Act, 1986 and the rules made there under (Please refer MoEF office memorandum dated 4th August, 2009). The project Coordinator of the EIA study shall also be mentioned.
- (xiv) All the TOR points as presented before EAC shall be covered.

6. A detailed draft EIA/EMP report shall be prepared in terms of the above additional TOR and should be submitted to the State Pollution Control Board for Public Hearing. Public Hearing to be conducted for the project in accordance with the provisions of Environmental Impact Assessment Notification, 2006 and the issues raised by the public should be addressed in the Environmental Management Plan. The Public Hearing shall be conducted based on the TOR letter issued by the Ministry and not on the basis of Minutes of the Meeting available on the website.

7. The project proponent shall submit the detailed final EIA/EMP report prepared as per TOR including issues raised during Public Hearing to the Ministry for considering the proposal for environmental clearance within 3 years as per the MoEF&CC OM No J-11013/41/2006-IA-II(I) (Part) dated 29th August, 2017.

8. The consultants involved in preparation of EIA/EMP report after accreditation with Quality Council of India/National Accreditation Board of Education and Training (QCI/NABET) would need to include a certificate in this regard in the EIA/EMP reports prepared by them and data provided by other Organization(s)/Laboratories including their status of approvals etc. vide notification of the MoEF dated 19th July, 2013.

9. The prescribed TOR would be valid for a period of three years for submission of the EIA/EMP Reports.

(Raghu Kumar **Director/Scientist F**

Copy to:

- The Member Secretary, Delhi Pollution Control Committee, 4th & 5th Floor ISBT Building, GT Karnal Rd, Kashmere Gate, New Delhi, Delhi 110 006.
- 2. The Member Secretary, Haryana State Pollution Control Board, C-11, Sector-6, Panchkula, Haryana 134 109.

(Raghu Kumar Kodali) Director/Scientist F