

**BEFORE THE NATIONAL GREEN TRIBUNAL**

**SOUTHERN ZONE BENCH, CHENNAI**

**APPEAL NO. 04 OF 2023**

**VASIPILLI NUKARAJU AND ANR.**

**.... PETITIONERS**


**VERSUS**

**UNION OF INDIA AND ORS.**

**.... RESPONDENTS**

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**Counsel for 1<sup>st</sup> Respondent**

**BEFORE THE NATIONAL GREEN TRIBUNAL****SOUTHERN ZONE BENCH, CHENNAI****APPEAL NO. 04 OF 2023****VASIPILLI NUKARAJU AND ANR.****....PETITIONERS****VERSUS****UNION OF INDIA AND ORS.****.... RESPONDENTS****REPLY AFFIDAVIT ON BEHALF OF MINISTRY OF ENVIRONMENT,****FOREST & CLIMATE CHANGE i.e., RESPONDENT NO. 1.**

MOST RESPECTFULLY SHOWETH:

I, **Dr. Murali Krishna Chimata S/o Chimata Srinivasulu (Late)** aged about **43** Years, currently working as **Scientist-E** at Ministry of Environment, Forest and Climate Change (MoEF&CC) Sub-Office at Vijayawada, Andhra Pradesh, do solemnly affirm and declare as under: -

**1.** That I am, the above-named Deponent duly authorized by Ministry and competent to swear the present Affidavit.

*Dr. Murali Krishna*

2. It is humbly submitted that, I have perused and understood the contents of the present matter. At the outset, I deny all averments, submissions, statements, allegations made therein except may be specifically admitted herein after.

3. It is humbly submitted that in exercise of the powers conferred by sub-section (1) and clause (v) of sub-section (2) of section 3 of the Environment (Protection) Act, 1986 read with clause (d) of sub-rule (3) of rule 5 of the Environment (Protection) Rules, 1986, Ministry of Environment and Forest had notified the Coastal Regulation Zone Notification, 1991 on 19th February, 1991. In supersession of the CRZ Notification 1991, the Coastal Regulation Zone Notification, 2011 was notified on 6th January 2011, for regulation of developmental activities along the coastal stretches and to ensure the livelihood security to the fisher communities and other local communities, living in the coastal areas, to conserve and protect coastal stretches. A copy of CRZ Notification, 2011 is IA3-3/102/2024-IA.III I/91527/2024 annexed herewith and marked as

**Annexure- R1/1.**

*Ch. P. K. Krishna*

4. That, it is further submitted that in supersession of the CRZ Notification, 2011, the Coastal Regulation Zone Notification, 2019 was notified on 18th January, 2019, having specific focus on conservation and management plans of Ecologically Sensitive Areas (ESAs) which did not feature in the CRZ Notification, 2011. A copy of CRZ Notification, 2019, is annexed herewith and marked as **Annexure- R1/2**.

5. It is humbly submitted that as per paragraph 6 (i) of the CRZ Notification, 2019, "All coastal States and Union territory administrations shall revise or update their respective coastal zone management plan (CZMP) framed under CRZ Notification, 2011 number S.O.19(E), dated 6th January, 2011, as per provisions of this notification and to submit before the Ministry of Environment, Forest and Climate Change for approval at the earliest and all the project activities attracting the provisions of this notification shall be required to be appraised as per the updated CZMP under this notification and until and unless the CZMPs is so revised or updated, provisions of this notification shall not apply and the CZMP as per provisions of CRZ Notification, 2011 shall continue to

*ch. P. K. Krishna*

be followed for appraisal and CRZ clearance to such projects."

6. It is humbly submitted that as of date, CZMPs as per CRZ Notification, 2019 have been approved for the State of Maharashtra, Odisha, Karnataka and Kerala and Island Coastal Regulation Zone Plans (ICRZP) have been approved for Great Nicobar Island and Little Andaman Island of A & N Islands as per ICRZ Notification, 2019. That, for rest of the Coastal States/ UTs, CZMP / ICRZP as per CRZ Notification, 2011 / Island Protection Zone (IPZ) Notification, 2011 continue to be applicable.

7. It is humbly submitted that the Project Proponent submitted his proposal on 23/11/2022 for CRZ Clearance, in accordance with CRZ, Notification 2011. The Ministry carefully examined the proposal for CRZ Clearance and the Expert Appraisal Committee in its meeting held on 29/11/2022 considered the same.

8. It is humbly submitted that based on the information provided by the Project Proponent, the Expert Appraisal Committee, after thorough deliberation, noted that NOC has been issued for project by Andhra Pradesh Pollution Control Board and Andhra Pradesh Coastal Zone Management Authority recommended the project for

*Ch. P. Prasad. Krishna*

CRZ Clearance as per CRZ Notification 2011 and also noted that the activity is permissible under Para 3 (i) (a) and Para 3 (v) (a) of the CRZ Notification 2011. The Committee further directed that the Project Proponent to ensure that the treated effluent discharge into IA3-3/102/2024-IA.III I/91527/2024 sea/ marine outfalls should be as per the prescribed standards of CPCB/SPCB.

9. It is humbly submitted that based on the recommendation of the Andhra Pradesh Coastal Zone Management Authority and considering the submissions made by the project proponent, the Ministry of Environment, Forest and Climate Change, in acceptance of the recommendations of the Expert Appraisal Committee (CRZ), accorded the CRZ Clearance on 11/01/2023. Further, M/s Hetero Infrastructure SEZ Ltd., vide its consent of undertaking dated 23/11/2023 had stated that project work on 'Laying New Marine Disposal Pipeline in Place of Existing Pipeline by M/s. Hetero Infrastructure SEZ Ltd.' has yet not started; if any part of the data and information is found misleading at any stage, the project will be rejected, and clearance given if any to the project will be revoked. The copy of the EAC(CRZ) Minutes dated 29/11/2022 (Item 3.5)

Ch. P. Prasad Krishna

along with consent of undertaking by PP dated 23/11/2023 is placed as **ANNEXURE-R1/3**.

**10.** It is humbly submitted that, as per the CRZ Notification, 2011 the State Coastal Zone Management Authorities (SCZMAs) are primarily responsible for enforcement and implementation of the provisions of the CRZ Notification and compliance of the conditions stipulated thereunder, the powers either original or delegated, under the Environment (Protection) Act, 1986. The main function of these Authorities include amongst others, enquiring into the cases of alleged violation of the provisions of the CRZ Notifications and take appropriate decision including power to enforce provisions under Section 5, 10 and 19 of the Environment (Protection) Act, 1986.

**11.** It is respectfully submitted that in view of the above mentioned facts, the respondent humbly prays that the Hon'ble Tribunal may be pleased to pass such order as deemed fit in the interest of the justice.

*Ch. Pooja Kishore*

12. It is respectfully submitted that the answering respondent without prejudice reserves his right to file an additional affidavit at a later stage, if so necessary.

*Ch. P. Murali Krishna*  
DEPONENT

श्री. मुरली कृष्ण चिमत/Dr. Murali Krishna Chimata  
वैज्ञानिक "ई"/Scientist "E"  
भारत सरकार/Government of India  
पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय  
Ministry of Environment, Forest and Climate Change  
उप-कार्यालय, विजयवाडा-520 010  
Sub-Office, Vijayawada-520 010

### VERIFICATION

I, the above-named Deponent, do hereby verify that the contents of the above affidavit are true and correct to my IA3-3/102/2024-IA.III I/91527/2024 knowledge as per the records of the answering respondents. No part of it is false and nothing material has been concealed there from.

Verified at Vijayawada on this 30<sup>th</sup> day of December, 2024.

*Ch. P. Murali Krishna*  
DEPONENT

श्री. मुरली कृष्ण चिमत/Dr. Murali Krishna Chimata  
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Ministry of Environment, Forest and Climate Change  
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Sub-Office, Vijayawada-520 010

**MINISTRY OF ENVIRONMENT AND FORESTS**  
**(Department of Environment, Forests and Wildlife)**  
**COASTAL REGULATION ZONE NOTIFICATION**

New Delhi, the 6th January, 2011

**S.O. 19(E).**— WHEREAS a draft notification under sub-section (1) of section and clause (V) of sub-section (2) of section 3 of the Environment (Protection) Act, 1986 was issued inviting objections and suggestions for the declaration of coastal stretches as Coastal Regulation Zone and imposing restrictions on industries, operations and processes in the CRZ was published vide S.O.No.2291 (E), dated 15<sup>th</sup> September, 2010.;

AND WHEREAS, copies of the said Gazette were made available to the public on 15<sup>th</sup> September, 2010.;

AND WHEREAS, the suggestions and objections received from the public have been considered by the Central Government.;

Now, therefore, in exercise of the powers conferred by sub-section (1) and clause (v) of sub-section (2) of section 3 of the Environment (Protection) Act, 1986 (29 of 1986), the Central Government, with a view to ensure livelihood security to the fisher communities and other local communities, living in the coastal areas, to conserve and protect coastal stretches, its unique environment and its marine area and to promote development through sustainable manner based on scientific principles taking into account the dangers of natural hazards in the coastal areas, sea level rise due to global warming, does hereby, declare the coastal stretches of the country and the water area upto its territorial water limit, excluding the islands of Andaman and Nicobar and Lakshadweep and the marine areas surrounding these islands upto its territorial limit, as Coastal Regulation Zone (hereinafter referred to as the CRZ) and restricts the setting up and expansion of any industry, operations or processes and manufacture or handling or storage or disposal of hazardous substances as specified in the Hazardous Substances (Handling, Management and Transboundary Movement) Rules, 2009 in the aforesaid CRZ.; and

In exercise of powers also conferred by clause (d) and sub rule (3) of rule 5 of Environment (Protection) Act, 1986 and in supersession of the notification of the Government of India in the Ministry of Environment and Forests, number S.O.114(E), dated the 19<sup>th</sup> February, 1991 except as respects things done or omitted to be done before such supersession, the Central Government hereby declares the following areas as CRZ and imposes with effect from the date of the notification the following restrictions on the setting up and expansion of industries, operations or processes and the like in the CRZ,-

- (i) the land area from High Tide Line (hereinafter referred to as the HTL) to 500mts on the landward side along the sea front.
- (ii) CRZ shall apply to the land area between HTL to 100 mts or width of the creek whichever is less on the landward side along the tidal influenced water bodies that are connected to the sea and the distance upto which development along such tidal influenced water bodies is to be regulated shall be governed by the distance upto which the tidal effects are experienced which shall be determined based on salinity concentration of 5 parts per thousand (ppt) measured during the driest period of the year and distance upto which tidal effects are experienced shall be clearly identified and demarcated accordingly in the Coastal Zone Management Plans (hereinafter referred to as the CZMPs).

**Explanation.-** For the purposes of this sub-paragraph the expression tidal influenced water bodies means the water bodies influenced by tidal effects from sea, in the bays, estuaries, rivers, creeks, backwaters, lagoons, ponds connected to the sea or creeks and the like.

(iii) the land area falling between the hazard line and 500mts from HTL on the landward side, in case of seafront and between the hazard line and 100mts line in case of tidal influenced water body the word 'hazard line' denotes the line demarcated by Ministry of Environment and Forests (hereinafter referred to as the MoEF) through the Survey of India (hereinafter referred to as the SoI) taking into account tides, waves, sea level rise and shoreline changes.

(iv) land area between HTL and Low Tide Line (hereinafter referred to as the LTL) which will be termed as the intertidal zone.

(v) the water and the bed area between the LTL to the territorial water limit (12 Nm) in case of sea and the water and the bed area between LTL at the bank to the LTL on the opposite side of the bank, of tidal influenced water bodies.

2. For the purposes of this notification, the HTL means the line on the land upto which the highest water line reaches during the spring tide and shall be demarcated uniformly in all parts of the country by the demarcating authority(s) so authorized by the MoEF in accordance with the general guidelines issued at Annexure-I. HTL shall be demarcated within one year from the date of issue of this notification.

3. Prohibited activities within CRZ,- The following are declared as prohibited activities within the CRZ,-

(i) Setting up of new industries and expansion of existing industries except,-

(a) those directly related to waterfront or directly needing foreshore facilities;

*Explanation:* The expression "foreshore facilities" means those activities permissible under this notification and they require waterfront for their operations such as ports and harbours, jetties, quays, wharves, erosion control measures, breakwaters, pipelines, lighthouses, navigational safety facilities, coastal police stations and the like.;

(b) projects of Department of Atomic Energy;

(c) facilities for generating power by non-conventional energy sources and setting up of desalination plants in the areas not classified as CRZ-I(i) based on an impact assessment study including social impacts.;

(d) development of green field Airport already permitted only at Navi Mumbai;

(e) reconstruction, repair works of dwelling units of local communities including fishers in accordance with local town and country planning regulations.

(ii) manufacture or handling oil storage or disposal of hazardous substance as specified in the notification of Ministry of Environment and Forests, No. S.O.594 (E), dated the 28<sup>th</sup> July 1989, S.O.No.966(E), dated the 27<sup>th</sup> November, 1989 and GSR 1037 (E), dated the 5<sup>th</sup>

December, 1989 except,-

- (a) transfer of hazardous substances from ships to ports, terminals and refineries and vice versa;
- (b) facilities for receipt and storage of petroleum products and liquefied natural gas as specified in Annexure-II appended to this notification and facilities for regasification of Liquefied Natural Gas (hereinafter referred to as the LNG) in the areas not classified as CRZ- I(i) subject to implementation of safety regulations including guidelines issued by the Oil Industry Safety Directorate in the Ministry of Petroleum and Natural Gas and guidelines issued by MoEF and subject to further terms and conditions for implementation of ameliorative and restorative measures in relation to environment as may be stipulated by in MoEF.

Provided that facilities for receipt and storage of fertilizers and raw materials required for manufacture of fertilizers like ammonia, phosphoric acid, sulphur, sulphuric acid, nitric acid and the like, shall be permitted within the said zone in the areas not classified as CRZ-I(i).

- (iii) Setting up and expansion of fish processing units including warehousing except hatchery and natural fish drying in permitted areas:

- (iv) Land reclamation, bunding or disturbing the natural course of seawater except those,-

- (a) required for setting up, construction or modernisation or expansion of foreshore facilities like ports, harbours, jetties, wharves, quays, slipways, bridges, sealink, road on stilts, and such as meant for defence and security purpose and for other facilities that are essential for activities permissible under the notification;
- (b) measures for control of erosion, based on scientific including Environmental Impact Assessment (hereinafter referred to as the EIA) studies
- (c) maintenance or clearing of waterways, channels and ports, based on EIA studies;
- (d) measures to prevent sand bars, installation of tidal regulators, laying of storm water drains or for structures for prevention of salinity ingress and freshwater recharge based on carried out by any agency to be specified by MoEF.

- (v) Setting up and expansion of units or mechanism for disposal of wastes and effluents except facilities required for,-

- (a) discharging treated effluents into the water course with approval under the Water (Prevention and Control of Pollution) Act, 1974 (6 of 1974);
- (b) storm water drains and ancillary structures for pumping;
- (c) treatment of waste and effluents arising from hotels, beach resorts and human settlements located in CRZ areas other than CRZ-I and disposal of treated wastes and effluents;

- (vi) Discharge of untreated waste and effluents from industries, cities or towns and other human settlements. The concerned authorities shall implement schemes for phasing out existing discharge of this nature, if any, within a time period not exceeding two years from the date of issue of this notification.

- (vii) Dumping of city or town wastes including construction debris, industrial solid wastes, fly

ash for the purpose of land filling and the like and the concerned authority shall implement schemes for phasing out any existing practice, if any, shall be phased out within a period of one year from date of commencement of this notification.

**Note:-**The MoEF will issue a separate instruction to the State Governments and Union territory Administration in respect of preparation of Action Plans and their implementation as also monitoring including the time schedule thereof, in respect of paras (v), (vi) and (vii).

- (viii) Port and harbour projects in high eroding stretches of the coast, except those projects classified as strategic and defence related in terms of EIA notification, 2006 identified by MoEF based on scientific studies and in consultation with the State Government or the Union territory Administration.
  - (ix) Reclamation for commercial purposes such as shopping and housing complexes, hotels and entertainment activities.
  - (x) Mining of sand, rocks and other sub-strata materials except,-
    - (a) those rare minerals not available outside the CRZ area,
    - (b) exploration and exploitation of Oil and Natural Gas.
  - (xi) Drawl of groundwater and construction related thereto, within 200mts of HTL; except the following:-
    - (a) in the areas which are inhabited by the local communities and only for their use.
    - (b) In the area between 200mts-500mts zone the drawl of groundwater shall be permitted only when done manually through ordinary wells for drinking, horticulture, agriculture and fisheries and where no other source of water is available.
- Note:-**Restrictions for such drawl may be imposed by the Authority designated by the State Government and Union territory Administration in the areas affected by sea water intrusion.
- (xi) Construction activities in CRZ-I except those specified in para 8 of this notification.
  - (xiii) Dressing or altering the sand dunes, hills, natural features including landscape changes for beautification, recreation and other such purpose.
  - (xiv) Facilities required for patrolling and vigilance activities of marine/coastal police stations.

4. Regulation of permissible activities in CRZ area.- The following activities shall be regulated except those prohibited in para 3 above,-

- (i)(a) clearance shall be given for any activity within the CRZ only if it requires waterfront and foreshore facilities;
- (b) for those projects which are listed under this notification and also attract EIA notification, 2006 (S.O.1533 (E), dated the 14<sup>th</sup> September, 2006), for such projects clearance under EIA notification only shall be required subject to being recommended by the concerned State or Union territory Coastal Zone Management Authority (hereinafter referred to as the CZMA).
- (c) Housing schemes in CRZ as specified in paragraph 8 of this notification;

- (d) Construction involving more than 20,000sq mts built-up area in CRZ-II shall be considered in accordance with EIA notification, 2006 and in case of projects less than 20,000sq mts built-up area shall be approved by the concerned State or Union territory Planning authorities in accordance with this notification after obtaining recommendations from the concerned CZMA and prior recommendations of the concern CZMA shall be essential for considering the grant of environmental clearance under EIA notification, 2006 or grant of approval by the relevant planning authority.
- (e) MoEF may under a specific or general order specify projects which require prior public hearing of project affected people.
- (f) construction and operation for ports and harbours, jetties, wharves, quays, slipways, ship construction yards, breakwaters, groynes, erosion control measures;

(ii) the following activities shall require clearance from MoEF, namely:-

- (a) those activities not listed in the EIA notification, 2006.
- (b) construction activities relating to projects of Department of Atomic Energy or Defence requirements for which foreshore facilities are essential such as, slipways, jetties, wharves, quays; except for classified operational component of defence projects. Residential buildings, office buildings, hospital complexes, workshops of strategic and defence projects in terms of EIA notification, 2006.;
- (c) construction, operation of lighthouses;
- (d) laying of pipelines, conveying systems, transmission line;
- (e) exploration and extraction of oil and natural gas and all associated activities and facilities thereto;
- (f) Foreshore requiring facilities for transport of raw materials, facilities for intake of cooling water and outfall for discharge of treated wastewater or cooling water from thermal power plants. MoEF may specify for category of projects such as at (f), (g) and (h) of para 4;
- (g) Mining of rare minerals as listed by the Department of Atomic Energy;
- (h) Facilities for generating power by non-conventional energy resources, desalination plants and weather radars;
- (i) Demolition and reconstruction of (a) buildings of archaeological and historical importance, (ii) heritage buildings; and buildings under public use which means buildings such as for the purposes of worship, education, medical care and cultural activities;

4.2 Procedure for clearance of permissible activities.- All projects attracting this notification shall be considered for CRZ clearance as per the following procedure, namely:-

- (i) The project proponents shall apply with the following documents seeking prior clearance under CRZ notification to the concerned State or the Union territory Coastal Zone Management Authority,-
  - (a) Form-1 (Annexure-IV of the notification);
  - (b) Rapid EIA Report including marine and terrestrial component except for construction projects listed under 4(c) and (d)
  - (c) Comprehensive EIA with cumulative studies for projects in the stretches classified as low and medium eroding by MoEF based on scientific studies and in consultation with the State Governments and Union territory Administration;
  - (d) Disaster Management Report, Risk Assessment Report and Management Plan;
  - (e) CRZ map indicating HTL and LTL demarcated by one of the authorized agency (as indicated in para 2) in 1:4000 scale;
  - (f) Project layout superimposed on the above map indicated at (e) above;

- (g) The CRZ map normally covering 7km radius around the project site.
  - (h) The CRZ map indicating the CRZ-I, II, III and IV areas including other notified ecologically sensitive areas;
  - (i) No Objection Certificate from the concerned State Pollution Control Boards or Union territory Pollution Control Committees for the projects involving discharge of effluents, solid wastes, sewage and the like.;
- (ii) The concerned CZMA shall examine the above documents in accordance with the approved CZMP and in compliance with CRZ notification and make recommendations within a period of sixty days from date of receipt of complete application,-
- (a) MoEF or State Environmental Impact Assessment Authority (hereinafter referred to as the SEIAA) as the case may be for the project attracting EIA notification, 2006;
  - (b) MoEF for the projects not covered in the EIA notification, 2006 but attracting para 4(ii) of the CRZ notification;
- (iii) MoEF or SEIAA shall consider such projects for clearance based on the recommendations of the concerned CZMA within a period of sixty days.
- (vi) The clearance accorded to the projects under the CRZ notification shall be valid for the period of five years from the date of issue of the clearance for commencement of construction and operation.
- (v) For Post clearance monitoring – (a) it shall be mandatory for the project proponent to submit half-yearly compliance reports in respect of the stipulated terms and conditions of the environmental clearance in hard and soft copies to the regulatory authority(s) concerned, on 1<sup>st</sup> June and 31<sup>st</sup> December of each calendar year and all such compliance reports submitted by the project proponent shall be published in public domain and its copies shall be given to any person on application to the concerned CZMA.
- (b) the compliance report shall also be displayed on the website of the concerned regulatory authority.
- (vi) To maintain transparency in the working of the CZMAs it shall be the responsibility of the CZMA to create a dedicated website and post the agenda, minutes, decisions taken, clearance letters, violations, action taken on the violations and court matters including the Orders of the Hon'ble Court as also the approved CZMPs of the respective State Government or Union territory.

#### 5. Preparation of Coastal Zone Management Plans.

- (i) The MoEF may obtain the CZMPs prepared through the respective State Government or Union territory;
- (ii) The CZMPs may be prepared by the coastal State Government or Union territory by engaging reputed and experienced scientific institution(s) or the agencies including the National Centre for Sustainable Coastal Management (hereinafter referred to as the NCSCM) of MoEF and in consultation with the concerned stakeholders;
- (iii) The hazard line shall be mapped by MoEF through Sol all along the coastline of the country and the hazard line shall be demarcated taking into account, tide, waves, sea level

rise and shoreline changes;

- (iv) For the purpose of depicting the flooding due to tides, waves and sea level rise in the next fifty and hundred years, the contour mapping of the coastline shall be carried out at 0.5m interval normally upto 7km from HTL on the landward side, and the shoreline changes shall be demarcated based on historical data by comparing the previous satellite imageries with the recent satellite imageries;
- (v) Mapping of the hazard line shall be carried out in 1:25,000 scale for macro level planning and 1:10,000 scale or cadastral scale for micro level mapping and the hazard line shall be taken into consideration while preparing the land use plan of the coastal areas;
- (vi) The coastal States and Union Territory will prepare within a period of twenty four months from the date of issue this notification, draft CZMPs in 1:25,000 scale map identifying and classifying the CRZ areas within the respective territories in accordance with the guidelines given in Annexure-I of the notification, which involve public consultation;
- (vii) The draft CZMPs shall be submitted by the State Government or Union territory to the concerned CZMA for appraisal, including appropriate consultations, and recommendations in accordance with the procedure(s) laid down in the Environment (Protection) Act, 1986;
- (viii) The State Government or Union territory CZMA shall submit the draft CZMPs to MoEF alongwith its recommendations on the CZMP within a period of six months after incorporating the suggestions and objections received from the stakeholders;
- (ix) MoEF shall thereafter consider and approve the CZMPs within a period of four months from the date of receipt of the CZMPs complete in all respects;
- (x) All developmental activities listed in this notification shall be regulated by the State Government, Union Territory Administration, the local authority or the concerned CZMA within the framework of such approved CZMPs as the case may be in accordance with provisions of this notification;
- (xi) The CZMPs shall not normally be revised before a period of five years after which, the concerned State Government or the Union territory may consider undertaking revision of the maps following the above procedures;
- (xii) The CZMPs already approved under CRZ notification, 1991 shall be valid for a period of twenty four months unless the aforesaid period is extended by MoEF by a specific notification subject to such terms and conditions as may be specified therein.

#### 6. Enforcement of the CRZ, notification, 2011-

- (a) For the purpose of implementation and enforcement of the provisions this notification and compliance with conditions stipulated thereunder, the powers either original or delegated are available under Environment (Protection) Act, 1986 with the MoEF, State Government or the Union territory Administration NCZMA and SCZMA's;
- (b) The composition, tenure and mandate of NCZMA and State Government or the Union territory CZMA's have already been notified by MoEF in terms of Orders of Hon'ble

Supreme Court in Writ Petition 664 of 1993;

- (c) the State Government or the Union territory CZMAs shall primarily be responsible for enforcing and monitoring of this notification and to assist in this task, the State Government and the Union territory shall constitute district level Committees under the Chairmanship of the District Magistrate concerned containing atleast three representatives of local traditional coastal communities including from fisherfolk;
- (d) The dwelling units of the traditional coastal communities including fisherfolk, tribals as were permissible under the provisions of the CRZ notification, 1991, but which have not obtained formal approval from concerned authorities under the aforesaid notification shall be considered by the respective Union territory CZMAs and the dwelling units shall be regularized subject to the following condition, namely-
  - (i) these are not used for any commercial activity
  - (ii) these are not sold or transferred to non-traditional coastal community.

7. Classification of the CRZ – For the purpose of conserving and protecting the coastal areas and marine waters, the CRZ area shall be classified as follows, namely:-

(i) CRZ-I,-

A. The areas that are ecologically sensitive and the geomorphological features which play a role in the maintaining the integrity of the coast,-

- (a) Mangroves, in case mangrove area is more than 1000 sq mts, a buffer of 50meters along the mangroves shall be provided;
  - (b) Corals and coral reefs and associated biodiversity;
  - (c) Sand Dunes;
  - (d) Mudflats which are biologically active;
  - (e) National parks, marine parks, sanctuaries, reserve forests, wildlife habitats and other protected areas under the provisions of Wild Life (Protection) Act, 1972 (53 of 1972), the Forest (Conservation) Act, 1980 (69 of 1980) or Environment (Protection) Act, 1986 (29 of 1986); including Biosphere Reserves;
  - (f) Salt Marshes;
  - (g) Turtle nesting grounds;
  - (h) Horse shoe crabs habitats;
  - (i) Sea grass beds;
  - (j) Nesting grounds of birds;
  - (k) Areas or structures of archaeological importance and heritage sites.
- B. The area between Low Tide Line and High Tide Line;

(ii) CRZ-II,-

The areas that have been developed upto or close to the shoreline.

*Explanation.-* For the purposes of the expression “developed area” is referred to as that area within the existing municipal limits or in other existing legally designated urban areas which are substantially built-up and has been provided with drainage and approach roads and other infrastructural facilities, such as water supply and sewerage mains;

## (iii) CRZ-III,-

Areas that are relatively undisturbed and those do not belong to either CRZ-I or II which include coastal zone in the rural areas (developed and undeveloped) and also areas within municipal limits or in other legally designated urban areas, which are not substantially built up.

## (iv.) CRZ-IV,-

A. the water area from the Low Tide Line to twelve nautical miles on the seaward side;

B. shall include the water area of the tidal influenced water body from the mouth of the water body at the sea upto the influence of tide which is measured as five parts per thousand during the driest season of the year.

(v) Areas requiring special consideration for the purpose of protecting the critical coastal environment and difficulties faced by local communities,-

A. (i) CRZ area falling within municipal limits of Greater Mumbai;  
(ii) the CRZ areas of Kerala including the backwaters and backwater islands;  
(iii) CRZ areas of Goa.

B. Critically Vulnerable Coastal Areas (CVCA) such as Sunderbans region of West Bengal and other ecologically sensitive areas identified as under Environment (Protection) Act, 1986 and managed with the involvement of coastal communities including fisherfolk.

## 8 Norms for regulation of activities permissible under this notification,-

(i) The development or construction activities in different categories of CRZ shall be regulated by the concerned CZMA in accordance with the following norms, namely:-

Note:- The word existing use hereinafter in relation to existence of various features or existence of regularisation or norms shall mean existence of these features or regularisation or norms as on 19.2.1991 wherein CRZ notification, was notified.

## I. CRZ-I,-

(i) no new construction shall be permitted in CRZ-I except,-

- (a) projects relating to Department of Atomic Energy;
- (b) pipelines, conveying systems including transmission lines;
- (c) facilities that are essential for activities permissible under CRZ-I;
- (d) installation of weather radar for monitoring of cyclones movement and prediction by Indian Meteorological Department;
- (e) construction of trans harbour sea link and without affecting the tidal flow of water, between LTL and HTL.
- (f) development of green field airport already approved at only Navi Mumbai;

(ii) Areas between LTL and HTL which are not ecologically sensitive, necessary safety measures will be incorporated while permitting the following, namely:-

- (a) exploration and extraction of natural gas;
- (b) construction of dispensaries, schools, public rainshelter, community toilets, bridges, roads, jetties, water supply, drainage, sewerage which are required for traditional inhabitants living within the biosphere reserves after obtaining approval from concerned CZMA.
- (c) necessary safety measure shall be incorporated while permitting such developmental activities in the area falling in the hazard zone;
- (d) salt harvesting by solar evaporation of seawater;
- (e) desalination plants;
- (f) storage of non-hazardous cargo such as edible oil, fertilizers and food grain within notified ports;
- (g) construction of trans harbour sea links, roads on stilts or pillars without affecting the tidal flow of water.

## II. CRZ-II,-

- (i) buildings shall be permitted only on the landward side of the existing road, or on the landward side of existing authorized structures;
- (ii) buildings permitted on the landward side of the existing and proposed roads or existing authorized structures shall be subject to the existing local town and country planning regulations including the 'existing' norms of Floor Space Index or Floor Area Ratio:  
Provided that no permission for construction of buildings shall be given on landward side of any new roads which are constructed on the seaward side of an existing road;
- (iii) reconstruction of authorized building to be permitted subject with the existing Floor Space Index or Floor Area Ratio Norms and without change in present use;
- (iv) facilities for receipt and storage of petroleum products and liquefied natural gas as specified in Annexure-II appended to this notification and facilities for regasification of Liquefied Natural Gas subject to the conditions as mentioned in sub-paragraph (ii) of paragraph 3;
- (v) desalination plants and associated facilities;
- (vi) storage of non-hazardous cargo, such as edible oil, fertilizers and food grain in notified ports;
- (vii) facilities for generating power by non-conventional power sources and associated facilities;

## III. CRZ-III,-

A. Area upto 200mts from HTL on the landward side in case of seafront and 100mts along tidal influenced water bodies or width of the creek whichever is less is to be earmarked as "No Development Zone (NDZ)",-

- (i) the NDZ shall not be applicable in such area falling within any notified port limits;
- (ii) No construction shall be permitted within NDZ except for repairs or reconstruction of existing authorized structure not exceeding existing Floor Space Index, existing plinth area and existing density and for permissible activities under the notification including facilities essential for activities; Construction/reconstruction of dwelling units of traditional coastal communities including fisherfolk may be permitted between 100 and 200 metres from the HTL along the seafront in accordance with a comprehensive plan prepared by the State Government or the Union territory in consultation with the traditional coastal communities including fisherfolk and incorporating the necessary disaster management

provision, sanitation and recommended by the concerned State or the Union territory CZMA to NCZMA for approval by MoEF;

(iii) however, the following activities may be permitted in NDZ –

- (a) agriculture, horticulture, gardens, pasture, parks, play field, and forestry;
- (b) projects relating to Department of Atomic Energy;
- (c) mining of rare minerals;
- (d) salt manufacture from seawater;
- (e) facilities for receipt and storage of petroleum products and liquefied natural gas as specified in Annexure-II;
- (f) facilities for regasification of liquefied natural gas subject to conditions as mentioned in subparagraph (ii) of paragraph 3;
- (g) facilities for generating power by non conventional energy sources;
- (h) Foreshore facilities for desalination plants and associated facilities;
- (i) weather radars;
- (j) construction of dispensaries, schools, public rain shelter, community toilets, bridges, roads, provision of facilities for water supply, drainage, sewerage, crematoria, cemeteries and electric sub-station which are required for the local inhabitants may be permitted on a case to case basis by CZMA;
- (k) construction of units or auxiliary thereto for domestic sewage, treatment and disposal with the prior approval of the concerned Pollution Control Board or Committee;
- (l) facilities required for local fishing communities such as fish drying yards, auction halls, net mending yards, traditional boat building yards, ice plant, ice crushing units, fish curing facilities and the like;
- (m) development of green field airport already permitted only at Navi Mumbai.

B. Area between 200mts to 500mts,-

The following activities shall be permissible in the above areas;

- (i) development of vacant plot in designated areas for construction of hotels or beach resorts for tourists or visitors subject to the conditions as specified in the guidelines at Annexure-III ;
- (ii) facilities for receipt and storage of petroleum products and liquefied natural gas as specified in Annexure-II;
- (iii) facilities for regasification of liquefied natural gas subject to conditions as mentioned in sub-paragraph (ii) of paragraph 3;
- (iv) storage of non-hazardous cargo such as, edible oil, fertilizers, food grain in notified ports;
- (v) foreshore facilities for desalination plants and associated facilities;
- (vi) facilities for generating power by non-conventional energy sources;
- (vii) construction or reconstruction of dwelling units so long it is within the ambit of traditional rights and customary uses such as existing fishing villages and goathans. Building permission for such construction or reconstruction will be subject to local town and country planning rules with overall height of construction not exceeding 9mts with two floors (ground + one floor);
- (viii) Construction of public rain shelters, community toilets, water supply drainage, sewerage, roads and bridges by CZMA who may also permit construction of schools and dispensaries for local inhabitants of the area for those panchayats, the major

- part of which falls within CRZ if no other area is available for construction of such facilities;
- (ix) reconstruction or alteration of existing authorised building subject to sub-paragraph (vii), (viii);
  - (x) development of green field airport already permitted only at Navi Mumbai.

(IV) In CRZ-IV areas,-

The activities impugning on the sea and tidal influenced water bodies will be regulated except for traditional fishing and related activities undertaken by local communities as follows:-

- (a) No untreated sewage, effluents, ballast water, ship washes, fly ash or solid waste from all activities including from aquaculture operations shall be let off or dumped. A comprehensive plan for treatment of sewage generating from the coastal towns and cities shall be formulated within a period of one year in consultation with stakeholders including traditional coastal communities, traditional fisherfolk and implemented;
- (b) Pollution from oil and gas exploration and drilling, mining, boat house and shipping;
- (c) There shall be no restriction on the traditional fishing and allied activities undertaken by local communities.

V. Areas requiring special consideration,-

1. CRZ areas falling within municipal limits of the Greater Mumbai.

- (i) Developmental activities in the CRZ area of the Greater Mumbai because of the environmental issues, relating to degradation of mangroves, pollution of creeks and coastal waters, due to discharge of untreated effluents and disposal of solid waste, the need to provide decent housing to the poor section of society and lack of suitable alternatives in the inter connected islands of Greater Mumbai shall be regulated as follows, namely:-

A. Construction of roads - In CRZ-I areas indicated at sub-paragraph (i) of paragraph 7 of the notification the following activities only can be taken up:-

- (a) Construction of roads, approach roads and missing link roads approved in the Developmental Plan of Greater Mumbai on stilts ensuring that the free flow of tidal water is not affected, without any benefit of CRZ-II accruing on the landward side of such constructed roads or approach roads subject to the following conditions:-

- (i) All mangrove areas shall be mapped and notified as protected forest and necessary protection and conservation measures for the identified mangrove areas shall be initiated.
- (ii) Five times the number of mangroves destroyed/cut during the construction process shall be replanted.

B. Solid waste disposal sites shall be identified outside the CRZ area and thereafter within two years the existing conventional solid waste sites shall be relocated outside the CRZ area.

(iii) In CRZ-II areas-

- (a) The development or redevelopment shall continue to be undertaken in accordance with the norms laid down in the Town and Country Planning Regulations as they existed on the date of issue of the notification dated the 19<sup>th</sup> February, 1991, unless specified otherwise in this notification.

**(b) SLUM REHABILITATION SCHEMES,-**

1. In the Greater Mumbai area there are large slum clusters with lakhs of families residing therein and the living conditions in these slums are deplorable and the civic agencies are not able to provide basic infrastructure such as drinking water, electricity, roads, drainage and the like because the slums come up in an unplanned and congested manner and the slums in the coastal area are at great risk in the event of cyclones, storm surges or tsunamis, in view of the difficulties in providing rescue, relief and evacuation.
2. To provide a safe and decent dwelling to the slum dwellers, the State Government may implement slum redevelopment schemes as identified as on the date of issue of this notification directly or through its parastatal agencies like Maharashtra Housing and Area Development Authority (MHADA), Shivshahi Punarvasan Prakalp Limited (SPPL), Mumbai Metropolitan Region Development Authority (MMRDA) and the like.:

Provided that,-

- (i) such redevelopment schemes shall be undertaken directly or through joint ventures or through public private partnerships or other similar models ensuring that the stake of the State Government or its parastatal entities shall be not less than 51%;
- (ii) the Floor Space Index or Floor Area Ratio for such redevelopment schemes shall be in accordance with the Town and Country Planning Regulations prevailing as on the date on which the project is granted approval by the competent authority;
- (iii) it shall be the duty of the project proponent undertaking the redevelopment through conditions (i)(2) above along with the State Government to ensure that all legally regularized tenants are provided houses in situ or as per norms laid down by the State Government in this regard.

**(c) REDEVELOPMENT OF DILAPIDATED, CESSSED AND UNSAFE BUILDINGS:**

1. In the Greater Mumbai, there are, also a large number of old and dilapidated, cessed and unsafe buildings in the CRZ areas and due to their age these structures are extremely vulnerable and disaster prone and therefore there is an urgent need for the redevelopment or reconstruction of these identified buildings.
2. These projects shall be taken up subject to the following conditions and safeguards:
  - (i) such redevelopment or reconstruction projects as identified on the date of issue of this notification shall be allowed to be taken up involving the owners of these buildings either above or with private developers in accordance with the prevailing Regulation, directly or through joint ventures or through other similar models.
  - (ii) the Floor Space Index or Floor Area Ratio for such redevelopment schemes shall be in accordance with the Town and Country Planning Regulations prevailing as on the date on which the project is granted approval by the competent authority
  - (iii) suitable accommodation to the original tenants of the specified buildings shall be

ensured during the course of redevelopment or reconstruction of the buildings by the project proponents, undertaking the redevelopment through condition 2(i) above.

- (d) Notwithstanding anything contained in this notification, the developmental activities for slums and for dilapidated, cessed and unsafe buildings as specified at paras (b) and (c) above shall be carried out in an accountable and transparent manner by the project proponents mentioned therein which shall include the following pre-condition measures, wherever applicable;-
1. (i) applicability of the Right to Information Act, 2005 to all redevelopment or reconstruction projects granted clearance by the Competent Authorities;
  - (ii) MoEF shall issue an order constituting the CPIO and the first Appellate Authority of appropriate ranks in consultation with Government of Maharashtra;
  - (iii) details of the Slum Rehabilitation Scheme, including the complete proposal and the names of the eligible slum dwellers will be declared suo-moto as a requirement of Section 4 of compliance of the Right to Information Act, 2005 by the appropriate authority in the Government of Maharashtra in one month before approving it;
  - (iv) the implementing or executing agency at the State Government with regard to projects indicated at sub-item (b) and (c) of item (iii) of sub-paragraph V shall display on a large notice boards at the site and at the office of the implementing or executing agency the names of the eligible builders, total number of tenements being made, names of eligible slum dwellers who are to be provided the dwelling units and the extra area available for free sale.
  - (v) Projects being developed under sub-items (b) and (c) of item (iii) of sub-paragraph V shall be given permission only if the project proponent agree to be covered under the Right to Information Act, 2005.
2. MoEF may appoint statutory auditors, who are empanelled by the Comptroller and auditor General (hereinafter referred to as the C&AG) to undertake performance and fiscal audit in respect of the projects relating to redevelopment of dilapidated, cessed and unsafe buildings and the projects relating to Slum Rehabilitation Scheme shall be audited by C&AG.
  3. A High Level Oversight Committee may be set up by the Government of Maharashtra for periodic review of implementation of V(iii)(b) and (c) which shall include eminent representatives of various Stakeholders, like Architects, Urban Planner, Engineers, and Civil Society, besides the local urban bodies, the State Government and the Central Government.
  4. The individual projects under V(iii)(b) and (c) shall be undertaken only after public consultation in which views of only the legally entitled slum dweller or the legally entitled tenent of the dilapidated or cessed buildings shall be obtained in accordance with the procedures laid down in EIA notification, 2006.
- (e) In order to protect and preserve the 'green lung' of the Greater Mumbai area, all open spaces, parks, gardens, playgrounds indicated in development plans within CRZ-II shall be categorized as CRZ-III, that is, 'no development zone'.
- (f) the Floor Space Index upto 15% shall be allowed only for construction of civic amenities, stadium and gymnasium meant for recreational or sports related activities and the residential or commercial use of such open spaces shall not be permissible.
- (g) Koliwada namely, fishing settlement areas as identified in the Development Plan of 1981

or relevant records of the Government of Maharashtra, shall be mapped and declared as CRZ-III so that any development, including construction and reconstruction of dwelling units within these settlements shall be undertaken in accordance with applicable as per local Town and Country Planning Regulations.

- (h) Reconstruction and repair works of the dwelling units, belonging to fisher communities and other local communities identified by the State Government, shall be considered and granted permission by the Competent Authorities on a priority basis, in accordance with the applicable Town and Country Planning Regulations.

## 2. CRZ for Kerala

In view of the unique coastal systems of backwater and backwater islands alongwith space limitation present in the coastal stretches of the State of Kerala, the following activities in CRZ shall be regulated as follows, namely:-

- (i) all the islands in the backwaters of Kerala shall be covered under the CRZ notification;
- (ii) the islands within the backwaters shall have 50mts width from the High Tide Line on the landward side as the CRZ area;
- (iii) within 50mts from the HTL of these backwater islands existing dwelling units of local communities may be repaired or reconstructed however no new construction shall be permitted;
- (iv) beyond 50mts from the HTL on the landward side of backwater islands, dwelling units of local communities may be constructed with the prior permission of the Gram panchayat;
- (v) foreshore facilities such as fishing jetty, fish drying yards, net mending yard, fishing processing by traditional methods, boat building yards, ice plant, boat repairs and the like, may be taken up within 50mts width from HTL of these backwater islands.

## 3. CRZ of Goa.-

In view of the peculiar circumstances of the State Goa including past history and other developments, the specific activities shall be regulated and various measures shall be undertaken as follows:-

- (i) the Government of Goa shall notify the fishing villages wherein all foreshore facilities required for fishing and fishery allied activities such as traditional fish processing yards, boat building or repair yards, net mending yards, ice plants, ice storage, auction hall, jetties may be permitted by Grama Panchayat in the CRZ area;
- (ii) reconstruction, repair works of the structures of local communities including fishermen community shall be permissible in CRZ;
- (iii) purely temporary and seasonal structures customarily put up between the months of September to May;
- (iv) the eco sensitive low lying areas which are influenced by tidal action known as khazan lands shall be mapped;
- (v) the mangroves along such as khazan land shall be protected and a management plan for the khazan land prepared and no developmental activities shall be permitted in the khazan land;
- (vi) sand dunes, beach stretches along the bays and creeks shall be surveyed and mapped. No activity shall be permitted on such sand dune areas;
- (vii) the beaches such as Mandrem, Morjim, Galgiba and Agonda has been designated as turtle nesting sites and protected under the Wildlife Protection Act, 1972 and these areas shall be surveyed and management plan prepared for protection of these turtle nesting

- sites;
- (viii) no developmental activities shall be permitted in the turtle breeding areas referred to in sub-paragraph (vii).
4. (a) Critical Vulnerable Coastal Areas (CVCA) which includes Sunderbans and other identified ecological sensitive areas which shall be managed with the involvement of the local coastal communities including the fisher folk;-
- (b) the entire Sunderbans mangrove area and other identified ecologically important areas such as Gulf of Khambat and Gulf of Kutchhh in Gujarat, Malvan, Achra-Ratnagiri in Maharashtra, Karwar and Coondapur in Karnataka, Vembanad in Kerala, Gulf of Mannar in Tamil Nadu, Bhaitarkanika in Orissa, Coringa, East Godavari and Krishna in Andhra Pradesh shall be declared as Critical Vulnerable Coastal Areas (CVCA) through a process of consultation with local fisher and other communities inhabiting the area and depend on its resources for their livelihood with the objective of promoting conservation and sustainable use of coastal resources and habitats;
- (c) the process of identifying planning, notifying and implementing CVCA shall be detailed in the guideline which will be developed and notified by MoEF in consultations with the stakeholders like the State Government, local coastal communities and fisherfolk and the like inhabiting the area;
- (d) the Integrated Management Plans (IMPs) prepared for such CVCA shall interalia keep in view the conservation and management of mangroves, needs of local communities such as, dispensaries, schools, public rain shelter, community toilets, bridges, roads, jetties, water supply, drainage, sewerage and the impact of sea level rise and other natural disasters and the IMPs will be prepared in line with the para 5 above for preparation of Coastal Zone Management Plans;
- (e) till such time the IMPs are approved and notified, construction of dispensaries, schools, public rain shelters, community toilets, bridges, roads, jetties, water supply, drainage, sewerage which are required for traditional inhabitants shall be permitted on a case to case basis, by the CZMA with due regards to the views of coastal communities including fisherfolk.

[F.No. 11-83/2005-IA-III]

J. M. MAUSKAR, Addl. Secy.

**ANNEXURE I****GUIDELINES FOR PREPARATION OF COASTAL ZONE MANAGEMENT PLANS****I. A. Demarcation of High Tide Line**

1. Demarcation of High Tide Line (HTL) and Low Tide Line (LTL) shall be carried out by one of the agencies authorised by MoEF based on the recommendations of the National Centre for Sustainable Coastal Management (NCSCM).
2. Demarcation of the High Tide Line or LTL shall be made on the Coastal Zone Management (CZM) Maps of scale 1:25,000 prepared by the agencies identified by the MoEF.
3. Local level CZM Maps shall be prepared for use of officials of local bodies for determination of the CRZ.
4. The local level CZM Maps shall be prepared on a Cadastral scale in accordance with the CZM Maps approved by the Central Government.

**B. Preparation of CZM Maps**

5. Base Maps of 1:25,000 scale shall be acquired from the Survey of India (SOI) and wherever 1:25,000 maps are not available, 1:50,000 maps shall be enlarged to 1:25,000 for the purpose of base map preparation and these maps will be of the standard specification given below:

Unit	:	7.5 minutes X 7.5minutes
Numbering	:	Survey of India Sheet Numbering System
Horizontal Datum	:	Everest or WGS 84
Vertical Datum	:	Mean Sea Level (MSL)
Topography	:	Topography in the SOI maps will be updated using latest satellite imageries or aerial photographs

6. The High Water Level (HWL) and Low Water Level (LWL) marked on the Base maps will be transferred to the CZM maps.
7. Coastal geomorphological signatures in the field or satellite imageries or aerial photographs will be used for appropriate adjustment, in the HWL or LWL for demarcating HTL or LTL in accordance with the CRZ notification.
8. The following geomorphological features shall be considered while demarcating in HTL or LTL:
  - Landward (monsoonal) berm crest in the case of sandy beaches
  - Rocks, Headlands, Cliffs
  - Seawalls or revetments or embankments
9. 500 meter and 200 metre lines will be demarcated with respect of HTL.
10. HTL (as defined in the CRZ notification) and LTL shall also be demarcated in the CZM maps along the banks of tidal influenced inland water bodies with the help of the geomorphological signatures or features.
11. Classification of different coastal zones shall be done as per the CRZ notification
12. Standard national or international colour codes shall be used to highlight sub-classification of data.

**C. Local level CZM Maps**

Local level CZM Maps are for the use of local bodies and other agencies to facilitate implementation of the Coastal Zone Management Plans

13. Cadastral (village) maps in 1:3960 or the nearest scale, shall be used as the base maps.
14. These maps are available with revenue Authorities and are prepared as per standard norms.

15. HTL (as defined in the CRZ notification) and LTL will be demarcated in the cadastral map based on detailed physical verification using coastal geomorphological signatures or features in accordance with the CZM Maps approved by the Central Government.
16. 500metre and 200metre lines shall be demarcated with respect to the HTL thus marked.
17. HTL (as defined in the CRZ notification, 1991) and LTL will also be demarcated along the banks of tidal influenced inland water bodies with the help of geomorphological signatures or features.
18. Classifications shall be transferred into local level CZM maps from the CZM Plans.
19. Symbols will be adopted from CZM Maps.
20. Colour codes as given in CZM Maps shall be used.
21. Demarcation of cadastral maps will be done by local agencies approved by the Central Government. The local agencies shall work under the guidance of the concerned State Government or Union Territory Coastal Zone Management Authorities.

#### D. Hazard mapping:-

#### II. Classification of CRZ areas

1. The CZM Maps shall be prepared in accordance with para 5 of the CRZ notification demarcating CRZ I, II, III, IV and V.
2. The CZM Maps shall clearly demarcate the land use plan of the area and lists out the CRZ-I areas. All the CRZ-I areas listed under para 7(I)A and B shall be clearly demarcated and colour codes given so that each of the CRZ-I areas can be clearly identified.
3. Buffer zone along mangrove areas of more than 1000sq mts shall be stipulated with a different colour distinguishing from the mangrove area.
4. The buffer zone shall also be classified as CRZ-I area.
5. The hazard line to be drawn up by MoEF shall be superimposed on the CZM maps in 1:25,000 scale and also on the cadastral scale maps.
6. The CRZ-II areas shall be those areas which have been substantially built-up with a ratio of built-up plots to that of total plots is more than 50%.
7. In the CRZ areas, the fishing villages, common properties of the fishermen communities, fishing jetties, ice plants, fish drying platforms or areas infrastructure facilities of fishing and local communities such as dispensaries, roads, schools, and the like, shall be indicated on the cadastral scale maps. States shall prepare detailed plans for long term housing needs of coastal fisher communities in view of expansion and other needs, provisions of basic services including sanitation, safety, and disaster preparedness.
8. No developmental activities other than those listed above shall be permitted in the areas between the hazard line and 500mts or 100mts or width of the creek on the landward side. The dwelling unit of the local communities including that of the fishers will not be relocated if the dwelling units are located on the seaward side of the hazard line. The State Government will provide necessary safeguards from natural disaster to such dwelling units of local communities.
9. The water areas of CRZ IV shall be demarcated and clearly demarcated if the water body is sea, lagoon, backwater, creek, bay, estuary and for such classification of the water bodies the terminology used by Naval Hydrographic Office shall be relied upon.
10. The fishing Zones in the water bodies and the fish breeding areas shall be clearly marked.
11. The water area shall be demarcated indicating the pollution levels as per Central Pollution Control Board standards on water quality.
12. In the CRZ V areas the land use maps shall be superimposed on the Coastal Zone Management Plan and clearly demarcating the CRZ I, II, III, IV.
13. The existing authorized developments on the sea ward side shall be clearly demarcated.

14. The features like cyclone shelters, rain shelters, helipads and other infrastructure including road network may be clearly indicated on the CZM Maps for the purpose of rescue and relief operations during cyclones, storms, tsunami and the like.

### III. CZMPs approved by MoEF in accordance with CRZ notification, 1991

- 1.. While preparing the CZMPs under CRZ notification, 2011, the CZMPs that have been approved under the CRZ Notification, 1991 shall be compared. A justification shall be provided by the concerned CZMA in case the CZMPs prepared under CRZ notification, 2011 varies with respect to the approved CZMP prepared under CRZ notification, 1991.

### IV. Public Views on the CZMP.

- a) The draft CZMPs prepared shall be given wide publicity and suggestions and objections received in accordance with the Environment (Protection) Act, 1986. Public hearing on the draft CZMPs shall be held at district level by the concerned CZMAs.
- Based on the suggestions and objections received the CZMPs shall be revised and approval of MoEF shall be obtained.
- c) The approved CZMP shall be put up on the website of MoEF, concerned website of the State, Union Territory CZMA and hard copy made available in the panchayat office, District collector office and the like.

### V. Revision of Coastal Zone Management Plans

1. Whenever there is a doubt the concerned State or Union territory Coastal Zone Management Authority shall refer the matter to the National Centre for Sustainable Coastal Management who shall verify the CZMP based on latest satellite imagery and ground truthing.
2. The rectified map would be submitted to MoEF for its record.

### Annexure-II

List of petroleum and chemical products permitted for storage in [CRZ except CRZ-I(A)]

- Crude oil;
- (ii) Liquefied Petroleum Gas;
- (iii) Motor spirit;
- (iv) Kerosene;
- (v) Aviation fuel;
- (vi) High speed diesel;
- (vii) Lubricating oil;
- (viii) Butane;
- (ix) Propane;
- (x) Compressed Natural Gas;
- (xi) Naphtha;

- (xii) Furnace oil;
- (xiii) Low Sulphur Heavy Stock;
- (xiv) Liquefied Natural Gas;
- (xv) Fertilizers and raw materials for manufacture of fertilizers.

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### Annexure-III

#### **Guidelines for development of beach resorts or hotels in the designated areas of CRZ-III and CRZ-II for occupation of tourist or visitors with prior approval of the Ministry of Environment and Forests**

- I. Construction of beach resorts or hotels with prior approval of MoEF in designated areas of CRZ-II and III for occupation of tourist or visitors shall be subject to the following conditions, namely:-
  - (a) The project proponent shall not undertake any construction within 200 metres in the landward side of High Tide Line and within the area between Low Tide Line and High Tide Line;
  - (b) The proposed constructions shall be beyond the hazard line or 200mts from the High Tide Line whichever is more;
  - (c) live fencing and barbed wire fencing with vegetative cover may be allowed around private properties subject to the condition that such fencing shall in no way hamper public access to the beach;
  - (d) no flattening of sand dunes shall be carried out;
  - (e) no permanent structures for sports facilities shall be permitted except construction of goal posts, net posts and lamp posts;
  - (f) Construction of basement may be allowed subject to the condition that no objection certification is obtained from the State Ground Water Authority to the effect that such construction will not adversely affect the flow of groundwater in that area;
  - (g) the State Ground Water Authority shall take into consideration the guidelines issued by Central Government before granting such no objection certificate;
  - (h) though no construction is allowed in the no development zone for the purposes of calculation of Floor Space Index, the area of entire plot including the portion which falls within the no development zone shall be taken into account;

- (i) the total plot size shall not be less than 0.4 hectares and the total covered area on all floors shall not exceed 33 percent of the plot size i.e., the Floor Space Index shall not exceed 0.33 and the open area shall be suitably landscaped with appropriate vegetal cover;
  - (j) the construction shall be consistent with the surrounding landscape and local architectural style;
  - (k) the overall height of construction upto the highest ridge of the roof, shall not exceed 9metres and the construction shall not be more than two floors (ground floor plus one upper floor);
  - (l) groundwater shall not be tapped within 200metre of the High Tide Line; within the 200metre 500metre zone it can be tapped only with the concurrence of the Central or State Ground Water Board;
  - (m) extraction of sand, leveling or digging of sandy stretches except for structural foundation of building, swimming pool shall not be permitted within 500metres of the High Tide Line;
  - (n) the quality of treated effluents, solid wastes, emissions and noise levels and the like, from the project area must conform to the standards laid down by the competent authorities including the Central or State Pollution Control Board and under the Environment (Protection) Act, 1986;
  - (o) necessary arrangements for the treatment of the effluents and solid wastes must be made and it must be ensured that the untreated effluents and solid wastes are not discharged into the water or on the beach; and no effluent or solid waste shall be discharged on the beach;
  - (p) to allow public access to the beach, atleast a gap of 20metres width shall be provided between any two hotels or beach resorts; and in no case shall gaps be less than 500metres apart; and
  - (q) if the project involves diversion of forestland for non-forest purposes, clearance as required under the Forest (Conservation) Act, 1980 shall be obtained and the requirements of other Central and State laws as applicable to the project shall be met with; and
  - (r) approval of the State or Union territory Tourism Department shall be obtained.
- II. In ecologically sensitive areas (such as marine parks, mangroves, coral reefs, breeding and spawning grounds of fish, wildlife habitats and such other area as may be notified by the Central or State Government Union territories) construction of beach resorts or hotels shall not be permitted

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**MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE****NOTIFICATION**

New Delhi, the 18th January, 2019

**G.S.R. 37(E).**—Whereas by notification of the Government of India in the erstwhile Ministry of Environment and Forests number S.O.19 (E), dated the 6<sup>th</sup> January, 2011 (hereinafter referred to as the Coastal Regulation Zone Notification, 2011), the Central Government declared certain coastal stretches as Coastal Regulation Zone (hereinafter referred to as the CRZ) under section 3 of Environment (Protection) Act, 1986 (29 Of 1986);

And Whereas, the Ministry of Environment, Forest and Climate Change has received representations from various coastal States and Union territories, besides other stakeholders, regarding certain provisions in the Coastal Regulation Zone Notification, 2011 related to management and conservation of marine and coastal ecosystems, development in coastal areas, eco-tourism, livelihood options and sustainable development of coastal communities etc.;

And Whereas, various State Governments and Union territory administrations and stakeholders have requested the Ministry of Environment, Forest and Climate Change to address the concerns related to coastal environment and sustainable development with respect to the Coastal Regulation Zone Notification, 2011;

And Whereas, the Ministry of Environment, Forest and Climate Change had constituted a Committee under the Chairmanship of Dr. Shailesh Nayak to examine various issues and concerns of coastal States and Union territories and various stakeholders, relating to the Coastal Regulation Zone Notification 2011 and to recommend appropriate changes in the said Notification;

And Whereas, the report submitted by Dr. Shailesh Nayak Committee has been examined in the Ministry and consultations have been held with various stakeholders in this regard;

And Whereas, a draft Coastal Regulation Zone Notification, 2018 was issued and hosted in the website of the Ministry of Environment, Forest and Climate Change on the 18<sup>th</sup> April, 2018 seeking comments and suggestions from all concerned;

And Whereas, objections and suggestions received in response to the above mentioned draft Coastal Regulation Zone Notification, 2018 have been duly considered by the Central Government;

Now, therefore in exercise of the powers conferred by sub-section (1) and clause (v) of sub-section (2) of section 3 of the Environment (Protection) Act, 1986 (29 of 1986) and in supersession of the Coastal Regulation Zone Notification 2011, number S.O. 19(E), dated the 6<sup>th</sup> January, 2011, except as respects things done or omitted to be done before such supersession, the Central Government, with a view to conserve and protect the unique environment of coastal stretches and marine areas, besides livelihood security to the fisher communities and other local communities in the coastal areas and to promote sustainable development based on scientific principles taking into account the dangers of natural hazards, sea level rise due to global warming, do hereby, declares the coastal stretches of the country and the water area up to its territorial water limit, excluding the islands of Andaman and Nicobar and Lakshadweep and the marine areas surrounding these islands, as Coastal Regulation Zone as under:-

- (i) The land area from High Tide Line (hereinafter referred to as the HTL) to 500 meters on the landward side along the sea front.

Explanation. - For the purposes of this notification, the HTL means the line on the land upto which the highest water line reaches during the spring tide, as demarcated by the National Centre for Sustainable Coastal Management (NCSCM) in accordance with the laid down procedures and made available to various coastal States and Union territories.

- (ii) CRZ shall apply to the land area between HTL to 50 meters or width of the creek, whichever is less on the landward side along the tidal influenced water bodies that are connected to the sea and the distance upto which development along such tidal influenced water bodies is to be regulated shall be governed by the distance upto which the tidal effects are experienced which shall be determined based on salinity concentration of five parts per thousand (ppt)

measured during the driest period of the year and distance up to which tidal effects are experienced shall be clearly identified and demarcated accordingly in the Coastal Zone Management Plan (hereinafter referred to as the CZMP):

Provided that the CRZ limit of 50 meters or width of the creek whichever is less, shall be subject to revision and final approval of the respective CZMPs as per this notification, framed with due consultative process, public hearing etc. and environmental safeguards enlisted therein, and till such time the CZMP to this notification is approved, the limit of 100 meters or width of the creek whichever is less, shall continue to apply.

Explanation.- For the purposes of this sub-paragraph the expression "tidal influenced water bodies" means the water bodies influenced by tidal effects from sea in the bays, estuaries, rivers, creeks, backwaters, lagoons, ponds that are connected to the sea.

- (iii) The "intertidal zone" means land area between the HTL and the Low Tide Line (hereinafter referred to as the LTL).
- (iv) The water and the bed area between the LTL to the territorial water limit (12 Nm) in case of sea and the water and the bed area between LTL at the bank to the LTL on the opposite side of the bank, of tidal influenced water bodies.

**2.0 Classification of CRZ.** – For the purpose of conserving and protecting the coastal areas and marine waters, the CRZ area shall be classified as follows, namely: -

**2.1 CRZ-I** areas are environmentally most critical and are further classified as under:

**2.1.1 CRZ-I A:**

- (a) CRZ-I A shall constitute the following ecologically sensitive areas (ESAs) and the geomorphological features which play a role in maintaining the integrity of the coast viz.:
  - (i) Mangroves (in case mangrove area is more than 1000 square meters, a buffer of 50 meters along the mangroves shall be provided and such area shall also constitute CRZ-I A);
  - (ii) Corals and coral reefs;
  - (iii) Sand dunes;
  - (iv) Biologically active mudflats;
  - (v) National parks, marine parks, sanctuaries, reserve forests, wildlife habitats and other protected areas under the provisions of Wild Life (Protection) Act, 1972 (53 of 1972), Forest (Conservation) Act, 1980 (69 of 1980) or Environment (Protection) Act, 1986 (29 of 1986), including Biosphere Reserves;
  - (vi) Salt marshes;
  - (vii) Turtle nesting grounds;
  - (viii) Horse shoe crabs' habitats;
  - (ix) Sea grass beds;
  - (x) Nesting grounds of birds;
  - (xi) Areas or structures of archaeological importance and heritage sites.
- (b) A detailed environment management plan shall be formulated by the states and Union territories for such ecologically sensitive areas in respective territories, as mapped out by the National Centre for Sustainable Coastal Management (NCSCM), Chennai based on guidelines as contained in **Annexure-I** to this notification and integrated with the CZMP.

**2.1.2 CRZ-I B:**

The intertidal zone i.e. the area between Low Tide Line and High Tide Line shall constitute the CRZ-I B.

**2.2 CRZ-II:**

CRZ-II shall constitute the developed land areas up to or close to the shoreline, within the existing municipal limits or in other existing legally designated urban areas, which are substantially built-up with a ratio of built-up plots to that of total plots being more than 50 per cent and have been provided with drainage and approach roads and other infrastructural facilities, such as water supply, sewerage mains, etc.

**2.3 CRZ-III:**

Land areas that are relatively undisturbed (viz. rural areas, etc.) and those which do not fall under CRZ-II, shall constitute CRZ-III, and CRZ-III shall be further classified into following categories: -

**2.3.1 CRZ-III A:**

Such densely populated CRZ-III areas, where the population density is more than 2161 per square kilometre as per 2011 census base, shall be designated as CRZ-III A and in CRZ-III A, area up to 50 meters from the HTL on the landward side shall be earmarked as the 'No Development Zone (NDZ)', provided the CZMP as per this notification, framed with due consultative process, have been approved, failing which, a NDZ of 200 meters shall continue to apply.

**2.3.2 CRZ-III B:**

All other CRZ-III areas with population density of less than 2161 per square kilometre, as per 2011 census base, shall be designated as CRZ-III B and in CRZ-III B, the area up to 200 meters from the HTL on the landward side shall be earmarked as the 'No Development Zone (NDZ)'.

**2.3.3:**

Land area up to 50 meters from the HTL, or width of the creek whichever is less, along the tidal influenced water bodies in the CRZ III, shall also be earmarked as the NDZ in CRZ III.

*Note: The NDZ shall not be applicable in the areas falling within notified Port limits.*

**2.4 CRZ- IV:**

The CRZ- IV shall constitute the water area and shall be further classified as under:-

**2.4.1 CRZ- IVA:**

The water area and the sea bed area between the Low Tide Line up to twelve nautical miles on the seaward side shall constitute CRZ-IV A.

**2.4.2 CRZ- IVB:**

CRZ-IV B areas shall include the water area and the bed area between LTL at the bank of the tidal influenced water body to the LTL on the opposite side of the bank, extending from the mouth of the water body at the sea up to the influence of tide, i.e., salinity of five parts per thousand (ppt) during the driest season of the year.

**3.0 Areas requiring special consideration in the CRZ.-** Following coastal areas shall be accorded special consideration for the purpose of protecting the critical coastal environment and difficulties faced by local communities: -

**3.1 Critically Vulnerable Coastal Areas (CVCA):**

Sundarban region of West Bengal and other ecologically sensitive areas identified as under Environment (Protection) Act, 1986 such as Gulf of Khambat and Gulf of Kutchh in Gujarat, Malvan, Achra-Ratnagiri in Maharashtra, Karwar and Coondapur in Karnataka, Vembanad in Kerala, Gulf of Mannar in Tamil Nadu, Bhaitarkanika in Odisha, Coringa, East Godavari and Krishna in Andhra Pradesh shall be treated as Critical Vulnerable Coastal Areas (CVCA) and managed with the involvement of coastal communities including fisher folk who depend on coastal resources for their sustainable livelihood.

**3.2** CRZ for inland Backwater islands and islands along the mainland coast.

**3.3** CRZ falling within municipal limits of Greater Mumbai.

**4. Prohibited activities within CRZ.-** The following activities shall be prohibited, in general, within the entire CRZ and exceptions to these and other permissible and regulated activities in specific CRZ categories viz. CRZ-I, II, III and IV, shall be governed by the provisions of paragraph 5:-

- (i) Setting up of new industries and expansion of existing industries, operations or processes.
- (ii) Manufacture or handling of oil, storage or disposal of hazardous substances as specified in the notification of the Ministry of Environment, Forest and Climate Change number G.S.R.395 (E), dated the 4<sup>th</sup> April, 2016.
- (iii) Setting up of new fish processing units.
- (iv) Land reclamation, bunding or disturbing the natural course of seawater except for the activities permissible under this notification and executed with prior permission from the competent authority.
- (v) Discharge of untreated waste and effluents from industries, cities or towns and other human settlements.
- (vi) Dumping of city or town wastes including construction debris, industrial solid wastes, fly ash for the purpose of land filling.
- (vii) Port and harbour projects in high eroding stretches of the coast.
- (viii) Mining of sand, rocks and other sub-strata materials.
- (ix) Dressing or altering of active sand dunes.
- (x) In order to safeguard the aquatic system and marine life, disposal of plastic into the coastal waters shall be prohibited and adequate measures for management and disposal of plastic materials shall be undertaken in the CRZ.
- (xi) Drawal of ground water.

#### **5. Regulation of permissible activities in CRZ:**

##### **5.1 CRZ-I:**

##### **5.1.1. CRZ-IA:**

These areas are ecologically most sensitive and generally no activities shall be permitted to be carried out in the CRZ-I A area, with following exceptions:-

- (i) Eco-tourism activities such as mangrove walks, tree huts, nature trails, etc., in identified stretches areas subject to such eco-tourism plan featuring in the approved CZMP as per this notification, framed with due consultative process, public hearing, etc. and further subject to environmental safeguards and precautions related to the Ecologically Sensitive Areas, as enlisted in the CZMP.
- (ii) In the mangrove buffer, only such activities shall be permitted like laying of pipelines, transmission lines, conveyance systems or mechanisms and construction of road on stilts, etc. that are required for public utilities.
- (iii) Construction of roads and roads on stilts, by way of reclamation in CRZ-I areas, shall be permitted only in exceptional cases for defence, strategic purposes and public utilities, subject to a detailed marine or terrestrial or both environment impact assessment, to be recommended by the Coastal Zone Management Authority and approved by the Ministry of Environment, Forest and Climate Change; and in case construction of such roads passes through mangrove areas or is likely to damage the mangroves, a minimum three times the mangrove area affected or destroyed or cut during the construction process shall be taken up for compensatory plantation of mangroves.

##### **5.1.2 CRZ-I B - The inter tidal areas:**

Activities shall be regulated or permissible in the CRZ-I B areas as under:-

- (i) Land reclamation, bunding, etc. shall be permitted only for activities such as,-

- (a) foreshore facilities like ports, harbours, Jetties, wharves, quays, slipway, bridges, hover ports for coast guard, sea links, etc;
- (b) projects for defence, strategic and security purposes;
- (c) road on stilts, provided that such roads shall not be authorised for permitting development on the landward side of such roads, till the existing High Tide Line:  
 Provided that the use of reclaimed land may be permitted only for public utilities such as mass rapid or multimodal transit system, construction and installation of all necessary associated public utilities and infrastructure to operate such transit or transport system including those for electrical or electronic signaling system, transit stopover of permitted designs; except for any industrial operation, repair or maintenance;
- (d) measures for control of erosion;
- (e) maintenance and clearing of waterways, channels, ports and hover ports for coast guard;
- (f) measures to prevent sand bars, installation of tidal regulators, laying of storm water drains or for structure for prevention of salinity ingress and freshwater recharge.
- (ii) Activities related to waterfront or directly needing foreshore facilities such as ports and harbours, jetties, quays, wharves, erosion control measures, breakwaters, pipelines, lighthouses, navigational safety facilities, coastal police stations, Indian coast guard stations and the like.
- (iii) Power by non-conventional energy sources and associated facilities.
- (iv) Transfer of hazardous substances from ships to Ports, terminals and refineries and vice versa.
- (v) Facilities for receipt and storage of petroleum products and liquefied natural gas as specified in Annexure-II to this notification, subject to implementation of safety regulations including guidelines issued by the Oil Industry Safety Directorate in the Ministry of Petroleum and Natural Gas and guidelines issued by the Ministry of Environment, Forest and Climate Change, provided that such facilities are for receipt and storage of fertilizers and raw materials required for fertilizers, like ammonia, phosphoric acid, sulphur, sulphuric acid, nitric acid, etc.
- (vi) Storage of non-hazardous cargo i.e. edible oil, fertilizers and food grains in notified Ports.
- (vii) Hatchery and natural fish drying.
- (viii) Existing fish processing units may utilise 25% additional plinth area for modernisation purposes (only for additional equipment and pollution control measures) subject to the following:-
  - (a) Floor Space Index of such reconstruction not exceeding the permissible Floor Space Index as per prevalent town and country planning regulations;
  - (b) additional plinth area is constructed only to the landward side.
  - (c) approval of the concerned State Pollution Control Board or Pollution Control Committee.
- (ix) Treatment facilities for waste and effluents and conveyance of treated effluents.
- (x) Storm water drains.
- (xi) Projects classified as strategic, defence related projects and projects of the Department of Atomic Energy, Government of India.
- (xii) Manual mining of atomic mineral(s) notified under Part-B of the First Schedule to the Mining and Minerals (Development and Regulation) Act, 1957(67 of 1957) occurring as such or in association with one or other minerals in the intertidal zone by such agencies as authorised by the Department of Atomic Energy, Government of India as per mining plan approved by the Atomic Mineral Directorate for Exploration and Research:

- Provided that the manual mining operations shall be carried out only by deploying persons using baskets and hand spades for collection of ore or mineral within the intertidal zone and as per approved mining plan, without deploying or using drilling and blasting or Heavy Earth Moving Machinery in the intertidal zone.
- (xiii) Exploration and extraction of oil and natural gas and all associated activities and facilities thereto;
  - (xiv) Foreshore requiring facilities for transport of raw materials, facilities for intake of cooling water, intake water for desalination plants, etc, and outfall for discharge of treated wastewater or cooling water from thermal power plants in conformity with the environmental standards notified by Ministry of Environment, Forest and Climate Change and relevant directions of Central Pollution Control Board (CPCB) or State Pollution Control Board (SPCB) or Pollution Control Committee (PCC), as the case may be.
  - (xv) Pipelines, conveying systems including transmission lines.
  - (xvi) Weather radar for monitoring of cyclones prediction, ocean observation platforms, movement and associated activities.
  - (xvii) Salt harvesting and associated facilities.
  - (xviii) Desalination plants and associated facilities.

## 5.2 CRZ-II:

- (i) Activities as permitted in CRZ-I B, shall also be permissible in CRZ-II, in so far as applicable.
- (ii) Construction of buildings for residential purposes, schools, hospitals, institutions, offices, public places, etc. shall be permitted only on the landward side of the existing road, or on the landward side of existing authorised fixed structures:

Provided that no permission for construction of buildings shall be given on landward side of any new roads which are constructed on the seaward side of an existing road.

- (iii) Buildings permitted as in (ii) above, shall be subject to the local town and country planning regulations as applicable from time to time, and the norms for the Floor Space Index (FSI) or Floor Area Ratio (FAR) prevailing as on the date of this Notification, and in the event that there is a need for amendment of the FSI after the date of publication of this notification in the official Gazette, the Urban Local Body or State Government or Union territory Administration shall approach the Ministry of Environment, Forest and Climate Change through the concerned State Coastal Zone Management Authority (SCZMA) or Union Territory Coastal Zone Management Authority, as the case may be and the SCZMA shall forward the proposal to the National Coastal Zone Management Authority (NCZMA) with its views in the matter, and the NCZMA shall thereafter examine various aspects like availability of public amenities, environmental protection measures, etc., and take a suitable decision on the proposal and it shall be the responsibility of the concerned Town Planning Authority to ensure that the Solid Wastes are handled as per respective Solid Waste Management Rules and no untreated sewage is discharged on to the coast or coastal waters.
- (iv) Reconstruction of authorised buildings shall be permitted, without change in present land use, subject to the local town and country planning regulations as applicable from time to time, and the norms for the Floor Space Index or Floor Area Ratio, prevailing as on the date of publication of this notification in the official Gazette and in the event that there is a need for amendment of the FSI after the said date of this notification, the Urban Local Body or State Government or Union territory Administration shall approach the Ministry of Environment, Forest and Climate Change through the concerned State Coastal Zone Management Authority (SCZMA) or Union Territory Coastal Zone Management Authority, as the case may be and the CZMA shall forward the proposal to the National Coastal Zone Management Authority (NCZMA) with its views in the matter, and the NCZMA shall thereafter examine various aspects like availability of public amenities, environmental protection measures etc., and take a suitable decision on the proposal and it shall be the responsibility of the concerned Town Planning Authority to ensure that the Solid Wastes are

- handled as per respective Solid Waste Management Rules and no untreated sewage is discharged on to the coast or coastal waters.
- (v) Development of vacant plots in designated areas for construction of beach resorts or hotels or tourism development projects subject to the conditions or guidelines at **Annexure-III** to this notification.
  - (vi) Temporary tourism facilities shall be permissible in the beaches which shall only include shacks, toilets or washrooms, change rooms, shower panels; walk ways constructed using interlocking paver blocks, etc, drinking water facilities, seating arrangements, etc. and such facilities shall however be permitted only subject to the tourism plan featuring in the approved CZMP as per this notification, framed with due consultative process or public hearing, etc. and further subject to environmental safeguards enlisted in the CZMP, however, a minimum distance of 10 meter from HTL shall be maintained for setting up of such facilities.

### 5.3 CRZ-III:

- (i) Activities as permitted in CRZ-I B, shall also be permissible in CRZ-III, in so far as applicable.
- (ii) **Regulation of activities in NDZ:**

Following shall be permissible and regulated in the NDZ:-

- (a) No construction shall be permitted within NDZ in CRZ III, except for repairs or reconstruction of existing authorised structure not exceeding existing Floor Space Index, existing plinth area and existing density and for permissible activities under this notification including facilities essential for activities and construction or reconstruction of dwelling units of traditional coastal communities including fisher folk, incorporating necessary disaster management provisions and proper sanitation arrangements.
- (b) Agriculture, horticulture, gardens, pastures, parks, playfields and forestry.
- (c) Construction of dispensaries, schools, public rain shelter, community toilets, bridges, roads, provision of facilities for water supply, drainage, sewerage, crematoria, cemeteries and electric sub-station which are required for the local inhabitants may be permitted on a case to case basis by Coastal Zone Management Authority (CZMA).
- (d) Construction of units or auxiliary thereto for domestic sewage, treatment and disposal with the prior approval of the concerned Pollution Control Board or Committee.
- (e) Facilities required for local fishing communities such as fish drying yards, auction halls, net mending yards, traditional boat building yards, ice plant, ice crushing units, fish curing facilities and the like.
- (f) Wherever there is a national or State highway passing through the NDZ of CRZ-III areas, temporary tourism facilities such as toilets, change rooms, drinking water facility and temporary shacks can be taken up on the seaward side of the road.  
On landward side of such roads in the NDZ, resorts or hotels and associated tourism facilities shall be permitted and such facilities shall, however, be permitted only subject to the incorporation of tourism plan in the approved CZMP as per this notification and the conditions or guidelines at Annexure-III, to this notification as applicable.
- (g) Temporary tourism facilities shall be permissible in the NDZ and beaches in the CRZ-III areas and such temporary facilities shall only include shacks, toilets or washrooms, change rooms, shower panels, walk ways constructed using interlocking paver blocks, etc, drinking water facilities, seating arrangements etc., and such facilities shall, however, be permitted only subject to the tourism plan featuring in the approved CZMP as per this notification subject to maintaining a minimum distance of 10 meters from HTL for setting up of such facilities.
- (h) Mining of atomic minerals notified under Part-B of the First Schedule to Mining and

Minerals (Development and Regulation) Act, 1957 (67 of 1957) occurring as such or in association with one or other minerals by such agencies as authorised by the Department of Atomic Energy, Government of India, as per mining plan by the Atomic Mineral Directorate for Exploration and Research.

(iii) **Regulation of activities for CRZ-III areas beyond NDZ:**

- (a) Development of vacant plots in designated areas for construction of beach resorts or hotels or tourism development projects subject to the conditions or guidelines at Annexure-III to this notification.
- (b) Construction or reconstruction of dwelling units, so long it is within the ambit of traditional rights and customary uses such as existing fishing villages, etc. and building permission for such construction or reconstruction will be subject to local town and country planning rules, with an overall height of construction not exceeding 9 meters and with only two floors (ground + one floor).
- (c) The local communities including fishermen may be permitted to facilitate tourism through 'home stay' without changing the plinth area or design or facade of the existing houses.
- (d) Construction of public rain shelters, community toilets, water supply drainage, sewerage, roads, bridges, etc.
- (e) Limestone mining:

Selective mining of limestone minerals may be permitted in specific identified areas under the mining plans, which are adequately above the height of HTL, based on the recommendations of reputed National Institutes in the mining field such as Council of Scientific and Industrial Research (CSIR), Central Mining Research Institute etc., provided that the extraction of minerals shall be carried out not below a height of 1 meter above the HTL and an adequate barrier shall be created so as to safeguard against saline water incursion and subject to appropriate safeguards related to pollution of coastal waters and prevention of coastal erosion.

- (f) Mining of atomic minerals notified under Part-B of the First Schedule of Mining and Minerals (Development and Regulation) Act, 1957 (67 of 1957) occurring as such or in association with one or other minerals by such agencies as authorised by Department of Atomic Energy, Government of India, as per mining plan by the Atomic Mineral Directorate for Exploration and Research.
- (iv) Drawing of groundwater and construction related thereto shall be prohibited within 200 meters of HTL except for the use of local communities in areas inhabited by them and in the areas between 200 to 500 meters of the HTL, groundwater withdrawal may be permitted only through manual means from ordinary wells for drinking, horticulture, agriculture and fisheries, etc. where no other source of water is available and restrictions for such drawal may be imposed by the designated Authority by State Government or Union territory Administration in the areas affected by sea water intrusion, however, for horticulture and agriculture purpose, micro irrigation promoted by Government welfare schemes shall be permitted.
- (v) Development of airports in wastelands and non-arable lands in CRZ-III areas with adequate environmental safeguards.

**5.4 CRZ-IV:**

Activities shall be permitted and regulated in the CRZ IV areas as under:-

- (i) Traditional fishing and allied activities undertaken by local communities.
- (ii) Land reclamation, bunding, etc to be permitted only for activities such as.-
  - (a) foreshore facilities like ports, harbours, Jetties, wharves, quays, slipway, bridges, sea links and hover ports for coast guard ,etc;
  - (b) projects for defence, strategic and security purpose including coast guard;

- (c) measures for control of erosion;
- (d) maintenance and clearing of waterways, channels and ports;
- (e) measures to prevent sand bars, installation of tidal regulators, laying of storm water drains or for structure for prevention of salinity ingress and freshwater recharge.
- (iii) Activities related to waterfront or directly needing foreshore facilities, such as ports and harbours, jetties, quays, wharves, erosion control measures, breakwaters, pipelines, navigational safety facilities and the like.
- (iv) Power by non-conventional energy sources and associated facilities such as offshore wind, wave energy, ocean thermal energy conversion, etc.
- (v) Transfer of hazardous substances from ships to Ports.
- (vi) Storage of non-hazardous cargo like edible oil, fertilizers and food grains in notified Ports.
- (vii) Facilities for discharging treated effluents into the water course.
- (viii) Projects classified as strategic and defence related projects including coast guard coastal security network.
- (ix) Projects of department of Atomic Energy.
- (x) Exploration and extraction of oil and natural gas and all associated activities and facilities thereto.
- (xi) Exploration and mining of atomic minerals notified under Part-B of the First Schedule of the Mining and Minerals (Development and Regulation) Act, 1957 (67 of 1957), occurring as such or in association with other mineral(s) and of such associated mineral(s).
- (xii) Foreshore requiring facilities for transport of raw materials, facilities for intake of cooling water and outfall for discharge of treated wastewater or cooling water from thermal power plants, and foreshore requiring facilities for transport of raw materials, facilities for intake of cooling water and outfall for discharge of treated wastewater or cooling water from thermal power plants, in conformity with the environmental standards notified by Ministry of Environment, Forest and Climate Change and relevant directions of the Central Pollution Control Board or State Pollution Control Board or Pollution Control Committee.
- (xiii) Pipelines, conveying systems including transmission lines.
- (xiv) Weather radar for monitoring of cyclone prediction, ocean observation platforms, movement and associated activities.
- (xv) Construction of memorials or monuments and allied facilities by the concerned State Government in CRZ-IV (A) areas, in exceptional cases, with adequate environmental safeguards, subject to the following, namely: -
  - (a) the concerned State Government shall submit justification for locating the project in CRZ-IVA area along with details of alternate sites considered and weightage matrix on various parameters including environmental parameters, to State Coastal Zone Management Authority who will examine the project and make recommendation to the Central Government (Ministry of Environment, Forest and Climate Change) for grant of Terms of Reference (ToRs) for preparation of an environmental impact assessment report by the State Government;
  - (b) On grant of ToRs by the Central Government, the concerned State Government shall submit the draft Environmental Impact Assessment report (EIA) with Environmental Management Plan (EMP), draft Risk Assessment Report with Disaster Management Plan (DMP) including on-site and off-site emergency plan and evacuation plan during emergency, to the State Pollution Control Board for conduct of public hearing for the proposed project in accordance with the procedure laid down under the Environment Impact Assessment (EIA) notification number S.O. 1533(E), dated the 14<sup>th</sup> September, 2006;

- (c) The concerned State Government shall, after addressing the relevant issues raised by the public during the public hearing referred to in sub-item (b), submit the final EIA, EMP, Risk Assessment and DMP, to the State CZMA for their examination and recommendation to MoEF&CC;
- (d) The Central Government may, if it considers necessary so to do, dispense with the requirement of public hearing referred to in sub-clause (b), if it is satisfied that the project will not involve rehabilitation and resettlement of the public or the project site is located away from human habitation.

### 5.5 Requirement for Clearance from Department of Atomic Energy installations:

Prior to undertaking any developmental activity including construction of new structures, falling in the boundary limits specified by Atomic Energy Regulatory Board (AERB) guidelines, prior clearance shall be obtained from Department of Atomic Energy installations.

### 6. Coastal Zone Management Plan (CZMP)

- (i) All coastal States and Union territory administrations shall revise or update their respective coastal zone management plan (CZMP) framed under CRZ Notification, 2011 number S.O. 19(E), dated 6<sup>th</sup> January, 2011, as per provisions of this notification and submit to the Ministry of Environment, Forest and Climate Change for approval at the earliest and all the project activities attracting the provisions of this notification shall be required to be appraised as per the updated CZMP under this notification and until and unless the CZMPs is so revised or updated, provisions of this notification shall not apply and the CZMP as per provisions of CRZ Notification, 2011 shall continue to be followed for appraisal and CRZ clearance to such projects.
- (ii) The CZMP may be prepared or updated by the coastal State Government or Union territory by engaging reputed and experienced scientific institution(s) or the agencies including the National Centre for Sustainable Coastal Management (hereinafter referred to as the NCSCM) of Ministry of Environment, Forest and Climate Change and in consultation with the concerned stakeholders.
- (iii) The coastal States and Union territories shall prepare draft CZMP in 1:25,000 scale map identifying and classifying the CRZ areas within the respective territories in accordance with the guidelines given in **Annexure-IV** to this notification, which involve public consultation.  
All developmental activities listed in this notification shall be regulated by the State Government, Union territory administration, the local authority or the concerned Coastal Zone Management Authority within the framework of such approved CZMP, as the case may be, in accordance with provisions of this notification.
- (iv) The draft CZMP shall be submitted by the State Government or Union territory to the concerned Coastal Zone Management Authority for appraisal, including appropriate consultations, and recommendations in accordance with the procedure(s) laid down in the Environment (Protection) Act, 1986 (29 of 1986).
- (v) The Ministry of Environment, Forest and Climate Change shall thereafter consider and approve the respective CZMP of concerned State Governments or Union territory administrations.
- (vi) The CZMP shall not normally be revised before a period of five years after which, the concerned State Government or the Union territory may consider undertaking a revision.

### 7. CRZ clearance for permissible and regulated activities- Delegation:

- (i) All permitted or regulated project activities attracting the provisions of this notification shall be required to obtain CRZ clearance prior to their commencement.
- (ii) All development activities or projects in CRZ-I and CRZ-IV areas, which are regulated or permissible as per this notification, shall be dealt with by Ministry of Environment, Forest and Climate Change for CRZ clearance, based on the recommendation of the concerned Coastal Zone Management Authority.

- (iii) For all other permissible and regulated activities as per this notification, which fall purely in CRZ-II and CRZ-III areas, the CRZ clearance shall be considered by the concerned Coastal Zone Management Authority and such projects in CRZ -II and III, which also happen to be traversing through CRZ-I or CRZ-IV areas or both, CRZ clearance shall, however be considered only by the Ministry of Environment, Forest and Climate Change, based on recommendations of the concerned Coastal Zone Management Authority.
- (iv) Projects or activities which attract the provisions of this notification as also the provisions of EIA notification, 2006 number S.O. 1533(E), dated the 14<sup>th</sup> September, 2006, shall be dealt with for a composite Environmental and CRZ clearance under EIA Notification, 2006 by the concerned approving Authority, based on recommendations of the concerned Coastal Zone Management Authority, as per delegations i.e., State Environmental Impact Assessment Authority (hereinafter referred to as the SEIAA) or the Ministry of Environment, Forest and Climate Change for category 'B' and category 'A' projects respectively.
- (v) In case of building or construction projects with built-up area less than the threshold limit stipulated for attracting the provisions of the EIA Notification, 2006 these shall be approved by the concerned local State or Union territory Planning Authorities in accordance with this notification, after obtaining recommendations of the concerned Coastal Zone Management Authority.
- (vi) Only for self-dwelling units up to a total built up area of 300 square meters, approval shall be accorded by the concerned local Authority, without the requirement of recommendations of concerned Coastal Zone Management Authority and such authorities shall, however, examine the proposal from the perspective of the Coastal Regulation Zone notification before according approval.

**8. Procedure for CRZ clearance for permissible and regulated activities:**

- (i) The project proponents shall apply with the following documents to the concerned State or the Union territory Coastal Zone Management Authority for seeking prior clearance under this notification:-
  - (a) Project summary details as per Annexure-V to this notification.
  - (b) Rapid Environment Impact Assessment (EIA) Report including marine and terrestrial component, as applicable, except for building construction projects or housing schemes.
  - (c) Comprehensive EIA with cumulative studies for projects, (except for building construction projects or housing schemes with built-up area less than the threshold limit stipulated for attracting the provisions of the EIA Notification, 2006 number S.O 1533(E), dated 14<sup>th</sup> September, 2006) if located in low and medium eroding stretches, as per the CZMP to this notification.
  - (d) Risk Assessment Report and Disaster Management Plan, except for building construction projects or housing schemes with built-up area less than the threshold limit stipulated for attracting the provisions of the EIA Notification, 2006 number S.O 1533(E), dated 14<sup>th</sup> September, 2006).
  - (e) CRZ map in 1:4000 scale, drawn up by any of the agencies identified by the Ministry of Environment, Forest and Climate Change vide its Office Order number J-17011/8/92-IA-III, dated the 14<sup>th</sup> March, 2014 using the demarcation of the HTL or LTL, as carried out by NCSCM.
  - (f) Project layout superimposed on the CRZ map duly indicating the project boundaries and the CRZ category of the project location as per the approved Coastal Zone Management Plan under this notification.
  - (g) The CRZ map normally covering 7 kilometre radius around the project site also indicating the CRZ-I, II, III and IV areas including other notified ecologically sensitive areas.
  - (h) "Consent to establish" or No Objection Certificate from the concerned State Pollution Control Board or Union territory Pollution Control Committee for the projects involving treated discharge of industrial effluents and sewage, and in case prior consent of

Pollution Control Board or Pollution Control Committee is not obtained, the same shall be ensured by the proponent before the start of the construction activity of the project, following the clearance under this notification.

- (ii) The concerned Coastal Zone Management Authority shall examine the documents in clause (i) above, in accordance with the approved Coastal Zone Management Plan and in compliance with this notification and make recommendations within a period of sixty days from date of receipt of complete application as under: -
- (a) For the projects or activities also attracting the EIA Notification, 2006 number S.O. 1533(E), dated 14<sup>th</sup> September, 2006, the Coastal Zone Management Authority shall forward its recommendations to Ministry of Environment, Forest and Climate Change or SEIAA for category 'A' and category 'B' projects respectively, to enable a composite clearance under the EIA Notification, 2006 number S.O. 1533(E), dated 14<sup>th</sup> September, 2006, however, even for such Category 'B' projects located in CRZ-I or CRZ-IV areas, final recommendation for CRZ clearance shall be made only by the Ministry of Environment, Forest and Climate Change to the concerned SEIAA to enable it to accord a composite Environmental Clearance and CRZ clearance to the proposal.
  - (b) Coastal Zone Management Authority shall forward its recommendations to the Ministry of Environment, Forest and Climate Change for the projects or activities not covered in the EIA notification, 2006, but attracting this notification and located in CRZ-I or CRZ-IV areas.
  - (c) Projects or activities not covered in the aforesaid EIA Notification, 2006, but attracting this notification and located in CRZ-II or CRZ-III areas shall be considered for clearance by the concerned Coastal Zone Management Authority within sixty days of the receipt of the complete proposal from the proponent.
  - (d) In case of construction projects attracting this notification but with built-up area less than the threshold limit stipulated for attracting the provisions of the aforesaid EIA Notification 2006, Coastal Zone Management Authority shall forward their recommendations to the concerned State or Union territory planning authorities, to facilitate granting approval by such authorities.
- (iii) The Ministry of Environment, Forest and Climate Change shall consider complete project proposals for clearance under this notification, based on the recommendations of the Coastal Zone Management Authority, within a period of sixty days.
- (iv) In case the Coastal Zone Management Authorities are not in operation due to their reconstitution or any other reasons, then it shall be responsibility of the Department of Environment in the State Government or Union territory Administration, who are the custodian of the CZMP of respective States or Union territories, to provide comments and recommend the proposals in terms of the provisions of the said notification.
- (v) The clearance accorded to the projects under this notification shall be valid for a period of seven years, provided that the construction activities are completed and the operations commence within seven years from the date of issue of such clearance.
- The validity may be further extended for a maximum period of three years, provided an application is made to the concerned authority by the applicant within the validity period, along with recommendation for extension of validity of the clearance by the concerned State or Union territory Coastal Zone Management Authority.
- (vi) Post clearance monitoring:
- (a) It shall be mandatory for the project proponent to submit half-yearly compliance reports in respect of the stipulated terms and conditions of the environmental clearance in hard and soft copies to the regulatory authority(s) concerned, on the 1<sup>st</sup> June and 31<sup>st</sup> December of each calendar year and all such compliance reports submitted by the project proponent shall be published in public domain and its copies shall be given to any person on application to the concerned Coastal Zone Management Authority.

- (b) The compliance report shall also be displayed on the website of the concerned regulatory authority.
- (vii) To maintain transparency in the working of the Coastal Zone Management Authority, it shall be the responsibility of the Coastal Zone Management Authority to create a dedicated website and post the agenda, minutes, decisions taken, clearance letters, violations, action taken on the violations and court matters including the Orders of the Hon'ble Court as also the approved CZMP of the respective State Government or Union territory.

### **9. Enforcement of this notification:**

- (i) For the purposes of implementation and enforcement of the provisions of this notification and compliance with conditions stipulated thereunder, the powers either original or delegated are available under Environment (Protection) Act, 1986 (29 of 1986) with the Ministry of Environment, Forest and Climate Change, State Government or the Union territory Administration, National Coastal Zone Management Authority and the State or Union territory Coastal Zone Management Authority;
- (ii) The composition, tenure and mandate of National Coastal Zone Management Authority and State Government or the Union territory Coastal Zone Management Authority have already been notified by the Ministry of Environment, Forest and Climate Change in terms of Orders of Hon'ble Supreme Court in Writ Petition 664 of 1993;
- (iii) The State Government or the Union territory Coastal Zone Management Authority shall primarily be responsible for enforcing and monitoring of this notification and to assist in this task, the State Government and the Union territory shall constitute district level Committees under the Chairmanship of the District Magistrate concerned comprising at least three representatives of local traditional coastal communities including from fishermen, and the State Government may consider the enforcement of this notification to the level of respective District Magistrates.
- (iv) The dwelling units of the traditional coastal communities including fishermen, tribals as were permissible under the provisions of the Coastal Regulation Zone notification, 2011 number S.O. 19(E), dated the 6<sup>th</sup> January, 2011, but which have not obtained formal approval from concerned authorities under the said Notification shall be considered by the respective Coastal Zone Management Authority and the dwelling units shall be regularised subject to the following condition, namely: -
- (a) these are not used for any commercial activity;
- (b) these are not sold or transferred to non-traditional coastal community.

### **10. Areas requiring special consideration:**

#### **10.1 Critically Vulnerable Coastal Areas (CVCAs):**

- (i) For all the CVCAs mentioned in sub-paragraph 3.1, Integrated Management Plans (IMPs) shall be prepared, which shall, inter alia, keep in view the conservation and management of mangroves, needs of local communities, such as dispensaries, schools, public rain shelter, community toilets, bridges, roads, jetties, water supply, drainage, sewerage and the impact of sea level rise and other natural disasters and the IMPs will be prepared in line with the guidelines for preparation of Coastal Zone Management Plan.
- (ii) Till such time the IMPs are approved and notified, construction of dispensaries, schools, public rain/cyclone shelters, community toilets, bridges, roads, jetties, water supply, drainage, sewerage which are required for traditional inhabitants shall be permitted on a case to case basis, by the Coastal Zone Management Authority with due regards to the views of coastal communities including fisher folk.

#### **10.2 CRZ for inland backwater islands and islands along mainland coast:**

- (i) All the inland islands in the coastal backwaters and islands along the mainland coast shall also be covered under this notification.

- (ii) In view of the unique coastal systems of backwater islands and islands along the mainland coast, along with space limitations in such coastal stretches, CRZ of 20 meters from the HTL on the landward side shall uniformly apply to such islands and activities shall be regulated as under:-
- (a) existing dwelling units of local communities may be repaired or reconstructed within 20 meters from the HTL of these islands, however, no new construction shall be permitted in this zone.
- (b) foreshore facilities, such as fishing jetty, fish drying yards, net mending yard, fishing processing by traditional methods, boat building yards, ice plant, boat repairs and the like, may be taken up in CRZ limits subject to due environmental safeguards.
- (iii) Integrated Island Management Plans (IIMPs), as applicable to smaller islands in Lakshadweep and Andaman & Nicobar, as per Island Protection Zone Notification, 2011 number S.O. 20(E), dated the 6<sup>th</sup> January, 2011, shall be formulated by respective States or Union territory for all such islands and submitted to Ministry of Environment, Forest and Climate Change and till the IIMPs are framed, provisions of this notification shall not apply and the CZMP as per provisions of CRZ Notification 2011 number S.O. 19(E), dated the 6<sup>th</sup> January, 2011, shall continue to apply.

### 10.3 CRZ areas falling within municipal limits of Greater Mumbai:

- (i) In order to protect and preserve the 'green lung' of the Greater Mumbai area, all open spaces, parks, gardens, playgrounds indicated in development plans within CRZ-II shall be categorised as No Development Zone and a Floor Space Index up to 15% shall be allowed only for construction of civic amenities, stadium and gymnasium meant for recreational or sports related activities and the residential or commercial use of such open spaces shall not be permissible.
- (ii) Construction of sewage treatment plants in CRZ-I area for the purpose of treating the sewage from the municipal area shall be taken only by the municipal authorities in exceptional circumstances, where no alternate site is available to set up such facilities, subject to recommendations of the Coastal Zone Management Authority and approval by the Central Government and in case the construction of such plant is inevitable in a mangrove area, a minimum three times the mangrove area affected or destroyed or cut during the construction process shall be taken up for compensatory plantation of mangroves.

[F. No. 19-112/2013-IA-III]

RITESH KUMAR SINGH, Jt. Secy.

### Annexure-I

## **CONSERVATION, PROTECTION AND MANAGEMENT FRAMEWORK FOR ECOLOGICALLY SENSITIVE AREAS**

The coastal and marine Ecologically Sensitive Areas (ESAs) and the geo-morphological features play a vital role in maintaining the functions of the coast. Mangroves, beaches, coral reefs, etc., aid in controlling coastal erosion, shoreline change, saltwater intrusion and also serve as natural defence against coastal hazards such as storm surges, cyclones and tsunamis. The ESAs maintain the biological integrity of the coast by providing direct and indirect ecosystem services to the coastal livelihood. In addition, several invaluable archaeological and heritage sites are also located along the coast. Hence conservation and protection of the above areas, features and sites become necessary.

### **1. General measures**

- (i) All ESAs shall be identified and boundary delineated by NCSCM using satellite data.
- (ii) The State Governments or Union territory Administrations through the authorised agencies shall prepare CZMP as per the guidelines contained in this notification highlighting the conservation and protection of the ESAs.
- (iii) Those activities permissible under this notification shall be included in the CZMP.

Specific conditions shall be adopted for the conservation, protection and management of each of the ESAs as under: -

### 1.1 Mangroves:

- (i) Mangroves declared as forest under the Forest (Conservation) Act, 1980 (69 of 1980).

Notwithstanding anything contained in this notification, such mangroves declared by the concerned State Governments or Union territory Administrations or Central Government as forest land under the Forest (Conservation) Act, 1980 (69 of 1980) shall attract the provisions of the said Act.

- (ii) Mangroves not declared under Forest (Conservation) Act, 1980:

(a) Mangroves in Government land shall be protected based on a detailed plan to be prepared by the concerned State Governments or Union territory administrations, and in case the mangrove area is more than 1000 square meters, a buffer of 50 metre along the periphery of mangrove area shall be provided. This buffer zone of 50 metre may be utilised for public facilities for developing parks, research facilities related to mangrove biodiversity, facilities for conservation and the like.

(b) Mangroves in private land will not require a buffer zone.

### 1.2 Corals and coral reefs and associated biodiversity:

- (i) Destruction of coral and coral reefs and the surroundings is a prohibited activity.
- (ii) All coral and coral reefs shall be protected except for those small quantities required for research purposes.
- (iii) Coral and coral reefs transplantation activities shall be through recognised research institutions wherever required for regeneration after obtaining necessary approvals under Wildlife (Protection) Act 1972 (53 of 1972).
- (iv) The dead or destroyed or both coral areas shall be taken up for rejuvenation and rehabilitation. The conservation and protection of corals and coral reefs shall be taken up as follows:-
- (a) active and live coral and coral reefs identified and delineated shall be declared and notified as ESA under Environment (Protection) Act 1986 (29 of 1986);
- (b) it shall be ensured that no activities that are detrimental to the health of corals, coral reefs and its associated biodiversity, such as mining, effluent and sewage discharge, dredging, ballast water discharge, ship washings, fishing other than traditional non-destructive fisheries, construction activities and the like are taken up in and around the coral areas.

### 1.3 The National Parks, marine parks, Sanctuaries, reserve forests, wildlife habitats and other protected areas declared under the provisions of Wild Life (Protection) Act, 1972 (53 of 1972), the Forest (Conservation) Act 1980 (69 of 1980) or Environment (Protection) Act 1986 (29 of 1986); including Biosphere Reserves shall be conserved and protected as follows:-

- (i) Conservation and protection of the above mentioned areas shall be as per the provisions of the respective Acts, notifications or guidelines as the case may be.
- (ii) Efforts shall be made to increase the forest area in the coastal region in order to prevent loss of life and property from increased storms, tides and floods.
- (iii) The concerned State Governments or Union territory administrations shall provide for adequate funds for such measures to undertake shelter belt plantation or bio-shields with planting material suitable to the location.

### 1.4. Salt marshes:

The conservation and protection of salt marshes shall be as follows:-

- (i) The salt marsh areas shall be conserved and protected and efforts shall be made to promote the endemic biodiversity in the salt marshes.
- (ii) Only those activities required for overhead conveying or transmission of cables and underground laying of transmission line cables and so on, shall be permissible.
- (iii) Traditional fishing shall be permissible in salt marshes.
- (iv) Temporary tourism facilities around the salt marsh areas may be considered subject to adhering to norms laid down in the guidelines.
- (v) Certain salt marshes which have less biodiversity, identified by NCSCM and demarcated in Coastal Zone Management Plan can be considered for salt pan activities.

**1.5 Turtle nesting grounds shall be protected and conserved as follows:-**

- (i) Turtle nesting grounds identified by the concerned State Governments or Union territory administrations shall be protected as per Wildlife (Protection) Act of 1972.
- (ii) No activities shall be permitted in and around the turtle nesting ground including those causing light and sound pollution except for those required for conservation and protection of these sites.
- (iii) Strict management plans for protecting the turtle nesting grounds shall be undertaken and implemented by the concerned State or Union territory Authorities.

**1.6 Horse shoe crabs habitats shall be protected and conserved as follows:-**

- (i) The habitat identified shall be taken up for conservation and protection.
- (ii) No activities shall be taken up in and around these habitats which affect the horse shoe crab ecosystem.

**1.7 Sea grass beds shall be protected and conserved as follows:-**

- (i) Identified sea grass beds shall be conserved and protected.
- (ii) No developmental activities that have adverse effect on the sea grass bed shall be undertaken.
- (iii) Efforts shall be made to propagate sea grass beds along the coastal waters where ever possible by States or Union territories as it acts as a carbon sink.

**1.8 Nesting grounds of birds shall be protected and conserved as follows:-**

- (i) The nesting ground of birds including their local migratory route shall be protected. No developmental activities which have adverse impact on the nesting grounds and the migratory routes shall be undertaken including construction of wind mills, transmission lines and the like in the locality.
- (ii) Efforts shall be made to increase the forest cover and mangrove cover including enriching the biodiversity of salt marsh and other coastal water bodies so as to provide for suitable habitat for the avifauna.

**1.9 Geo-morphologically Important Zones shall be protected and managed as follows:**

- (i) **Sand dunes** identified shall be conserved and protected as follows:
  - (a) sand dunes identified shall be notified under Environment (Protection) Act 1986;
  - (b) no developmental activities shall be permissible except for providing eco-friendly temporary tourism facilities on stilts such as walkways, tents and the like;
  - (c) mining of sand from sand dunes shall be prohibited activity except for the removal of atomic minerals with proper replenishment using the tailings or other suitable sand;
  - (d) no activities on the sand dunes shall be taken up that would lead to erosion/destruction of sand dunes;
  - (e) afforestation, if any, on the sand dunes shall be done only with native flora;

- (f) the States or Union territory shall prepare management plans for the demarcated sand dunes.
- (iii) **Sandy beaches:**
- (a) Mining of beach sand is prohibited except for manual mining of atomic minerals with proper replenishment using the tailings or other suitable sand.
- (b) When the permissible developmental activities are taken up on the beaches if loss of beach in the neighbourhood is predicted, necessary beach nourishment to compensate for the losses shall be undertaken by the project authorities and its long term maintenance shall be ensured by them.
- (c) The States or Union Territory shall prepare management plans for the demarcated beaches.
- (iv) **Biologically active mudflats:**
- (a) Biologically active mudflats shall be identified by NCSCM in association with State Governments or Union territory administrations.
- (b) The States or Union territories shall prepare management plans for such demarcated biologically active mudflats.
- 1.10 Areas or structures of archaeological importance and heritage value sites:**
- (i) State Archaeological agencies shall be responsible for conservation and protection of all archaeological structures and heritage sites identified by the Archaeological Survey of India, as per the provisions of the respective Acts, notifications or guidelines.
- (ii) No activities that are detrimental to the identified areas or structures of archaeological and heritage value shall be permitted.
- (iii) It shall be ensured that these structures or areas are preserved and activities undertaken without changing the façade/plinth of such structures. Such structures could be considered for use in accordance with the relevant norms after undertaking careful designing of the interiors without changing the exterior architectural design of the structure.

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**Annexure-II****LIST OF PETROLEUM AND CHEMICAL PRODUCTS PERMITTED FOR STORAGE IN CRZ, EXCEPT CRZ-I A**

- (i) Crude oil;
- (ii) Liquefied Petroleum Gas;
- (iii) Motor spirit;
- (iv) Kerosene;
- (v) Aviation fuel;
- (vi) High speed diesel;
- (vii) Lubricating oil;
- (viii) Butane;
- (ix) Propane;
- (x) Compressed Natural Gas;
- (xi) Naphtha;
- (xii) Furnace oil;
- (xiii) Low Sulphur Heavy Stock;

- (xiv) Liquefied Natural Gas;
- (xv) Fertilizers and raw materials for manufacture of fertilizers;
- (xvi) Acetic acid;
- (xvii) Mono ethylene glycol;
- (xviii) Paraxylene;
- (xix) Ethane;
- (xx) Butadine;
- (xxi) Methanol;
- (xxii) Caustic;
- (xxiii) Bitumen.

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### Annexure-III

## **GUIDELINES FOR DEVELOPMENT OF BEACH RESORTS, HOTELS AND TOURISM DEVELOPMENT PROJECTS IN THE DESIGNATED CRZ AREAS**

### **1. CRZ-II**

Construction of beach resorts or hotels in designated areas of CRZ-II for occupation of tourist or visitors shall be subject to the following conditions, namely: -

- (i) construction shall be permitted only to the landward side of an existing road or existing authorized fixed structures;
- (ii) live fencing and barbed wire fencing with vegetative cover may be allowed around private properties subject to the condition that such fencing shall in no way hamper public access to the beach;
- (iii) no flattening of sand dunes shall be carried out;
- (iv) no permanent structures for sports facilities shall be permitted except construction of goal posts, net posts and lamp posts;
- (v) construction of basement may be allowed subject to the condition that no objection certification is obtained from the State Ground Water Authority to the effect that such construction will not adversely affect the flow of groundwater in that area;
- (vi) the State Ground Water Authority shall take into consideration the guidelines issued by the Central Government before granting such no objection certificate;
- (vii) the quality of treated effluents, solid wastes, emissions and noise levels and the like, from the project area must conform to the standards laid down by the competent authorities including the Central or State Pollution Control Board and under the Environment (Protection) Act, 1986 (29 of 1986);
- (viii) necessary arrangements for the treatment of the effluents and solid wastes must be made and it must be ensured that the untreated effluents and solid wastes are not discharged into the water or on the beach; and no effluent or solid waste shall be discharged on the beach;
- (ix) if the project involves diversion of forest land for non-forest purposes, clearance as required under the Forest (Conservation) Act, 1980 (69 of 1980) shall be obtained and the requirements of other Central and State laws as applicable to the project shall be met with and approval of the State or Union territory Tourism Department shall be obtained.

### **2. CRZ-III**

Construction of beach resorts and hotels in designated areas of CRZ- III for occupation of tourists or visitors shall be subject to the following conditions, namely: -

- (i) live fencing and barbed wire fencing with vegetative cover may be allowed around private properties subject to the condition that such fencing shall in no way hamper public access to the beach;
- (ii) no flattening of sand dunes shall be carried out;
- (iii) no permanent structures for sports facilities shall be permitted except construction of goal posts, net posts and lamp posts;
- (iv) construction of basement may be allowed subject to the condition that no objection certification is obtained from the State Ground Water Authority to the effect that such construction will not adversely affect the flow of groundwater in that area;
- (v) the State Ground Water Authority shall take into consideration the guidelines issued by the Central Government before granting such no objection certificate;
- (vi) though no construction is allowed in the no development zone for the purposes of calculation of Floor Space Index, the area of entire plot including the portion which falls within the no development zone shall be taken into account;
- (vii) the total covered area on all floors shall not exceed 33 per cent of the plot size i.e., the Floor Space Index shall not exceed 0.33 and the open area shall be suitably landscaped with appropriate vegetative cover;
- (viii) the construction shall be consistent with the surrounding landscape and local architectural style;
- (ix) the overall height of construction up to the highest ridge of the roof, shall not exceed 9 metres and the construction shall not be more than two floors (ground floor plus one upper floor);
- (x) groundwater shall not be tapped within 200 metre of the High Tide Line; and within the 200 to 500 metre zone it can be tapped only with the concurrence of the Central or State Ground Water Board;
- (xi) extraction of sand, leveling or digging of sandy stretches, except for structural foundation of building or swimming pool, shall not be permitted within 500 metres of the High Tide Line;
- (xii) the quality of treated effluents, solid wastes, emissions and noise levels and the like, from the project area must conform to the standards laid down by the competent authorities including the Central or State Pollution Control Board and under the Environment (Protection) Act, 1986 (29 of 1986);
- (xiii) necessary arrangements for the treatment of the effluents and solid wastes must be made and it must be ensured that the untreated effluents and solid wastes are not discharged into the water or on the beach; and no effluent or solid waste shall be discharged on the beach;
- (xiv) to allow public access to the beach, at least a gap of 20 metres width shall be provided between any two hotels or beach resorts; and in no case shall gaps be less than 500 metres apart; and
- (xv) If the project involves diversion of forestland for non-forest purposes, clearance as required under the Forest (Conservation) Act, 1980 (69 of 1980) shall be obtained and the requirements of other Central and State laws as applicable to the project shall be met with; and approval of the State or Union territory Tourism Department shall be obtained.

**Note:** Construction of beach resorts or hotels shall not be permitted in Ecologically sensitive areas (such as marine parks, mangroves, coral reefs, breeding and spawning grounds of fish, wildlife habitats and such other area as may be notified by the Central Government or State Government or Union territory administrations).

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**ANNEXURE -IV****GUIDELINES FOR PREPARATION OF COASTAL ZONE MANAGEMENT PLANS****1. Demarcation of High Tide Line and Low Tide Line:**

Demarcation of High Tide Line (HTL) and Low Tide Line (LTL) as carried out by NCSCM for the entire coastline of the country, has been made available to the Coastal States or Union territories and only such demarcation of HTL and LTL shall be applicable for all purposes of this notification.

**2. Hazard Line:**

A 'Hazard line' has been demarcated by the Survey of India (SOI) taking into account the extent of the flooding on the land area due to water level fluctuations, sea level rise and shoreline changes (erosion or accretion) occurring over a period of time. The hazard line mapped by SOI has been shared with the coastal States or Union territories through NCSCM. The hazard line shall be used as a tool for disaster management plan for the coastal environment, including planning of adaptive and mitigation measures. With a view to reduce the vulnerability of the coastal communities and ensuring sustainable livelihood, while drawing the CZMP, the land use planning for the area between the Hazard line and HTL shall take into account such impacts of climate change and shoreline changes.

**3. Preparation of CZM Maps:**

(i) Base Maps of 1:25,000 scale shall be acquired from the Survey of India (SOI) and wherever 1:25,000 maps are not available, 1:50,000 maps shall be enlarged to 1:25,000 for the purpose of base map preparation and these maps will be of the standard specification given below:-

Unit : 7.5 minutes X 7.5 minutes

Numbering : Survey of India Sheet Numbering System

Horizontal Datum : Everest or WGS 84

Vertical Datum : Mean Sea Level (MSL)

Topography : Topography in the SOI maps will be updated using latest satellite imageries or aerial photographs

(ii) Coastal Zone Management (CZM) Maps of scale 1:25,000 shall be got prepared by any of the agencies identified by the Ministry of Environment, Forest and Climate Change vide its Office Order number J-17011/8/92-IA-III dated the 14<sup>th</sup> March, 2014 using the demarcation of the High Tide Line or LTL, as carried out by NCSCM.

(iii) Various regulatory lines viz. at a distance of 20 metres, 50 metres, 200 metres and 500 metres from HTL respectively, as applicable in various CRZ categories, and the Hazard line shall be demarcated and transferred to the CZM maps.

(iv) HTL, LTL and CRZ boundaries, as applicable, shall also be demarcated in the CZM maps along the banks of tidal influenced inland water bodies.

(v) Classification of different coastal zones shall be done as per the CRZ notification and Standard national or international colour codes shall be used.

**4. Local level CZM Maps:**

(i) Local level CZM Maps are for the use of local bodies and other agencies to facilitate implementation of the Coastal Zone Management Plans.

(ii) Cadastral (village) maps in 1:3960 or the nearest scale, as available with revenue authorities shall be used as the base maps.

(iii) HTL, LTL, other CRZ regulatory lines and the Hazard line shall be demarcated in the cadastral maps and classifications shall be transferred into local level CZM maps.

**5. Classification of CRZ areas:**

- (i) The CZM Maps shall clearly demarcate the land use plan of the area and map out the Ecologically Sensitive Areas (ESAs) or the CRZ-IA areas as per mapping made available by NCSCM to coastal State or Union territories. All such ESAs shall be appropriately demarcated with colour codes.
- (ii) Buffer zone along mangrove areas of more than 1000 square metres shall be stipulated with a different colour distinguishing from the mangrove area. The buffer zone shall also be classified as CRZ-I area.
- (iii) In the CRZ areas, the fishing villages, common properties of the fishermen communities, fishing jetties, ice plants, fish drying platforms or areas infrastructure facilities of fishing and local communities such as dispensaries, roads, schools, and the like, shall be indicated on the cadastral scale maps. States and Union territories shall prepare detailed plans for long term housing needs of coastal fisher communities in view of expansion and other needs, provisions of basic services including sanitation, safety, and disaster preparedness.
- (iv) The water areas of CRZ-IV shall be demarcated and clearly demarcated if the water body is sea, lagoon, backwater, creek, bay, and estuary and for such classification of the water bodies the terminology used by Naval Hydrographic Office shall be relied upon.
- (v) The fishing Zones in the water bodies and the fish breeding areas shall be clearly marked.
- (vi) In CVCAs, the land use maps shall be superimposed on the Coastal Zone Management Plan clearly demarcating the CRZ-I, II, III, IV.
- (vii) The existing authorised developments on the seaward side shall be clearly demarcated.
- (viii) The features like cyclone shelters, rain shelters, helipads and other infrastructure including road network may be clearly indicated on the CZM Maps for the purpose of rescue and relief operations during cyclones, storms, tsunami and the like.
- (ix) Construction of buildings or other activities shall be permitted under the CZMP provided adequate arrangements are made for proper management and disposal of solid and liquid wastes in accordance with the environmental standards, rules and statutes, and under no circumstances, untreated effluents shall be disposed off in the coastal waters.

**6. Public consultations on CZMP:**

- (i) The draft CZMP prepared shall be given wide publicity and suggestions and objections received in accordance with the Environment (Protection) Act, 1986. Public hearing on the draft CZMP shall be held at district level by the concerned CZMA.
- (ii) Based on the suggestions and objections received the CZMPs shall be revised and approval of Ministry of Environment, Forest and Climate Change shall be obtained.
- (iii) The approved CZMP shall be put up on the website of Ministry of Environment, Forest and Climate Change, concerned website of the State or Union Territory Coastal Zone Management Authority and hard copy made available in the Panchayat Office and District Collector Office.

**7. Revision of Coastal Zone Management Plans:**

- (i) Whenever there is a doubt, the concerned State or Union territory Coastal Zone Management Authority shall refer the matter to the National Centre for Sustainable Coastal Management who shall verify the CZMP based on latest satellite imagery and ground truthing.
- (ii) If required, the rectified map shall be submitted to Ministry of Environment, Forest and Climate Change for consideration.

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**ANNEXURE-V****PROJECT INFORMATION DETAILS****1. PROJECT DETAILS**

- A. Project Name
- B. Survey No./ Village/ Co-ordinates
- C. District
- D. State
- E. Whether the proposal is for (Select relevant field)
  - (i) Fresh Clearance under CRZ
  - (ii) Amendment to an already issued CRZ clearance
  - (iii) Extension of validity of an already issued CRZ clearance
- F. Name of the Applicant
- G. Address of the Applicant
- H. Contact details (Telephone nos. and e-mail address)
- I. Cost of the project (Rs in crores)

**2. BENEFITS OF THE PROJECT**

- A. Details of Project Benefits
- B. Employment Likely to be Generated (Yes/No)
  - If Yes
    - (i) Total Manpower Requirement
    - (ii) Permanent Employment (Numbers)
    - (iii) Temporary Employment (Numbers)
    - (iv) Temporary Employment- During Construction (Numbers)
    - (v) Temporary Employment- During Operation (Numbers)

**3. DESCRIPTION OF THE PROJECT UNDER CONSIDERATION (Select the Category of the project):****A. Resort / Buildings / civic amenities**

- (i) Total area/Built-up area (in sqm.)
- (ii) Height of structure
- (iii) FSI ratio
- (iv) Name of concerned town planning authority/ Panchayat etc.
- (v) Details of provision of car parking area

**B. Coastal Roads / Roads on Stilt**

- (i) Area of land reclamation
- (ii) Estimated quantity of muck/earth for reclamation
- (iii) Traffic carrying capacity
- (iv) Dimensions of road

**C. Pipelines from thermal power blow down**

- (i) Length of pipeline
- (ii) Length traversing CRZ area

- (iii) Depth of excavation
- (iv) Width of excavation
- (v) Length of pipeline from seashore to deep sea
- (vi) Depth of outfall point from surface of sea water
- (vii) Temperature of effluent above ambient at disposal point

**D. Marine Disposal of Treated Effluent through pipelines**

- (i) Location of intake/ outfall
- (ii) Depth of outfall point
- (iii) Length of pipeline
- (iv) Length traversing CRZ area
- (v) Depth of excavation
- (vi) Width of excavation
- (vii) Length of pipeline from shore to deep sea/creek
- (viii) Depth of outfall point from surface of water
- (ix) Depth of water at disposal point
- (x) BOD, COD, TSS, oil and grease, heavy metals in the effluent

**E. Facility for storage of goods/chemicals**

- (i) Name of chemical
- (ii) End use of the chemical
- (iii) No. of tanks for storage
- (iv) Capacity of tanks

**F. Offshore structures**

- (i) Exploration or development
- (ii) Depth of sea bed
- (iii) No. of rigs
- (iv) No. of platform
- (v) Details of group gathering stations

**G. Desalination Plant**

- (i) Capacity of desalination
- (ii) Total brine generation
- (iii) Temperature of effluent above ambient at disposal point
- (iv) Ambient salinity
- (v) Disposal point

**H. Mining of atomic minerals**

- (i) Capacity of mining
- (ii) Type of mineral to be extracted
- (iii) End use of the mineral
- (iv) Government order for mining lease/exploration and approved mining plan details
- (v) Extent of mining lease area

**I. Sewage Treatment Plants**

- (i) Capacity
- (ii) Total area of construction
- (iii) Compliance of effluent parameters as laid down by cpcb/spcb/other authorised agency
- (iv) Whether discharge is in sea water/creek?
  - If yes
    - Distance of marine outfall point from shore/from the tidal river bank
    - Depth of outfall point from sea water/river water surface
    - Depth of seabed/riverbed at outfall point

**J. Lighthouse**

- (i) Total ground area of foundation/platform
- (ii) Height of the structure

**K. Wind Mills**

- (i) Capacity (MW)
- (ii) Height of the windmill
- (iii) Diameter of the windmill
- (iv) Length of blade
- (v) Speed of rotation
- (vi) Transmission lines (overhead or underground)

**L. Others**

- (i) Please specify with salient features
- (ii) Upload relevant Documents (upload PDF only)

**4. PROJECT LOCATION AS PER CRZ CLASSIFICATION** (If project site falls in different/multiple CRZ categories the same may also be elaborated)

**5. CLAUSE OF CRZ NOTIFICATION UNDER WHICH PROJECT IS A PERMISSIBLE /REGULATED ACTIVITY**

**6. MANDATORY FIELDS FOR PROJECT ASSESSMENT**

**A. CRZ map in 1:4000 scale indicating HTL, LTL demarcation and distance of the nearest project boundary (in meters) from HTL to be stated**

(i) Upload Map (kml file)

**B. Project layout superimposed on CRZ Map 1:4000 scale with classification of project location including other notified ESAs prepared**

(i) Upload Map (kml file)

**C. CRZ map 1:25000 scale covering 7 km radius around Project site**

(i) Upload Map (kml file)

**7. PROJECT LOCATED IN** (Select Type)

- (i) Non eroding Coast
- (ii) Low and Medium eroding coast
- (iii) High eroding Coast

**8. DETAILS OF FOREST/ MANGROVES LAND INVOLVED (YES/NO)****IF YES**

- (i) Detail of area diverted
- (ii) Forest clearance to be submitted (Upload document)
- (iii) No. of trees to be cut under the project
- (iv) Compensatory afforestation plan to be submitted (Upload document)

**9. DISTANCE OF PROPOSED PROJECT FROM ESA/MARINE PARK/ WILD LIFE SANCTUARY**

- (i) Within 10 kilometre radius from the project site (Yes/No)

**If YES**

- Permission from NBWL to be submitted (Upload document)

**10. NOC OR CONSENT TO ESTABLISH FROM STATE/UT POLLUTION CONTROL BOARDS OBTAINED (YES/NO)****If YES**

- (i) Copy of NOC to be provided (Upload document)
- (ii) Conditions imposed to be stated (Upload document)

**11. Environment Impact Assessment (EIA) studies (relevant fields to be filled)****A. Terrestrial studies:**

- (i) Summary details of EIA (Terrestrial) Studies
- (ii) Upload Recommendation made in EIAs (Upload document)
- (iii) State period of Study

**B. Marine Studies**

- (i) Summary details of EIA (Marine) Studies
- (ii) Upload Recommendation made in EIAs (Upload document)
- (iii) State period of Study

**12. DISASTER MANAGEMENT PLAN / NATIONAL OIL SPILL DISASTER CONTINGENCY PLAN (if applicable)****13. PROJECT INVOLVING DISCHARGE OF LIQUID EFFLUENTS:**

- (i) Capacity of Sewage Treatment Plant
- (ii) Quantity of effluent generated
- (iii) Quantity of effluent treated
- (iv) Method of treatment and disposal

**14. PROJECT INVOLVING DISCHARGE OF SOLID WASTE:**

- (i) Type of solid waste
- (ii) Quantity of solid waste generated
- (iii) Method of disposal
- (iv) Mode of transport

**15. WATER REQUIREMENT in kilo litres per day (KLD)**

- (i) Quantity of water required
- (ii) Source of water

- (iii) If Ground water (Upload a copy of approval from Central Ground Water Authority or other authorised body)
- (iv) If other Source (Upload a copy of permission from competent authority)
- (v) Mode of transport
- (vi) Commitment of water supply (Upload document)

**16. DETAILS OF WATER TREATMENT AND RECYCLING (If any) (Multiple Entries Allowed)**

Type/ Source	Quantity of Waste Water Generated (Kilos Litre per Day)	Treatment Capacity (Kilos Litre per Day)	Treatment Method	Mode of Disposal	Quantity of Discharged Water (Kilos Litre per Day)	Quantity of Treatment Water used in Recycling/Reuse (Kilo Litre per Day)

**17. DETAILS OF RAINWATER HARVESTING**

- (i) No. of Storage tanks
- (ii) Total capacity of tanks
- (iii) No. of Recharge Pits
- (iv) Capacity of pits

**18. ENERGY REQUIREMENT AND SOURCES**

- (i) Total Power Requirements (kwh)
- (ii) Source
- (iii) Upload Copy of Agreement (upload pdf only)
- (iv) Stand by Arrangement (Details)

**19. ENERGY EFFICIENCY/SAVING MEASURES**

- (i) Source/Mode
- (ii) Details of savings

**20. RECOMMENDATION OF STATE COASTAL ZONE MANAGEMENT AUTHORITY**

- (i) Upload Copy of CZMA recommendations (Upload pdf only)
- (ii) Compliance status of the Conditions Imposed

**21. WHETHER PROPOSAL ATTRACTS EIA NOTIFICATION, 2006. (Yes/No)**

If YES,

- (i) the category thereof
- (ii) Status of proposal for EC (as applicable)

**22. SOCIAL AND ENVIRONMENTAL ISSUES AND MITIGATIONS MEASURES SUGGESTED INCLUDING BUT NOT LIMITED TO R&R, WATER, AIR, HAZARDOUS WASTES, ECOLOGICAL ASPECTS, ETC. (Brief Details to be Provided)**

**23. DETAILS OF COURT CASES** Whether there is any Court Cases pending against the project and/or land in which the project is proposed to be set up? (Yes/No)

If Yes, Pending or Disposed (Select relevant)

- (i) Name of the Court (Supreme Court, High Court, National Green Tribunal)
- (ii) Case No.

- (iii) Case Details
- (iv) Orders/Directions of the court, if any and its relevance with the proposed project  
(Upload document)

**24. ADDITIONAL INFORMATION, If any**

**UNDERTAKING:** It is certified that the information given above are true to the best of my knowledge and belief and nothing contravening the provisions of CRZ Notification, 2011 has been concealed therefore.

Name and Signature of the applicant:

Date:

## **MINUTES OF THE 315<sup>TH</sup> MEETING OF EXPERT APPRAISAL COMMITTEE FOR PROJECTS RELATED TO COASTAL REGULATION ZONE HELD ON 29<sup>TH</sup> NOVEMBER, 2022**

The 315<sup>th</sup> meeting of the Expert Appraisal Committee for projects related to Coastal Regulation Zone was held on 29<sup>th</sup> November May 2022 at Teesta Hall, IPB, Ministry of Environment, Forest and Climate Change, New Delhi. The list of Members presents in the EAC (CRZ) is at **Annexure**.

The deliberations held and the decisions taken are as under:

### **1.0 OPENING REMARKS OF THE CHAIRMAN**

At the outset, Dr. Deepak Arun Apte, Chairman, EAC (CRZ) welcomed the Members of the EAC and requested Dr. H. Kharkwal, the Member Secretary of the EAC to initiate the proceedings of the meeting with a brief account of the activities undertaken by the Ministry under CRZ Division.

### **2.0 CONFIRMATION OF THE MINUTES OF THE LAST MEETING**

The Committee has noted that the Minutes of the 311<sup>th</sup> meeting held on 2<sup>nd</sup> November 2022 are in order and confirmed the same with suggestions that in case any typographical / grammatical errors are noticed in due course, the same may be corrected suitably.

### **3.0 RECONSIDERATION OF PROPOSALS FOR CRZ CLEARANCE**

#### **Item No. 3.1**

**Proposal for Establishing of 10 MLD capacity Desalination plant at R.S.No.355, Mullakadu Village, Thoothukudi Taluk, Thoothukudi District by M/s Tamil Nadu Generation and Distribution Corporation Ltd. (TANGEDCO), Chennai, Tamil Nadu - CRZ Clearance [IA/TN/CRZ/261055/2022] [F.No.11/14/2022-IA.III]**

***“The EAC noted that the Project Proponent has given undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP report. If any part of the data/information submitted is found to be false/misleading at any stage, the project will be rejected and Environmental and or CRZ Clearance given, if any, will be revoked at the risk and cost of the project proponent.”***

1. The proposal was earlier considered and deferred by the EAC in its meeting held on 27<sup>th</sup> April, 2022 and 4<sup>th</sup> August 2022. The Committee in its earlier meeting noted that the project proponent has not provided sufficient information about EIA report specially water quality parameter at outlet point, the copy of original proposal submitted to TNCZMA, Brine dispersion study, water quality and ecology data at the adjoining areas of outlet predictive modelling on dispersion etc. The project proponent has now submitted documents as desired by EAC and placed before the Committee. The project proponent and their consultant

submitted reply on additional information desired by EAC earlier and made a detailed presentation of salient features of the project and informed that:

- (i) The proposal is for CRZ clearance to the project for the Establishment of 10 MLD capacity Desalination plant at R.S.No.355, Mullakadu Village, Thoothukudi Taluk, Thoothukudi District by M/s Tamil Nadu Generation and Distribution Corporation Ltd. (TANGEDCO), Chennai.
- (ii) The Centre co-ordinates of the project site are Latitude 8°45'53.35"N Longitude 78°10'53.21"E and proposed to construct and operate a RO Desalination Plant of capacity 10 MLD at the existing Tuticorin Thermal Power Station (TTPS) campus to meet the raw water requirement of its 5 x 210 MW capacity Thermal Power Station.
- (iii) Total project area is 1.95 Acres and the project area is falling in CRZ-II and the area through which the outfall and inlet pass through the CRZ-IB and CRZ-IV.
- (iv) Project Proponent reported that there will be a requirement of 45-50 KLD water during the construction phase and 10 KLD during the operational phase which will be sourced by TANGEDCO.
- (v) Total of 29 MLD raw sea water is required for a 10 MLD Desalination plant.
- (vi) The total cost of the project is ₹98.12 crores and of a total, ₹50 Lakh is for EMP.
- (vii) During the construction phase around 100 workers and operation phase around 35 will be directly employed for the project.
- (viii) Municipal Solid waste generated during construction waste will be 1.0 Ton/month and will be used as manure in the premise. 50 lit/Year of used oil will be generated which will be sold to registered refiners. Discarded Container – 5 Nos./year will be sold to CPCB / MoEF&CC approved recyclers.
- (ix) Total power requirement will be 2500 kW and Emergency DG supply will be 415V, 3 phase, 4 wires, solidly earthed Source.
- (x) The CRZ Map for the proposed project was prepared by the Institute of Remote Sensing, Anna University, Chennai.
- (xi) Project activity is a permissible activity as per CRZ notification, 2011 *vide* Para 4(i) (a), Para 8 I CRZ I (i) (b) and 8 II CRZ II (v). However, project requires clearance *vide* Para 4(ii) (h) of CRZ Notification 2011.
- (xii) The Tamil Nadu State Pollution Control Board has issued NOC / CTE *vide* letter No: T2/TNPCB/F.0042/TTPS/2019, dated: 25/11/2019.
- (xiii) The Tamil Nadu Coastal Zone Management Authority has recommended the proposal for CRZ clearance *vide* its Letter No. P1/2626/2019 dated 22/02/2022.

## 2. Deliberations in the EAC:

The PP has submitted clarifications / information before the EAC on Brine dispersion study, water quality, ecology data at the adjoining areas of outlet predictive modelling on dispersion etc. and intimated that three options of outfall locations are suitable for safe discharge of Brine water. PP has proposed all the three options for brine disposal and had considered option point no 2 (along with existing discharge point) as more feasible for them. To this, TNCZMA committee accepted the submission by PP but recommended to go for option 3 as it is safer option because of sufficient distance from shore line. i.e 3 km deep in sea.

The Committee noted that the detailed hydro dynamic & mathematical model study submitted by PP that the both option 2 and 3 are environmentally safe and there will be no major impact on marine and aquatic ecology due to the brine discharge for both option 2 and 3, however option 3 i.e. deep sea discharge at a point, 3 km away from shore and accepted

for discharge at option 3 sea discharge only. The Committee also noted that TNCZMA recommended the project and intimated that the activity is a permissible activity vide Para 4(i) (a), Para 8 I CRZ I (i) (b) and 8 II CRZ II (v), however, project requires clearance vide Para 4(ii) (h) of CRZ Notification 2011.

The Committee after detailed deliberations and based on the clarifications / additional information submitted and commitment made by PP vide letter No. CE/Pr-I/SE/C/P&E/EE/EMC-I/AEE/C/F.TTPS10MLD Desal Plant/D.256/22, dated 29/11/2011, recommended the proposal for CRZ Clearance, subject to the following conditions:

- (i). All construction shall be strictly in accordance with the provisions of the CRZ Notification, 2011, as amended from time to time.
- (ii). The PP should take deep sea discharge option 3 at a point, 3 km away from shore as committed vide letter No. CE/Pr-I/SE/C/P&E/EE/EMC-I/AEE/C/F.TTPS10MLD Desal Plant/D.256/22, dated 29/11/2011.
- (iii). Monitoring of Water Quality and Marine Ecology to be undertaken at 4 km radius of outfall point.
- (iv). No storage reservoir for sea water shall be permitted and only pipelines conveyance system shall be installed.
- (v). No construction shall be undertaken to disturb tidal creek, free flow of groundwater or natural course of water flow.
- (vi). Permanent labour camp, machinery and material storage shall not be set up in the CRZ area.
- (vii). No groundwater shall be extracted within CRZ area to meet water requirements during the construction and / or operational phase of the project.
- (viii). No excavated material during the construction shall be dumped in water bodies or adjacent areas. The site shall be restored to its near original condition after completion of construction.
- (ix). Any physical infrastructure setup during construction period shall be removed simultaneously with completion of laying of each segment of the project.
- (x). All the conditions stipulated by the Tamil Nadu Coastal Zone Management Authority has recommended the proposal for CRZ clearance vide its Letter No. P1/2626/2019 dated 22/02/2022 and commitments made by the PP before the CZMA and EAC shall be followed in letter and spirit.
- (xi). All necessary clearance from the concerned authority, as may be applicable should be obtained prior to commencement of project or activity.

### **Item No. 3.2**

**Proposal for Widening and desilting the Adyar River from mouth to d/s of Thiru Vi Ka Bridge, Chainageom to 1963 m (42,600m to 40,637m) in Thiruvallur, Tamil Nadu, Chennai by Public Works Department -CRZ Clearance [IA/TN/CRZ/199027/2021] [F.No.11/5/2021-IAIII]**

***“The EAC noted that the Project Proponent has given undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP report. If any part of the data/information submitted is found to be false / misleading at any***

**stage, the project will be rejected and Environmental and or CRZ Clearance given, if any, will be revoked at the risk and cost of the project proponent.”**

1. The proposal was earlier considered and deferred by the EAC in its meeting held on 5<sup>th</sup> March, 2021 and 8<sup>th</sup> December 2021. The Committee in its earlier meeting noted that Adyar estuary is highly polluted due to sewage and domestic effluents while the baseline report mentioned DO levels very high, which is not correct. Other parameters such as COD, Coliform, PAC, metals, etc. are also reported below the detectable level based on the data collected in January 2020. The authenticity of data has to be ascertained by an independent and nationally credible institute with compliance from TNPCB and submit. Further, the NIOT / NCCR study is also going on and it will take 6 months to be completed. The Committee also desired to seek a factual report from the Regional Office of the Ministry at Chennai regarding whether the PWD initiated any work of widening / desilting of the Adyar River mouth without requisite CRZ clearance. The project proponent has now submitted documents as desired by EAC and placed before the Committee. The project proponent and their consultant submitted reply on additional information desired by EAC earlier and made a detailed presentation of salient features of the project and informed that:

- (i) The proposal is for CRZ clearance to the project proposal for Widening and desilting the Adyar River from mouth to d/s of Thiru Vi Ka Bridge, Chainageom to 1963m (42,600m to 40,637m) in Thiruvallur, Tamil Nadu, Chennai by Public Works Department, Government of Tamil Nadu.
- (ii) Adyar River starts from Adanur lake in Manimangalam village, Sriperumbudur Taluk at about 15 kilometers (9 m) from west of Tambaram near Chennai, flows through Kancheepuram, Tiruvallur and Chennai District for about 42.5 kilometers (26.4 mi) before joining the Bay of Bengal in Adyar, Chennai.
- (iii) The total area is 231.07 acres. Desilting will be carried over on 176.35 acres in Adyar River. The island in the river covering an area of 54.72 acres is exempted from desilting.
- (iv) The project site falls in CRZ-IA (50m Buffer from Mangroves) (27077.92 sq.m.), CRZ-IB (2054.87 sq.m) and CRZ-IVB (684542.98 sq.m) area, as per the approved CZMP of Tamil Nadu. Total desilting area is 713675.77 sq.m.
- (v) Project activity is a permissible activity as per CRZ notification, 2011, *vide* Para 3 (iv) (c), however, project requires CRZ clearance as per CRZ Notification 2011.
- (vi) The proposed desilting activity project will be carried out in Adyar estuary water body and will not be executed in the mangroves area.
- (vii) The CRZ map of 1:4000 has been prepared by Indian Institute of Remote Sensing, Anna University, Chennai.
- (viii) Desilted material will be sent to corporation of Chennai approved dumping yards namely Kodungaiyur and OSR areas of GCC
- (ix) The need of the project is, to improve the water carrying and holding capacity of the Adyar River.
- (x) Widening will be carried out using earth moving machineries for excavating the earth and will be conveyed by means of tippers for forming embankment wherever required for both sides of river for entire reach.
- (xi) The desilted material will be stored inside the river banks for a short period, without disturbing the mangroves.
- (xii) A temporary road will be formed and will be used for transporting the desilted material from Adyar River.
- (xiii) The desilting of the river bed will remove silt and sand from the mouth to Thiru.Vi. Ka Bridge a total of 486100 m<sup>3</sup> of silt that will be diverted to the Corporation dumpsites.

- (xiv) Permission letter for disposing the desilted materials (1,90,458 m<sup>3</sup>) from Adyar River in the vacant OSR lands of GCC is obtained from GCC vide Ir.No.P.D.C.NO. P2/1099/2020 and Ir.No.S.W.M.C.No. A8/1889/2020 for dumping of 2,43,050 m<sup>3</sup> silt at Kodangaiyur Dumping ground.
- (xv) The remaining silt of 52592 m<sup>3</sup> will be used for bund strengthening along the river stretch.
- (xvi) The proposed activities will restore the silted watercourse that would improve the channel flow capacity of the river. Overall, the desiltation of Adyar River would improve the water storage capacity, soil texture and water holding capacity which would mark a greater significance to the people of Chennai.
- (xvii) The employment potential of the project is 35 persons.
- (xviii) The total cost of the project is ₹21.63 crores.
- (xix) Tamil Nadu Coastal Zone Management Authority (TNCZMA) has recommended the project vide its letter No.1216/EC.3/2021-1, dated 10/02/2021.

## 2. Deliberations in the EAC:

The EAC deliberated on the proposal. The Committee noted that the TNCZMA recommended the project and intimated that the activity is a permissible activity *vide* Para 3 (iv) (c), however, project requires CRZ clearance as per CRZ Notification 2011. The Committee also noted that no work initiated by PP as report forwarded by Regional Office of the Ministry at Chennai *vide* letter dated 07/04/2022. The Committee noted that the PP intimated that project will improve the water carrying and holding capacity of the Adyar River and enhancing the tidal exchange into the estuarine region where the Adyar River and Bay of Bengal Sea meets and to restore the marine habitat. The Committee also noted that the Adyar estuary is ecologically very important i.e physiochemical water quality parameters, heavy metals, sediment quality, benthic and Plankton assessment, Petroleum hydrocarbons, chlorophyll etc. and also noted / few recommendations suggested by NIOT in its report.

The Committee after detailed deliberations and based on the clarifications / additional information submitted by the project proponent recommended the proposal for CRZ Clearance, subject to the following conditions:

- (i). All construction shall be strictly in accordance with the provisions of the CRZ Notification, 2011, as amended from time to time.
- (ii). The PP should undertake six month monitoring through National Centre for Coastal Research (NCCR) or any reputed institute on all physico-chemical water quality parameters, petroleum hydrocarbons, chlorophyll, heavy metals, sediment quality, benthic and plankton assessment 5 km inside the Adyar estuary and 5 km in coastal area with 2.5 km on either side of the river mouth.
- (iii). As recommended by NIOT in its report following should be complied and submit the plan along with year wise physical target and financial budget and same should be submitted to IRO:
  - 1) The sand removal from the beach should not be carried out during the active sea turtle nesting season (January to May).
  - 2) The dredged sand should not be used directly for beach nourishment and its suitability must be examined thoroughly. The sediment grain sizes of the dredging site and the turtle nesting beach must be studied in detailed by Zoological Survey of India in case if this sand is to be used for beach nourishment. ZSI will provide necessary recommendation in this matter.

- 3) A comprehensive marine environmental monitoring should be undertaken through a nationally reputed institute having expertise in the subject to determine impact of the discharge against the baseline water and sediment quality parameters as stated in the EMP in the estuarine areas of the Adyar River confluence with the Bay of Bengal to upstream of about five kilometres. Remedial measures if required to be undertaken and provision for the costs for the same to be provided by the Project Proponent.
  - 4) Monitoring of shore erosion/accretion should be undertaken along the coastal stretch in open coastal waters over a distance covering 3 km on each side to the north of the confluence.
  - 5) PP will submit within six months to the regional office of Ministry the time bound implementation plan for waste water treatment including the state of art STPs to prevent discharge of polluted water in to the Adyar River. Water quality monitoring to be undertaken through two independent Governments recognized institutions of the water quality during the entire implementation stage of this work. The reports of the same will be submitted to the Regional Office of Ministry on six monthly basis.
- (iv). Permanent labour camp, machinery and material storage shall not be set up in the CRZ area.
  - (v). No groundwater shall be extracted within CRZ area to meet water requirements during the construction and / or operational phase of the project.
  - (vi). All the conditions stipulated by the Tamil Nadu Coastal Zone Management Authority has recommended the proposal for CRZ clearance *vide* its Letter No.1216/EC.3/2021-1, dated 10/02/2021 and commitments made by the PP before the CZMA and EAC shall be followed in letter and spirit.
  - (vii). All necessary clearance from the concerned authority, as may be applicable should be obtained prior to commencement of project or activity.

### **Item No. 3.3**

**Proposal for "Dredging at Jatadhari Muhan at Kathupaka of easy discharge of excess rain water to avoid flood in the catchment area by Department of Irrigation, Government of Odisha - CRZ Clearance [IA/OR/CRZ/404652/2022] [F.No.11/43/2022-IA.III]**

***"The EAC noted that the Project Proponent has given undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP report. If any part of the data/information submitted is found to be false / misleading at any stage, the project will be rejected and Environmental and or CRZ Clearance given, if any, will be revoked at the risk and cost of the project proponent.***

1. The project proponent made a detailed presentation of salient features of the project and informed that:
  - (i) The proposal is for CRZ clearance to the project for "Dredging at Jatadhari Muhan at Kathupaka of easy discharge of excess rain water to avoid flood in the catchment area by Department of Irrigation, Government of Odisha.

- (ii) The proposal for dredging of Jatadhari Muhan site at Kathuapaka, in district Jagatsinghpur, Odisha for easy discharge of extra rainwater and flood water from river/nallah to the sea.
- (iii) The project is under Drainage Improvement Programme (DIP), a scheme of Government of Odisha with a project cost of 547.73 Lakhs.
- (iv) The total dredging area is 31500 sqm. and dredging proposed at Jatadhari Muhan with a length of 450m x 100 m at top width x 70 m bed width and Appox. 206235.50 cum of dredging material specifically sand will be generated.
- (v) The dredging materials will be dumped on the private land for levelling for which consent has been taken from the land owners.
- (vi) The benefits of the project will improve the drainage condition of existing drainage cut and reduce the flooding & water logging in the locality and retrieve water logging and enhance crop yield over an area 365 ha. of agriculture land.
- (vii) On completion of the project about 7000 people of villages like Nolia Sahi, Dinkia, Nuagaon, Gadakujanga, Nuaratnapur, Khuranta, Gobindapur of Erasama block in Jagatsinghpur District of Odisha will be benefited.
- (viii) The CRZ map of 1:4000 has been prepared by Indian Institute of Remote Sensing (IRS), Anna University, Chennai and the proposed dredging site falls within CRZ-IB Intertidal area, CRZ-IV-A & IV-B Jatadhari Creek area as per CRZ notification, 2019.
- (ix) The proposed activity is a permissible activity in CRZ Area, as per CRZ Notification 2019 under Para 5.1.2 CRZ-IB (i) (e) "maintenance and clearing of waterways, channels, ports and hover ports for coast guard; and Para 5.4 CRZ-IV (ii) (d) "maintenance and clearing of waterways, channels, ports and hover ports for coast guard".
- (x) The Environmental Clearance is not required for the project.
- (xi) The location of the reference area: Latitude: 20°11'54.96"N to 20°12'4.08"N and Longitude: 86° 33' 07.03" E to 86° 33' 32.46" E.
- (xii) The location of the identified dredging area: Latitude - 20° 11'52.79" N to 20° 11'59.82" N and Longitude - 86° 33'09.91" E to 86° 33'27.41"E.
- (xiii) The Odisha Coastal Zone Management Authority has recommended the proposal for CRZ clearance and also intimated that project does not attract EIA Notification, 2006 *vide* its Letter No.OCZMA/15/2022/59/OCZMA dated 07/09/2022.

## 2. Deliberations in the EAC:

The Committee noted that the OCZMA has recommended the project as per CRZ Notification 2019 and intimated that the activity is a permissible under Para 5.1.2 CRZ-IB(i) (e) and 5.4 CRZ-IV (ii) (d) and project requires CRZ clearance under clause 7(ii) from MoEFCC "all development activities or projects in CRZ-I and CRZ-IV area as per CRZ Notification 2019. The OCZMA also intimated that project does not attract EIA Notification, 2006. The PP also intimated during the meeting that the no active nesting activities of the turtles / Olive Ridley Sea Turtles in the proposed area of the project and PP has submitted undertaking *vide* letter dated 29/11/2022.

The Committee after detailed deliberations and considering the undertaking made by the project proponent recommended the proposal for CRZ Clearance, subject to the following conditions:

- (i). All construction shall be strictly in accordance with the provisions of the CRZ Notification, 2019, as amended from time to time.
- (ii). The PP should take Consent of each individual land owner before dumping dredging materials / excavated sand on the private land owners for levelling the land.

- (iii). The dredging activities proposed, if any near the turtles nesting site, the NOC should be taken from the Wildlife Department before commencement of the project.
- (iv). No groundwater shall be extracted within the CRZ area to meet the water requirements during the construction and/or operation phase of the project.
- (v). Permanent labour camp, machinery and material storage shall not be set up in the CRZ area.
- (vi). Changes in the shore erosion/accretion and inlet morphology should be monitored along the coastal stretch over a distance covering 5 km along the shore and quantity of dredging and to be reported the same to IRO.
- (vii). Changes in the physio-chemical parameters will be monitored by an independent Government recognized institution and report should be submitted to IRO.
- (viii). Changes in the fisheries and fish species composition to be monitored by Zoological Survey of India, CMFRI or reputed Government Institute and suggest specific measures in case of any adverse impacts of dredging of the sand bar and same should be submitted to IRO.
- (ix). All the conditions stipulated by the Odisha Coastal Zone Management Authority for CRZ clearance 2019 vide its letter No.OCZMA/15/2022/59/OCZMA dated 07/09/2022 and commitments made by the PP before the OCZMA and EAC shall be followed in letter and spirit.
- (x). All necessary clearance from the concerned authority, as may be applicable should be obtained prior to commencement of project or activity.

#### **Item No. 3.4**

**Proposal for Development of Common Treated Wastewater Conveyance and Marine Outfall System of 135 MLD at Kakinada which majorly falls in U. Kothapalli and Thondangi Mandals of Kakinada District and Partly falls in Payakaraopeta Mandal of Anakapalli District Andhra Pradesh by M/s Andhra Pradesh Industrial Infrastructure Corporation Limited (APIIC) -CRZ Clearance [IA/AP/CRZ/405490/2022] [F.NO.11/44/2022-IA.III]**

***“The EAC noted that the Project Proponent has given undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP report. If any part of the data/information submitted is found to be false / misleading at any stage, the project will be rejected and Environmental and or CRZ Clearance given, if any, will be revoked at the risk and cost of the project proponent.***

1. The project proponent and their consultant made a detailed presentation of salient features of the project and informed that:

- (i) The proposal is for CRZ clearance to the project for “Development of Common Treated Wastewater Conveyance and Marine Outfall System of 135 MLD at Kakinada which majorly falls in U. Kothapalli and Thondangi Mandals of Kakinada District and Partly falls in Payakaraopeta Mandal of Anakapalli District Andhra Pradesh by M/s Andhra Pradesh Industrial Infrastructure Corporation Limited (APIIC).
- (ii) The project is development of common treated wastewater conveyance and marine outfall system for Kakinada SEZ region and surrounding industries with objective of the project to support development of this region with existing and

proposed industrial projects [Kakinada SEZ, Bulk Drug Park (BDP), M/s Lyfius Pharma Private Limited (formerly M/s Aurobindo Antibiotics Private Limited), M/s Qule Pharma Private Ltd., (formerly M/s Auroactive Pharma Private Limited) and M/s Divi's Laboratories Ltd. etc.] by avoiding Multiple outfalls thereby having harmonious environment with local habitants.

- (iii) The project development consists of capacity: 135 MLD, 30.3 km long pipeline with diameter varying from 450 mm to 1000 mm on land side, 2.0 km long HDPE pipeline with 1400 mm diameter on seaside with diffusers (14.5 m depth), central pump house with sump of 2.95 ML capacity with additional similar capacity Sump to handle the unlikely events.
- (iv) Project attracts CRZ Notification 2011 under the provision of para 4(ii) (d) - laying of Pipeline and 4(ii) (f)-outfall for discharge of treated water.
- (v) The majorly falling in U. Kothapalli and Thondangi Mandals of Kakinada District and partly in Payakaraopeta mandal of Anakapalli District, Andhra Pradesh.
- (vi) The CRZ map of 1:4000 has been prepared by NCSCM Chennai.
- (vii) Project development area does not fall or contain any environmentally sensitive areas as specified in CRZ Notification and that the project area meets the regulations of CRZ Notification, 2011/2019.
- (viii) The proposed pipeline falls on the CRZ-1B of creek, CRZ-III (200 to 500m), CRZ – III (NDZ), CRZ-IVA (Marine outfall pipeline) and CRZ-IVB (Creek).
- (ix) An area falling within 500 meters on either side of the pipeline from centerline is earmarked for primary baseline data generation.
- (x) 10 km radius from pipeline alignment earmarked as study area for secondary data collection.
- (xi) The length of marine disposal pipeline is 32.3 km, out of which 24.605 km is falling on non-CRZ area and balance 7.65 km is falling in CRZ area.

S. No.	Type	Length (km)
1	CRZ IB	0.10
2	NDZ of CRZ III	4.16
3	CRZ III (200m to 500m)	1.42
4	CRZ IVA	1.94
5	CRZ IVB	0.03
	<b>Total CRZ Area</b>	<b>7.65</b>
6	Non-CRZ	24.605
	<b>Total</b>	<b>32.255</b>

- (xii) The Power requirement at Pump House in Operation Phase is 32.5 MWH from APTRANSCO.
- (xiii) The water requirement at Pump House in Operation Phase is 500 LPD and source initially from bore well and later from the KSEZ water supply network.
- (xiv) The estimated MSW generation is 5 kg/day and KSEZ solid waste management facility or to the local dump site till KSEZ develops the facility.
- (xv) The Andhra Pradesh Pollution Control Board has recommended NOC *vide* letter No.579/APPCB/CFE/RO-VSP/HO/2022 dated 30/09/2022.

(xvi) The total cost of the project ₹217.87 Crore. The budgetary estimate for EMP as:

**A. Construction Phase Budgetary Estimate:**

Sl. No.	Environmental Activity	Amount in Crores
1.	Water Body Crossing (Pipe Carrying Bridge) and Road Crossing and Restoration	3.76
2.	Monitoring (Construction Phase & SCADA) and Utility Shifting Including Compensation for Tree Cutting, Restoration of EP poles etc.,	1.75
	<b>Total</b>	<b>5.51</b>
3.	Provision for Shore line Changes Monitoring and its Protection if any (Based on the requirement of Construction Methodology)	3.5

**B. Operation Phase Budgetary Estimate:**

Sl. No.	Environmental Activity	Amount in Crores
1.	Trained manpower required for O&M including Environmental Management Cell	0.35
2.	Repair and maintenance of Common Collection Sump, Pumps sets, pipelines, diffuser system and monitoring including marine side inspections (Diver/Videography) and other repair works	0.66
	<b>Total</b>	<b>1.01</b>

(xvii) The Andhra Pradesh Coastal Zone Management Authority has recommended the proposal for CRZ clearance *vide* its Letter No.426/CRZ/PROJ/2022-618 dated 17/11/2022.

**2. Deliberations in the EAC:**

The Committee noted that the Andhra Pradesh Pollution Control Board has recommended NOC *for the project* and APCZMA recommended the project and intimated that the activity is a permissible under Para 3(i) (a) and Para 3(v) (a) of CRZ Notification 2011. The PP shall ensure that the treated effluent discharge into sea / marine outfalls as per the prescribed standards of by CPCB / SPCB. The Committee also advised to PP submit compliance report / action report on specific conditions recommended / suggested by APSCZMA *vide* letter dated 17/11/2022 to the Ministry for record.

The Committee after detailed deliberations and considering the submissions made by the project proponent recommended the proposal for CRZ Clearance, subject to the following conditions:

- (i) All construction shall be strictly in accordance with the provisions of the CRZ Notification, 2011, as amended from time to time.
- (ii) The APIIC should strictly ensure disposal of treated effluent discharge into Sea or marine outfalls to the prescribed standards of CPCB / SPCB.
- (iii) A comprehensive marine environmental monitoring should be undertaken through a nationally reputed institute having expertise in the subject to determine impact of the discharge against the baseline water and sediment quality parameters as stated in the

- EMP. Remedial measures if required to be undertaken and provision for the costs for the same to be provided by the PP.
- (iv) No storage reservoir for sea water shall be permitted and only pipelines conveyance system shall be installed.
  - (v) Any temporary physical infrastructure setup and excavated material during laying of Pipelines shall not be dumped in water bodies or adjacent areas and the site shall be restored to its original condition after completion of construction of work.
  - (vi) No groundwater shall be extracted within the CRZ area to meet the water requirements during the construction and/or operation phase of the project.
  - (vii) Permanent labour camp, machinery and material storage shall not be set up in the CRZ area.
  - (viii) All the conditions stipulated by the Andhra Pradesh Coastal Zone Management Authority for CRZ clearance 2019 *vide* its Letter No.426/CRZ/PROJ/2022-618 dated 17/11/2022 and commitments made by the PP before the APCZMA and EAC shall be followed in letter and spirit.
  - (ix) All necessary clearance from the concerned authority, as may be applicable should be obtained prior to commencement of project or activity.

### **Item No. 3.5**

**Proposal for “Laying of new marine disposal pipeline in place of existing two lines and increase of marine discharge quantity at N. Narasapuram (V), Ch. Lakshmipuram (V), Rajaihpetta (V), Peda Teemala (V), of Kakkapalli (M), Visakhapatnam District Andhra Pradesh M/s Hetero Infrastructure SEZ Ltd - CRZ Clearance [IA/AP/CRZ/407123/2022] [F.NO.11/45/2022-IA.III]**

***“The EAC noted that the Project Proponent has given undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP report. If any part of the data/information submitted is found to be false / misleading at any stage, the project will be rejected and Environmental and or CRZ Clearance given, if any, will be revoked at the risk and cost of the project proponent.***

The project proponent submitted documents and their consultant made a detailed presentation of salient features of the project and informed that:

- (i) The proposal is for CRZ clearance to the project for “Laying of new marine disposal pipeline in place of existing two lines and increase of marine discharge quantity at N. Narasapuram (V), Ch. Lakshmipuram (V), Rajaihpetta (V), PedaTeemala (V), of Kakkapalli (M), Visakhapatnam District Andhra Pradesh by M/s Hetero Infrastructure SEZ Ltd.
- (ii) The existing pipelines details as:

Location	Geographical Coordinates	
	Latitude, N	Latitude, E
Intake Depth= 6 m Distance from LFP = 682 m Volume = 15 MLD	17°21'12"	82°44'04"

Effluent Outfall Depth= 12 m OD= 330 mm Distance from LFP = 993.4 m Volume = 10 MLD	17°21'04"	82°44'36"
Brine reject outfall OD= 200 mm Distance from LFP = 1155 m Volume = 1040 KLD	17°21'07"	82°44'31"

- (iii) The CRZ clearance earlier was obtained on 4<sup>th</sup> January 2007, for disposal of 190 KLD of treated effluent outfall pipeline in the name of Hetero Labs Ltd.
- (iv) Over the period of 12 years, intake pipeline is in good condition, but two outfall pipelines got damaged due chocking up of the pipelines due to barnacle growth in the pipelines, entanglement of more fishing nets around the diffuser, some of the diffuser ports got disoriented and diffuser ports got completely buried below the seabed etc.
- (v) The CRZ map of 1:4000 has been prepared by Indian Institute of Remote Sensing (IRS), Anna University.
- (vi) The APCZMA committee recommended the proposal to MoEF&CC for laying of a new pipeline in place of old pipeline for disposal of treated effluent (2.366 MLD) through marine discharge. There is no change in the existing intake pipeline as it is in the good condition.
- (vii) The location of the proposed pipeline coordinate are:

Location	Geographical Coordinates (WGS 84)		UTM Coordinates (Zone 44)	
	Latitude, N	Longitude, E	X (m)	Y (m)
Landfall Point (LFP)	17°21'33.3"	82°44'11.5"	684508	1920133
Outfall pipeline (500 mm dia.) Distance from LFP = 2000 m Depth= 14.8 m CD	17°21'01.1"	82°45'10.3"	686254	1919158

- (viii) The total pipeline length is 4522.44 m, out of total 3244.85 m falls in CRZ area and 1277.59 m falls in non CRZ. The detail CRZ Classification as:

CRZ Classification		Length of pipeline (m)
CRZ I B	Area between Low Tide Line (LTL) and High Tide Line (HTL)	129.37
CRZ III A	No Development Zone (HTL to 200 m)	821.37
CRZ III B	Area between 200 to 500 m from HTL	346.12
CRZ IV A	Area between LTL and 12 Nm into the sea	1930.64
CRZ IV B	Tidal influenced water body from mouth of the water body at the sea up to the influence of tide which is measured as 5 ppt during driest part of year	17.35
<b>Total in CRZ</b>		<b>3244.85</b>
<b>Outside CRZ</b>		<b>1277.59</b>
<b>Total</b>		<b>4522.44</b>

- (ix) The details of outfall: Volume of Brine Discharge-10MLD, Volume of treated effluent-2.366 MLD, Salinity of Brine Reject-58 PPT, Ambient Salinity-35 PPT, No. of Ports-4 Nos., Diameter of Ports-each 250 mm, Initial Dilution-92 times in 3.5 minutes.
- (x) The total employment generation by the project about 30 workers during construction and operation phase.
- (xi) The total cost of the project ₹15.0 Crore and the EMP cost is about 25 Lakhs per year for Environmental Monitoring Programme, Environment Management Cell, Labour, Safety and Cleanliness Management etc.
- (xii) The Andhra Pradesh Pollution Control Board has recommended NOC *vide* letter No.219/APPCB/CFE/RO-VSP/HO/2010 dated 14/12/2021.
- (xiii) The Andhra Pradesh Coastal Zone Management Authority has recommended the proposal for CRZ clearance *vide* its Letter No. CRZ 382/CRZ/IND/2022-575 dated 09/11/2022.

## 2. Deliberations in the EAC:

The Committee noted that the Andhra Pradesh Pollution Control Board has recommended NOC for the project and APCZMA recommended the project and intimated that the activity is a permissible under Para 3(i) (a) and Para 3(v) (a) of CRZ Notification 2011. The Committee also suggested that PP shall ensure that the treated effluent discharge into sea / marine outfalls as per the prescribed standards of by CPCB / SPCB. The Committee further also advised to PP forward immediately by e-mail to all EAC Members a comparative fish catch data prior and post of CRZ clearance 2007 by using available secondary sources of data, due to laying of marine disposal pipeline. The same has been submitted by PP *vide* e-mail / letter No. HIS/MoEF/2022-23/02, dated 30/11/2022 and same has been circulated to all EAC members including MoEFCC and same has been accepted by EAC while approving the minutes.

The Committee after detailed deliberations and based on the clarifications / information submitted by PP recommended the proposal for CRZ Clearance, subject to the following conditions:

- (i) All construction shall be strictly in accordance with the provisions of the CRZ Notification, 2011, as amended from time to time.
- (ii) M/s Hetro Infrastructure SEZ Ltd. should strictly ensure disposal of treated effluent discharge into sea or marine outfalls to the prescribed standards of CPCB / SPCB.
- (iii) The existing pipeline is to be removed after commissioning of the new pipeline
- (iv) No brine discharge is permitted currently in the new pipeline. A detailed study to be undertaken on the effluent characteristics due to mixing of brine and treated waste water and its impact and mitigation. PP will apply separately for allowing discharging of brine along with effluent upon completion of such studies.
- (v) Any temporary physical infrastructure setup and excavated material during laying of Pipelines shall not be dumped in water bodies or adjacent areas and the site shall be restored to its original condition after completion of construction of work.
- (vi) Intake and outfall with 3 km radius to be monitored for water quality and marine ecosystem through a nationally reputed institute having expertise in the subject and reported and same should be submitted to IRO.
- (vii) No storage reservoir for sea water shall be permitted and only pipelines conveyance system shall be installed.

- (viii) No groundwater shall be extracted within the CRZ area to meet the water requirements during the construction and/or operation phase of the project.
- (ix) Permanent labour camp, machinery and material storage shall not be set up in the CRZ area.
- (x) All the conditions stipulated by the Andhra Pradesh Coastal Zone Management Authority for CRZ clearance 2019 *vide* its Letter No. CRZ 382/CRZ/IND/2022-575 dated 09/11/2022 and commitments made by the PP before the APCZMA and EAC shall be followed in letter and spirit.
- (xi) All necessary clearance from the concerned authority, as may be applicable should be obtained prior to commencement of project or activity.

### **Item No. 3.6**

**Proposal for Laying heat traced pipe line from South Tanker Berth to Kochi Refinery'- Extending 20" pipe line from NJRP to COT & NTB, along with associated facilities etc. in Tehsil Kunnathunad of District Ernakulam (Kerala) M/s Bharat Petroleum Corporation Ltd - Amendment in CRZ Clearance [IA/KL/CRZ/291876/2022] [FNo.11-31/2015-IA.III]**

***"The EAC noted that the Project Proponent has given undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP report. If any part of the data/information submitted is found to be false / misleading at any stage, the project will be rejected and Environmental and or CRZ Clearance given, if any, will be revoked at the risk and cost of the project proponent.***

1. The project proponent and their consultant made a detailed presentation of salient features of the project and informed that:

- (i) The proposal is for Amendment CRZ clearance to the project for "Laying heat traced pipe line from South Tanker Berth to Kochi Refinery'- Extending 20" pipe line from NJRP to COT & NTB, along with associated facilities etc. in Tehsil Kunnathunad of District Ernakulam, Kerala M/s Bharat Petroleum Corporation Ltd.
- (ii) BPCL – Kochi Refinery laid a 20 inch piggable Heat Traced Pipeline (HTPL) of 10.5 Km length from South Tanker Berth Jetty (Located in Cochin Port Trust area) to Kochi Refinery in the year 2019 for transporting class C intermediate products like Vacuum Gas Oil and Vacuum Residue for refinery.
- (iii) MOEF & CC issued CRZ clearance for the pipeline *vide* letter No.11-31/2015-AI-III dated 12/02/2016. PESO granted permission in February, 2020 for commissioning the piggable pipeline in class C service. Post commissioning, this pipeline remained underutilized due to various reasons.
- (iv) In order to utilize the asset optimally it is proposed to change the service of the pipeline from Class C to Class A & B and extend the pipeline to North Tanker Berth (NTB) and Cochin Oil Terminal (COT) located at Cochin Port Area. PESO approval of Consent to Establish is received for amendment proposal on 27/07/2022.
- (v) There are total three berths in Cochin Port Authority, namely South Tanker berth (STB), North Tanker berth (NTB) and Cochin Oil Terminal (COT).
- (vi) M/s. Bharat Petroleum Corporation Limited (BPCL) proposes for Extension of 20" HTPL pipeline from North Jetty Reclamation Pit (NJRP) to Cochin Oil Terminal (approximately 1.0 Km of HDD section under seabed and 0.4 km on Pipe trestle).

- (vii) Presently, HTPL pipeline is laid from refinery to South Tanker berth (STB) through NJRP. On extending the pipeline to COT, Larger volume parcels can be handled economically.
- (viii) The project Pipeline size is 20", Pipeline Length:1.4 km (approx.) from NJRP to COT, Pipeline Throughput (Highest pumping capacity):1350 m<sup>3</sup>/hr for 20", Operating Pressure (YP-65A Discharge Press):13.5 Kg/cm<sup>2</sup>, Design Pressure:45 kg/cm<sup>2</sup>, Design Temperature:65°C, Material grade of Mainline pipe: API 5L Gr. X60, PSL-2, Material grade of Station Piping: ASTM A106 Gr. B - (For all Station Piping).
- (ix) The project located in Latitude: 9°57'56.50" N to 9°58'3.14"N and Longitude: 76°16'45.23" E to 76°16'50.29"E.
- (x) The CRZ map of 1:4000 has been prepared by Indian Institute of Remote Sensing (IRS), Anna University. The CRZ classification of the study area is as:

S.No.	Description	CRZ- Classification	Length in Meters	Total length in Meter
1.	Proposed 20" Multi-Product underground Pipeline from NJRP to Sand Bank Island	CRZ-II	17.67	1000.00
		CRZ- IV B	982.33	
2.	Proposed 20" Multi-Product above ground Pipeline from Sand Bank Island to Cochin Oil Terminal	CRZ- IA	21.05	380.00
		CRZ- IA (50m Mangrove Buffer Zone)	146.46	
		CRZ- IVB	212.49	

- (xi) The project site located 2.3 km from Manglavanam Bird Sanctuary.
- (xii) The estimated cost of project is approx. ₹65.86 Crores.
- (xiii) The Kerala Coastal Zone Management Authority has recommended the proposal for CRZ clearance *vide* its Letter No. 402/A1/2022/KCZMA dated 03/09/2022.

## 2. Deliberations in the EAC:

The Committee after detailed deliberations and presented before the meeting and suggested PP shall submit a Quantitative Risk Assessment (QRA) study for the entire pipeline corridor including the present HTPL line extension from Refinery to all three loading bays of Cochin Port Trust (CPT). The proposal is accordingly deferred for consideration in the next meeting.

## 4.0. Any other item with the permission of the Chair.

The meeting ended with a Vote of Thanks to the Chair.

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**Annexure****List of the Expert Appraisal Committee (CRZ) Members participated during Meeting held on 2<sup>nd</sup> November 2022.**

<b>S. No.</b>	<b>Name of Members</b>	<b>Designation</b>
1.	Dr. Deepak Arun Apte	Chairman
2.	Prof. Mukesh Khare	Member
3.	Dr. M.V. Ramana Murthy	Member
4.	Shri M.S. Negi	Member
5.	Shri S. Jeyakrishnan	Member
6.	Dr. Manoranjan Hota	Member
7.	Prof. V. K. Jain	Member
8.	Prof. A.K. Pachauri	Member
9.	Shri Sham Wagh	Member
10.	Dr. Niraj Sharma	Member
11.	Shri P.K. Mishra	Member
12.	Shri R.P.S. Verma	Member
13.	Dr. H. Kharkwal	Member Secretary
14.	Dr. Nobi E. P	MoEFCC

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# HETERO INFRASTRUCTURE SEZ LTD.

Ch. Lakshmiapuram (Vill.), N. Narasapuram (Vill.), Rajayyapeta (Vill.), Nakkapally (Mandal)  
 VISAKHAPATNAM (Dist.) - 531 081. A.P., India. Tel : 08931- 227307, Fax : 08931- 227200  
 E-mail : contact@heterodrugs.com. URL : http://www.heterodrugs.com.

## CONSENT FOR UNDERTAKING

The aforesaid project work on 'Laying New Marine Disposal Pipeline in Place of Existing Pipeline By M/s. Hetero Infrastructure SEZ Ltd.' has yet not started and the data and information given in the application (Proposal No. IA/AP/CRZ/407123/2022) and enclosures are true to be best of my knowledge and belief and nothing contravening the provisions of CRZ Notification, 2011 has been concealed, therefore. I am aware that if any part of the data and information is found to be false or misleading at any stage, the project will be rejected, and clearance given if any to the project will be revoked at our risk and cost.

Signed by:

*S. Kullayi Reddy*  
 28/11/2022



**S. Kullayi Reddy**  
 Associate Vice President  
 Hetero Infrastructure SEZ Ltd  
 Nakkapalli  
 Anakapalli Dist