

F.No.11-4/2015-IA.III
Government of India
Ministry of Environment, Forests & Climate Change
(IA.III Section)

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

Dated: 5th February, 2015

To
The Chief Engineer,
Mumbai (P.W.) Region,
4th Floor, Bandhakam Bhawan,
25, Murzaban Road, Fort,
Mumbai- 400 001, Maharashtra

Subject: Proposed construction of Chhatrapati Shivaji Maharaj Memorial along with equestrian statue of Chhatrapati Shivaji Maharaj in the Arabian Sea of the Coast of Mumbai, Maharashtra by M/s PWD, Mumbai - Terms of Reference (ToR) - Reg.

Sir,

This has reference to your letter No. CE/Mum(P.W.)356 dated 20.01.2015 forwarding along with application seeking for Terms of Reference for the aforesaid project.

2. The proposal was considered by the EAC in its 144th meeting held on 28th - 30th January, 2015 and the proponent has informed that:

- i. The Government of Maharashtra intends to establish a memorial and statue of Chhatrapati Shivaji Maharaj, off Nariman Point, Mumbai. The memorial is aimed at not only providing a place for people to visit, but also create an internationally acclaimed landmark of our country.
- ii. The memorial shall comprise a 190 m high statue of the Chhatrapati Shivaji Maharaj.
- iii. The identified location is an oval shaped Rocky out crop at latitude 18°55' 33.8" N and longitude 72° 47'25.0" E, of approximately 650 m x 325 m in size. The identified location is 1.2 km southwest of Raj Bhavan, 3.6 km southwest of the Girgaon jetty and 2.6km west of Nariman point.
- iv. The proposed project area is under the jurisdiction of Port of Mumbai.
- v. Initially, three sites, Site I, 500 m away from the Girgaon Beach, the intertidal zone, Site II, 2km south-west of H2O jetty just beyond LTL and Site III, the rocky out crop, 3.6 km towards the sea from H2O jetty at Girgaon were evaluated for the establishment of the facility. Site I was rejected due to its proximity to the land and being in the intertidal zone where reclamation is envisaged. Site-II falls in the CRZ IV and through this site internet and telecommunication cables are passing through and substantial reclamation is required and



hence this site was rejected. Site III which falls under CRZ IV was selected as a suitable site due to the presence of rocky outcrop and no major reclamation would be required

- vi. It is proposed to fortify RCC seawall/ curtain wall. In addition to the establishment of a statue, the other facilities planned at the rocky outcrop are
 - a. art museum exhibiting various aspects of Shivaji Maharaj's Kingdom era records,
 - b. amphitheatre and auditoria of various sizes,
 - c. exhibition gallery,
 - d. marine aquarium,
 - e. coastal and marine resources interpretation and sensitisation centre,
 - f. landscaping and open space of viewing and galleries,
 - g. common facilities such as cafeteria, lavatories, medical facilities, stalls and offices,
 - h. security installations of safety and disaster management system ,
 - i. wastewater treatment and environmental safeguards facilities and berthing jetty for embarkation and disembarkation of tourist.
- vii. The total estimated cost for the project is Rs 1400 crores. The total construction period for the proposed development would be approximately 5 years.
- viii. According to the proposed traffic plan, the boats carrying the visitors will be operating from the Nariman Point and Gateway of India. From the Gateway of India, sea route distances is 12 km and from Nariman Point is 3.5 km
- ix. Government of Maharashtra requested for waiving of Public Hearing in view of the larger Public interest importance and National Monumental importance. The Government of Maharashtra launched a website about the memorial and has received suggestions from a large number of people from all over the State.
- x. **Wildlife issues:** It is not located within 10 km of Eco-Sensitive areas.
- xi. There are no **court cases/violation** pending with the project proponent.

3. The Expert Appraisal Committee (EAC) has considered the proposal in its 144th meeting held on 28th – 30th January, 2015 and recommended for the TOR with the following specific TOR with general conditions for preparation of the Environment Impact Assessment (EIA) Report and Environment Management Plan (EMP) in respect of the **Proposed construction of Chhatrapati Shivaji Maharaj Memorial along with equestrian statue of Chhatrapati Shivaji Maharaj in the Arabian Sea of the Coast of Mumbai, Maharashtra by M/s PWD, Mumbai:**

- (i) The design shall not be an isolated one from the local architecture and motifs which shall be appropriately incorporated in the design to portray Indian heritage features in a place of heritage and tourist importance.



- (ii) The study should lay a strong focus on mitigation plan, as well as necessary features relating to safety and security of the Memorial and its visitors.
- (iii) Study on infrastructure facilities at shore, their development and related impacts, and mitigation to be carried out. Study of Sea transportation corridor route during construction and operation to be carried out.
- (iv) Examine the carrying capacity vis-a-vis safe limit of number of people to be permitted on the Island at a time, keeping in view emergency evacuation and any unforeseen situation like anti-terrorist operation, cyclone and other natural phenomenon.
- (v) Examine the impact due to floating population at the shore terminal, traffic management including parking.
- (vi) Examine emergency evacuation during natural calamity/ man made with required infrastructure stating time required for complete evacuation including safe landing under bad weather conditions, jetty facility etc. Examine the EMP of any similar projects.
- (vii) Take advice from Bombay Natural History Society in respect of likely impacts due to any mechanical structures and lights on the birds, marine life.
- (viii) Details of stone requirement for reclamation, quarry sources and transportation route may be provided.
- (ix) Examine details of land use according to Master Plan and land use around 10 km radius of the project site. Analysis should be made based on latest satellite imagery for land use with raw images. Distance from any archaeological site.
- (x) Submit details of environmentally sensitive places, land acquisition status, rehabilitation of communities/ villages and present status of such activities.
- (xi) Examine the likely impact on marine life, fishing vessel movement, during construction and operation phase. Submit the details of fishing activity and likely impacts on the fishing activity due to the project.
- (xii) Examine road connectivity to the project site and impact on the existing traffic network due to the proposed project/activities. A detailed traffic and transportation study should be made. Study on transport of materials for construction should include source and availability.
- (xiii) Submit a copy of layout superimposed on the HTL/LTL map demarcated by an authorized agency on 1:4000 scale along with the recommendation of the SCZMA.



- (xiv) Details of dredging, rock dredging, likely impacts on marine life, mitigation measures proposed and disposal of dredge material.
- (xv) Examine the details of water requirement, source, waste generation, treatment, reuse of treated waste water, disposal. Prepare a water balance chart.
- (xvi) Examine details of Solid waste generation treatment and its disposal.
- (xvii) Details of desalination plant and the study for outfall and intake.
- (xviii) Examine separately the details for construction and operation phases both for Environmental Management Plan and Environmental Monitoring Plan with cost and technical parameters.
- (xix) Submit details of a comprehensive Risk Assessment and Disaster Management Plan including emergency evacuation during natural and man-made disasters with due clearance from Mumbai Port Trust & Indian Navy as applicable as well as any other statutory authorities.
- (xx) Environmental data to be considered in relation to the project development would be (a) land, (b) groundwater, (c) surface water, (d) air, (e) bio-diversity, (f) noise and vibrations, (g) socio economic and health.
- (xxi) Examine and submit details of use of solar energy and alternative source of energy to reduce the fossil energy consumption.
- (xxii) DG sets are likely to be used during construction and operational phase of the project. Emissions from DG sets must be taken into consideration while estimating the impacts on air environment. Examine and submit details.

General Guidelines

- (i) The EIA document shall be printed on both sides, as far as possible.
- (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. 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. 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 issued under the EIA Notification 2006, which are available on the MoEF&CC website: www.envfor.nic.in.
- (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 TORs (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 leader of the EIA study shall also be mentioned.
- (xiv) All the TOR points as presented before the Expert Appraisal Committee (EAC) shall be covered.

4. The EAC exempted the Public Hearing based on the submissions of the Government of Maharashtra.

5. You are required to submit the detailed final EIA/EMP prepared as per ToRs to the Ministry for considering the proposal for environmental clearance within 3 years as per the MoEF&CC O.M. No.J-11013/41/2006-IA-II(I) (P) dated 08.10.2014.

6. The consultants involved in the 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 19.07.2013.

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


(Dr. Manoranjan Hota)
Director

Copy to:

The Member Secretary, Maharashtra Pollution Control Board, Kalpataru Points, 3rd & 4th floor, Opp. Cine Planet, Sion Circle, Sion (E), Mumbai - 400 022, Maharashtra

