



F.No.11-95/2009-IA.III
Government of India
Ministry of Environment & Forests

Paryavaran Bhawan,
CGO Complex, Lodhi Road,
New Delhi - 110 003.

Dated: 28th May, 2010.

To
The Director,
Department of Ports & Inland Water Transport,
Government of Karnataka,
Uttara Kannada, Baithkol,
Karwar - 581 302, Karnataka.

Subject: CRZ clearance for Ullal Coastal Erosion and inlet improvement project at village Ullal, District Mangalore, Karnataka by M/s. Public Works Department, Govt. of Karnataka - Reg.

This has reference to the letter of Secretary, Forest, Ecology and Environment Department, Govt. of Karnataka letter No. FEE 39 CRZ 2009, dated 10.09.2009 and subsequent letters dated 17.11.2009, 02.01.2010 and 11.03.2010 seeking prior CRZ Clearance for the above project under the CRZ Notification, 1991. The proposal has been appraised as per prescribed procedure in the light of provisions under the CRZ Notification, 1991 on the basis of the mandatory documents enclosed with the application viz., the Questionnaire, recommendations from State Government of Karnataka and the additional clarifications furnished in response to the observations of the Expert Appraisal Committee constituted by the competent authority in its meetings held on 23rd - 24th November, 2009 and 25th - 26th March, 2010.

2. It is inter-alia noted that the project involves carrying out coastal protection measures at Ullal, South Karnataka to solve severe coastal erosion. Ullal beach has been seriously eroding for over decades, and local people are adversely affected from severe waves. Many houses has been lost to the south of the entrance training walls. Now, the residents are threatened by waves over the full year and under sever threat in the monsoon. Karnataka has a coastline of about 300 km long and about 250 km (89%) is affected by erosion. Since coastal protection is taken up to manage impending disasters, the range of possible interventions is limited to a few hard structural measures such as sea walls and groins. The investigations have revealed that Ullal Beach is eroding for two key reasons: (i) The alignment of the beach is not in equilibrium with the wave climate, with extremely large amounts of sand being lost to the south each year; and (ii) Insufficient sand is being provided from the northern beaches and the river, due to several factors including the northern bias in the alignment of the breakwater training walls.

3. The following coastal protection works are proposed:

- (1) Three off shore reefs:- Three number large reefs located about 600-800 meters off shore and in 7 meter depth of water is proposed to be constructed using high specification, sand filled geo textiles. The reefs would be constructed of three layers. Rocks / tetra pods could also be used.
- (2) Beach nourishment:- Since the construction of the break waters significant volumes of sand have been lost from the beach to the south of the break waters. Beach nourishment is proposed to replace this lost sand. Suitable sand for nourishment is available from the mouth of the Nethravathi River.
- (3) Re-modeling of Ullal inlet break waters:- The preliminary designs to shorten southern break water and create an extension in northern break water is proposed. This would allow sediment from the Nethravathi river to be pushed southwards and support the nourishment of the southern beach.

4. It is proposed to have a hybrid solution to the erosion problem which will have (i) Altered breakwater training walls to ensure that sand coming from the river is driven south and that natural by-passing occurs more effectively; (ii) Re-alignment of the Ullal Beach to face more directly into the waves, and thereby stop the large quantity of sand moving south and being lost from the beaches; and (iii) Nourishment of the beach to 'catch up' on the long history of erosion and (iv) Construction of 2 offshore multi-purpose artificial soft reefs (M-ASR's) and 4 near shore berms to hold proposed nourishment in place.

5. The proposed works at Ullal beach is likely to enhance the area's natural ecology, both flora and fauna in the near shore and affects will therefore be felt further offshore in fishing zones. The total cost of the project proposed is Rs.143.10 crores.

6. Secretary, Forest, Ecology and Environment Department, Govt. of Karnataka has forwarded the project vide letter No. FEE 39 CRZ 2009, dated 10.09.2009. In the above letter it is mentioned that the reefs are proposed to be constructed much beyond the LTL towards off shore and therefore does not attract the provisions of CRZ Notification. The Beach nourishment and other coastal protection works are the permissible activities under the Notification as per the exemptions under para 2 (viii).

7. The Expert Appraisal Committee, after due consideration of the relevant documents submitted by the project proponent and additional clarifications furnished in response to its observations, have recommended for the issue of CRZ Clearance for the project. Accordingly, the Ministry hereby accord necessary CRZ Clearance for the above project as per the provisions of CRZ Notification, 1991 and its



subsequent amendments, subject to strict compliance of the terms and conditions as follows:

8. Specific Conditions:

I. Construction Phase:

- (i) Periodical monitoring of the shoreline changes shall be monitored and a six monthly report shall be submitted to the Ministry.
- (ii) All the conditions stipulated by the Secretary, Forest, Ecology and Environment Department, Govt. of Karnataka vide its letter No. FEE 39 CRZ 2009, dated 10.09.2009, shall be strictly complied with.
- (iii) No construction work other than those permitted in Coastal Regulation Zone Notification shall be carried out in Coastal Regulation Zone area.
- (iv) It shall be ensured that such coastal protection works does not cause adverse impact on fish and fisheries of the area and shall not have any disturbance to regular fishing activities.
- (v) It shall ensure that the works do not affect fishing of local communities in the area and the moment of boats.
- (vi) The project proponent shall undertake studies for long term affect on beach formation due to such construction activities.
- (vii) A study shall also be carried out to analyze the effectiveness of such coastal protection works and in case of failure appropriate measures shall be taken immediately. Quarterly monitoring report shall be maintained and submitted to the Ministry.
- (viii) Effectiveness of such construction activities on dune restoration and management of dune efforts.
- (ix) The beach area within the sediment cell shall be monitored to ensure that no erosion and accretion is taking place outside the project area within the sediments cell.
- (x) It shall ensure that due to such shore protection works, the creek, estuary, river, lagoon etc., mouths are not altered.
- (xi) It shall ensure that due to such construction activities no sand bar is built in the fishing channels.
- (xii) All safety precautionary measures viz. stability of off shore



multi-purpose artificial soft reefs, signal for fishing boats etc. shall be installed.

- (xiii) There shall be display boards at critical locations along the break water and shore berms giving emergency instructions. This will ensure prompt information regarding location of accident during any emergency. Emergency Information board shall contain emergency instructions in addition to contact details.
- (xiv) The project shall be implemented in such a manner that there is no damage whatsoever to the mangroves/other sensitive coastal ecosystems.
- (xv) It shall be ensured that there is no displacement of people and the houses as a result of the project.
- (xvi) Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- (xvii) A First Aid Room will be provided in the project both during construction and operation of the project.
- (xviii) Any hazardous waste generated during construction phase, should be disposed off as per applicable rules and norms with necessary approvals of the Karnataka State Pollution Control Board.
- (xix) Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards and should be operated only during non-peak hours.
- (xx) Ambient noise levels should conform to residential standards both during day and night. Incremental pollution loads on the ambient air and noise quality should be closely monitored during construction phase. Adequate measures should be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB/ KSPCB.
- (xxi) Regular supervision of the above and other measures for monitoring should be in place all through the construction phase, so as to avoid disturbance to the surroundings.



(xxii) Adequate provision for infrastructure facilities including water supply, fuel and sanitation must be ensured for construction workers during the construction phase of the project to avoid any damage to the environment.

(xxiii) Appropriate measures must be taken while undertaking digging activities to avoid any likely degradation of water quality.

(xxiv) Adequate financial provision must be made in the project to implement the aforesaid safeguards.

II. Operation Phase:

(i) The environmental safeguards contained in the application should be implemented in letter and spirit.

(ii) The funds earmarked for environment protection measures shall be maintained in a separate account and there shall be no diversion of these funds for any other purpose. A year-wise expenditure on environmental safeguards shall be reported to this Ministry's Regional Office at Bangalore.

(iii) In case of deviation or alteration in the project including the implementing agency, a fresh reference shall be made to this Ministry for modification in the clearance conditions or imposition of new one for ensuring environmental protection. The project proponents shall be responsible for implementing the suggested safeguard measures.

(iv) This Ministry reserves the right to revoke this clearance, if any of the conditions stipulated are not complied with to the satisfaction of this Ministry.

(v) A continuous and comprehensive post-project marine quality monitoring programme shall be taken up. This shall include monitoring of water quality, sediment quality and biological characteristics and the report shall be submitted every 6 month to Ministry's Regional Office at Bangalore.

(vi) The solid waste shall be properly collected, segregated and disposed as per the provision of Solid Waste (Management and Handling) Rules, 2000.

9. General Conditions:

(i) The hydro-dynamic studies shall be undertaken to ascertain the impact to the shoreline in the stretch and ecologically sensitive areas.

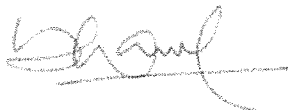


- (ii) There shall be no disposal of solid and liquid wastes in to the Coastal areas.
- (iii) Under the provisions of Environment (Protection) Act, 1986, legal action shall be initiated against the project proponent if it was found that construction of the project has been started without obtaining environmental clearance.
- (iv) The construction of the structures, if any, should be undertaken as per the plans approved by the concerned local authorities/ local administration, meticulously conforming to the existing local and Central rules and regulations including the provisions of Coastal Regulation Zone Notification, 1991 and the approved Coastal Zone Management Plan of Karnataka.
- (v) Ministry of Environment & Forests 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.
- (vi) The project proponents shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of start of land development work.
- (vii) The project proponent will set up separate environmental management cell for effective implementation of the stipulated environmental safeguards under the supervision of a Senior Executive.
- (viii) Full support shall be extended to the officers of this Ministry/ Regional Office at Bangalore by the project proponent during inspection of the project for monitoring purposes by furnishing full details and action plan including action taken reports in respect of mitigation measures and other environmental protection activities.
- (ix) Karnataka State Pollution Control Board shall display a copy of the clearance letter at the Regional Office, District Industries Center and Collector's Office/Tehsildar's office for 30 days.

10. These stipulations would be enforced among others under the provisions of 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 and EIA Notification 2006, including the amendments and rules made thereafter.



11. 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 proponents from the respective competent authorities.
12. The project proponent shall 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 Environmental Clearance and copies of clearance letters are available with the Karnataka State Pollution Control Board and may also be seen on the website of the Ministry of Environment and Forests at <http://www.envfor.nic.in>. The advertisement should be made within 10 days from the date of receipt of the Clearance letter and a copy of the same should be forwarded to the Regional office of this Ministry at Bangalore.
13. Environmental 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.
14. Any appeal against this Environmental Clearance shall lie with the National Environment Appellate Authority, if preferred, within a period of 30 days as prescribed under Section 11 of the National Environment Appellate Act, 1997.
15. A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zilla Parisad/Municipal Corporation, Urban Local Body and the Local NGO, if any, from whom suggestions/representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the company by the proponent.
16. The proponent shall upload the status of compliance of the stipulated EC 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 at Bangalore, the respective Zonal Office of CPCB and the MSPCB. The criteria pollutant levels namely; SPM, RSPM, SO₂, NO_x (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the project shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.
17. The project proponent shall also submit six monthly reports on the status of compliance of the stipulated EC conditions including results of monitored data (both in hard copies as well as by e-mail) to the respective Regional Office of MoEF, the respective Zonal Office of CPCB and the SPCB.



18. 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 Karnataka 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 EC conditions and shall also be sent to the respective Regional Offices of MoEF at Bangalore by e-mail.


(Bharat Bhushan)
Director (IA-III)

Copy to:

- (1) The Special Secretary, Forests, Ecology and Environment Department, Government of Karnataka, Bangalore.
- (2) The Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Delhi - 110 032.
- (3) The Member Secretary, Karnataka Coastal Zone Management Authority & Director, Environment Technical Cell, Department of Forests, Ecology and Environment, Govt. of Karnataka.
- (4) The Member Secretary, Karnataka State Pollution Control Board, "Parisara Bhavan, 4th & 5th Floor, # 49, Church Street, Bangalore-560001.
- (5) The CCF, Regional Office, Ministry of Environment & Forests(SZ), Kendriya Sadan, IVth floor, E&F wings, 17th Main Road, Koramangala II Block, Bangalore - 560 034.
- (6) IA - Division, Monitoring Cell, MOEF, New Delhi - 110003.
- (7) Guard file.

/
(Bharat Bhushan)
Director (IA-III)