

F.No.11-12/2019-IA-III
Government of India
Ministry of Environment, Forest and Climate Change
(IA.III Section)



Indira Paryavaran Bhawan,
Jor Bagh Road, New Delhi-3
Dated: 5th April, 2019

To,
✓ National High Speed Rail Corporation Limited
Asia Bhawan, 2nd Floor, Road No. 205,
Sector-9, Dwarka,
New Delhi - 110077

Sub: CRZ Clearance for High Speed Railway Project across CRZ areas in Mumbai, Mumbai Sub-Urban, Thane and Palghar Districts, in Maharashtra - reg.

Sir,

This has reference to your letter No. NHSRCL/MA/CA01/FOREST.ENV/CELE/212.1/4150, dated 08.03.2019 received in this Ministry for CRZ Clearance of the above mentioned project proposal, in accordance with the provisions of the Coastal Regulation Zone (CRZ) Notification, 2011 issued under the Environment (Protection) Act, 1986.

2. The proposal was considered by the Expert Appraisal Committee (EAC) for Infrastructure Development, Coastal Regulation Zone, Building/ Construction and Miscellaneous projects, in its 210th meeting held on 18.03.2019. The details of the project as per the documents submitted and presented during the aforesaid meeting are as under:

- i) The project is a part of the Ministry of Railways, Government of India, "Indian Railway Vision 2020", aimed at modernization of the existing conventional lines and enhance capacity as well as develop high speed railway lines.
- ii) Seven routes were selected as candidates for the high speed railway system. Among them, the Mumbai-Ahmedabad route was given top priority by the Experts Committee on modernization of India's national railway.
- iii) Japan International Cooperation Agency (JICA) and the Ministry of Railways, Government of India, signed a Memorandum of Understanding for joint feasibility study in October, 2013 and the Joint Feasibility Study (Joint F/S) for Mumbai-Ahmedabad High Speed Railway (MAHSR) project was conducted from December 2013 to July 2015.
- iv) The Government of India created a Special Purpose Vehicle (SPV) viz. National High-Speed Rail Corporation Limited (NHSRCL) for implementing the MAHSR project from planning to execution, construction, operation and maintenance.
- v) The Prime Minister of Japan and the Indian Prime Minister issued a joint statement in December 2015, agreeing to introduce the Shinkansen High Speed Railway System on the Mumbai-Ahmedabad route.
- vi) Prime Minister, Shri Narendra Modi and his Japanese Counterpart H.E Shinzo Abe laid the foundation for a high-speed train network. Both heads of States announced the launch of Mumbai-Ahmedabad High Speed Railway (MAHSR) Project in Sabarmati on 14th September, 2017.

NHSRCL : DISTRIBUTION STAMP									
DIR (P)	DIR (F)	DIR (EBS)	DIR (RS)	DSO					
CVO	JSN (CC)	CS	ED (PI)	ED (D)					
GM (SS)	GM (CF)	GM (SF)	GM (HR)	GM (D)					
Ch. Arch.	GM (USC)	GM (Civ)	GM (Cont)	GM (S&T)					
GM (E)	PRD	SDD	Sr. Mgr (UGA)						

- vii) Of the total cost of the project, 81% of the cost will be provided by Japanese soft loan at 0.1% per annum with repayment period over 50 years – including grace period of 15 years. This is the first time in India that an infrastructure project is being funded under such favourable terms.
- viii) The total length of the corridor is 508.17 km and includes 8 tunnels of 26.915 km, 23 bridges of 6.42 km and 476.3 km is on elevated viaduct. The corridor passes through Maharashtra, Gujarat and the UT of Dadra and Nagar Haveli.
- ix) The length across the State of Maharashtra will be 155.642 Km and across Dadra & Nagar Haveli it will be 4.302 Km. The total length across the state of Gujarat will be 348.226 Km
- x) It will pass through the districts of BKC, Thane and Palghar in Maharashtra.
- xi) The MAHSR runs on elevated viaduct in major portion of the alignment. The viaduct length is approximately 474.834 km. The ground elevation of the viaduct is 10-12m and the width is 12.5 m for dual carriageway. A total of 8 tunnels totaling length of 26.915 km has been proposed in MAHSR alignment. The longest tunnel is 20.375 km passing under the creek bed (30 m depth) at Thane Creek.
- xii) The MAHSR alignment passes through major rivers at 23 locations [Maharashtra (Mithi River, Thane, Ulhas River, Vasai Creek and Vaitarna River) and Gujarat (Narmada River, Bharuch)] and ponds at 32 locations. The MAHSR alignment traversing through CRZ-III and CRZ- IVB affected area is 0.1849 ha and under CRZ-IA & IV B is 43.0634 ha.
- xiii) In Maharashtra, 32.4302 ha of Mangrove forests falls under the right of way of MAHSR alignment, out of which only 13.3668 ha of mangroves forests shall be removed.
- xiv) The proposed alignment in CRZ areas in Maharashtra will be as follows:

Location	CRZ Category	Length (m)	Area (Ha)	Type of Structure
Mithi River	III & IVB	135.94	0.1849	Underground Tunnel
Thane Creek	IA & IVB	9299.61	12.6475	Underground Tunnel
Ulhas River near Dombivili	IA & IVB	2795.67	15.1750	Viaduct
Ulhas River near Vasai Creek	IA & IVB	5423.60	9.4913	Viaduct
Vaitarna River	IA & IVB	4258.99	5.7496	Viaduct
Total		21913.84	43.2483	

The details of mangroves affected will be as follows:

Forest Division	Taluka	Total area of Mangrove forest diversion (Ha)	Area of mangroves Cutting (Ha)	No. of mangroves to be cut	Proposed Structure
Mumbai Mangrove Cell	Kurla	8.3976	NIL	NIL	Underground Tunnel
	Thane				
Thane	Thane	12.2200	13.33668	53467	Viaduct (Elevated Structure)
	Bhiwandi	10.3350			
	Vasai	1.4776			
Total		32.4302	13.3668	53467	

- xv) As per CZMP for Mumbai, Mumbai Sub-Urban, Thane & Palghar Districts prepared based on CRZ Notification, 2011, the proposed project for High speed Railway runs through some stretches in CRZ-IA, CRZ-III and CRZ-IVB areas. The structure in the form of viaduct, tunnel, bridges shall traverse through the CRZ-IA at four locations.
- xvi) Demarcation of HTL/LTL has been carried out by National Institute of Oceanography, Goa.
- xvii) Cost of the project is estimated at Rs. 1,08,000 Crores.
- xviii) MCZMA has recommended the project for CRZ clearance vide its letter no. CRZ-2018/CR-189/TC-4, dated 7th March, 2019.

3. Based on the recommendation of the Maharashtra Coastal Zone Management Authority issued vide its letter No. CRZ-2018/CR-189/TC-4, dated 07.03.2019 and information submitted as at para no. 2 above and information provided during the presentation before the Expert Appraisal Committee and others, the Ministry of Environment, Forest and Climate Change, in acceptance of the recommendation of the Expert Appraisal Committee (CRZ), hereby accords CRZ Clearance to the above project viz *'High Speed Railway Project across Mumbai, Mumbai Sub-Urban, Thane and Palghar Districts, in Maharashtra'*, under the provision of CRZ Notification, 2011 and amendments thereto and circulars issued thereon, and subject to compliance of the following specific and general conditions as under:

PART A – SPECIFIC CONDITIONS:

- (i) This clearance is subject to obtaining prior clearances from the Standing Committee of National Board of Wildlife, Dahanu Taluka Environment Protection Authority, as may be applicable.
- (ii) Prior clearance under Forest (Conservation) Act, 1980 for diversion of mangrove forests as may be applicable shall be obtained before start of work in mangrove areas and mangrove buffer.
- (iii) Prior approval of the High Court of Mumbai shall be obtained in view of the direction issued in connection with felling of Mangrove and its conservation before execution of the project.
- (iv) Based on the current data on mangrove felling, the Mangrove Cell, Thane, Forest Department, Government of Maharashtra shall prepare a comprehensive mangrove plantation and management plan for plantation, management and protection of Mangrove and the same shall be implemented by the Mangrove Cell, Forest Department, Government of Maharashtra during the course of execution of the project. This plan is for additional mangrove plantation in the ratio of 1:5 mandatory requirements under CRZ regulation. Requisite funds for the same are to be deposited to Mangrove Cell.
- (v) As committed, the project proponent shall develop a comprehensive grievance redressal mechanism before execution of the project and shall display for public information the contact person for placing grievances by project affected persons including the details of an ombudsman for justice in the vent of non-resolution of grievances.

- (vi) A revised and robust Mitigation Plan for Thane Creek Flamingo Sanctuary for immediate implementation in consultation with the Wild Life Département, Govt. of Maharashtra, Mangrove Foundation and BNHS shall be prepared within **six months**.
- (vii) A study on likely impact due to vibrations on mudflat and changes in the characteristics of mudflats must be carried out by a competent agency (dealing with geological studies) and it shall precede the revised Mitigation Plan for Thane Creek Flamingo Sanctuary plan required to be submitted. While preparing the plan the data and study available with BNHS on Thane creek habitat and Flamingo behavior shall be taken into account. The revised Mitigation Plan for Thane Creek Flamingo Sanctuary plan shall be referred back to the Expert Appraisal Committee for review and for possible inclusion of stricter conditions to the clearance granted as may be necessary.
- (viii) The project proponent shall explore/examine the possibility of alternative mode of transportation and a feasibility study on this shall be commissioned within **six months**. The status of the feasibility study report shall be submitted to the Ministry for further examination and possible inclusion as part of the project programme. The project proponent while formulating the muck disposal plan shall be mindful to include the utility of muck and its disposal site/s clearly demarcated and also the traffic study of the area already under stress.
- (ix) No groundwater shall be extracted to meet with the water requirements during the construction and/or operation phases.
- (x) Flow of natural tidal water to mangroves should remain un-affected and thus adequate measures to be provided to maintain un-interrupted tidal water to mangroves. Design for the same could be decided in consultation with Mangrove Cell.
- (xi) Fisherman should have un-interrupted access including but not limited to boats to their livelihood and fishing activities.
- (xii) Construction camps (if any) shall be located outside the CRZ areas.
- (xiii) A third party monitoring and evaluation by an independent national Institute/Institutes of repute shall be roped in. The said institute shall carry out periodical monitoring and evaluation of the implementation of the recommendation during the construction period. Representatives of Mangrove Cell not below rank of APCCF should be associated during the course of monitoring and evaluation by the said Institute.
- (xiv) 0.25% CER i.e. Rs 270 Crore as per the Office Memorandum issued by the Ministry, dated 01.05.2018, on CER, for activities to be undertaken under CER shall be earmarked, off which 50% i.e. Rs 135 Crore shall be given to Mangrove Foundation of Maharashtra as corpus fund towards flamingo, mudflat and mangrove monitoring, conservation and mitigation. A detailed plan of action contemplated shall be submitted to the concerned agencies within six months of receipt of clearance letter.
- (xv) A Committee under the Chairmanship of PCCF (WL) Maharashtra comprising of representatives from agencies such as MAHSR, Wildlife wing of Thane Division, Mangrove Cell, Mangrove Foundation, MMRDA and BNHS be constituted to oversee the implementation of the mangrove afforestation and flamingo, mudflat and mangrove

conservation and restoration, and other recommendation as stipulated above. Prior approval of the High Court of Mumbai shall be obtained before execution of the project.

- (xvi) The conditions stipulated by the Maharashtra Coastal Zone Management Authority issued vide its letter No. CRZ-2018/CR-189/TC-4, dated 7th March, 2019 shall be strictly implemented as may be admissible.
- (xvii) The project proponent shall ensure that the project activity does not create any alteration to the flow regime of Thane Creek, Mithi River, Ulhas river, Vasai Creek and Vairarna river and construction material including debris shall be disposed safely in the designated areas.
- (xviii) Solid wastes generated during execution of the proposed project shall be disposed of in accordance with the Solid Wastes Management Rules, 2016.
- (xix) Temporary toilets will be provided for all construction labour. Suitable toilet fixtures for water conservation shall be provided. Fixtures for showers, toilet flushing and drinking should be of low flow either by use of aerators or pressure reducing devices or sensor based control.
- (xx) Topsoil excavated during construction activities shall be stored for use in horticulture/landscape development etc. within the project site.
- (xxi) Water quality of all the creek/estuaries should be monitored regularly to see the impact of construction and reclamation activities.
- (xxii) The project proponent shall ensure that equipments are maintained to contain or prevent any possible leaks of fuel, used oil, solvents, pesticides, petroleum products etc. These harmful materials may ultimately enter mangrove environment.
- (xxiii) Construction materials and structures/scaffoldings erected for construction at site shall be cleared immediately after finishing construction and it shall be ensured that no construction waste, garbage and machinery or equipment are left post construction.

PART B - GENERAL CONDITIONS:

- (i) A copy of the clearance letter shall be uploaded on the website of the concerned State Pollution Control Board. The Clearance letter shall also be displayed at the Regional Office, District Industries centre and Collector's Office/ Tehsildar's office for 30 days.
- (ii) A six-monthly monitoring report shall need to be submitted by the project proponent to the concerned regional Office of this Ministry regarding the implementation of the stipulated conditions.
- (iii) The Ministry of Environment, Forest & Climate Change or any other competent authority may stipulate any additional conditions or modify the existing ones, if necessary in the interest of environment and the same shall be complied with.

- (iv) Concealing factual data or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986.
 - (v) The above stipulations would be enforced among others under the provisions of the Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, the Public Liability (Insurance) Act, 1991, the EIA Notification, 2006 and the extant CRZ regulations.
 - (vi) Full co-operation shall be extended to the officials from the Regional Office of MoEF&CC, during monitoring of implementation of environmental safeguards stipulated. It shall be ensured that documents/data sought pertinent is made available to the monitoring team. A complete set of all the documents submitted to MoEF&CC shall be forwarded to the concerned Regional Office of MoEF&CC.
 - (vii) In the case of any change(s) in the scope of the project, the project would require a fresh appraisal by this Ministry.
 - (viii) The Ministry reserves the right to add additional safeguard measures subsequently, if considered necessary, and to take action to ensure effective implementation of the suggested safeguard measures in a time bound and satisfactory manner, including revoking of the environment clearance under the provisions of the Environmental (Protection) Act, 1986, for non compliance.
 - (ix) All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department, Forest Conservation Act, 1980 and Wildlife (Protection) Act, 1972 etc. shall be obtained, as applicable by project proponent from the respective competent authorities.
 - (x) The project proponent should advertise in at least two local Newspapers widely circulated in the region, one of which shall be in the vernacular language informing that the project has been accorded CRZ Clearance and copies of clearance letters are available with the State Pollution Control Board (SPCB) and may also be seen on the website of the Ministry of Environment, Forest and Climate Change at <http://www.envfor.nic.in>. The advertisement should be made within Seven days from the date of receipt of the Clearance letter and a copy of the same should be forwarded to the concerned Regional Office of this Ministry.
4. This Clearance is subject to final order of the Hon'ble Supreme Court of India in the matter of Goa Foundation Vs Union of India in Writ Petition (Civil) No.460 of 2004 as may be applicable to this project.
5. Any appeal against this clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.
6. A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zilla Parishad/Municipal Corporation, Urban Local Body and the Local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal.

7. The proponent shall upload the status of compliance of the stipulated conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MoEF&CC, the respective Zonal Office of CPCB and the SPCB.

8. The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of clearance conditions and shall also be sent to the respective Regional Office of the Ministry by e-mail.


(W. Bharat Singh)
Director (CRZ)

Copy to:

1. The Secretary, Environment department, Government of Maharashtra, 5th Floor, New Administrative Building, Mantralaya, Mumbai - 400032
2. The Chairman, (Environment) & Additional Secretary, Environment Department, Maharashtra Coastal Zone Management Authority, Government of Maharashtra, 5th Floor, New Administrative Building, Mantralaya, Mumbai - 400032
3. The Chairman, CPCB, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Delhi - 110032.
4. The Member Secretary, Maharashtra Coastal Zone Management Authority, Government of Maharashtra, Environment Department, 5th Floor, New Administrative Building, Mantralaya, Mumbai - 400032
5. The Member Secretary, Maharashtra Pollution Control Board, Maharashtra Pollution Control Board, Kalpataru Point, 3rd and 4th floor, Opp. PVR Cinema, Sion Circle, Mumbai-400 022
6. The APCCF (C), Ministry of Environment, Forest and Climate Change, Regional Office (WCZ), Ground Floor, East Wing, New Secretariat Building Civil Lines, Nagpur- 440001
7. Guard File/ Record File/ Notice Board.
8. Monitoring Cell.


(W. Bharat Singh)
Director (CRZ)