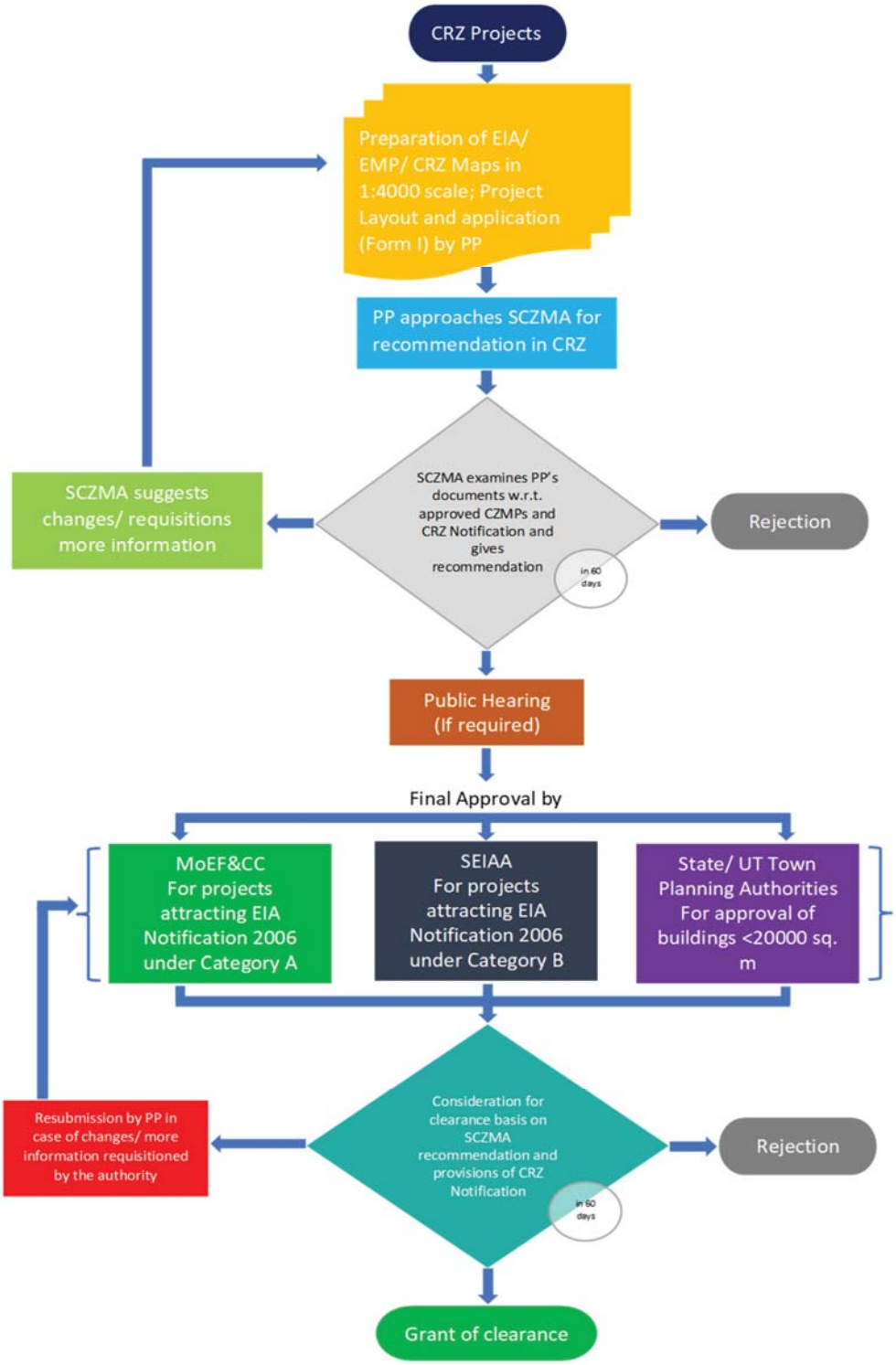
Annexures

Annexure 1: Process flowchart entailing the main steps involved in the CRZ Project approval

(Reference: Introduction, Chapter 3 of the report)



Annexure 2: Employment of non-accredited consultant/ non- accreditation of the consultant in a particular category of the project

(Reference: Para 3.1 (i) of the report)

S. No.	Project	Project approval by MoEF&CC	Consultant for EIA
1.	Laying of Natural Gas pipeline by Mahanagar Gas Ltd, Maharashtra	2018	The consultant JV Analytical Services, Pune not accredited for Pipeline Sector.
2.	Construction of Hotel Building in Mangalore, Dakshina Kannada District by M/s. Motimahal Hotels Pvt. Ltd., Karnataka	2017	The Environment Management Plan and the DMP which formed a part of the EIA was proposed by the PP itself and an accredited consultant was not appointed.
3.	Expansion of port facilities by Redi Port Ltd in Maharashtra	2018	The consultant engaged was not accredited in the areas of Air Pollution, Prevention, Monitoring and Control, Hazardous Waste Management, Ecology and Biodiversity.
4.	Construction of Petroleum Products Storage Terminal at Karwar, Karnataka Port by M/s Tropicana Liquid Storage (P) Ltd. , Karnataka	2015	The Environment Management Plan was prepared by Marine Science Research Institute, Karwar, which was not an accredited consultant organisation.
5.	Establishment of intake and outfall facility for Nuclear Power Plant at Mithivirdi, District Bhavnagar, Gujarat by M/s Nuclear Power Corporation of India Limited, Gujarat	2015	M/s Engineers India Limited, appointed as a consultant for this project was not accredited by NABET for "Nuclear Power and processing of fuel" sector.
6.	Development of the petroleum, chemical and petrochemical investment region (PCPIR) at Dahej, Vagra, District Bharuch by M/s Gujarat Industrial Development Corporation Gujarat	2015	The consultant, NEERI, Nagpur was not accredited under by National Accreditation Board of Education and Training/ Quality Council of India.
7.	Mumbai Trans Harbor Sea Link by M/s Mumbai Metropolitan Region Development Authority, Maharashtra	2016	A consortium of Arup, Consulting Engineers and KPMG had been appointed as consultants for this project. However, the NABET Accreditation certificate annexed in the records pertaining to M/s Consulting Engineers Services Pvt. Ltd and the same was not accredited for sea link construction sector.
8.	Laying of an effluent pipeline by Madhu Silica Pvt. Ltd. (MSPL) in Bhavnagar, Gujarat	2015	Consultant M/s Indomer Coastal Hydraulics (P) Ltd., Chennai was not accredited by National Accreditation Board of Education and Training/ Quality Council of India
9.	Widening and improvement of the existing highway of Bhavnagar-Pipavav- Porbandar-Dwarka Section of NH-8E, Gujarat	2016	The consultant M/s STUP Consultant Pvt. Ltd., Kolkata was not accredited by National Accreditation Board of Education and Training/ Quality Council of India

S. No.	Project	Project approval by MoEF&CC	Consultant for EIA
10.	Additional Salt works (2846.15 acres) located at village Kalatalav & Narmad, Taluka & Dist. Bhavnagar	Accorded clearance by SEIAA in 2017	The consultant National Institute of Oceanography-CSIR was not accredited by National Accreditation Board of Education and Training/ Quality Council of India
11.	Mumbai Coastal Road Project (South) - Princess Flyover to Worli end of Sea Link by M/s Municipal Corporation of Greater Mumbai	2017	Certificate of accreditation provided by consultant did not state the period of validity due to which it could not be ascertained, whether at the time of preparation of EIA report, the consultant was eligible for the same.
12.	High Speed Railway Project across CRZ areas in Mumbai, Mumbai Sub-urban, Thane and Palghar District by M/s National High Speed Rail Corporation Ltd, Maharashtra	2019	The Consultants, M/s GPS Technologies Pvt. Ltd was not accredited by National Accreditation Board of Education and Training/ Quality Council of India
13.	2X800 MW Uppur Supercritical Thermal Power Plant at District Ramanathapuram by TANGEDCO, Tamil Nadu	2017	The consultant was not accredited by National Accreditation Board of Education and Training/ Quality Council of India.
14.	Laying of treated effluent disposal pipeline from their Plant to final disposal point in the Gulf of Kutch at Mithapur by Tata Chemicals Limited, Gujarat	2017	The consultant National Institute of Oceanography-CSIR was not accredited by National Accreditation Board of Education and Training/ Quality Council of India
15.	Setting up of Bulk Drug Manufacturing Unit in East Godavari District by M/s Divi's Laboratories Limited, Andhra Pradesh	2019	The Consultant M/s Indomer Coastal Hydraulics Pvt. Ltd. was not accredited by National Accreditation Board of Education and Training/ Quality Council of India.
16.	International Leather Complex at Kothapatnam village, Nellore District by M/s Adani Port and SEZ Ltd., Andhra Pradesh	2015	The Consultant Environment Protection Training and Research Institute (EPTRI) was not accredited by National Accreditation Board of Education and Training/ Quality Council of India.
17.	Deepening of approach channel for capesize vessels at Mormugao Port by M/s Mormugao Port Trust, Goa	2016	The Consultant M/s WAPCOS Limited, Gurgaon was not accredited by National Accreditation Board of Education and Training/ Quality Council of India.
18.	Rerouting of Mumbai Manmad pipeline by M/s Bharat Petroleum Corporation Limited, Maharashtra	2015	The Consultant M/s Eco Chem Sales and Services, was not accredited by National Accreditation Board of Education and Training/ Quality Council of India.
19.	Proposal for 5 MLD Hybrid Desalination Project at IREL Complex, Chatrapur, Ganjam District by M/s Indian Rare Earths Limited, Odisha	2018	It was observed that the accreditation certificate pertaining to Mecon, Ranchi, was placed on the records instead of accreditation certificate of Mecon Ltd., Bangalore which was actually involved.

S. No.	Project	Project approval by MoEF&CC	Consultant for EIA
20.	Integrated Cooum River Eco-Restoration Project by M/s Chennai Rivers Restoration Trust, Tamil Nadu	2017	The Consultant M/s SV Enviro labs and consultants, was not accredited by National Accreditation Board of Education and Training/ Quality Council of India.
21.	Converting open parking into covered parking in beach resort at Chengalpattu Taluk, District Kancheepuram by M/s Adayar Gate Hotels, Tamil Nadu	2015	The Environmental Management Plan submitted by the PP did not mention the name of the accredited consultant organisation which prepared it.

Annexure 3: Employment of old baseline data

(Reference: Para 3.1 (ii) of the report)

S.No.	State	Name of the Project	Date of Project clearance	Years by which the data was outdated
1.	Andhra Pradesh	Development of offshore LNG FSRU Facility at Kakinada Deep Port Water by Andhra Pradesh Gas Distribution Corporation Limited (APGDC)	09.02.2016	3 to 4 years
2.	Andhra Pradesh	International Leather Complex at Kothapatnam village, Nellore District by M/s Adani Port and SEZ Ltd.	19.12.2015	4 years
3.	Gujarat	Establishment of intake and outfall facility for Nuclear Power Plant at Mithivirdi, District Bhavnagar, Gujarat by M/s Nuclear Power Corporation of India Limited	03.05.2015	3 years
4.	Gujarat	Laying of treated effluent disposal pipeline from their Plant to final disposal point in the Gulf of Kutch at Mithapur by M/s Tata Chemicals Limited	10.07.2016	6 years
5.	Gujarat	Common treated effluent disposal pipeline project along river Kolak upto deep sea via Kolak Estuary by M/s Wel Treat Enviro Management Organization	05.09.2016	6 years
6.	Gujarat	Development of the Petroleum, Chemical and Petrochemical Investment Region (PCPIR) at Dahej, Vagra, District Bharuch by M/s Gujarat Industrial Development Corporation		
7.	Karnataka	Construction of Petroleum Products Storage Terminal at Karwar, Karnataka Port by M/s Tropicana Liquid Storage (P) Ltd.	17.06.2015	7 years
8.	Maharashtra	Mumbai Trans Harbor Sea Link by M/s Mumbai Metropolitan Region Development Authority		
9.	Maharashtra	Mumbai Coastal Road Project (South) - Princess Flyover to Worli end of Sea Link by M/s Municipal Corporation of Greater Mumbai		
10.	Maharashtra	Malad sewage treatment plant	28.08.2017	8 years
11.	Odisha	Multi- product SEZ/ Industrial Park at Gopalpur, Ganjam, Odisha by M/s Tata Steel SEZ Ltd.	20.09.2018	2 years
12.	Tamil Nadu	2X800 MW Uppur Supercritical Thermal Power Plant at District Ramanathapuram by M/s Tamil Nadu Generation & Distribution Corporation Ltd. (TANGEDCO)		

Annexure 4: EIA failed to assess the possible impacts of the projects on marine flora and fauna, ecologically vulnerable areas

(Reference: Para 3.1 (iii) of the report)

S. No.	State	Name of the Project	Risk to marine flora and fauna, ecologically vulnerable areas	Mitigation measures not envisaged in the EIA
1.	Andhra Pradesh	Marine disposal of treated effluent by M/s Covalent Laboratories Pvt. Ltd	As per the information available in the EIA, the pipeline passed through CRZ-III area, the 'NDZ' and the inter-tidal zone with patches of sand dunes with coastal vegetation of height less than 3 meter all along the shoreline.	EIA did not include any impact on the sand dunes and no mitigation measures was envisaged.
2.	Andhra Pradesh	Development of offshore LNG FSRU Facility at Kakinada Deep Port Water by Andhra Pradesh Gas Distribution Corporation Limited (APGDC)	The only mitigation measures that were included in the EIA of this project was that piling operations should use a soft start so as to allow marine fauna to leave the area before high noise levels are generated.	EIA report did not deliberate upon the impact of the project on any of the marine life forms except fishes in the study area which clearly indicated that the mitigation of the environmental impacts of the project on marine ecosystems were not considered.
3.	Goa	Deepening of approach channel for capesize vessels at Mormugao Port by M/s Mormugao Port Trust	1. The EIA report stated there was significant pressure due to tourism on the Humpback dolphin and the coral reefs surrounding Grande Island and that dredgers and associated vessel movement may harm the dolphins, due to collision, propeller action etc. Studies have shown that the risk of a collision occurring and the likelihood that it will result in severe or lethal injury increases when vessels exceed 10–14 knots and as the vessels to be considered in the approach channel were to move at a speed of 11 knots, it was likely to cause injury.	The Impact studies for the same were not carried out in the EIA as a result of which no mitigation measures were stipulated.
			2. As per the EIA report, Chikalim- Sancole bay known for its intertidal marine biodiversity was just 4 kms away from the dredging area and was known to harbour more than 200 faunal and 34 phytoplankton species in addition to mangroves and windowpane oyster (Placuna placenta) (schedule-4 species). The EIA report also mentioned that dredging influence was normally restricted to a maximum of 4 km of the activity.	The impact of dredging was not carried out for such an eco-sensitive zone within the study area and no mitigation measures were stipulated.

S. No.	State	Name of the Project	Risk to marine flora and fauna, ecologically vulnerable areas	Mitigation measures not envisaged in the EIA
			3.The EIA Report exhibited that the intertidal area of Zuari estuary which included Chicalim- Sancole Bay, Grande Island, Caboraj- Siridao rocky patch within the study area showed species diversity comprising of 186 aquatic species (150 finfish comprising of pelagic and demersal fishes and 36 shell fish comprising of crustaceans and molluscs). The Grande Island was rich in Coral, sponge, fish and the intertidal habitats between Caboraj- Dona Paula- Siridao had high seaweed abundance and diversity.	Although, the report listed the impacts such as land reclamation, mining, industrialization and dredging posing considerable threat to the marine flora and fauna. The mitigation measures to be taken for their conservation and management were not elaborated in the EIA
4.	Gujarat	Expansion of Adani Petronet (Dahej) Port, Bharuch District by M/s Adani Petronet (Dahej) Port Pvt Ltd	The EIA Report envisaged generation of wastewater during concrete casting, cleaning of construction equipment, vehicle garage workshop, oil spills from the operation of construction equipment and Diesel Generating set and the same was stated to affect the marine water quality near the shoreline.	Despite the identification of the impacts, no mitigation measures were enunciated in the EIA report.
			The population of the intertidal macro benthos indicated relatively high standing stock of macro benthos with moderate group diversity. The EIA further stated that the reclamation would impact nearly 23 ha. of benthic habitat and no recovery of benthic organisms was possible as the habitat would be permanently lost due to reclamation.	No mitigation measures were envisaged for the protection of benthic organisms in the project area.
5.	Gujarat	Establishment of intake and outfall facility for Nuclear Power Plant at Mithivirdi, District Bhavnagar, Gujarat by M/s Nuclear Power Corporation of India Limited	1. The EIA report indicated that the project area was moderately productive in terms of phytoplanktons and zooplanktons. Mangrove vegetation comprising of Rhizophora and Avicennia species was found in good number on the river banks near Alang shipyard and coastal vegetation comprising of Cassia species, Prosopis, Azadirachta species. The project area near the Alang shipyard had vast expanse of Tidal flats/ mudflats.	Both the EIA Report and the CRZ clearance were silent on the impacts of the project on such varied flora and fauna in and around the project area. As the impacts were not identified, no mitigation measures were stipulated.
			2. The EIA report stated that the temperature of Condenser cooling water (CCW) would be 7° C above the ambient temperature of the sea water and it would probably be the only major impact on the marine ecosystem. From the scientific data available in the public domain, it	The effect of increased temperature was studied for fishes only, even when the fish landing was reported to be the lowest in the region. The same was not studied for

S. No.	State	Name of the Project	Risk to marine flora and fauna, ecologically vulnerable areas	Mitigation measures not envisaged in the EIA
			could be understood that increased temperature reduces the solubility of oxygen in water, thereby increasing the Biological Oxygen Demand (BOD).	phytoplanktons and zooplanktons which showed moderate productivity.
			4. According to the marine EIA, Alang- Sosiya Ship Breaking Yard (ASSBY) was located at 5 kms south of the project area and according to the information available in the public domain, there was heavy metal contamination in the intertidal zone of the shipbreaking yard. Also, a proposed Kalpsar project dam across Gulf of Khambat was at a distance of 18 kms north of the Chhaya (Mithi Virdi) site. The site selection report (June 2007) of Department of Atomic Energy (DAE), had recommended that a detailed study should be conducted to examine the effect of Kalpasar dam in the upstream of Nuclear Power Plant site on the flooding of the proposed site due to breaking of dam in the event of an earthquake of very high magnitude as the Kalpasar dam was located over deep silted fault.	The impact of the Alang shipbreaking yard and Kalpasar Dam on the project was not taken into account. As no impacts were identified, no mitigation measures were envisaged.
6.	Maharashtra	Mumbai Coastal Road Project (South) - Princess Flyover to Worli end of Sea Link by M/s Municipal Corporation of Greater Mumbai	1. The EIA stipulated that the mangroves in the project area would be impacted leading disappearance of reproduction and food zone for species of fish, aquatic and migratory birds, Irreversible salinisation and acidification and Coastline erosion.	Against such consequences, the mitigation measures suggested are merely perfunctory such as dust suppression measures, sprinkling of water, monitoring of noise etc. and did not directly address the impacts identified.
			2. The EIA report identified impacts, such as: Formation of sediment plumes that would affect fish and benthos, increased turbidity affecting the growth of the plants, increase in PH of the water causing algal bloom, increase in temperature with reduced dissolved oxygen, Immediate and long term degradation of sensitive and essential breeding and nursery habitats for marine organisms leading to long term reduction in commercially important fish.	It was observed that the mitigation measures suggested like the use of best practicable technology, appropriate handling of liquid and solid wastes and adequate noise control measures did not directly address the identified impact.

S. No.	State	Name of the Project	Risk to marine flora and fauna, ecologically vulnerable areas	Mitigation measures not envisaged in the EIA
7.	Maharashtra	Malad sewage treatment plant by M/s Municipal Corporation of Greater Mumbai	1. The EIA Report catered to development of existing facilities to improve the environmental conditions in and around the Mumbai city instead of focusing on Malad STP alone. As such it failed to incorporate the terrestrial and aquatic ecology comprising of the Benthos, Phytoplantktons, zooplanktons in and around the project area.	As no details of terrestrial and aquatic fauna were included in the EIA, no impacts on them were identified and no mitigation measures were envisaged.
8.	Maharashtra	Laying of Natural Gas from Uran (District Raigad) to Navi Mumbai Municipal Corporation pipeline by M/s Mahanagar Gas Ltd.	The pipeline was passing through villages of Uran, Bokadvira, Dronagiri, Funde, Sonari, Jasai, Ulwe and Killegaothan, all of which were famous for their mangroves. The presentation given by the PP during the EAC meeting also showed an image of the pipeline passing through a dense patch of mangroves.	Instead of devising mitigation plan for protection and conservation of the mangroves, the EIA Report denied the presence of mangroves itself along the route of the pipeline.
9.	Maharashtra	Expansion of facilities at port Redi, Sindhudurg, by M/s Redi Port Ltd	The EIA report only identified Turbidity of water as an impact during reclamation of the area with dredged material.	EIA did not deliberate upon the impacts of land reclamation and dredging in terms of loss of marine habitats; effect on marine benthos; No mitigation measures were proposed for even identified threats to environment.
10.	Maharashtra	All weather Greenfield Jetty' at Nandgaon of Taluka Palghar, District Thane, Maharashtra by JSW Infrastructure Ltd.	As per the EIA Report the entire facility was to be created on reclaimed land. We noted that only conceptual layout of the jetty at Nandgaon was available in the EIA Report. However, this conceptual layout was not further deliberated upon anywhere in the EIA report.	As no impacts of land reclamation were identified, no mitigation measures were envisaged.
11.	Maharashtra	Mumbai Trans Harbour Sea Link by M/s Mumbai Metropolitan Region Development Authority	The MCZMA in its recommendation stated that the PP was to consult an expert agency, undertake training programmes for construction personnel regularly to minimize the damage to mudflats before commencement to construction work. Also, the proponent was to take expert opinion from Bombay Natural History Society (BNHS) regarding safeguards to be placed so as to mitigate the disturbances to flamingo habitat. etc.	Niether any studies for evaluation of impacts on mudflats and flamingos was carried out by the proponent nor any expert agency was consulted. As no impacts were identified, no mitigation measures were envisaged.

S. No.	State	Name of the Project	Risk to marine flora and fauna, ecologically vulnerable areas	Mitigation measures not envisaged in the EIA
12.	Odisha	Multi- product SEZ/ Industrial Park at Gopalpur, Ganjam, Odisha by M/s Tata Steel SEZ Ltd.	The project area showed rich diversity in terms of phytoplanktons, zooplanktons and moderate diversity of Benthic fauna (polychaete worms, crustaceans, gastropods etc.). and the project envisaged laying of pipeline.	The impact of trenching on the benthic fauna and the mitigation measures to ward off such impact were not studied.
13.	Tamil Nadu	Intake and outfall facility of Marine Algae in District Ramanathapuram by M/s EID Parry (India) Ltd	The EIA report mentioned ecologically important specialized ecosystems like sand dunes, seagrasses or mangroves in the project area.	As no impacts were identified, no mitigation measures were envisaged.
14.	West Bengal	Setting up of Mini Bulk Carriers Handling Facility on the upstream of 3rd oil Jetty and west bank of river Hooghly at Haldia Dock Complex, Kolkata Port (West Bengal) by M/s Kolkata Port Trust	The EIA Report showed the area had a rich density of phytoplanktons, zooplanktons and benthos. The dominant flora of the Haldia industrial zone comprised of various species of trees, shrubs, herbs and climbers, fern species. The study area comprised of Nayachar island at the mouth of the Hooghly River which had mangroves.	The impacts on phytoplanktons, zooplanktons, benthos, flora including mangroves were not identified in the EIA Report. As the impacts were not identified, no mitigation measures were stipulated.

Annexure 5: EIA was either devoid of DMP, its specific details or the onus of framing the suitable DMP was left to the project proponent

(Reference: Para 3.1 (iv) of the report)

Cases where onus of framing specific details of DMP were left to PP				
S.No	**State**	**Name of the Project**	**Criteria**	**Observations**
1.	Goa	Deepening of approach channel for capesize vessels at Mormugao Port by M/s Mormugao Port Trust	Emergencies like accidents involving vessels, Oil spill from vessels, Fire/explosion on board vessels within the Port limits and berths, Breakdown of ship engine in the sea, and earthquake were mentioned in the EIA Report and the project site fell under the Zone -III of Seismic Map of India- a moderate intensity zone.	We observed that no mitigation measures for the delineated emergencies were found incorporated in the DMP .
2.	Karnataka	Development of four berths in Western Dock arm in New Mangalore port by M/s New Mangalore Port Trust	Highlighted in the Report.	
3.	Maharashtra	High Speed Railway Project across CRZ areas in Mumbai, Mumbai Sub-urban, Thane and Palghar District (PH) by M/s National High Speed Rail Corporation Ltd	The EIA Report stated that the project site was classified under the Zone -III, a moderate intensity earthquake zone and that the western coast was subject to occasional severe cyclonic storms.	DMP did not envisage mitigation measures to be taken by the PP during such disaster and whether earthquake resistant structures were used for construction and operation phase.
4.	Maharashtra	Construction of Hotel Building (Resort 3) in Mauje Karde, Ratnagiri District, Maharashtra by M/s Dajikaka Gadgil Developers Pvt. Ltd.	The project site was classified under the Zone -IV of the Bureau of Indian Standards (BIS) 2000, Seismic Map of India, a zone having major damage risk.	The DMP delineating the types of disasters and the mitigation measures to be taken by the PP during such disaster was not found on the records.
5.	Maharashtra	Mumbai Trans Harbor Sea Link by M/s Mumbai Metropolitan Region Development Authority	As per the Rapid EIA Report 2012, the project site was classified under the Zone -III of the Bureau of Indian Standards (BIS) 2000, Seismic Map of India, a moderate intensity zone and that the western coast was subject to occasional severe cyclonic storms.	DMP did not detail mitigation measures to be taken by the PP during such disaster and also if earthquake resistant structures were to be used for construction of this sea link.
6.	Maharashtra	Construction of Hotel Building (Resort 2) in	As per the EIA report, the project site was classified under the Zone	It was observed that a DMP delineating the types

		Mauje Karde, Ratnagiri District, Maharashtra by M/s Dajikaka Gadgil Developers Pvt. Ltd.	-IV of the Bureau of Indian Standards (BIS) 2000, Seismic Map of India, a zone having major damage corresponding to intensity VII on the MM (Modified Mercalli Intensity) scale.	of disasters and the mitigation measures to be taken by the PP during such disaster was not prepared by PP.
7.	West Bengal	Setting up of Mini Bulk Carriers Handling Facility on the upstream of 3rd oil Jetty and west bank of river Hooghly at Haldia Dock Complex, Kolkata Port by M/s Kolkata Port Trust	Highlighted in the report.	

Projects where the EIA Reports did not contain any DMP		
S. No.	**State**	**Name of the Project**
1.	Gujarat	Development of Greenfield Beach Resort at Mandvi, District Kutch by M/s Tourism Corporation of Gujarat Ltd.
2.	Gujarat	Common treated effluent disposal pipeline project along river Kolak upto deep sea via Kolak Estuary by M/s Wel Treat Enviro Management Organization
3.	Gujarat	Laying of treated effluent disposal pipeline and diffuse system for disposal of treated wastewater at Marine outfall point in Gulf of Kutch at Mithapur by M/s Tata Chemicals Limited
4.	Gujarat	Construction of marine bridge between Beyt and Okha, Dwaraka by Road & Building Department
5.	Gujarat	Additional Salt works (2846.15 acres) located at village Kalatalav & Narmad, Ta. & Dist. Bhavnagar by Nirma Limited
6.	Karnataka	Construction of Petroleum Products Storage Terminal at Karwar, Karnataka Port by M/s Tropicana Liquid Storage (P) Ltd.
7.	Maharashtra	Rerouting of Mumbai Manmad pipeline by BPCL The risk assessment study of the proposed installations which were to be used to formulate the DMP was put as a specific condition in the clearance letter issued to the PP
8.	Tamil Nadu	Intake and outfall facility of Marine Algae in District Ramanathapuram by M/s EID Parry (India) Ltd
9.	Tamil Nadu	Highlighted in the report

Annexure 6: Clearances granted by MoEF&CC where crucial prerequisites were left to the PP to prepare and adhere to after grant of clearance

(Reference: Para 3.2 (i) of the report)

S. No.	State	Name of the Project	Important prerequisites not ensured before the grant of clearance	Remarks
1.	Gujarat	Development of the petroleum, chemical and petrochemical investment region (PCPIR) at Dahej, Vagra, District Bharuch by M/s Gujarat Industrial Development Corporation	A specific condition in the clearance letter, stipulated that a firm and time bound action plan for conservation of mangroves and mudflats in CRZ area was to be prepared through a reputed institute and adequate funds were to be earmarked for its implementation. The plan was required to be monitored by a committee comprising representatives of PPs , Gujarat State Forest Department and the Gujarat Maritime Board.	It was observed that action plan for conservation of mangroves and mudflats in CRZ area was not made as a pre-requisite before granting clearance to the project. The Ministry left the matter of protection of mangroves and mudflats in the area to PP's convenience.
			Another specific condition of clearance letter required preparation of scientific studies for Coastal Management Plan by a reputed expert institution. The results were to be implemented by all the stakeholders keeping in view the river ecology and dependency for sustenance on fisheries in coastal areas. Alternate water resources were also to be explored to meet the huge water demand for the project, in addition to exploring the best recycling practices.	The condition should have been made a pre requisite by the ministry before the grant of clearance as it is unlikely for any PP to carry out scientific studies and explore alternative methods or resources after receiving a clearance letter from the ministry for its project.
2.	Gujarat	Laying of treated effluent disposal pipeline from their Plant to final disposal point in the Gulf of Kutch at Mithapur by M/s Tata Chemicals Limited	A specific condition of clearance letter required the PP to develop the Baseline for Marine and coastal biodiversity of Poshitra Bay and monitor the same bi-annually with specific focus on sea grass beds, and endemic species *Sakuraeolis gujaratica* and *Anteaeolidiella poshitra* (molluscs species).	As a baseline could not be recorded retrospectively after initiating a project, inserting such a condition in the clearance letter was meaningless. The same should have been made as a pre-requisite of the project clearance.
3.	Gujarat	Construction of Residential project 'Sun City' at Barbodhan village, Surat by Pramukh Organizers LLP	Some part of construction area proposed by PP was falling within CRZ-III. Instead of insisting for revised project lay out map from the PP, GCZMA sought only undertaking from the PP that it will not carry out any construction activity in the CRZ-III	Gujarat SCZMA in its recommendation letter to SEIAA had put a condition that PP should not carry out any construction in NDZ. SEIAA did not insist upon the revised project lay out

S. No.	State	Name of the Project	Important prerequisites not ensured before the grant of clearance	Remarks
				map before granting clearance to ensure adherence to this condition.
4.	Gujarat	Development of Greenfield Beach Resort at Mandvi, District Kutch by M/s Tourism Corporation of Gujarat Ltd.	Some part of construction area proposed by TCGL was falling within NDZ (NDZ) i.e., 200 m landward side from HTL.	Gujarat SCZMA in its recommendation letter to MoEF&CC had put a condition that PP should not carry out any construction in NDZ. EAC did not insist upon the revised project lay out map from the PP to ensure adherence to this condition.
5.	Karnataka	Construction of Hotel Building in Mangalore, Dakshina Kannada District by M/s. Motimahal Hotels Pvt. Ltd.	The proposed project site fell in the CRZ-II area and the proposed construction activity was at a distance of 34 metres from the HTL of Gurupur River. The clearance letter stipulated that the parking site should be shifted beyond the 'NDZ' of 200 metres from the HTL.	It was observed that the EAC left it on the PP to shift the parking site beyond NDZ and did not require a revised conceptual plan before recommending the project for clearance.
			The clearance letter required that a robust rainwater harvesting system should be installed in consultation with the concerned authority.	The submission of the rain water harvesting plan was not made as a pre-requisite before grant of clearance.
6.	Maharashtra	High Speed Railway Project across CRZ areas in Mumbai, Mumbai Sub-urban, Thane and Palghar District (PH) by M/s National High Speed Rail Corporation Ltd	While recommending the project the EAC required that comprehensive mangrove plantation and management plan was to be prepared by The Mangrove Cell, Thane, Forest Department, Government of Maharashtra.	Preparation of comprehensive mangrove plantation and management plan was not made a pre-requisite condition but was instead put as a specific condition in the clearance letter.
			While recommending the project the EAC required that a robust Conservation and Management Plan for Thane Creek Flamingo Sanctuary with detailed action plan for immediate implementation in consultation with the concerned agency in the State be developed in consultation with the concerned agency in the State.	Fulfilment of this requirement was not insisted before granting clearance to the project.

S. No.	State	Name of the Project	Important prerequisites not ensured before the grant of clearance	Remarks
			A feasibility study on muck transportation for possibility of alternative mode of early transportation of muck was to be submitted to the MoEF&CCC within six months of CRZ clearance for further examination and possible inclusion as part of the project programme.	Feasibility study of this nature should have preferably been a part of the prerequisites of the project clearance. In the instant case, no such studies were later submitted by PP.
			The Expert Appraisal Committee highlighted the need for a separate clearance from the Dahanu Taluka Environment Protection Authority as Dahanu taluka had special protection since 1991 (MoEF&CC — at the behest of the Supreme Court — had passed a notification declaring the area as ecologically fragile one and had restricted hazardous industries in the area, among other things).	We observed that separate clearance from the Dahanu Taluka Environment Protection Authority before granting clearance was not made as a pre-requisite before grant of clearance.
7.	Maharashtra	Malad sewage treatment plant by M/s Municipal Corporation of Greater Mumbai	The mangrove replantation was made a specific condition of the CRZ clearance letter. As per Clearance letter, five times the mangrove cover area was to be replenished under this project i.e., 180 ha (36 ha X 5). The PP however approached the Ministry stating that it would not be possible for it to obtain 180 ha of land for replantation and requested for amending the specific condition and replacing the condition of replantation of five times the area with 5 times the mangroves affected. The same was granted approval by modifying the clearance letter in December 2018	We noted that the Ministry amended the CRZ Notification 2011 for allowing this particular project in CRZ-I area. The Ministry further allowed modification of the specific condition of the clearance letter. Both these exceptions were against the spirit of protection of marine environment, which is the actual mandate of the Ministry.
			The PP in the 196th EAC meeting informed that it had already acquired 24 ha of Government land suitable for mangrove replantation in the adjoining Thane district and the same had been handed over to the additional Principal Chief Conservator of Forests (Mumbai Mangrove Cell) for further process. The balance 11 ha. land was being acquired. However, no evidence relating to this acquisition of the land was found on the records.	Land acquisition is a time taking process but MoEF&CC did not make land acquisition for mangrove replantation a pre-requisite for grant of clearance. The mangroves affected in this case were the best stock in Mumbai region. Also, compliance to conditions of the project clearance was not assured.

S. No.	State	Name of the Project	Important prerequisites not ensured before the grant of clearance	Remarks
8.	Maharashtra	Mumbai Coastal Road Project (South) - Princess Flyover to Worli end of Sea Link by M/s Municipal Corporation of Greater Mumbai	As per CRZ clearance, proponent was to develop a marine biodiversity conservation plan from an institute with domain expertise and to submit the same to MoEF&CC within one year.	Grant of clearance in absence of marine biodiversity conservation plan defeated the purpose of the granting clearance itself.
9.	Maharashtra	Construction of Hotel Building (Resort 3) in Mauje Karde, Ratnagiri District, Maharashtra by M/s Dajikaka Gadgil Developers Pvt. Ltd.	The cadastral map (1:4000 scale) of the proposed site showed that a portion of the Resort 3 was in the 'NDZ (NDZ)' which according to the site plan was to be used for building service roads and parking place. But the clearance letter categorically stated that no construction (including cemented/concretized parking space) should be made in the NDZ area.	The EAC did not ask the PP to submit a revised site plan showing construction for parking space/service roads, beyond the NDZ area before recommending the project and the clearance letter was issued for the project by MoEF&CC without ensuring the same.
			The clearance letter condition required that a robust rainwater harvesting system should be installed in consultation with the concerned authority.	The plan was not made as a pre-requisite before recommending the project
10.	Maharashtra	Construction of Hotel Building in *Mauje Chandranagar*, Ratnagiri District, Maharashtra by M/s Dajikaka Gadgil Developers Pvt. Ltd. and Construction of Hotel Building in *Mauje Karde*, Ratnagiri District, Maharashtra by M/s Dajikaka Gadgil Developers Pvt. Ltd.	The clearance letter enunciated that a robust rainwater harvesting system should be installed in consultation with the concerned authority.	The rain water harvesting plan was not made as a pre-requisite before grant of clearance.
11.	Odisha	Multi- product SEZ/ Industrial Park at Gopalpur, Ganjam, Odisha by M/s Tata Steel SEZ Ltd.	Odisha CZMP as per CRZ Notification 2011 was approved by MoEF&CC in August 2018 and the clearance to this project was granted in September 2018. A specific condition was inserted in the EC/CRZ clearance letter of this project that the PP should ensure that the project is in consonance with the new Coastal Zone	EAC left the onus of complying with the new CZMPs on the PP itself, whereas it the responsibility of the EAC to deliberate upon and ensure such compliance. The Ministry in this case should have granted clearance only

S. No.	State	Name of the Project	Important prerequisites not ensured before the grant of clearance	Remarks
			Management Plan. We however observed that the appraisal of the project was done as per CRZ Notification 1991 zonation.	after PP got a fresh demarcation done based on the new CZMPs.
12.	Tamil Nadu	Modification of existing iron ore terminal to handle common user coal at Kamarajar port by M/s Kamarajar Port Ltd.	A specific condition in the clearance letter stipulated that the PP would have to draw up and implement a management plan for the prevention of fires due to handling of coal.	By clearing the project without a fire prevention plan due to coal handling, ministry disregarded an important disaster management and mitigation aspect.
			The PP was to inventorise the floral composition of the biota of marine and intertidal biotopes and draw up a detailed marine bio diversity conservation management plan based on possible impacts.	Such an inventory was to serve as a basis of any environment management plan and the fact that this work was not finished before the grant of clearance raises doubts over the impact assessment done by the PP.
13.	Tamil Nadu	Alignment of conveying main to Buckingham Canal for the discharge of treated sewage from the proposed 36 MLD Sewage Treatment Plant (STP) by M/s Chennai Metro Water Supply and Sewerage Board Sholinganallur	A specific condition in the clearance letter stipulated that the marine environment of the Buckingham Canal during construction and operational phase was to be watched through a robust marine environment management plan.	Marine environment management plan was ideally required to be prepared by the PP and approved by the Ministry before the project was granted clearance.

Annexure 7: Non- provision of separate budget towards EMP

(Reference: Para 3.2 (ii) of the report)

S. No.	Name of the Project	Remarks
1.	Laying of treated effluent disposal pipeline from their Plant to final disposal point in the Gulf of Kutch at Mithapur by M/s Tata Chemicals Limited, Gujarat (2017)	No separate budget was earmarked for carrying out environment management activities.
2.	Discharge of treated effluent in Bhavnagar creek by M/s Madhu Silica Pvt. Ltd., Gujarat (2015)	PP did not earmark any fund for implementing the EMP.
3.	Development of four berths in Western Dock arm in New Mangalore port by M/s New Mangalore Port Trust, Karnataka (2016)	Although, an EMP costing Rs. 30 lakh was earmarked for the project, the detailed budget (capital and recurring cost) was not mentioned in the EIA.
4.	Laying of Natural Gas from Uran (District Raigad) to Navi Mumbai Municipal Corporation pipeline by M/s Mahanagar Gas Ltd., Maharashtra (2018)	PP did not make any provisions for detailed EMP budget.
5.	Mumbai Trans Harbor Sea Link by M/s Mumbai Metropolitan Region Development Authority, Maharashtra (2016)	Although, an EMP costing Rs. 335 crore was earmarked for the project, the detailed budget (capital and recurring cost) was not mentioned in the EIA.
6.	Rerouting of Mumbai Manmad pipeline by BPCL, Maharashtra (2015)	PP did not make any provisions for detailed EMP budget
7.	Multi- product SEZ/ Industrial Park at Gopalpur, Ganjam, Odisha by M/s Tata Steel SEZ Ltd., Odisha (2018)	Although, an EMP costing Rs. 45.28 crore was earmarked for the project; the detailed budget (capital and recurring cost) was not mentioned in the EIA.
8.	Relaying of Pipeline & Redevelopment of Edible Oil Transit Terminal at Chennai by M/s Ruchi Infrastructure Limited, Tamil Nadu (2018)	Although, an EMP costing Rs. 1.5 lakh was earmarked for the project; the detailed budget (capital and recurring cost) was not mentioned in the EIA.
9.	Integrated Cooum River Eco-Restoration Project by M/s Chennai Rivers Restoration Trust, Tamil Nadu (2017)	PP did not make any provisions for detailed EMP budget.

Annexure 8: Cases where cumulative studies were not conducted to assess the overall impact

(Reference: Para 3.3 of the report)

S. No.	State	Name of the Project	Remarks
1.	Andhra Pradesh	Marine disposal of treated effluent by M/s Covalent Laboratories Pvt. Ltd	A pharma industry was 1.9 km away from the outfall. Cumulative studies to check the effect of the effluents discharged from both the pipelines were not done.
2.	Andhra Pradesh	Marine disposal of treated effluent by M/s Hyacinth Pharma Pvt. Ltd	EAC desired a cumulative impact study to assess risk posed by many outfall points in the region. However, the PP did not assess the same.
3.	Andhra Pradesh	Setting up of Bulk Drug Manufacturing Unit in East Godavari District by M/s Divi's Laboratories Limited	Nothing on record indicated that a similar exercise to identify other marine outfalls in vicinity and need for a cumulative assessment was done.
4.	Andhra Pradesh	International Leather Complex at Kothapatnam village, Nellore District by M/s Adani Port and SEZ Ltd.	ToRs for the project required a cumulative impact study of marine disposal, considering other marine outfalls in vicinity. However, no such studies were submitted by PP to APCZMA
5.	Goa	Deepening of approach channel for capesize vessels at Mormugao Port by M/s Mormugao Port Trust (MPT)	Proposed project was within the active "Port Basin/Navigational Channel" area of the MPT Complex. There were large scale activities already on-going in this region with many industries and many Barge Yards and Ship Building units along the bank of Zuari River. EIA report too mentioned that the impacts on marine ecosystems will be of cumulative nature. But PP did not study them.
6.	Gujarat	Discharge of treated effluent in Bhavnagar creek by M/s Madhu Silica Pvt. Ltd.	Cumulative studies for assessing impacts on the Creek due to disposal by PP in addition to existing 20 MLD disposal of Chitra GDC was not carried out.
7.	Maharashtra	High Speed Railway Project across CRZ areas in Mumbai, Mumbai Sub-urban, Thane and Palghar District (PH) by M/s National High Speed Rail Corporation Ltd	Cumulative studies for studying the adverse effects of other infrastructure development projects such as Thane Creek Bridge III on the biodiversity of Thane Creek was not done.
8.	Maharashtra	Construction of Hotel Building (Resort 3) in Mauje Karde, Ratnagiri District, Maharashtra by M/s Dajikaka Gadgil Developers Pvt. Ltd.	The cumulative effects due to proximity to two similar hotel construction sites (Resort 1 and 2) were not assessed.
9.	Maharashtra	Construction of Hotel Building (Resort 2) in Mauje Karde, Ratnagiri District, Maharashtra by M/s Dajikaka Gadgil Developers Pvt. Ltd.	The cumulative effects due to proximity to two similar hotel construction sites (Resort 1 and 3) were not assessed.
10.	Maharashtra	Construction of Hotel Building (Resort 1) in Chandranagar, Ratnagiri District, Maharashtra	The cumulative effects due to proximity to two similar hotel construction sites (Resort 2 and 3) were not assessed.

S. No.	State	Name of the Project	Remarks
		by M/s Dajikaka Gadgil Developers Pvt. Ltd.	
11.	Odisha	Desalination plant for 5MLD hybrid Desalination project.	Cumulative studies for assessing the damage to Marine environment by disposal of brine waste in addition to existing STP discharge into the ocean was not carried out by PP.

Annexure 9: Issues related to public hearing

(Reference: Para 3.5 of the report)

S.No.	State	Name of the Project	Issues related to public hearing	Remarks
1.	Andhra Pradesh	International Leather Complex at Kothapatnam village, Nellore District by M/s Adani Port and SEZ Ltd.	While examining the records related to the public hearing, it was noticed that all the documents were in vernacular language.	Method adopted to deliberate upon the material in vernacular language by the EAC was not described. Further, the minutes of the meeting, public grievances, their resolutions were not available in the EIA Report.
2.	Goa	Deepening of approach channel for capesize vessels at Mormugao Port by M/s Mormugao Port Trust	The EAC in had asked PP to upload Volume- II of the EIA Report as it was claimed that the public hearing proceedings were covered in the said volume.	The same was not available on the records, thus, it could not be ascertained if the due procedure was followed.
3.	Gujarat	Widening and improvement of existing highway by NHAI	Mismatch between the information given during public hearing and that furnished in the EIA.	In public hearing, as per PP, a total of 35652 trees were to be cut for the project, however, as per EIA report, 15000 trees were to be cut.
4.	Maharashtra	High Speed Railway Project across CRZ areas in Mumbai, Mumbai Sub-urban, Thane and Palghar District (PH) by M/s National High Speed Rail Corporation Ltd	i. Non-provision of the minimum notice period of 30 days.	Public hearing was held in 12 places and the notice period at these places ranged between 03 to 15 days only.
			ii. Advertisement for public hearing needs to be published in one major National daily and regional Vernacular daily.	The notice was published in only local newspaper.
			iii. Mismatch between the information given in public hearing and that furnished during the EAC meeting.	On the issue of effect of vibrations on the Thane creek flamingos due to construction of tunnels, PP submitted in public hearing that vibrations would not propagate upto creek surface, so there is no adverse impact on flamingos. But PP in its submission to EAC stated that it was not possible to predict the impact of vibrations on flamingos till the work actually started.
5.	West Bengal	Setting up of Mini Bulk Carriers Handling Facility on the	As per public hearing procedure, the final EIA report should incorporate the	The EIA Report sent to the Ministry was devoid of the responses of the people, the

		upstream of 3rd oil Jetty and west bank of river Hooghly at Haldia Dock Complex, Kolkata Port (West Bengal) by M/s Kolkata Port Trust	concerns expressed in the public hearing along with action plan and financial allocation, to address those concerns before it is sent to for appraisal.	action taken by the PP to address the concern raised in the public hearing.

Annexure 10: Non submission of mandatory documents by the PPs

(Reference: Para 3.7.2 of the report)

S. No.	Name of the project/State	Rapid EIA[72]	Dis-aster Mgmt. Report	Risk Assmt. & Mgmt. Plan	CRZ map with HTL and LTL marked[73]	Project layout laid on CRZ map	Map with CRZ zones	NoC from SPCBs for effluent discharge
1.	Deepening of approach channel for capesize vessels at Mormugao Port by M/s Mormugao Port Trust, Goa (2016)	✓	✓	✓	✓	✓	✓	X
2.	Installation of TIC, Toilet block, rain shelter Gazebos, Utorda, Goa	×	×	×	×	×	×	×
3.	Provision of Mobile Toilet block (GTDC), Querim Beach, Goa	×	×	×	×	×	×	×
4.	Construction of resort (Amit C Prabhu) , Goa	×	×	×	×	×	×	✓
5.	Construction of residential house (Anicito Fermino Fernandes) , Goa	N.A.	×	×	×	×	×	N.A.
6.	Construction of residential house (Etelvina Rodrigues), Goa	N.A.	×	×	×	×	×	N.A.
7.	Construction of Public Conveniences (GTDC), Candolim Beach, Goa	×	×	×	×	×	×	×
8.	Construction of toilet blocks, rain shelter and TIC , Terekhol, Goa	×	×	×	×	×	×	×
9.	Permanent Toilet block, Upgradation/beautification of places of touristic interest (GTDC), Palolem Beach, Cancona, Goa	×	×	×	×	×	×	×
10.	Const. of terminal building over existing jetty in Panaji	×	×	×	×	×	×	×
11.	Beautification of Rua De Orem Creek and Convention Centre, Goa	×	×	×	×	×	×	×
12.	Beautification of Beach Front Promendade, Goa	×	×	×	×	×	×	×
13.	Construction of residential house (Luisa Desouza) , Goa	N.A.	×	×	×	×	×	N.A.
14.	Construction of Sweage Treatment Plant at Colva (SIDCL) , Goa	×	×	×	×	×	×	✓
15.	Construction of STP (SIDCL), Bandora, Goa	×	×	×	×	×	×	✓
16.	Const. of Sewage Treatment Plant (1mld) (SIDCL), Durbhat, Goa	×	×	×	×	×	×	✓

72 including marine and terrestrial components

73 By authorised agency

17.	Construction of residential House (Yuvraj K Bandodkar) , Goa	N.A.	×	×	×	×	×	N.A.
18.	Construction of new KCL storage unit (Zuari Agro Chem.), Goa	×	×	×	×	×	×	✓
19.	Expansion of Adani Petronet (Dahej) Port, Bharuch District by M/s Adani Petronet (Dahej) Port Pvt Ltd, Gujarat (2016)	✓	✓	✓	✓	✓	✓	×
20.	Development of Greenfield Beach Resort at Mandvi, District Kutch by M/s Tourism Corporation of Gujarat Ltd.(2015)	✓	✓	✓	×	✓	×	×
21.	Discharge of 10 MLD industrial effluent in Bhavnagar creek, Bhavnagar by M/s Madhu Silica Pvt. Ltd., Gujarat (2015)	¤	✓	✓	✓	✓	✓	✓
22.	Common treated effluent disposal pipeline project along river Kolak upto deep sea by M/s Wel Treat Enviro Management Organization, Gujarat (2016)	✓	✓	×	✓	✓	×	✓
23.	Laying of treated effluent disposal pipeline at Marine outfall point in Gulf of Kutch at Mithapur by M/s TCL, Gujarat, (2017)	¤	✓	✓	×	✓	×	✓
24.	Revival of Existing Jetty with Liquid Storage Terminal, Pipeline Road Connectivity, Gandhidham, Kutch by Ahir Salt & Allied Product Pvt. Ltd, Gujarat	✓	✓	✓	✓	✓	✓	×
25.	Residential (Subplot Type) purpose project 'Sun city' at Barbodhan Village, Olpad Taluka, Surat by Pramukh Organisers LLP, Gujarat	✓	✓	×	✓	✓	✓	×
26.	Construction of marine bridge between Beyt and Okha, Dwaraka by Road & Building Department, Gujarat	¤	✓	×	✓	✓	✓	✓
27.	Additional Salt works (2846.15 acres) located at village Kalatalav & Narmad, Ta. & Dist. Bhavnagar by Nirma Limited	¤	✓	×	×	✓	×	✓
28.	Mumbai Coastal Road Project (South) - Princess Flyover to Worli end of Sea Link by M/s Municipal Corporation of Greater Mumbai (2017), Maharashtra	✓	✓	✓	✓	✓	×	×
29.	Intake and outfall facility of Marine Algae in District Ramanathapuram by M/s EID Parry (India) Ltd.(2016), Tamil Nadu	✓	×	×	✓	✓	×	×
30.	Alignment of conveying main to Buckingham Canal for the discharge of treated sewage from proposed 36 MLD Sewage Treatment Plant (STP) by M/s Chennai Metro Water Supply And Sewerage Board Sholinganallur (2017), Tamil Nadu	✓	✓	✓	✓	✓	✓	×
31.	Construction of Training Walls for Permanent Stability of Bar Mouth at Pulicat Village by Fisheries Department, Tamil Nadu	✓	✓	✓	✓	✓	×	✓
32.	Widening of North Chennai Thermal Power Station Road & Ennore Port Road by Tamil Nadu Road Development Company, Tamil Nadu	✓	✓	✓	✓	✓	×	✓

33.	Development of Mall at Thiruvottiyur Village, Chennai by M/s. Alwarpet Properties Pvt. Ltd., Tamil Nadu	×	×	×	×	×	×	×
34.	Development of Fishing Harbour at Vellapallam Village, Nagapattinam by Fisheries Department, Tamil Nadu	✓	✓	✓	✓	✓	×	×
35.	Renovation of Fishing Harbour at Mudhunagar, Cuddalore by Fisheries Dept, Cuddalore	✓	×	×	✓	✓	×	×
36.	Proposed Development of Eco-Park Bharathy Nagar, Tondiarpet Village, Chennai by Greater Chennai Corporation, Tamil Nadu	×	×	×	✓	✓	×	×
37.	Construction of new Fishing Harbour at Tharangambadi, , Nagapattinam District by Assistant Director of Fisheries, Nagapattinam North, Tamil Nadu	✓	✓	✓	✓	✓	✓	×
38.	Construction of Fish Landing Centre at Kunthukal, Ramanathapuram District by Assistant Director of Fisheries, Rameswaram, Tamil Nadu	✓	✓	✓	✓	✓	✓	×
39.	Construction of Government Guest House Building (Government Kerala) at Kanyakumari by Additional Director (Hospitality), Department of Tourism, Government of Kerala, Tamil Nadu	✓	✓	✓	✓	✓	✓	×
40.	Construction of Residential building by Brahma Kumari Beena, Kanyakumari by Prajapita Brahma kumaris, Ishwariyavishwavidhyalaya, Tamil Nadu	✓	✓	✓	✓	✓	✓	×
41.	Construction of Memorial for former Chief Minister of Tamil Nadu Selvi J. Jayalalitha by E E , Building & Construction Division I, P W D, Tamil Nadu	✓	✓	✓	✓	✓	✓	×
42.	Proposed Residential Complex at Ernavur village, Thiruvottiyur, Thiuvallur District by M/S. Coromondal International ltd, Tamil Nadu	✓	✓	✓	✓	✓	✓	×
43.	Construction tenements at Four shore Estate in R.S No. 7581, 7582 of Mylapore Village by M/S. Tamil Nadu Slum Clearance Board, , Tamil Nadu	✓	✓	✓	✓	✓	✓	×
44.	Modernization of Foundry unit at survey Nos.39 A &39 B, Kathivakkam village, Ambattur Taluk by M/S. Hinduja Foundries, Tamil Nadu	✓	✓	✓	✓	✓	✓	×
45.	Proposed Construction of packing of Dry Fish and Chilled Fresh Fish by M/S. GVD International, Chennai, Tamil Nadu	✓	✓	✓	✓	✓	✓	×
46.	Construction of Tuna Fishing Harbour, Tiruvottiyur, Chennai by Fisheries Department, Ponneri, Tamil Nadu	✓	✓	✓	✓	✓	✓	×

¤ EIA report did not contain terrestrial component

Annexure 11: Instances where the conditions as per the clearance letter as well as the conditions stipulated in the SCZMA recommendations were not being complied with by the PP

(Reference: Para 4.1.1 of the report)

S. No.	State	Project Name	Observation
1.	Goa	Deepening of approach channel for capesize vessels at Mormugao Port by M/s Mormugao Port Trust	As per EIA the report, the PP had to provision Rs. 35 lakhs under Environmental Management Plan. However, no funds were provisioned by PP under Environmental Management Plan.
2.	Gujarat	Development of Proposed Petroleum, Chemical and Petro-Chemical Special Investment Region, (PCPIR) by Gujarat Industrial Development Corporation	i. A scientific study for Coastal Management Plan was to be prepared by an expert institution and the same was to be implemented by all the stakeholders. However, the study was not undertaken by the PP.
			ii. PP had to prepare environmental policy and get the same approved by its Board of Directors. However, the Environmental Policy was not prepared by the PP.
3.	Gujarat	Laying of treated effluent pipeline and disposal of effluent into Bhavnagar creek	i. Online monitoring sensors were to be provided at the pipeline outlet and at the creek outfall. However, no monitoring sensors were provided by the PP.
			ii. Plantation of mangrove plantation in 25 ha. land was to be done and reported to the Forest & Environment Department/ MoEF&CC. No plantation was carried out till date (August 2021) by the PP.
4.	Gujarat	Laying of pipeline along the river Kolak up to deep sea for CETP in Village Morai, Vapi	PP was required to set up separate environmental management cell for effective implementation of the stipulated environmental safeguards under the supervision of a Senior Executive. The PP did not set up the cell.
5.	Gujarat	Laying of treated effluent disposal pipeline from their Plant to final disposal point in the Gulf of Kutch at Mithapur by M/s Tata Chemicals Limited	i. Baseline data for Marine and coastal biodiversity of Poshitra Bay were to be developed and monitored bi-annually with specific focus on sea grass beds, and endemic species Sakuraeolis gujaratica and Anteaeolidiella poshitra. Baseline studies were not conducted by PP.
			ii. Submission of annual environment audit reports to GCZMA. Annual environment audit reports were not submitted by PP.
			iii. Comprehensive EIA Report was to be prepared and submitted to GCZMA. PP did not submit any Comprehensive EIA Report to GCZMA.

S. No.	State	Project Name	Observation
6.	Gujarat	Revival of Existing Jetty with liquid Storage Terminal, Pipeline, Road connectivity, Railway line & sidings at Mithirohar, Gandhidham, Kutch	i. PP had to obtain all necessary permissions from different Government Departments/ Agencies before commencing their activities. GPCB granted Consolidated Consent and Authorisation (CCA) for laying off only five pipelines, ii. During site visit, we noticed that PP had laid six pipelines each of 1800-meter length. iii. Thus, PP laid and operated an additional pipeline without obtaining CCA from GPCB.
			iv. The PP had to carry out mangrove plantation in 50 ha. area in consultation with GEC/ Forest Department within a period of two years from the date of commencement of the project. No plantation (August 2021) was carried out by the PP.
			v. PP was required to take up massive green belt development activity in consultation with GEC/ Forest Department/ GEER Foundation and submit a comprehensive plan to forest department/ SEIAA. PP neither consulted Forest Department/ GEC/ GEER Foundation nor submitted any comprehensive plan.
			vi. PP had to spend ₹ 20.67 lakh and ₹ 2.51 lakh included as Capital cost and Maintenance cost for green belt development as per the EMP. PP did not incur any expenditure for this purpose till date.
7.	Gujarat	Additional Salt works (2395.15 Acres) located at Village Kalatalav & Narmad, Bhavnagar	i. As per the condition imposed by GCZMA as well as SEIAA, PP was required to carry out mangrove plantation in additional 50 ha area. This condition was not complied by the PP
			ii. PP shall commission a comprehensive EIA through a reputed institute. Comprehensive EIA was not prepared by PP
			iii. PP was to regularly carry out study on environmental surveillance covering the status of mangroves and other coastal and marine ecosystems in the vicinity through the reputed institute and submit the report every year to the F&E Department. No such study was carried out by the PP.
			iv. PP was to submit annual environmental audit report indicating the changes with respect to the baseline environmental quality in the coastal and marine environment by the PP to F&E Department and SEIAA. This condition was not complied by the PP
8.	Gujarat	Construction of Marine bridge between Beyt Dwarka and Okha by Road and Building Department, Jamnagar, GoG	i. PP was required to set up separate environmental management cell. No such cell was created by PP.
			ii. Permission for Non-agricultural use for the land to be obtained. The construction camp was established on the agricultural land without permission for Non-agricultural use
			iii. Records related to monitoring of fugitive emission in the work area required to be maintained. Such records were not maintained.
			iv. Used oil to be sold to registered recyclers only. According to PP, used oil was being sold to local vendors and not registered recyclers.

S. No.	State	Project Name	Observation
			v. Annual environment audit reports indicating changes, with respect to the baseline environmental quality in the coastal and marine environment was to be submitted to Forest and Environment Department by the PP. Annual environment audit after commencement of construction was not carried out.
			vi. Construction Camp was to be kept outside CRZ area. We observed using Google Maps as well as the approved CZMP for the area that a part of the construction camp fell under CRZ area
			vii. Construction/installation of settling ponds and oil receptors to prevent the entry of the surface runoff from fuel and other contaminants into the marine water. No such settling ponds and/or oil receptors were observed at project site.
9.	Karnataka	Construction of Petroleum Products Storage Terminal at Karwar, Karnataka Port by M/s Tropicana Liquid Storage (P) Ltd.	i. There is no Proper oil spillage contingency plan put in place. Dedicated boats fitted with booms/skimies etc. are not deployed to avoid oil spillage. The PP had not tied up with the Karwar Port for firefighting and oil spill mitigation measures.
			ii. There is no computerized SCADA (Supervisory Control and Data Automation) system for identifying leakage in the pipeline to cut off pumping immediately.
			iii. The PP has not set up separate environmental management cell for effective implementation of the stipulated environmental safeguards under the supervision of a Senior Executive.
10.	Kerala	Cochin Residential Development Project by M/s TRIF Kochi Projects Private Ltd, Ernakulam	i. As per specific condition I(iv) of EC, there shall be no development within 0-200 metres from HTL. We observed that the entire construction of the project was carried out within 200m of HTL. No action has been taken by MoEF&CC/KCZMA against the violations of the conditions of EC.
			ii. Specific condition I (xxx) of EC stipulated that, under the provisions of EP Act, 1986, legal action shall be initiated against the PP if construction of the project was started without EC. The Chief Town Planner, Thiruvananthapuram approved (June 2012) the layout of buildings and usage of the plot subject to the condition that EC should be obtained for the project and, Kochi Municipal Corporation should ensure that construction is according to CRZ Notifications. However, Corporation of Kochi has issued (March 2011& July 2012) building permit to the project before the issue (February 2016) of EC by MoEF&CC. No punitive action was taken by MoEF&CC/KCZMA in this regard.
			iii. Clause 3(xi) of CRZ Notification 2011 drawl of ground water is permissible only when done manually through ordinary wells for drinking, horticulture, agriculture and fisheries and where no other source of water is available.

S. No.	State	Project Name	Observation
			But during JPV it was noticed that the main source of water was Ground water for which a Tube well was constructed for meeting the entire water requirement.
			iv. As per specific condition II (vi) of EC, the installation of the Sewage Treatment Plant (STP) should be certified by an independent expert and a report in this regard should be submitted to the Ministry before the project is commissioned for operation. The project was commissioned without the certification by an independent expert on the installation of STP.
11.	Kerala	Construction of Star Hotel at Alapphuzha West Village, District Alapphuzha by M/s East Venice Hotels and Resorts Pvt Ltd	Construction of basement shall be allowed only if NOC is obtained from State Ground Water Authority. NOC from Ground Water Authority was not obtained for construction of the basement.
12.	Maharashtra	Mumbai Coastal Road Project (South) - Princess Flyover to Worli end of Sea Link by M/s Municipal Corporation of Greater Mumbai	Condition on rehabilitation and resettlement of the fishermen communities in the event project impacts existing livelihood pattern of these communities. Observation taken in the main report.
13.	Maharashtra	Mumbai Trans Harbor Sea Link by M/s Mumbai Metropolitan Region Development Authority (MMRDA)	i. MMRDA was to ensure that fishing activity is not hampered during construction and operation of the project and assess loss of business to the project affected fishermen due to the project.
			ii. The MoEF&CC approved (January 2016) for diversion of 47.41 ha of forest land for MTHL provided MMRDA in consultation with the State Government shall create and maintain alternate habitat/home for the avifauna whose nesting trees are to be cleared in this project. Bird nests artificially made out of the eco-friendly material shall be used in the area including forest area and human settlements adjoining the forest area being diverted for the project. Chief Conservator of Forest (T), Thane permitted (May 2017) cutting of trees before the commencement of construction work of MTHL. It was noticed that although a total of 669 no of trees were removed for the project no alternate habitat /home for the affected avifauna was created. MMRDA stated (September 2021) that based on the estimation of Rs 1.50 lakh for the purpose of artificial nests along with Rs 61 lakh for soil and moisture conservation work by the Deputy Conservator of Forest, Alibag it had deposited (November 2016) Rs 62.50 lakh with the forest department.

S. No.	State	Project Name	Observation
14.	Tamil Nadu	Integrated Cooum River Eco-Restoration Project by M/s Chennai Rivers Restoration Trust	i. Desiltation of the Cooum River in CRZ area was permitted for a quantity of 5,08,177 cu.m only. Against this, PWD had carried out desiltation of the river for a quantity of 8,94,757 cu.m, (i.e.) 3,86,580 cu.m. in excess of the quantity permitted by TNSCZMA in its recommendation.
			ii. Silt generated through dredging was to be scientifically disposed outside the CRZ area. Bunding and landscaping changes were prohibited activities. Public Works Department removed only 40% of the silt generated to dump yards, and the remaining silt was deposited on the riverbank, which led to formation of bunds that affected the landscape. The above violations were neither detected by the TNSCZMA nor by the DCZMA, Chennai region. Thus no action was taken by the authorities against the above violations. Further, due to unauthorized dumping of excessive silt and raising of bund height by PWD, the Greater Chennai Corporation had abandoned its ambitious Cooum River Front Development Project of construction/development of Parks, Walkways, Nature Trail Park etc at a cost of Rs.32.17 crore and terminated all contracts related to the project.
15.	Maharashtra	Rerouting of Mumbai Manmad Pipeline	The clearance letter stipulated that in all the major water bodies, the Horizontal Directional Drilling (HDD) method should be used to avoid damage to the mangroves. The Regional office, MoEF&CC, Nagpur was required to monitor the implementation of environment safeguard through inspection and the BPCL was required to submit half-yearly compliance reports. The Regional office has not monitored the project and BPCL had not submitted the mandatory half-yearly compliance reports to the regional office. Regional office, MoEF&CC, Nagpur stated (January 2021) that BPCL had not submitted any information pertaining to HDD. It was further cited deficient manpower for non monitoring.
16.	Tamil Nadu	Alignment of conveying main to Buckingham Canal for the discharge of treated sewage from the proposed 36 MLD Sewage Treatment Plant (STP) by M/s Chennai Metro Water Supply And Sewerage Board Sholinganallur	i. Allocation of 2% of the project cost towards fulfilling its Corporate Environment Responsibility (CER) during the currency of the project. Account of measures taken should be maintained and should also be submitted to the CZMA every six months. This condition was not complied with.
			ii. Regular soil and ground water test in and around the project site to ensure monitoring ground water quality / leaching of heavy metals and other toxic contaminants. This condition was not complied with.
			iii. Time bound action plan for treating the sewage and usage of resultant effluent for industrial and other applications was to be made. This condition was not complied with.
			iv. Uploading compliance report on the stipulated conditions on the website of the PP was not done

S. No.	State	Project Name	Observation
			v. Submission of report on year wise expenditure from the funds earmarked for environment protection to the ministry and its regional office was not done
17.	Tamil Nadu	Relaying of Pipeline & Redevelopment of Edible Oil Transit Terminal at Chennai by M/s Ruchi Infrastructure Limited	i. Allocation of 2% of the project cost towards fulfilling its Corporate Environment Responsibility (CER) during the currency of the project was to be made. Account of measures taken were to be maintained and were also to be submitted to the SCZMA every six months. This condition was not complied with.
			ii. Uploading compliance report on the stipulated conditions on the website of the PP was required. This condition was not complied with.
			iii. Submission of report on year wise expenditure from the funds earmarked for environment protection to the ministry and its regional office was required. This condition was not complied with.
18.	Tamil Nadu	2X800 MW Uppur Supercritical Thermal Power Plant at District Ramanathapuram by TANGEDCO	i. Allocation of 2% of the project cost towards fulfilling its Corporate Environment Responsibility (CER) during the currency of the project was to be made. Account of measures taken were to be maintained and were also to be submitted to the SCZMA every six months. This condition was not complied with.
			ii. Uploading compliance report on the stipulated conditions on the website of the PP was required. This condition was not complied with.
			iii. Submission of report on year wise expenditure from the funds earmarked for environment protection to the ministry and its regional office was stipulated. This condition was not complied with.

Annexure 12: Cases where PPs did not submit any half yearly compliance report

(Reference: Para 4.1.2 (i) of the report)

State	Name of the Project
Goa	Deepening of approach channel for capesize vessels at Mormugao Port by M/s Mormugao Port Trust
Gujarat	i. Widening and improvement of the existing highway to 2-lanes paved shoulder/ 4 lane/ 6 lane of Bhavnagar- Pipavav- Porbandar-Dwarka Section of NH-8E by National Highway Authority Limited
	ii. Development of Greenfield Beach Resort at Mandvi, District Kutch by M/s Tourism Corporation of Gujarat Ltd.
	iii. Common treated effluent disposal pipeline project along river Kolakupto deep sea via Kolak Estuary, Vapi by M/s Weltreat Enviro Management Limited
Karnataka	Construction of Petroleum Products Storage Terminal at Karwar, Karnataka Port by M/s Tropicana Liquid Storage (P) Ltd.
Kerala	i. Cochin Residential Development Project by M/s TRIF Kochi Projects Private Ltd, Ernakulam: As compared to 8 half yearly reports, only 3 compliance reports were submitted to KSPCB.
	ii. Construction of Star Hotel at Alapphuzha West Village, District Alapphuzha by M/s East Venice Hotels and Resorts Pvt Ltd
Tamil Nadu	i. Integrated Cooum River Eco-Restoration Project by M/s Chennai Rivers Restoration Trust
	ii. Intake and outfall facility of Marine Algae in District Ramanathapuram by M/s EID Parry (India) Ltd
	iii. Eco-restoration of Adyar River (2000 m – 4000 m chainage) from Thiruvika Bridge to 400 m upstream to Kotturpuram Bridge
	iv. Alignment of conveying main to Buckingham Canal for the discharge of treated sewage from the proposed 36 MLD Sewage Treatment Plant (STP) by M/s Chennai Metro Water Supply And Sewerage Board Sholinganallur
	v. Relaying of Pipeline & Redevelopment of Edible Oil Transit Terminal at Chennai by M/s Ruchi Infrastructure Limited
	vi. 2X800 MW Uppur Supercritical Thermal Power Plant at District Ramanathapuram by TANGEDCO

Annexure 13: Non- submission of Environmental Statement by the PP

(Reference: Para 4.1.2 (ii) of the report)

S. No.	Name of the project
1.	Alignment of conveying main to Buckingham Canal for the discharge of treated sewage from the proposed 36 MLD Sewage Treatment Plant (STP) by M/s Chennai Metro Water Supply And Sewerage Board Sholinganallur, Tamil Nadu
2.	Relaying of Pipeline & Redevelopment of Edible Oil Transit Terminal at Chennai by M/s Ruchi Infrastructure Limited, Tamil Nadu
3.	2X800 MW Uppur Supercritical Thermal Power Plant at District Ramanathapuram by TANGEDCO, Tamil Nadu
4.	Cochin Residential Development Project by M/s TRIF Kochi Projects Private Ltd, Ernakulam, Kerala
5.	Construction of Petroleum Products Storage Terminal at Karwar, Karnataka Port by M/s Tropicana Liquid Storage (P) Ltd., Karnataka
6.	MMPL rerouting project, Maharashtra
7.	Mumbai Trans Harbor Sea Link by M/s Mumbai Metropolitan Region Development Authority, Maharashtra
8.	Mumbai Coastal Road Project (South) - Princess Flyover to Worli end of Sea Link by M/s Municipal Corporation of Greater Mumbai, Maharashtra
9.	Malad sewage treatment plant by M/s Municipal Corporation of Greater Mumbai, Maharashtra
10.	Construction of Holiday Resort at Alibag, Dist. Raigarh by M/s Savitri Nandkishor Dube, Maharashtra
11.	Proposal for Transportation and Distribution of Natural Gas from Uran to Navi Mumbai Municipal Corporation, Mumbai, Maharashtra, Maharashtra
12.	Construction of Resort on Plot at Mauje Chandranagar, Tal: Dapoli, District Ratnagiri, Maharashtra
13.	Construction of Resort on Plot at Mauje Karde, Tal. Dapoli, District Ratnagiri, Maharashtra
14.	Construction of Resort on Plot at Mauje Chandranagar, Tal. Dapoli, District Ratnagiri, Maharashtra
15.	High Speed Railway Project across CRZ areas in Mumbai, Mumbai Sub-urban, Thane and Palghar District (PH) by M/s National High Speed Rail Corporation Ltd, Maharashtra
16.	All weather Greenfield Jetty' at Nandgaon of Taluka Palghar, District Thane, Maharashtra by M/s JSW Infrastructure Ltd. , Maharashtra
17.	Expansion of facilities at port Redi, Sindhudurg by M/s Redi Port Ltd, Maharashtra

Annexure 14: SCZMAs granted recommendations in the absence of CTE/CTO certificate from the concerned State Pollution Control Board (SPCB)

(Reference: Para 4.1.2 (iii) of the report)

Central Sampled Projects	
Tamil Nadu	i. Integrated Cooum River Eco-Restoration Project by M/s Chennai Rivers Restoration Trust
	ii. Intake and outfall facility of Marine Algae in District Ramanathapuram by M/s EID Parry (India) Ltd
	iii. Eco-restoration of Adyar River (2000 m – 4000 m chainage)from Thiruvika Bridge to 400 m upstream to Kotturpuram Bridge
Maharashtra	Rerouting of Mumbai Manmad pipeline by BPCL
State sampled Projects	
Tamil Nadu	i. Construction of Tuna Fishing Harbour, Thiruvottiyur
	ii. Construction of residential buildings at Kottivakkam Village, Sholinganallur Taluk, Kanchipuram District by M/s. Perungudi DevelopersPvt. Ltd
	iii. Proposed development of Fishing Harbour at Vellapallam, Nagapattinam by Asst. Director, Fisheries department, Nagapattinam (South)
	iv. Renovation of Fishing Harbour at Mudhunagar, Cuddalore by Asst. Director, Fisheries department, Cuddalore
	v. Proposed widening of North Chennai Thermal Power station Road and Ennore Port Road by M/s. TN Road Development Company Ltd (TNRDCL)
Maharashtra	Redevelopment on property in Mazgaon, Mumbai, renamed as "Harbour Heights" by M/s. Sumer Buildcorp Pvt.
Goa	i. Construction of 20 MLD STP at Baina
	ii. Construction of 20 MLD STP at Margao
	iii. Construction of 1 MLD STP at Durbhat