Coastal Regulation in India

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Preface

The proposal of the Ministry of Environment and Forests (MoEF) to replace the Coastal Regulation Zone Notification (CRZ), 1991 with a Coastal Management Zone Notification (CMZ) after the review of implementation of CRZ by the Swaminathan Committee has evoked strong opposition from various stakeholders, especially the coastal communities. Fisherfolk associations and organisations like the National Fishworkers Forum, Coastal Action Network, Indian Coastal Women Movement, National Union of Fishermen, South India Fishermen Welfare Association, Tamilnadu Fishermen Welfare Association, Tamil Nadu Pondy Fisher People Federation, Democratic Unorganised Workers Trade Union, Fish Marketers Association of Tamil Nadu and Kerala Swatantra Matsya Thozhilali Federation have vehemently opposed the proposal and have made submissions to the MoEF to withdraw the proposal. The Swaminathan Committee report has also been critiqued by civil society organisations working on coastal ecology and with communities. Despite the efforts to persuade the MoEF in not bringing out the CMZ Notification, the MoEF issued a draft in May 2008 proposing to phase out the CRZ Notification and implement the CMZ Notification.

In the context of this move by the MoEF, an analysis of the CRZ Notification, 1991, the Swaminathan Committee recommendations and the draft CMZ Notification has been made in order to substantiate the position to continue and strengthen the current regulation in the form of CRZ rather than substitute it with another. In this regard, a detailed comparison has been made to arrive at recommendations. The argument is further validated by taking the example of tourism as a development phenomenon that has affected the coast; hence the need to have stringent regulatory norms to curb adverse impacts on communities and ecosystems.

This document is divided into four parts: the first part analyses the CRZ Notification, 1991 and issues of its implementation. It further looks at violations of the CRZ Notification, 1991 by tourism. The second part is an evaluation of the Swaminathan Committee recommendations. The third section is a critique of the draft CMZ Notification 2008. Finally it has been suggested that the current CRZ Notification needs to be strengthened and rigorously implemented rather than replace it with a feeble and ambiguous CMZ Notification in the section on The Way Forward.

Part I

Coastal Regulation Zone Notification, 1991

The Indian coastal stretch of about 7,500 km is made up of diverse ecosystems - sand dunes, beaches, wetlands, mangroves, estuaries, backwater lagoons and coral reefs. Settlements of traditional people comprising about 10 million fisherfolk, are concentrated in these areas, as they mainly depend on coastal resources and seas for their survival. Several activities such as unregulated tourism, polluting industries, infrastructure, aquaculture, sand mining, construction of sea walls and rapid urbanization pose serious threats to the health of these ecosystems and to the lives and livelihoods of coastal communities. The tsunami of 2004 has shown that the coast is a naturally vulnerable area and that these activities have worsened the impacts on coastal people.

The Coastal Regulation Zone Notification, issued in 1991 using the provisions of the Environment (Protection) Act, 1986 is the most significant and specialized legislation regulating developmental activities along the coast. It recognized India's need to protect the interests of millions of her coastal people while ensuring their overall development, and protecting coastal ecology.

The CRZ Notification was introduced with three main principles:

- *It is necessary to arrive at a balance between development needs and protection of natural resources;*
- *Certain activities are harmful for both coastal communities and their environment, and these should be prohibited or regulated*;
- *If coastal ecosystems are sustainably managed, then the livelihoods of millions will be protected and their survival guaranteed.*

The CRZ Notification, 1991 covers the strip of coastal land abutting the sea all along India's coast and her islands. It extends 500 metres from the High Tide Line (HTL). In this narrow sensitive region, certain activities are regulated while other inappropriate ones are prohibited. The CRZ notification seeks to operationalise three objectives, which are very significant:

1. *Siting or location of activities or operations*

This is based on the understanding that coasts perform important functions for coastal communities and ecosystems. The coasts are important nesting and feeding grounds for several terrestrial and aquatic species. These coastal habitats also provide sustenance and livelihood opportunities to several coastal communities (both fishing and non-fishing communities). Rules for the siting of activities can ensure that the rights of traditional fishing and coastal communities over certain areas are not compromised to meet increasing development requirements such as the demands of the burgeoning tourism industry.

2. *Restricting and permitting activities*

The CRZ Notification defines the nature of activities that are to be regulated or restricted. It does not issue a blanket ban on all activities but lists activities that are restricted and those that are permitted.

3. *Balancing development and protection needs*

This objective is ingrained in the spirit of the CRZ, which recognises that different areas have different ecological sensitivities and therefore need varying levels or modes of protection. Thus, the protection afforded to CRZ I is designed to be more stringent than that accorded to CRZ II areas, where more activities are permitted.

With respect to Andaman & Nicobar Islands and Lakshadweep, the CRZ would be instrumental in deciding activities and developments because of their special status as oceanic island groups recognized by CRZ as Category IV. Moreover, environmental issues confronting these islands are more complex; it is critically important to address these. For a detailed analysis of the CRZ Notification, 1991, refer annexure 1.

What went wrong with the implementation of the Notification?

The implementation of this critical Notification was by and large ignored by many state governments. Vested interests from various lobbies such as the tourism and industrial lobby have constantly sought to get rid of this Notification. The CRZ Notification has been amended twenty one times between 1994 and 2005, and each dilution has weakened provisions of the law. A detailed chronology of various amendments is given in annexure 2.

- *Non-Demarcation of High Tide Line*

  S.O 1122(E) dated 29th December 1998[1] only gave the definition of the HTL and stated that it will be marked by an authority. It is surprising that 7 years after the Notification was issued, the central government did not specify which authority and did not provide guidelines for marking the HTL. Further, the High Tide Line (HTL) or the 500m / 200m line from the HTL has not been demarcated in any coastal states, although attempts to put the 500m / 200m markers were made in states like Goa, Kerala. Thus categorically identifying the CRZ area and therefore identifying a violation has become difficult.

- *No progress on development of Coastal Zone Management Plans*

  Not a single coastal state or union territory has a fully approved Coastal Zone Management Plan (CZMP). This document is critical to the implementation of the law as it identifies the various CRZ areas and therefore the range of activities that can be permitted or prohibited. Without this in place, unregulated activities and developments are common on the coast. After the CRZ Notification, 1991 was issued; all the states were instructed to prepare and submit the CZMP within one year, i.e. by February 1992 to the MoEF for final approval. No states or UTs submitted the CZMP and the Supreme Court had to intervene thereby extending the date of submitting the CZMP to June 1996. All the states and UTs submitted their CZMPs in 1996, after which the MoEF reviewed them and wrote back to the states and UTs. The states and UTs were given comments on their respective CZMPs, which they had to incorporate, and in some cases rework maps, and re-submit to the MoEF for final approval. After this, it is not known which states have resubmitted their CZMP for final approvals from the MoEF and whether the MoEF has approved any one of them. Neither did the concerned authorities inform concerned stakeholders on the finalisation of the CZMPs and nor have the stakeholders been able to elicit a response from the concerned authorities on the status of CZMPs. Therefore, it is given to surmise that no coastal state or UT has a functional, approved CZMP.

Implications of amendments made to the CRZ Notification, 1991

- *Construction for petroleum storage to be allowed in CRZ II & III*

  S.O 730 (E) dated 4th August 2000 permitted storage of petroleum and its products thereby

[1]The Central Government is said to have deliberated upon and decided to simplify the procedure for demarcation of HTL, which it laid down in this Notification. The HTL was defined as the line on land up to which the highest water line reaches during spring tide. The amendment laid down that HTL shall be demarcated uniformly in all parts of the country by demarcating authority or authorities so authorised by Central Government, in accordance with general guidelines issued in this regard. However these have not been spelt out in the Notification.

posing a threat to coastal environment. This also meant allowing construction in these areas including the No Development Zones (NDZ).

- *Exploration of oil and natural gas allowed*

  The amendment no. S.O 730 (E) dated 4th August 2000 gave a blanket allowance to oil and natural gas exploration, which could take place in CRZ areas. It could trigger off land acquisition process by government, following which there could be changes in land use. Mining in all CRZ areas has also been permitted by amendment no. S.O 329(E) dated 12th April 2001. While the need for such developmental activities is justified, it is equally important to ensure safeguards for environmental protection to check adverse impacts arising from such activities, which the CRZ Notification has not specified clearly.

- *Land reclamation allowed*

  Amendment no. S.O 329(E) dated 12th April 2001 allowed reclamation of land for 'certain activities', which have not been defined. Reclamation for commercial purposes has been prohibited. Having undefined terms leaves the door open for interpretations wherein activities that adversely impact coastal ecosystems can find a way through.

- *Setting up of non-polluting industries in field of IT and other service industries in Special Economic Zones*

  Amendment no. S.O 550(E) dated 21st May 2002 opened up the CRZ areas for resource intensive and negatively impacting activities like IT and other service industries like tourism to come up in CRZ areas on the assumption that these are non-polluting. Further it legitimised the presence of SEZs in the CRZ areas.

Case Study: examples of non-implementation of CRZ Notification, 1991 in Andaman & Nicobar Islands

Most of the area in the Union Territory of the Andaman & Nicobar Islands has been classified to come within CRZ-IV. This classification of CRZ-IV is unique to islands of Andaman & Nicobar and Lakshadweep, and it was specifically drafted taking into consideration the Islands' unusual, rare and fragile coastal ecosystems.

Wrongful categorisation of CRZ IV areas as CRZ II areas

In the Andaman & Nicobar Islands, the entire rural, revenue area is classified under CRZ-IV except for a small area, which is under CRZ-II. The coastal stretches of Port Blair, Bambooflat, Hut Bay, Mayabunder, Campbell Bay Headquarters and several other areas were proposed to be declassified as CRZ-II.

The CRZ Notification states that in some of the islands of Andaman & Nicobar Islands coastal areas may be classified as CRZ I, II or III based on the CZMP and on the approval of the MoEF[2]. While the CZMP was submitted by the A&NI Administration for approval to the MoEF, in their letter dated 27th September 1996, the MoEF accorded only interim clearance to the CZMP. Further, one of the conditions laid out in the letter was that, for CRZ IV areas to be classified as CRZ II areas, a Committee had to be formed which would decide on this matter.

However, as noted by the Divisional Bench of the Calcutta High Court in its order dated 29.09.2003, the A&NI Administration and the Port Blair Municipal Council had converted certain CRZ IV areas into CRZ II areas in Port Blair. The Court noted that no documents were made available to prove that a Committee, as directed by the MoEF, was formed to look into the matter of reclassification of the CRZ IV areas into

[2]Section 6(2) of the CRZ notification provides norms and regulations for the Andaman & Nicobar Islands, which it classified as CRZ IV. However, it does have a provision in point (vi) for the classification of the certain areas as CRZ I, II and III with approval from the MoEF.

CRZ II areas and that these were made with approval from the MoEF. Despite this, Byelaw No. 15 of the Port Blair Municipal Council Building Byelaws, 1999 classifies coastal areas of Port Blair as CRZ II areas.

The court therefore concluded that decision of the A&NI Administration and the Port Blair Municipal Council to reclassify CRZ IV areas into CRZ II areas was "wholly unauthorised and ultra vires[3] the CRZ Notification".

No firm check on sand mining in the Andaman & Nicobar Islands

- Amendment no S.O.73 (E) dated 31st January 1997 stated that mining was permitted upto 31st March 1998 and **not beyond.** ***This means a prohibition exists on the extension of the deadline.***
- After this there have been **10 extensions** made to allow sand mining in A&N Islands to date.
- The Supreme Court (SC) ordered in May 2002 that extraction of sand shall be phased out at a minimum 20% per year on reducing balance basis to bring the sand mining to the level of 33% of the present level of mining within a maximum period of 5 years. The sand mining is to be brought down to 24,633 cubic metres by May 2007 as per the order.
- As per amendment S.O. 635 (E), 30th May 2003, sand mining was permitted up to 44,102 cu. m. for construction purposes on a case by case basis for the period 1st April, 2003 to 31st March, 2004 from sites selected, inter alia, based on the rate of replenishment or deposition of sand.
- This amendment took place after the submission of Shekhar Singh Committee report to the Supreme Court which stated "The extraction of sand should be phased out and no further extension should be granted after the current extension is over on 30 September, 2002".

As per guidelines given in the CZMP of A&N Islands, minimum quantity of sand will be collected from identified eco safe pockets on a rotational basis; sands collected from coastal areas will be used after keeping the same in the open place for at least one full rainy season so that salt if any may be leached out; sand will not be collected from areas near mangrove patches, sand would generally not be collected during the monsoon to minimise disturbance to the coastal zone and landscape; coral sand will not be collected; stone dust from stone crushers and quarries will be utilised to reduce the use of sea sand; use of clay bricks will be encouraged, this would reduce the use of hollow blocks which need considerable quantity of sand; sand will not be collected from sanctuaries, national parks or other ecologically sensitive areas close to the breeding and spawning grounds of fish and other marine life. But, the methodology for sand extraction has not been specified beyond what currently exists. There is no information on the parameters, or permissible limits, or monitoring and assessing the final impacts of such an activity. If sand mining is to take place in the islands, considering its sensitivity, it does require further planning for proper implementation and enforcement of restrictions. Currently there is little enforcement and this has resulted in a severe impact on the ecology of these islands.

The Comptroller and Auditor General's report has implicated the MoEF for lack of implementation of CRZ Notification, 1991. It states that despite formation of various committees and the comprehensiveness of their reports to address specific issues, the amendments that MoEF had made to the CRZ Notification reflected a trend to allow commercial and industrial expansion in coastal areas. It states that "The Ministry of Environment and Forests did not enforce the Coastal Regulation Zone Notification effectively resulting in extensive destruction in coastal areas due to industrial expansion". That no coastal states have a CZMP has also been taken note of by the CAG[4].

[3]Author's note: Latin phrase that means "beyond its powers"

[4]Comptroller & Auditor General, 2006, Report no. 20 of 2006, Ministry of Home Affairs, Govt. of India, New Delhi.

Tourism and the CRZ Notification, 1991

Beaches have been prime tourist attractions the world over. In India, coastal areas have been targeted for tourism development to cash in on the large number of domestic and foreign tourists willing to make India's beaches their choice of a tourist destination. Coastal destination states like Goa, Kerala, Karnataka, Tamil Nadu, Andhra Pradesh, Orissa and Andaman Islands have witnessed significant tourist arrivals and consequent development of tourism infrastructure. Close proximity to the sea is most preferred in order to give the tourists the 'sun, sea and sand experience'. Any attempts to regulate tourism development in the coastal areas have either been met with resistance from the tourism industry or the industry has violated the regulations outright.

Reduction in the NDZ for Promotion of Tourism

The first amendment to the CRZ Notification was made because of pressure from the tourism lobby. The amendment was made by the MoEF vide notification no. S.O. 595(E) dated 18th Aug 1994 on recommendations of the Vohra Committee, which was constituted on 1st Jan 1992 and its report submitted on 31st Dec 1992. The issue dealt with was tourism. The reason for constituting the Vohra Committee was that there was a representation made by the hotel and tourism industry to the MoEF stating that the said Notification was very stringent and their operation was severely restricted by the CRZ[5]. The tourism industry argued that fixing the NDZ at 200m from the HTL uniformly was unscientific. The tourism industry said it will be handicapped in competing with beach hotels of other countries, where no such restrictions exist. It further stated that the tourism industry would require only 25 to 30 Km of India's 6,000 odd Km of coastline, and hence relaxing the NDZ from 200m to 50m in the CRZ Notification, 1991 would not harm India's coastal ecosystems.

One of the recommendations of the Vohra Committee was reduction of distance of the NDZ in selected coastal stretches specifically for promoting tourism. The Ministry amended the CRZ Notification, 1991 on 18th Aug 1994, reducing the NDZ area all along tidal water bodies from 100 to 50 m (Swaminathan Committee Report - MoEF, 2005). The Amendment also permitted construction in NDZ thus giving expansive powers to the central government to permit such constructions on the landward side within 200m from the HTL according to its discretion. The SC quashed the amendments later terming the step that MoEF had taken as ultra vires and restored the NDZ from 50m to 100m in 1996.

The NDZ was eventually reduced to 50m only in the case of A&N Islands and Lakshadweep for tourism development through amendment, S.O.838 (E), 24th July 2003. This is against the directives of the SC, which were issued in 2002 based on Shekhar Singh Committee report, for not allowing tourism within 50m from the HTL. The relaxation was based on identification of areas in NDZ by the Integrated Coastal Zone Management Plan study conducted by the MoEF.

Rampant violations of the CRZ Notification by the tourism industry

The tourism industry has continued to violate CRZ norms throughout the nine coastal states and the five union territories, including the two island groups. Given below (in order of east to west; states and union territories) are indicative case studies media reports of violations in a few states, which have been brought to the notice of relevant Authorities as well as observations from the coastal areas where numerous tourism establishments, both old and new, continue to violate provisions of the CRZ Notification, 1991.

[5] The representation of the Hotel and Tourism Industry was that the existing 200 metres depth of NDZ constituted a serious handicap in the said industry competing with the beach hotels of other countries where there were no such restrictions. It was represented that a reduction of the NDZ would not be ecologically harmful and there was no convincing scientific reason for fixing 200 metres as the appropriate width for the NDZ. It was also stated before the Committee that according to its projection, the Hotel Industry in India would at the most require only about 20-30 km of coastline for the construction of sea-side resorts over the next 15 years or so. If this requirement was viewed in the context of the fact that the total coastline of the country was over 6.000 km in length, the industry represented that relaxation with regard to this limited area would not pose any big threat to the country's ecology" – National Law School of India University – Centre for Environmental Law Education Research and Advocacy, http://www.nlsenlaw.org/crz/case-laws/supreme-court/appellants-indian-council-for-enviro-legal-action-vs-respondent-union-of-india-uoi-and-ors-decided-on-18-04.1996/ data retrieved July 2008

1. West Bengal

West Bengal to act against illegal hotels on the beach[6]

Mandarmani, located about 180 km from Kolkata in East Midnapore district, has seen a spurt in tourism activity. The character of the Mandarmani beach has changed because of the illegal hotel industry that is operating in violation of the CRZ Notification.

Courts have upheld a verdict for a PIL filed by National Fishworkers' Forum and an NGO - DISHA in relation to violation of CRZ rules by the tourism industry. As per the judgement of the District Court, upheld by the Appellate Body and the High Court, the Pollution Control Board has asked for the demolition of more than 10 hotels (some with investment of above 10 crores) in the Midnapore area of West Bengal Coast. The hotels were displacing and taking over the fishing grounds of more than 10,000 fishermen in the region.

It has also been reported[7] that the West Bengal government has moved in the Calcutta High Court against the unauthorised hotels and resorts that have come up on the sea beach at Mandarmani in violation of CRZ. In February 2007, the West Bengal Pollution Control Board (WBPCB) had issued an order directing them to demolish the hotels stating violation of the CRZ Notification, 1991. After the WBPCB order, the hotel owners moved the high court. Counsel for the hotel owners told the division bench of Chief Justice S.S Nijjar and Justice Pinaki Chandra Ghosh in Calcutta High Court that necessary permission for the hotels was obtained from the local administration (panchayats). The Calcutta High Court directed the state government to file an affidavit within two weeks. However, according to the WBPCB, the local administration along with state environment department officials went there repeatedly to demolish the construction but failed due to resistance from the local people.

The WBPCB would also take action against the local body if they have allowed the hotel industry to build permanent structures on the coast. The National Coastal Zone Management authority has already told the state government to take immediate action against the law violators at Mandarmani. However, the Division Bench of the Kolkata High Court gave an order maintaining status quo on the case in April 2007 and deferred the hearing to June 2007.

2. Andhra Pradesh

The Fisherman Youth Welfare Association, Visakhapatnam and District Fisherman Welfare Association through a petition brought to the notice of the High Court of Andhra Pradesh a gross violation of CRZ Notification, 1991. The petition accused Visakhapatnam Urban Development Authority (VUDA) to have encouraged construction of a yacht yard on Rishikonda Beach, Visakhapatnam.

On 6th July 2007, the High Court of Andhra Pradesh on the above writ petitions ordered:

- VUDA and Vishakapatnam District Collector to demolish all the constructions made in the entire coastal area in violation of CRZ Notification.
- To report back to the Court within two months about the removal of illegal structures near Rishikonda, which had come up in the name of a yacht yard, and to report the total CRZ violations along the coast of Visakhapatnam.
- Asked these authorities to send a report based on the action taken on demolition of the structures and removal of construction materials with photographs in two and half months time.
- Also asked the Principal Secretary, Department of Environment, Forests and Science & Technology to consider the feasibility of organizing workshops at least once a year for officers posted in the coastal districts to make them aware of the law relating to environment and ecology of coastal areas and to encourage them to take measures for protecting the same.

As a fall out of this Court Order, the Revenue department of Visakhapatnam District formed five teams to identify the CRZ violations along the coast

[6] Source: "West Bengal to Act Against Illegal Hotels On The Beach", New Post India online http://newspostindia.com/report-37096, dated Thursday, 14th February 2008, data retrieved May 2008

[7] Ibid.

of Visakhapatnam rural and urban areas. These teams have identified 300 constructions in violation of CRZ and given notices to the owners of the respective constructions as per the court order. They have also started demolishing the structures on the coast that had come up in the name of the yacht yard. These violations of CRZ also include tourism and recreation related activities that are put up for public use: Tenneti Amusement Park; concrete pavements, steps; a dais on Ramakrishna beach are some examples.

3. Tamil Nadu[8]

The entire coastal stretch of Tamil Nadu is replete with tourism activity, starting with Pulicat Lake in Thiruvallur district in the north to Kanyakumari in the south. Construction of tourism establishments and related facilities are in close proximity of the coastline with no regard to CRZ norms.

South of Chennai, there are large beach areas that have been acquired by companies like VGP, and Buena Vista (Neelangarai) who have constructed an amusement park over a large area very close to the coast. There are many hotels and resorts along the coast, the prominent ones being The Taj Group's Fisherman's Cove. The Leela Group has acquired seven acres of prime land near the beach front in MRC Nagar for the purpose of starting a 20 storey five star deluxe hotel.

Mamallapuram is a well known tourist destination in Kancheepuram district. The department of tourism has constructed numerous wayside amenities along the East Coast Road (ECR), on the seaward side of the road very close to the coast. These include parks and picnic spots. There are many resorts that have come up close to the coastal areas in this district. Numerous hotels and restaurants have also come up on either side of the ECR and the trend seems to be increasing, making it difficult to keep track of numbers. Many of these constructions would sometimes be within 200m when the ECR runs very close to the coastline. Some of the areas that have large tracts of coast under tourism are Jambodai where MGM resorts are located.

In Tarangampadi, Nagapattinam district, there is a governor's bungalow opposite to the Dutch fort that has been converted to a hotel by the Neemrana Group named Bungalow on the Beach. This structure is old and is very close to the coast. Extension activities of the hotel, like construction of a dormitory, have also been undertaken here. Velankanni is an important pilgrim tourist destination in the district. The number of tourists to Velankanni have been increasing steadily. The coastal stretch is very narrow and cannot accommodate the tourist inflow. The local authorities therefore decided to broaden this stretch by diverting the Upparu River from the Velankanni beach. Groynes were also laid near the estuaries. Nagapattinam also gets a sizable number of pilgrims to the mausoleum in Nagore. The combined activities of Nagore and Velankanni have prompted the establishment of many tourism related infrastructure in the coastal areas.

The rampant development of the tourism industry in Kanyakumari has left no space along the beach; the immediate stretches of land adjoining the sea towards the southern side have been completely occupied by the hotel industry. Amusement parks and water theme parks are the recent additions to attract domestic tourists. Baywatch is one such theme park which has planned its operation to cover about 4000 visitors a day. Sand dunes were levelled to have an elevated structure over it for a clear view of sunrise and sunset.

CRZ violations continue in Kanyakumari by the tourism industry as in the case where Coastal Regulation Zone norms were flouted by the developer of the beach front park and work was being carried out within 50m of the high tide line. Kanyakumari town panchayat leased out a prime beach front plot, 150m in length and 50m in width, adjacent to Kamarajar Memorial, to a private developer at Rs. 16,000 per annum to set up a recreation park. The developer levelled the red sand hills and erected grills and platforms, tampering with the geomorphology of the beach, a blatant violation of the stipulations of Coastal Regulation Zone. Kanyakumari Collector Jyothi Nirmala has ordered the immediate suspension of the development works

[8] EQUATIONS, 2006b.

at the Kanyakumari beach front, which were approved by the previous District Collector Mr. Devaraj Dev. The Collector also said that a complete reappraisal of the lease agreement between Kanyakumari town panchayat and the private developer would be done. In case if the violation of CRZ notification was found, the agreement would be scrapped[9].

HC notice on PIL[10]

The Madurai Bench of the Madras High Court on 20th August 2008 issued a notice to the government on a public interest litigation petition filed by a scientist seeking to conserve the 40,000 year old fossillised coral reef in the coast off the famous tourist town of Kanyakumari and suspend all construction activities in the coastal area. Justice Elipe Dharmarao and Justice A Selvam directed the district collector to file his reply in a week's time. The Petitioner R S Lalmohan of Indian National Trust for Art and Cultural Heritage submitted that Kanyakumari town was a national heritage centre and the area came under Coastal Regulation Zone Notification (CRZ-I) and no construction should be taken up within 500 metres of the coast. He contended that the Executive officer of the Kanyakumari Town Panchayat, in the name of beautifying the coastal area, had leased it for three years from last year to one Chandran, who was running a hotel. Though the hotel owner had been asked to maintain the park in the coastal area without making any permanent construction, he was using heavy machineries, bulldozers and excavators for scooping and dumping sand. They were also building platform adjoining the sea. This had already affected the geomorphology of the coast.

4. Kerala

5,753 unauthorised structures detected in State[11]

As many as 5,753 unauthorised buildings constructed in violation of the Kerala Municipal Building Rules (KMBR) and the Coastal Regulation Zone (CRZ) norms have been identified by local self-government institutions across the State. As many as 309 cases are of CRZ violations, which have been identified at Kottukal, Vizhinjam (Kovalam beach), Poovar and Kappil panchayats in Trivandrum district, and 113 in Varkala [a much sought after beach tourism destination after Kovalam in Kerala].

Large scale flouting of building rules detected[12]

"Kovalam, the internationally renowned tourism destination in Kerala, is undoubtedly one of the most glaring cases in point, of the damage that unplanned tourism can inflict on the environment. There are more than 150 resorts, shacks and restaurants within a single ward of the Panchayat. Almost all hotels and restaurants are located hardly ten metres from the sea in violation of the CRZ guidelines, indicating unplanned tourism development on the part of the government. The construction of hotels has drastically increased the rate of sea erosion with the sea ingress reaching up to five metres each year. In fact a proof of the blatant disregard for the environmental norms is the fact that hotels and restaurants are discharging their waste into open sewers that run parallel to the beach".[13]

In 2004, the Vigilance wing of the Local Self-Government Department has detected 1,500 cases of unauthorised constructions in the Vizhinjam panchayat. According to a preliminary report submitted to the Government, the panchayat committee has issued 'stop memo' in 104 cases. But no follow-up action has been taken on specific cases of violation of the Coastal Regulation Zone (CRZ) norms and the Kerala Municipal Building Rules. The report says that a hotel in Kovalam Beach Area -I has altered and reconstructed its old building without valid permit. The hotel functions out of a three-storey building. The panchayat committee had issued a 'stop memo' to the proprietor on September 17, 2003 (year), but no follow-up action was taken to either

[9] Source: www.newindpress.com online edition: http://www.newindpress.com/NewsItems.asp? ID=IET20080309231441&Page=T&Title=Southern+News+-+Tamil+Nadu&Topic=0 data retrieved May 2008

[10] Source: Chennai Online 20 August 2008: http://chennaionline.com/colnewsnew/newsitem.asp?NEWSID=%7B2FCE7AA2-9EBD-4D48-ACC4-FD81FC28B94D%7D&CATEGORYNAME=BUSINESS data retrieved August 2008

[11] Source: The Hindu, 26th June, http://www.hindu.com/2007/06/26/stories/2007062655540100.htm data retrieved May 2008.

[12] Source: The Hindu 23rd December http://www.hindu.com/2004/12/23/stories/2004122315740300.htm data retrieved August 2008

[13] Rodrigues, S., 2006, "Best kept secrets – The 'green' greed", Express Hospitality, 16-31 October 2006, http://www.expresshospitality.com/20061031/market07.shtml data retrieved May 2008.

stop the construction or assess the tax on the basis of the new construction. The structure stands barely three metres from the high tide line, which is in violation of the building rules, CRZ and zoning regulations, the report says.

5. Karnataka

The Government of Karnataka has declared the entire coastal stretch comprising of three coastal districts of Uttara Kannada, Dakshina Kannada and Udupi as a special tourism zone as an outcome of the Coastal Investors' Meet held in 2003-04. While tourism establishments continue to come up in popular destinations like Gokarna and Murudeshwar in complete contravention of CRZ Notification norms, with some buildings even in the inter-tidal zone, other areas are also being targeted for tourism development. However, no action is being taken by the government.

New resort raises head on Devbagh beach[14]

A beach resort is being planned on the Devbagh beach in violation of CRZ. There is already a resort run by Jungle Lodges and Resorts near the spot where the Kali River meets the sea. The new resort is being built two kilometres away from the Devbagh beach on the stretch that leads to Majali. Small cottage-like structures have come up as part of the resort. A swimming pool is already under construction. CRZ Regional Director Vasanth Kumar said the issue of the resort has come to the notice of the department. Mr. Vasanth Kumar added that he had already gone to the spot and inspected the survey number and other documents available. A case of violation of rules is being registered, he said. Though there are stringent rules in Karnataka, they are being flouted blatantly.

6. Goa

Communities in Goa have been at the forefront in the fight against violations of the CRZ by the tourism industry. This has now taken a complex turn when small community based operators fear that the stand to protect the coast will be the principle on which they will be taken to task and the big hotels will go scot free.[15]

In the Arossim coastal area in Cansaulim Panchayat one resort and two hotels have been proposed for construction. Of these, one resort Heritage Resort Pvt. Ltd. had commenced construction. The other hotels whose names have been advertised are Competent Group of Companies and Goa Inn Pvt. Ltd. These hotels have demarcated areas on the coast by fencing for construction. In the Utorda coastal area in Cansaulim Panchayat, Goa, one hotel called Hyatta has already been constructed. In an investigation undertaken jointly by Alternatives and Council for Social Justice and Peace, Goa and EQUATIONS, the following violations of the CRZ Notification were recorded:

- **Location of the hotels**
  - The Heritage Resort and all other hotels referred above are located within the 200 to 500 m from the High Tide Line (HTL) which is demarcated as No Development Zone (NDZ) according to CRZ Notification with reference to CRZ III (i) of the Notification.
  - The Heritage Resort has constructed permanent construction beyond and within the 200 m from the HTL in violation of CRZ III (ii) of the Notification
  - In the case of the Heritage Resort the construction is against the ambit of traditional rights and customary uses which is in violation of CRZ III (iii) of the Notification.

- **Restriction of public access**
  - The Heritage Resort and the aforesaid hotels have not left enough space for access to the beaches as prescribed in Annexure II 7 (1) (ix) of the CRZ Notification. Contrary to the prescribed 20 meters the space left for public access to the beach is less than 10 metres.
  - The Heritage Resort and Hotel Hayatta was observed placing the Deck chairs for their guests on the NDZ and security guards were placed to drive away local people from traversing those areas, even for access to the coast.

[14] Source: Deccan Herald, 23 April 2006, http://www.deccanherald.com/Archives/Apr232006/state215752006422.asp data retrieved May 2008.
[15] EQUATIONS field notes, 2008

- **Fencing**
  - The Heritage Resort and the Competent Groups of Companies have put up barbed wire fences with out any vegetative cover which is in violation of Annexure II 7 (1) (i) (ia) of the CRZ Notification.
  - In case of Goa Inn Pvt Ltd they have fenced the property with wire mesh which is not prescribed under CRZ Notification and is thus violating Annexure II 7 (1) (i) (ia) of the CRZ Notification.
  - In case of Hyatta Hotel they have fenced the property with a wooden fence which is also not prescribed under CRZ Notification and is thus violating Annexure II 7 (1) (i) (ia) of the CRZ Notification.

- **Pollution**
  - The Heritage Resort is discharging their solid wastes and the effluents directly into the sea without treatment thus violating Section 2 (v) and Annexure II 7 (1) (viii) of the CRZ Notification.

- **Flattening of sand dunes**
  - Flattening of sand dunes has been carried out for construction by the Heritage Resort and the Hyatta Hotel. The same has been done for putting up the fencing by the all the hotels and the Heritage Resort in violation of Sec 2(xiii) and Annexure II 7 (1) (i) (ib) of the CRZ Notification.

The investigation report has been used to file a Public Interest Litigation in the High Court of Goa for necessary action against the violators by the local groups.

Goa tough on CRZ violations[16]

Tourism development has taken a huge toll on Goa's coastal environment with violations mounting by the day.

A few months ago the state government identified over 300 constructions that defied the ban on construction within 200 metres of the high tide line. A number of blatant violations of the CRZ (coastal regulation zone) on the tourist coast here will face the axe under a revived Goa Coastal Zone Management Authority, headed by Chief Secretary J P Singh. Mr. Singh, who took over as chief secretary is perhaps the first high ranking bureaucrat to take a stand to protect whatever is left of the coast here. Hundreds of illegalities have escaped being demolished in the past with the connivance of politicians. The authority has also ruled against beach shacks on turtle nesting sites like Galjibag beach in south Goa and Morjim in the north. Morjim beach attracts a large number of Russian tourists, many of whom have taken over the business of running shacks, illegally from locals.

Sea of trouble ahead? CRZ scanner on foreigners[17]

The Goa Coastal Zone Management Authority (GCZMA) has discovered constructions by foreigners, especially Russians that have been built in violation of CRZ rules. Though the precise number is not known, government sources said that there are quite a number of constructions by foreigners in violation of CRZ. A majority of the violations are by Russians. In Morjim alone, there are more than ten constructions that have violated CRZ norms. Some of the major properties under the GCZMA scanner are: Artlidori Resort Pvt Ltd, Casa Blanca and La Valencia hotel, all in Morjim.

Coastal regulation zone violations rampant - Till date, 314 cases have been noted for action in Goa: Minister[18]

Minister for Environment Wilfred de Souza disclosed in a written reply in the brief budget session of the Legislative Assembly that till date, 314 cases of CRZ violations have been "noted for appropriate action". The famous beaches of Goa right from Calangute, Candolim, Baga, Anjuna, Wagator in North Goa to Bogmollo, Colva, Benaulim, parts of Cavellosim and

[16] Source: Deccan Herald, 24 June 2006, http://www.deccanherald.com/Archives/Jun242006/national1952172006623.asp data retrieved May 2008.

[17] Source: The Times of India, Goa edition June 28, 2008, http://goadourado.sulekha.com/blog/post/2008/06/sea-of-trouble-ahead-crz-scanner-on-foreigners.htm data retrieved August 2008

[18] Source: The Hindu, 6th April 2006, http://www.hindu.com/2006/04/06/stories/2006040610020300.htm data retrieved May 2008.

Pallolem in South are racing to be another Baina (a beach in the port town of Mormugao which is notorious for blatant illegal constructions).

7. Maharashtra

Best kept secrets The 'green' greed[19]

The more serious and conspicuous attempts to violate the notification have been recorded by vigilant groups all over the state. In Mumbai, a survey conducted under the auspices of the Indian National Trust for Art & Cultural Heritage (INTACH) and a number of other associations revealed that only one-third of the 34-kilometre waterfront from Colaba to Versova is available for public use. The CRZ notification has also been evoked by the local fisherfolk of Velaghar-Shiroda, in the Sindhudurg district, which was earmarked for tourism development by the Sharad Pawar government. The locals are presently contesting the land acquisition and eviction notices served by the Maharastra Tourism Development Corporation (MTDC) on behalf of the Taj group of hotels, which plans to build a five-star hotel and beach resort with aqua-sports.

8. Andaman Islands [20]

Tourism development in the Islands has largely occurred in contravention of the CRZ Notification, 1991. Tourism establishments that are beyond the prescribed limits of 200 or 500 metres from the high tide line are almost impossible to find and there are violations galore by tourism related activities in Port Blair, Wandoor, Havelock and Neil Island. All resorts in Havelock and on Neil Island, including the Dolphin Resort owned by Information, Publicity and Tourism Department (IP&T) which is a permanent structure are in violation of the CRZ Notification. In fact during high tide the sea water comes inside the premises of Dolphin Resort, over the sea wall that has been constructed. Dolphin Resort was inaugurated in 1993 by the then Lieutenant Governor Shri Vakkom Purushottam after the CRZ Notification, 1991 was issued. It is quite possible that this has been aggravated by the tsunami. However if the resort had complied with CRZ regulations, it is quite likely that such an extreme situation would not have arisen.

Corbyn's Cove south of Port Blair is popular with tourists and local people. To begin with, the Peerless Resort in Corbyn's Cove is located very close to the HTL. In addition to this, many permanent structures like a restaurant, washing and changing rooms for tourists have been built. The proximity of the entire setup is so close to the beach that sea sand accumulates on the road and in the premises of the resort, which needs to be cleared periodically. Again, as in the case above, this is about basic non-compliance to CRZ regulations in the first place. A slight subsidence has been recorded in South Andaman Island due to the earthquake of 26th December 2004. Locations like Corbyn's Cove have also been affected by the subsidence (or rise in sea level). Hence proximity of the resort to the beach has been further increased.

The road from Port Blair town to Corbyn's Cove, which is primarily used by tourists, has also been widened and the retaining sea wall has been rebuilt in 2007 to repair damages caused by the earthquake of December 2004. The CRZ allows bunding to facilitate permissible activities {section 2(viii)[21]}but also states that commercial purposes such as hotels are not permissible. A parking lot has also been constructed in 2007.

In Wandoor, there is a new restaurant that is being constructed just beside the road within a few metres of the HTL. There is a lot of waste-dumping on new Wandoor beach. The road is being widened and sea wall built in Chidiyatapu where the Department of Environment & Forests is constructing a biological park for tourists and other visitors.

Conclusions on the CRZ Notification, 1991

The CRZ Notification, 1991 was a positive legal response to the concerns raised from various groups, especially coastal communities and civil

[19] Rodrigues, S., 2006, "Best kept secrets – The 'green' greed", Express Hospitality, 16-31 October, http://www.expresshospitality.com/20061031/market07.shtml data retrieved May 2008

[20] EQUATIONS et al, 2008

[21] 2.(viii) Land reclamation, bunding or disturbing the natural course of sea water except those required for conservation or modernisation or expansion of ports, harbours, jetties, wharves, quays, slipways, bridges and sea-links and for other facilities that are essential for activities permissible under the notification or for control of coastal erosion and maintenance or clearing of waterways, channels and ports or for prevention of sandbars or for tidal regulators, storm water drains or for structures for prevention of salinity ingress and sweet water recharge; provided that reclamation for commercial purposes such as shopping and housing complexes, hotels and entertainment activities shall not be permissible.

society organisations, for the protection of the coastal areas. The CRZ Notification provides a blanket restriction on all activities in a zone that is generally understood to be fragile. The prohibition of those activities categorised under thirteen types in section 2 of the Notification was a good step to begin with. There are positive sides to the CRZ Notification too, e.g. including rivers, creeks etc, up to the point where a minimum salinity level of 5 ppt is recorded in CRZ areas. It accepts developments prior to 1991 and attempts to minimize further damage in zones that have already had urban growth.

At the same time the CRZ Notification permits traditional inhabitants of coastal areas, namely the farmers and fisherfolk, to access and use coastal areas for their lives and livelihoods. They are permitted to construct dispensaries, schools, public rain shelters, community toilets, bridges, roads and provision of facilities for water supply, drainage, sewerage which are required for the local inhabitants. Also permitted is construction / reconstruction of dwelling units between 200 and 500 m of the HTL, as long as these are within the ambit of traditional rights and customary uses such as existing fishing villages and goathans in CRZ III, with the restrictions prescribed under the CRZ Notification.

The coastal community has traditional rights, which are in relation to traditional use like fishing and using the beaches to park boats, store nets and dry fish etc. these are rights that need to be continued. When the community also claim rights to do other activities like tourism, complications arise and the current Notification does not nuance the different cases. The rights of the panchayats & urban local bodies are those accorded by the 73rd and 74th Amendment. These are not above rules like the CRZ Notification, 1991 which are formulated by taking into account on the basis of natural ecosystems and resources are common property resources. These need to be protected for the welfare of all people and not just one community. The panchayats & urban local bodies are given all the power to issue or cancel the licenses for any constructions happening within their jurisdictions. The coastal communities also have the legal right to approach court of law against any violations of CRZ or intrusion into their living and occupational spaces by industries.

The issue of the CRZ Notification, 1991 also set the precedence for involving the states and union territories in coastal conservation. However, because of lack of commitment of the state governments & union territories, the CRZ Notification has been rendered ineffective due to its poor implementation and led to continuous violations. While pressures from many vested interests have diluted the original Notification, a major role has been played by civil society organisations in enforcing the Notification inter alia through the public interest litigation route.

While there have been lapses in the implementation of the CRZ Notification, as has been described above, the tourism industry cannot be exonerated from not complying to the CRZ Notification, 1991. There is ample proof that activities like tourism have continued to expand in coastal areas in violation of the CRZ Notification, as is evident from the examples cited above. There is a need to deal with these violations sternly and decisively.

Part II

Swaminathan Committee Report, 2005

In July 2004 the MoEF constituted the Swaminathan Committee with the terms of reference to:

I. Review the reports of various Committees appointed by the Ministry of Environment & Forests on coastal zone management, international practices and suggest the scientific principles for an integrated coastal zone management best suited for the country;

II. Define and enlist various coastal and marine resources and recommend the methodology for their identification and the extent of safeguards required for conservation and protection;

III. Revisit the CRZ, Notification, 1991 in the light of above and recommend necessary amendments to make the regulatory framework consistent with recommendations on (I) and (II) above and the Environment (Protection) Act, 1986

The Committee submitted its report in February 2005. The Swaminathan Committee report has been critiqued by associations, movements and networks of coastal community and civil society organisations like Coastal Action Network (Tamil Nadu), National Fishworkers Forum, as well as academic organisations like Ashoka Trust for Research on Ecology and Environment, and UN agencies like the United Nations Development Programme on its claims of being scientific and trying to infuse scientific aspects in coastal protection with state-of-the-art integrated coastal zone management processes. The lack of consultative processes with representatives of coastal communities and civil society organisations engaged with coastal issues while preparing the report has been the basis for widespread criticism of the report. Many groups and associations of the fishing community have rejected the report for its severe democratic deficit, apart from the short shrift that the Report has given the coastal communities on their rights of control and access to coastal resources. Here we present an analysis of the Swaminathan Committee's recommendations and National Coastal Zone Management Action Plan (also refer annexure 3).

Guiding principles of Swaminathan Committee recommendations

Before presenting its recommendations, the Swaminathan Committee presents 12 guiding principles for consideration when the recommendations are implemented. The guiding principles begin with stating that the integrated coastal zone management policy should take into consideration ecological, cultural, livelihood and national security (principle #1). They have, for the first time, suggested that the coastal zone also includes marine ecosystems on the seaward side of the coast to the extent of 12 nautical miles, including the seabed (principle #2). This is a positive move because land based activities have been found to affect marine ecosystems. By bringing marine areas into the fold of coastal regulation, protection of critical ecosystems like coral reefs could be ensured.

The guiding principles state regulation (principle #3), application of precautionary principle[22] (principle #6, 9), public trust doctrine[23] (principle #9) and principles of gender, social and intra & inter generational equity (principle #8). The principles also focus on conservation and sustainable development (principle #4, 5, 7, 10). While these principles are progressive, the way in which they are incorporated in the recommendations needs to be assessed.

The Integrated Coastal Zone Management (ICZM) policy that is being proposed does not include rights of coastal communities (principle #1). The role of local self governments to decide the kind of development and to have a say in matters in areas of their jurisdiction has been omitted in the decision making process and has been limited to education and social mobilisation only. The approach to coastal management omits traditional knowledge and practices wherever available as a potential source of conserving coastal ecosystems e.g. traditional methods of managing sand dunes, mangrove forests. It suggests stakeholders as parties in decision making and thus boundaries between those who are holders of rights and those who have a stake have been blurred (principle #8).

Protection of coastal areas from natural disasters has been restricted only to "bio-shields" (increasing vegetation cover through activities like plantations to act as barriers to strong winds, sea surges and wave action) with non-coastal, exotic species like casuarina, salicornia (principle #11). These interfere with and alter natural process of sand dune formations and growth of other endemic coastal vegetation. Further, such plantations are appropriated by forest departments thereby taking away the access and control of these areas from the community and local governing bodies. The scientific basis of such emphasis on bio-shields is also questionable as to whether this is being suggested based on impact assessment studies or not. Lessons from the tsunami are that protection by having bio-shields is not enough. The proposal to have bio-shields needs to be carefully thought through and areas where they can be put up need to be carefully identified through participatory processes. Bio-shields across the entire stretch of the coast are not an appropriate suggestion.

Recommendations of Swaminathan Committee

Terms of Reference #1:

Review the reports of various Committees appointed by the Ministry of Environment & Forests on coastal zone management, international practices and suggest the scientific principles for an integrated coastal zone management best suited for the country

The Swaminathan Committee has made recommendations under each Terms of Reference. The Committee's first ToR was to review reports of various other committees set up earlier by the MoEF and other international practices thereby suggesting scientific principles for an integrated coastal zone management system that would best suit the country. The Swaminathan Committee, after reviewing the earlier reports of the various committees, states that these were comprehensive and if it was not for the MoEF selectively choosing some and discarding the rest, the CRZ Notification would have been strengthened. The Committee also takes cognisance of civil society groups terming these selective choices of the MoEF as dilutions to the CRZ Notification (section 4.1.1.i).

The Committee suggests a holistic approach to tackle coastal problems and has suggested inclusion of the ocean and tidal water bodies along with coastal areas (section 4.1.1.ii). However, when it comes to regulation, the Committee has suggested a "pragmatic management" approach for protecting ecological systems (section 4.1.1.iii). Having said this, the Committee has not elaborated the relationship between management and regulation.

[22] *Author's note*: The precautionary principle is a moral and political principle which states that if an action or policy might cause severe or irreversible harm to the public, in the absence of a scientific consensus that harm would not ensue, the burden of proof falls on those who would advocate taking the action.

Ref: Raffensberger C, Tickner J (eds.) (1999) Protecting Public Health and the Environment: Implementing the Precautionary Principle. Island Press, Washington, DC, data retrieved from http://en.wikipedia.org/wiki/Precautionary_principle March 2008.

[23] *Author's note*: The concept of the public trust relates back to the origins of democratic government, and its seminal idea that within the public lies the true power and future of a society, therefore, whatever trust the public places in its officials must be respected. Ref: http://en.wikipedia.org/wiki/Public_trust, data retrieved March 2008.

Later, it has recommended that regulatory frameworks and plans at area and region levels need to be ensured (section 4.1.1.vi). In this regard, strengthening the principles of the Coastal Regulation Zone has also been suggested complemented with policy mechanisms that would prevent further degradation of coastal zones. Likewise, the Committee has made many general recommendations that have the potential to ensure protection and conservation of coastal ecosystems if properly implemented.

The Committee states that coastal areas are common property resources. It acknowledges that collective and democratic initiatives are required at the level of local communities for preparation and implementation of ICZM (section 4.1.1.v). Such initiatives are also required at various levels of government – state and national but the Committee is silent about those. Decentralisation of decision making and management through devolution of powers and making available adequate resources to local self governments according to 73rd and 74th Constitutional Amendment for the sake of coastal regulation zone management has been made in the recommendations (section 4.1.1.vii, viii) and is omitted in the guiding principles.

The Committee suggests an integrated and inter-sectoral approach for environmentally and socially sustainable development vis-à-vis the ICZM. It states that the ICZM seeks to bring together users of coastal resources and relevant governmental agencies in order to achieve "eco-development". Here, there is a lack of explanation as to who the coastal resource users are. Coastal communities are also users of coastal resources. They have traditional rights of access and use of coastal resources, notwithstanding that their rights are to be exercised in the broad framework of coastal regulation[24]. But "other" users such as tourism are resource intensive activities, which need and are known to occupy large amounts of resources like land, water. Further, there are instances when such activities have led to the displacement of coastal communities and denied their traditional rights. Therefore, bringing together two entirely different kinds of coastal resource users to achieve sustainable development needs a carefully thought through mechanism. There are doubts whether the proposed ICZM will be able to deliver this mechanism as the role of local self governments has been reduced to educating people on coastal management and only consulting them while undertaking activities on the coast. Therefore, if the right of people to decide has been taken away, processes like the ICZM would only be information sharing exercises where the project proponents and / or the state, central level departments have already taken a decision.

Environmental and social impact assessments have been recommended as compulsory for any development activity along with provisions of a public review process, which is different from public hearing. Inclusion of social impact assessments is a progressive recommendation, and so is the suggestion for EIAs to account for social and economic costs that environmental degradation causes to local communities. Another positive aspect is for EIAs to take traditional as well as scientific knowledge into consideration (section 4.1.1.x).

The idea of having a public awareness programme prior to mandatory public hearing for projects is a progressive one (section 4.1.1.viii). It must, however, be kept in mind that public hearings as they are now being practiced is a mere formality because the Environmental Impact Assessment Notification, 2006 prescribes it, but the right of the community to decide has been denied in practice.

The Committee highlights the criticality of coordinating activities of government departments with jurisdiction in coastal areas (section 4.1.1.viii) and to ensure that there is no ambiguity in the allocation of responsibility and accountability (section 4.1.1.ix).

A particular exception seems to have been taken against aquaculture projects and a strict review of all such projects and their negative impacts has been recommended. Defence projects have been

[24] *Author's note*: Whereas the rural and urban institutions of local self-government have been given powers and functions under the 73rd and 74th Amendment, they are bound to follow central legislations such as the CRZ Notification, 1991.

recommended to be subjected to impact assessment processes and conflict resolution mechanisms (section 4.1.1.xi). There seems to be no rationale for excluding defence projects from the ambit of public hearing.

Terms of Reference #2:

Define and enlist various coastal and marine resources and recommend the methodology for their identification and the extent of safeguards required for conservation and protection

Conspicuous by its absence in this ToR is the task of defining & enlisting customary & traditional use of resources and recommending methodologies to identify and safeguarding them together with coastal and marine resources.

Under this ToR, the Committee has made many general recommendations pertaining to sustainable use of coastal resources. Biodiversity indexing and distinguishing between genuine community needs and commercial interests has been identified (section 4.1.2.i). The coastal and marine resources that have been identified for protection, which have been recommended to be notified as ecologically sensitive areas, are all the various ecosystems and landforms (section 4.1.2.ii, iii). Identifying and protecting sites of archaeological importance has also been suggested (section 4.1.2.vi). While the Committee has identified the need to protect natural and cultural heritage of the coasts, safeguards to check increase in tourism activity need to be put in place because of tourism's tendency to target precisely protected areas of these kinds. The Committee does not make references to this effect in its recommendations.

Concerns about the suggested "bio-shield" programme (section 4.1.2.iv) have been mentioned above. However, activities with a proven track-record of environmental degradation – mining, chemical industries and other hazardous industries have been allowed with taxes and cesses instead of being located elsewhere and prohibited altogether in coastal areas (section 4.1.2.iv). The Committee seems to have resigned itself to the notion that coastal areas of "incomparable value" – a new term that is quite ambiguous as it has not been defined elsewhere - will be eventually developed and hence developers will have to take absolute liability and bear the burden of proving that their activities will not harm coastal ecosystems and communities (section 4.1.2.vii).

The Committee recommends that coastal policy and regulation should be guided by the principle of equity and through the participatory processes of fair, just and transparent environmental decision making (section 4.1.2.ix). Preparation of local level biodiversity and cultural heritage registers by the local community has been suggested (section 4.1.2.xiv). Enhancing the capacity of local self governments, educational institutions, civil society and relevant government departments to undertake environmental and biodiversity audits has been suggested (section 4.1.2.xv). However, the role of local self government institutions has been limited to consultation and involvement (section 4.1.2.vii) without recognising that they can disallow those activities that are prohibited in the CRZ Notification, and those that may not be in the interest of coastal communities even if permitted under the CRZ Notification.

Importance of conserving and rationalising use of freshwater, groundwater in coastal areas has been taken cognisance of (section 4.1.2.viii). References to relevant multilateral environmental agreements have been given for conservation and sustainable use of coastal resources and biodiversity (section 4.1.2.xi, xii, xiii).

Terms of Reference #3:

Revisit the CRZ, Notification, 1991 in the light of above and recommend necessary amendments to make the regulatory framework consistent with recommendations on (a) and (b) above and the Environment (Protection) Act, 1986

Where the CRZ Notification, 1991 is concerned, the Committee acknowledges need for transparency in current implementation of CRZ (section 4.1.3.i) and that the various amendments have been detrimental to the coastal areas and have distracted the original Notification from its objectives (section 4.1.3.ii, iii). Therefore, strengthening of CRZ Notification has been recommended keeping in mind the needs of coastal communities and conservation of the coast (section 4.1.3.ii).

A rewards package has been suggested for construction incorporating environment friendly technologies (section 4.1.3.vii). Where an all India Coordinated Research Project for Sustainable and Integrated Coastal Zone Management has been suggested (section 4.1.3.viii), a research programme would have been more appropriate for undertaking research as well as continuing the process of updating data and disseminating it.

The Committee has recommended doing away with demarcating the High Tide Line and adopting a natural boundary (section 4.1.3.ix). The reason for this being misuse by local authorities who implement some provisions of the CRZ Notification and deny essential activities on the coasts. However, it may not be a good idea to do away with demarcating the HTL as it gives a good reference point to gauge the interface between land and marine ecosystems. It is also useful to understand dynamics of climate change; sea level rise and natural phenomenon offsets like subsidence and uplift of land.

Other recommendations under this terms of reference are general, but may be helpful for conservation and regulation (section 4.1.3.x, xi, xii, xiii, xvi, xvii, xx) provided there is an organic link to other democratic processes and the opportunities for effective participation of public are given (section 4.1.3.xi). Setting up of Rural Knowledge Centres for capacity building of coastal communities has been suggested (section 4.1.3.x). Construction of new roads in CRZ areas has been suggested to be prohibited till ICZM Plans are put in place, except for providing access to the sea for fisher communities (section 4.1.3.xiii). Encouragement and support for the fisheries sector has been given (section 4.1.3.xix).

Coastal tourism and recreational facilities are to be promoted in potential areas identified after considering social issues, vulnerability and resources; awareness building for tourists needs to be undertaken. The criteria chosen by the Committee is inadequate given that tourism has serious environmental, social, economic and cultural impacts (section 4.1.3.xviii). While the Committee takes note of the threat of unplanned tourism development and its impact on coastal ecosystems, this recommendation is very open ended and may be used to open up more areas for tourism in the coastal areas. This is evident from the rampant growth of the tourism industry all along India's coastline including islands, which has grown in violation of the CRZ Notification, 1991 most of the time.

Recommendations for implementing National Coastal Management Programme

The recommendations of the Committee for a separate division in the Ministry of Environment and Forests to handle Coastal Zone Management and a National Board for Sustainable Coastal Zone Management are worth considering. The membership of the National Board for Sustainable Coastal Zone Management is also inclusive of a wide range of rights holders and stakeholders. The purpose of having representatives of the print and electronic media however raises a doubt. However, setting up of National and State/UT level Coastal Zone Management Authorities is redundant because such a structure exists today and could be incorporated as suggested in the organogram. Further, if coastal conservation and regulation is to be accorded the same priority as wildlife and forests, then the National Board for Sustainable Coastal Zone Management should be chaired by the Prime Minister. The Committee concludes the recommendations chapter by stating that existing regulations and institutional structures need to be strengthened.

National Coastal Zone Management Action Plan

The Committee has also suggested a National Coastal Zone Management Action Plan. The coastal zone is defined as the administrative boundary of a local self government, which may be useful in processes like regulation, preparation of management plans and so on, an ecological understanding of coastal areas would offer a better platform to permit or regulate certain activities. The area on the landward side influenced by wave action, extent of sand dunes and coastal vegetation, presence of coastal water bodies and so one are criteria that could have been adopted to define coastal zones.

There is not much change in the understanding of coastal zones except for the inclusion of the term

"areas of particular concern" in CMZ-II areas as proposed in the draft CMZ Notification. How impacting activities like tourism, industries, SEZs in these areas can be regulated is the key concern, which the Committee has not addressed rather leaves it to the ICZM Plan to decide. The CRZ Notification, 1991 gives a better description of classification of CRZ areas and permissible and prohibited activities.

The responsibility to identify and declare Ecologically Sensitive Areas (ESAs) should not rest only with MoEF, but it should be a participatory process involving both rights-holders and stakeholders. The suggestion to have a coastal policy and rules (hopefully to implement the Notification) is, however, valid.

Conclusions on the Swaminathan Committee Report

One of the points of critique of the Swaminathan Committee report has been the lack of consultations with various community organisations, fisherfolk associations and civil society organisations who are engaged on coastal issues. The Swaminathan Committee mentions in the beginning of chapter 4 that "Based on in-depth discussions and widespread consultations with the principal stakeholders, the Committee developed the following 12 basic guiding principles, which should govern future decisions on coastal zone management …" However, this claim has been challenged by movements like the National Fishworkers Forum, who have gone ahead and pointed out the Swaminathan Committee has not practiced what it has preached. Further, the list of the "principal stakeholders" and minutes of the "widespread consultations" are nowhere available in the public realm. The constituencies agitating against the Swaminathan Committee report could then see the quality of the participatory process claimed by the Swaminathan Committee. Despite this critique, the MoEF or the Swaminathan Committee have not made any attempts to provide the details of these consultative processes.

Where the guiding principles state regulation (principle #3), application of precautionary principle (principle #6, 9), public trust doctrine (principle #9), and principles of gender, social and intra & inter generational equity (principle #8), they have also included the polluter pays principle. The polluter pays principle means that those who pollute should bear the costs of avoiding it or should compensate for it. While this is an internationally recognised component of international environmental law, there are inherent problems with this principle. Polluters would continue to pollute and pay whatever might be the costs, fines to the concerned authorities and compensation to people affected by the pollution. The multiple costs of long term environmental damage and harm to life will not be counted and the polluting activities will not be held accountable for it. People who are affected by environmental pollution will also not be compensated as has been the case in the Bhopal Gas Tragedy. Industries are usually given subsidies and incentives by governments. When these industries pollute and pay for the pollution, it is in a way being financed by the taxpayers' money. The Indian Judiciary has acknowledged the polluter pays principle and given judgements based on it. But concerns remain on the criteria for fixing the costs that the polluter has to pay and that the principle would be left to various forms of interpretation[25].

Some of the recommendations of the Swaminathan Committee are useful and will help in strengthening the current CRZ Notification.

The positive aspects of the Swaminathan Committee recommendations, which need to be accepted, are:

- Inclusion of marine areas with the seabed within the coastal zone
- Strengthening of the CRZ Notification, 1991 and bringing transparency in the process of its implementation
- Formulating a coastal policy and rules.

Some recommendations are very general and often sound like analyses. Therefore they leave a lot of room for selective interpretation which will anyway happen by stakeholders. There is no value addition being made so suggest removing these sentences. The refrain of the ICZM resonates throughout the report without actually describing the content, structure and functioning of such a process although

[25] Choudhary, H., 2007. "Interpretation Of Polluter Pays Principle (PPP) In India", Legal Service India.com http://www.legalserviceindia.com/article/l54-Interpretation-of-Polluter-Pays-Principle.html data retrieved September 2008.

some basic guidelines have been given in the annexure. The way in which the recommendations have been structured also makes it difficult for the reader to make the necessary linkages; some are repetitive (e.g. heritage sites, biodiversity indexing and inventorisation of coastal bio-resources, polluter pays principle) and sometimes one issue has been dealt under different sections.

Where it falls short is on the actual role of local self governments despite references to 73rd and 74th Constitutional Amendments in the guiding principles, but the role to decide is not acknowledged in the recommendations. The right of the coastal community as per the Constitutional Amendment to decide on the type and pace of development is not acknowledged in the recommendations. The Committee fails to make the distinction rights-holders – the coastal community and local self governments – and other stakeholders. The rights-holders are those who are accorded rights as per Constitutional provisions to decide on the type and pace of development (at the local level). The suggestion to include stakeholders as parties in decision making is unacceptable and it leads to conflict of interest. There have been similar concerns raised by various , movements and networks of coastal community and civil society organisations, academic organisations and UN agencies who have critiqued the Swaminathan Committee Report.

The objective of the Committee to revisit the CRZ Notification, 1991 in order to provide appropriate amendments for strengthening it is reasonable. Therefore, it is surprising that the MoEF is proposing to replace the CRZ Notification thereby backtracking on its own objective of constituting the Swaminathan Committee and bringing out a new CMZ Notification.

Part III

EQUATIONS Critique of the Draft Coastal Management Zone Notification, 2008

The Union Ministry of Environment and Forests officially posted the draft CMZ Notification in May 2008 vide notification no. S.O 1072 (E), which is a proposed replacement to the Coastal Regulation Zone Notification, 1991 and comments were invited within a 60 day period[26]. In the words of MoEF, the present draft was necessary "perceiving the continuing difficulties posed by the Notification (namely the CRZ Notification) in its effective implementation for the sustainable development of coastal regions as well as conservation of coastal resources". [27]

Why the push for draft CMZ Notification?

The draft CMZ Notification comes at a juncture where both central and state governments are chasing economic growth through incentivising industry and deploying domestic and foreign private capital on a massive scale in new infrastructure and industrial developments. There is relentless drive for acquisition of land to facilitate the interest of the investors. In the process, all kinds of land; from agricultural land to forest, revenue land and common property resources are being targeted. The coast is no exception. For example, in Andhra Pradesh (AP) the State Government has come out with the Government Order (GO) 34, aimed at developing the coastal areas of AP right from Srikakulam to Nellore districts in an area covering kms, into a Coastal Industrial Corridor. The AP State Government is promoting it as a prestigious project that according to them would accelerate industrial growth in the state through the construction of industrial parks, theme parks, mega chemical complexes, amusement parks, pharma parks etc.

The 7,517 km coastline of the country from east to west in the southern peninsula is experiencing huge investments. Coastal lands are in high demand especially from the real estate developers, developers of SEZs and Entertainment hubs. The state-wise distribution of formally approved, in-principle approved and notified SEZ in the country posted in the SEZ portal of the Ministry of Commerce shows that the coastal states have the lion's share of SEZs in the country. Out of the 513 formally approved SEZs in India[28], Gujarat has 45, Andhra Pradesh 94, Maharashtra 95, Karnataka 48, Tamil Nadu 60, Kerala 16 and even a tiny coastal union territory of Dadar & Nagar Haveli has 4.[29]

According to a recent property development news report from Gujarat, Mandvi a coastal village of boat builders, will be developed as a "special entertainment zone" - the first major endeavour of the Gujarat government under its new tourism joint venture company set up with the Tourism Corporation of Gujarat Ltd (TCGL) and Infrastructure Lease and Finance Services. Mandvi beach will enjoy the privileges allowed to India's SEZs. A 7 km stretch between Mandvi and Bhrabudi village, towards

[26] http://pib.nic.in/release/rel_print_page1.asp?relid=39036
[27] Preamble of the draft CMZ Notification
[28] Refer Special Economic Zones in India, Ministry of Commerce and Industry, Department of Commerce http://sezindia.nic.in/welcome.htm
[29] Based on the data provided as on 30th June 2008 as per the Fact Sheet on Special Economic Zones posted in http://sezindia.nic.in/welcome.htm

Mundra port, has patches of government and forest land, which will be put to use for developing the entertainment zone. Also, a 10 km stretch from Mandvi to Pingleshar in the north shall be explored for the venture[30]. According to news report says that a few months back the state Government has taken the decision to relax liquor norms and allow private parties to set up bars on Mandvi beach in Kutch[31]. According to a senior official, "The TCGL has one lakh square metres of land along the sea coast. The government team will see if more land can be made available, so that more than one private party can be asked to develop the area as it has one of the best sea beaches in the country." The investor's news from Kerala also showcases use of the coast for property developments, ports and IT Parks[32].

The planning of the central government to bring a change in the CRZ Notification is not new. Though not discussed or debated openly, the MoEF started working on a new draft way back in 2003. According to World Bank website[33] the government of India has entered into a loan agreement with World Bank on Integrated Coastal Zone Management. The objectives, according to the loan agreement, are to develop and implement an improved strategic and integrated management approach for India's coastal zones to preserve the long-term productivity for continued sustainable development and economic growth. The four components are: (i) vulnerability and ecological mapping; (ii) institution building and strengthening at national level; (iii) development and implementation of state-level approaches; and (iv) project management. Implementation of this World Bank Project was initiated by MoEF well before MoEF officially acknowledged the drafting of the draft CMZ Notification.

Also, in the recent Planning Commission Document for Inclusive Growth[34], much emphasis has been given on the coast and coastal developments. A special section on Coastal Zone Management (in Chapter 9 - 9.1.59) of the Planning Commission Report talks about the CMZ Notification. Without going into the specifics of why CRZ Notification failed and how the draft CMZ Notification is a better option, it just states that the Swaminathan Committee prescribed that local circumstance and vulnerabilities should be the basis of coastal zone management and regulations. Interestingly, the Planning Commission document in its opening lines refers to the CRZ Notification as "the earlier Coastal Regulation Zone Notification …" The Planning Commission is a pivotal planning body of the country. It is of concern that the Planning Commission refers CRZ Notification as an earlier notification while legally the CMZ Notification is still in the draft stage and according to MoEF is open for public consultation and debate[35].

Definitions

Coastal Zone: The definition includes the territorial water limits of 12 nautical miles including the seabed, as has been the demand of most the conservationists, activists and the coastal groups for many years now. It also includes inland water bodies influenced by tidal action – both the bed of the water-bodies as well as lands adjacent to such water bodies. However, it is not clear why the coastal zone extends up to the landward boundary of the local self-government / authority. E.g. the boundary of a coastal village panchayat may be quite far from the HTL or the coastal land affected by the sea. Bringing the entire panchayat within the CMZ framework to regulate activities would in this case be inappropriate. A more ecological definition of coastal zone, such as that land mass adjacent to the sea that is affected by the tide, current, wind and at the same time influences ecological processes of the sea,

[30] Refer nubricks.com – The Overseas Property Blog, the online launch pad for international property developments, overseas property news alerts and real estate podcasts. http://www.nubricks.com/archives/367/mandvi-beach-property-india/

[31] *Three Cheers To Mandvi Beach Bar,* The Times of India, Ahmadabad Edition, 3 Jul 2007, 0222 hrs IST, Rajiv Shah,TNN, http://timesofindia.indiatimes.com/Three_cheers_to_Mandvi_beach_bar/articleshow/2168367.cms

[32] Dubai Ports International is investing US$1.7 billion in modernising the Rajiv Gandhi Container Terminal at the Kochi Port Kerala. The project includes obtaining Special Economic Zone status for a yet to be built international container trans shipment terminal on Vailarpadam Island. Refer World Economic Processing Zones Association, *From the Desk of: Robert C. Haywood, Director,* WEPZANEWS, May 2, 2005 Website: www.wepza.org

[33] Refer to http://www.worldbank.org.in/WBSITE/EXTERNAL/COUNTRIES/SOUTHASIAEXT/INDIAEXTN/0,,menuPK:295619~pagePK:51173040~piPK:51191638~theSitePK:295584,00.html

[34] Refer to Eleventh Five Year Plan 2007-12, Volume 1, II and III by Planning Commission, Government of India. http://planningcommission.gov.in

[35] The Commissioning of Centre for Environment Education (CEE) by MoEF to hold consultative meetings on the draft CMZ Notification 2008 seems to be for the said purpose.

would help in identifying the environmental threats and thereby help regulate permissible activities and prohibit those that would impact the coastal ecosystems.

Integrated Coastal Zone Management (ICZM) and Plan (ICZMP): The Draft CMZ Notification does not provide these details. Both the concepts need detailed explanations as to how they are going to be put in practice. The CRZ Notification, 1991 prescribed the CZMP and only gave broad suggestions that the CZMP should show categories of CRZ areas (CRZ – I, II, III, IV). This led to the states preparing status reports on current activities in the coastal areas and unilaterally deciding the CRZ category. Further, the HTL was also not marked. The CZMP should have ideally contained, which it did not contain, current activities, composition, constitution, process of functioning of the state CZMA, process of seeking, granting clearances and disciplinary, punitive action and its process against violators. Therefore, the absence of guidelines on preparing the CZMPs resulted in them being reduced to mere status reports. Similarly, no guidelines have been given for the ICZMP, which means that this document will be an updated status report of its predecessor.

Setback Line:

The concept of a Setback Line is not a new one. Even the NDZ prescribed in the CRZ Notification is nothing but some kind of a setback line. However the principle of the Setback Line in the CRZ Notification is completely different from the setback line proposed in draft CMZ Notification. The setback line under the CRZ Notification is intended to create a buffer zone to regulate activities like coastal tourism, mining and infrastructure development from impacting natural resources, which have a degrading effect on coastal ecosystems and impact coastal communities. The Setback Line in the draft CMZ Notification is more of a hazard line that according to the given definition is based on vulnerability to sea-level rise, flooding and shore line changes. That is the reason why it is not definite and will vary from place to place, even within a panchayat limit.

The definition of a setback line in the draft CMZ Notification says that it shall be based on the vulnerability of the coastal stretches to sea level rise, flooding and shoreline changes. Despite years of lobbying and advocacy by the civil society groups and scientists & researchers working on the biodiversity and ecology of the coast, the draft CMZ Notification does not acknowledge that infrastructure development, artificial landscaping and increased human interference due to tourism activities could also lead to devastation of the coast.

The High Tide Line (HTL) would be a better reference to demarcate coastal regulation zones if various coastal ecosystem components are incorporated into zones, e.g. the ecological boundary of sensitive areas may be the landward boundary of that particular coastal regulation zone if it is beyond 500m of the HTL, rather than being limited to 500m only. Therefore, the setback line would actually serve the function of a hazard or risk line. If this is overlaid on coastal regulation zones, it may provide a better perspective to take decisions on allowing or prohibiting activities.

Categorisation of coastal zone

The draft CMZ Notification is a clear dilution of earlier coastal regulation norms. categorisation of the coast into CMZ-I, CMZ-II, CMZ-III and CMZ-IV is the most crucial of all the activities suggested in the draft CMZ Notification. The management of various activities on the coast shall depend on this categorisation. However, there is no provision in the draft CMZ Notification that calls for public participation or consultation in the entire activity of categorising the coast.

Coastal Management Zone I:

According to the draft CMZ Notification, CMZ-I will not be equivalent to CRZ-I[36]. These zones shall no longer have statutory protection and non-interference as in case of CRZ–I. The proposed CMZ-I could allow activities like tourism in the eco-sensitive zones as long as they are included as part of the "Integrated Coastal Zone Management Plan". As indicated in the critique by ATREE[37], unaccounted leverage given to

[36] The pictoral comparisons of the provisions of CRZ and draft CMZ Notification given in Annexure 4 of "Coastal Management Zone Notification' 08 –*The Last Nail in the Coffin*" by ATREE very clearly shows the proposed permissible change in use of the coast.
[37] Ibid

the management authorities – in the present case to the State Coastal Zone Management Authorities (SCZMAs) - by introduction of words such as "ICZMPs prepared shall ensure proper protection and conservation of all ecological sensitive areas keeping in view the safety and livelihood needs of the local communities and essential development". Nowhere are the phrases 'livelihood needs of the local communities' and 'essential development' explained. Thus, it has been left to the policy makers, in the present case the drafters of ICZMPs in respective states and Union Territories to decide what they perceive to be important for livelihood needs of the local communities and essential development. Anything from developing coastal tourism establishments to making of roads and rail links and ports in the coast; commercial activities such as SEZ development, industrial estates, mineral mining, man-made coastal protection structures and defence installations can be mooted as essential development and in support of livelihood needs of the local community. A comparison of the CRZ Notification in its original form to the draft CMZ Notification clearly points out that CMZ-I category has none of the protection and conservation ethos of CRZ-I. In its present format, it is a serious threat to the sensitive coastal ecosystem and communities. Thus the draft CMZ Notification gives a green signal for unbridled commercial activities along the coast.

Further, the list of areas that are demarcated as ecologically sensitive areas and thus categorized as Coastal Management Zone I (CMZ-I), is not a comprehensive list. The list does not include heritage sites, where activities like tourism could come in e.g. Mamallapuram, Tamil Nadu. The breeding grounds of fishes, reptiles other than turtles, amphibians and mammals that are part of the coastal ecosystem but that do not enjoy the status of protected areas under other laws like the Wild Life (Protection) Act, 1973 have not been included in the list.

Coastal Management Zone II:

CMZ-II in the draft CMZ Notification, which is equivalent to CRZ-II of the CRZ Notification, prescribes that coastal panchayats with more than 400 persons per square kilometres shall be declared as CMZ-II areas. This shall open up a whole lot of areas for various human activities which till date are protected as CRZ-III[38] areas under the CRZ Notification, which will now get classified under CMZ-II thereby opening them to urbanisation and industrialisation. As per the prescribed limitation of activities in the CRZ-III areas, it brought a set of exclusive settlement rights to the fisherfolk and other local communities in the coast. A provision of CMZ-II has been strategically introduced keeping in mind that most of the coastal regions in India would fall under the category of CRZ-III.[39] Under the present set up of the CRZ Notification, tourism and other industries which require waterfront and foreshore facilities can use CRZ-III areas with the permission and clearance from MoEF. The tourism industry has been lobbying with MoEF to do way with the present set-up. As stated earlier[40], a number of violators of the CRZ Notification were taken to court and many of them were found to be guilty and their constructions face demolition orders. Therefore the proposal of CMZ-II seems very strategically made keeping in mind the interest of the industries like tourism, real estate so that no legal embargo can be enforced against such activities on the coast.

Similarly, the rationale for including heritage areas and notified archaeological sites under the Protected Monuments Act is unclear, as these areas should be under the first category due to their status as cultural heritage sites.

In line with the philosophy of draft CMZ Notification the permissible list of activities under "Areas of Particular Concern" given in Appendix III of the draft notification includes amongst others notified tourism areas, notified industrial estates, foreshore facilities

[38] CRZ III under CRZ Notification 1991,

[39] According to an earlier research finding undertaken by EQUATIONS- "Thanks to the strict parameters for zoning, even after deliberate manipulations to limit the land area under CRZ III an average of around 60% of the coasts come under this zone. To site a few examples: in Kerala, the total area under CRZ is 498.579 square kilometres. Of this, CRZ III is 341.825 square kilometres. In Karnataka it is 274.04, 172.71 square kilometres and in Andhra Pradesh it is 3674.73, 2526.6 square kilometres respectively." Refer Haribabu, 1997, "CRZ - Regulating People's Lives", ANLetter, EQUATIONS, Vol. I5, Issue 1 (June).

[40] In the section on CRZ Notification, 1991

for SEZs and green field airports, and expansion and modernisation of existing airports. These activities in the CMZ-II areas shall not require any Environmental Impact Assessment (EIA) or consultation with the local community. As pointed out by other researchers, the provision on green field airports as well as the matter on expansion of existing airports clearly reflects non-seriousness and non-commitment of the MoEF and central government towards conservation and protection of the coast. Such decisions are not only boosted by the aviation industry but also policy decisions like positioning and maintaining tourism development as a 'National Priority Activity' under the 10thFive Year Plan. The position has been reiterated in the 11thFive Year Plan[41]. Planning Commission says that the Vision Document prepared by Ministry of Tourism envisages a target of 10 million international tourist arrivals by 2010. This target is proposed to be achieved through diversification of principal source market which includes improvement of infrastructure facilities like airports, roads and civic amenities. It also suggests that the infrastructure facilities at the airports would be developed to meet the rising air traffic requirements.

Coastal Management Zone III:

The Draft Notification declares CMZ-III as all other open areas including coastal seas but excluding areas classified as CMZ-I, CMZ-II and CMZ-IV. In relation to CMZIII, there is a need to carefully define it so as to include fisherfolk villages and that of other coastal communities who have been part of the ecosystem traditionally, and have been recognised by the CRZ Notification, 1991.

In CMZ-III areas the draft notification clearly states that water sports and recreation facilities shall be permitted on the seaward side of the setback line with the approval of the State or Union Territory Coastal Zone Management Authority. Green field airports and expansion and modernisation of existing airports are also permitted with EIA and Environmental Management Plan to be approved by MoEF. It is of concern that despite protests by local communities against exploitation of the coast through tourism expansion plans in states like Goa, Kerala and Andhra Pradesh[42], tourism continues to be promoted at the cost of the ecology as well as access to resources by the coastal communities.

National Board for Sustainable Coastal Zone Management

The constitution of the Board will be useful to provide the impetus for protection of coastal areas. If coastal areas are to be accorded the same level of protection as forests, wildlife then the suggested Board should have the Prime Minister as the Chairperson as in the National Wildlife Board. The list, although more inclusive than the National Coastal Zone Management Authority, is interesting to note as the MoEF has omitted Union Minister for Ocean Development and Representatives from Non-Governmental Organisations involved in activities related to coastal zone management, fishermen welfare and conservation of bio-resources and cultural heritage, as was recommended by the Swaminathan Committee, and has included the following:

Union Minister-in-charge of Ministry of Earth Sciences	-	Co-Chair
Secretary, Ministry of Environment & Forests	-	Member Secretary
Experts (by name) in:		
Coastal Ecosystems	-	1
Marine biology	-	1
Maritime law	-	1
Meteorology	-	1
Disaster Management	-	1
Environmental Economics	-	1
Representative of the Ministry of Defence	-	1
Representative of the Ministry of Urban Development	-	1
Representative of the Ministry of Panchayati Raj	-	1
Representatives of community based organizations of the mainland coastal population	-	3
Representatives of coastal Rural District Panchayats	-	3
Representatives of coastal Urban Local Authorities	-	3

[41] Refer to *Eleventh Five Year Plan 2007-12, Volume 1, II and III* by Planning Commission, Government of India. http://planningcommission.gov.in, Vol III, page 247

[42] Refer to the cases mentioned from various states in the chapter on CRZ Notification.

State/UT Coastal Zone Management Authorities

It is important to mention that the composition, functions and powers of the management authorities at the state and union territory level (State or Union Territory Coastal Zone Management Authority) are not defined. There is nothing in the draft CMZ Notification that gives a hope that draft CMZ Notification shall take care of the enforcement issues differently. There is no provision for strengthening the enforcement or powers for taking punitive actions against violators. Moreover, the draft CMZ Notification does not specify what will be done to punish those who have violated the CRZ Notification till date, once the draft CMZ Notification comes into operation.

The Draft Notification states that "The State/UT Environmental Appraisal Authorities (SEAA) set up under the provisions of the EIA Notification dated 14.09.2006, under the Environment (Protection) Act, 1986 shall also be the State/UT Coastal Zone Management Authorities". The existing Coastal Zone Management Authorities cannot be done away with, as there is a more inclusive membership in the CZMAs as compared to the SEAAs. Environmental clearance procedures are also and hence overloading the SEAAs may not be advisable. CZMAs should continue to function with clearer and transparent procedures, and making them have a more democratic membership.

Management methodology

Notification of setback line: The draft Notification states that the setback line will be notified by the Central Government - MoEF alone cannot decide on the setback line. The notification of the setback line needs to be done in consultation with different users like fisherfolk in fishing villages, farmers in agricultural areas and inhabitants in housing localities. Participatory process with urban and rural local self government bodies need to be put in place at state / UT level for the purpose of demarcating the setback line. For this purpose, the state departments / CZMAs need to make the maps that will be prepared for marking the setback line available in local languages. These need to be discussed with the various constituencies and then finalised. The demarcation of the setback line also does not take into consideration important features like land use practices by the coastal communities.

Coastal Management Zone I: MoEF proposes to identify ecologically sensitive areas "…jointly with the concerned State Government / Union Territory Administration, with the technical assistance provided by one or more competent and established scientific research institutions specializing in coastal resources management, and notified by the Central Government". Participation of local self governments needs to be ensured at the state government / UT level also. All activities cannot be only regulated in this category based on ICZMP, rather a list of prohibited activities needs to be made. The CRZ Notification, 1991 has a list for prohibited activities in CRZ-I areas which can be strengthened further.

Coastal Management Zone II: It is important to address violations of CRZ Notification, 1991 before the demarcation of areas as second category. A time frame to relocate or remove violations may be issued by the MoEF in consultation with state / UT level authorities. Further, resorting to coastal protection structures may not always be an option, which the Draft CMZ Notification wants. An appropriate method could be mapping of areas under the second category, which needs to be agreed upon by all concerned and then a call taken if coastal protection structures are required or not. It is not clear whether the ICZMP is required for this category of areas.

Coastal Management Zone III: The CRZ Notification, 1991 provided a better definition of this category of coastal regulation zone, which could be retained: CRZ-III covers areas that are relatively undisturbed and not falling under either CRZ I or II; up to 200m is NDZ; traditional rights of fisherman to build small structures is allowed. It is not clear whether the ICZMP is required for this category of areas.

Coastal Management Zone IV: Same as CRZ-IV.

Appendix – V: Activities Requiring Access to the Shorelines

As has been given in the Draft Notification, some activities like public toilets, beach tourism,

discharge of effluent and sewage should not be allowed in close proximity to coastal areas

An analysis of the draft CMZ Notification is also given in annexure 4.

Certain fundamental questions that remains unanswered:

- *If the MoEF feels that the CRZ Notification is not adequately taking care of the coast, they can amend the CRZ Notification to incorporate necessary provisions to bring back the CRZ Notification in its original spirit and form. Why is there a necessity to adopt a completely new draft?*

It is important to point out that the present draft CMZ Notification calls for a major shift in the philosophy of coastal governance. The CRZ Notification was meant to be a regulatory mechanism with its core being conservation and preservation of the coast. The present draft CMZ Notification calls for management of the coast instead of regulating it. The title clearly refrains from using the term "regulation" and replaces it by "management". It is a major paradigm shift that the draft CMZ Notification is trying to bring about in seeing how activities on our coasts need to be "managed" rather than be "regulated". Literally as well as from a governance point of view, regulations brings in many restrictions which often are looked upon by industries like tourism, mining, port based industries as limitations and barriers. That was the exact case with CRZ Notification. The very fact that it prescribed a "No Development Zone" for a span of 500 meters in CRZ I and III areas and 200 meters in CRZ II areas in the coast hampered the business interest of many industries like the tourism industry, real state industry and infrastructure developers. These lobbies were always in the forefront of asking for amendments in the CRZ Notification in order to get a licence to grab, build upon and plunder the coast. The present draft CMZ Notification actually builds on the amendments that CRZ Notification has and thus calls for managing these activities instead of regulating them.

- *If the MoEF felt that there was a necessity of introducing a new framework, then why again in the form of a Notification when the need of the day is legislation for actual regulation and conservation of the coast?*

Over the years there has been growing concern that the "Notification" character of the CRZ Notification makes it nebulous in nature. There has been a demand to convert the CRZ Notification into legislation. The MoEF argues that there is no difference between a notification that has been passed under legislation (in the present case the Environment Protection Act, 1986) and legislation per se. But legal experts have very clearly pointed out that a notification is conceived, drafted and brought into operation by the executives in the government, which to a large extent cannot be influenced by external agencies like the civil society. Legislation on the other hand calls for a debate in the Parliament and thus can be lobbied, advocated and influenced. For example: of the 21 amendments that were brought in CRZ Notification with the motive of diluting the regulatory framework, only 3 were put out for public comments before finalisation. In a governance structure like ours, we should not have a notification but proper regulatory mechanism through legislation for the coast. It actually reflects the complete impunity of the executives in the MoEF.

- *The preamble of the draft CMZ Notification says that "the Central Government proposes to bring into force a new framework for managing and regulating activities in the coastal and marine areas for conserving and protecting the coastal resources and coastal environment; and for ensuring protection of coast of coastal population and structures". The question arises if it has been proven that the CRZ Notification is not adequately doing the same, what action has been taken by MoEF to see that CRZ Notification is effectively used? What have been those steps? Why have they failed?*

It is a know fact that apart from diluting the CRZ Notification through numerous amendments, the MoEF has taken very few steps to ensure that the states compulsorily came out with their respective Coastal Zone Management Plans, appoint Coastal Zone Management Authorities and overhaul/penalise those state governments that failed in implementing the CRZ Notification. Moreover, numerous reports and analysis including the Swaminathan Committee Report have shown that the amendments to the CRZ Notification by the MoEF actually make implementation of the CRZ Notification problematic.

Concerns on scope of expansion of Tourism and related activities under the new draft Notification:

There are a number of people's movements, environmentalists and civil society groups who have been working for many years, fighting a desperate battle against opening up of the coast to mindless, unplanned projects and consequent loss of livelihood of coastal communities. They have submitted their comments and concerns on the draft CMZ Notification and have also rejected it unanimously. We lend our voice of solidarity to those concerns and to the plight of coastal ecosystems and communities who are at the receiving end of this investment induced development. As we work specifically through research and advocacy on the impacts of tourism on communities (and tourism industry is one of the strong lobbies behind pushing ahead this new draft CMZ Notification) our critique of the draft CMZ Notification highlights the issues from the perspective of tourism and related expansions.

Looking back historically, it is important to remember that the first amendment of CRZ Notification relating to bringing down the "No Development Zone" from 100 meters to 50 meters (which was later quashed by the Supreme Court) along tidal water bodies was done by the MoEF under pressure from the tourism lobby. When the National Tourism Policy, 1992 proposed establishment of Special Tourism Areas (STAs) some of the identified locations were Bekal (Kerala), Sindhudurg (Maharashtra), Diu, Kancheepuram and Mamallapuram. Except for Kancheepuram all other locations were coastal regions.

In November 2006 the National Tourism Advisory Council (NTAC), a think-tank under the Ministry of Tourism & Culture (MoTC) meant to advise it on policy issues proposed establishing Special Tourism Zones (STZs) along the lines of Special Economic Zones (SEZs) to boost tourism and increase investment, employment and infrastructure in the country. The proposal specifically lays down that the STZs are to be located in tourist destinations, cities, along the coastline.

The recent Planning Commission Document (Volume III, Chapter no. 8.2 on Tourism) mentions that beach and coastal tourism on the beaches of Goa, Kerala, and North Karnataka may be considered for development due to easier accessibility of these places by air. It also mentions that Kerala and the Andaman & Nicobar Islands have already been developed as international cruise tourism destinations. The objective very clearly lays down that the government is looking towards promoting and expanding beach and related coastal tourism.

The Federation of Hotel & Restaurant Associations of India (FHRAI) acknowledges that various efforts have been made by FHRAI to make the government review and eliminate obstacles posed by CRZ[43] Notification. In the presentation made to the Government on the Draft CMZ Notification[44], the FHRAI includes the following recommendations:

- The word "temporary" with reference to permitted construction of structures for tourism in the CMZ III[45] should be deleted. As RCC structures constitutes the various components of a beach resort. Moreover, even though the word "temporary" was used in CRZ Notification, the actual constructions that were carried out are of proper RCC buildings and not temporary by any definition. Inclusion of the term "temporary" would mean demolishing all these constructions which are already being used by tourism industry.

- All restrictions for resorts in CRZ III Areas should be removed, like height limitation of 9 mtrs, FAR and Ground Coverage Ratio (0.33% and 16.50% respectively) should be deleted.

- After the terms "Water-sports and recreation facilities" the words "swimming Pool, water bodies, boat club to house water sports equipment, changing rooms and spa/ health club" should be included so that in the NDZ areas i.e. on the sea ward side, of the setback line, these facilities are permitted to be set-up to make the guests of these resorts feel close to the beach.

[43] Refer to the Article *"Developing India's Beach Tourism Potential"* FHRAI Magazine, July 2008 Pg 2-6.
[44] Ibid
[45] Refer Appendix- VI, draft CMZ Notification

- That the demarcation of the setback line along rivers, lakes etc should to 50mtrs or the parameter suggested in the draft CMZ Notification, which ever is less, This would help develop tourism along lakes and rivers in big ways.

These recommendations by the FHRAI reinforce our concerns that once the draft CMZ Notification is allowed to replace the CRZ Notification the tourism industry will use it to their advantage to further their goals of business options/ models and in the process ransack and exploit the coast[46]. We shall then be left with the option of managing and not regulating these activities.

Conclusions on the draft CMZ Notification

The draft CMZ Notification fails in delivering a framework that will ensure adequate protection to ecologically fragile and sensitive ecosystems on the coast and facilitate community rights and livelihoods that are in harmony with the coastal ecosystem. In the process of changing the framework from being regulatory to management oriented, the prime aspects like conservation and preservation of the environment and socio-economic needs of the people and communities in the coast have been completely missed out. The scientific approach fails to bring in the much required practical and strong regulatory frameworks that are imperative to protect the coastal ecosystem in the country today.

It is surprising that the entire Draft CMZ Notification hardly dwells on regulation of coastal areas. The main problem of the CRZ Notification was that of non-implementation of the Notification resulting in severe violations and no action being taken by the MoEF and the state governments with respect to such violations and non-compliance. A new draft Notification does not mean that the previous violations can be overlooked or pushed under the carpet. The present Draft does not make any effort to plug in the holes of the previous legislation. It is in fact more ambiguous than the CRZ Notification, 1991 on various processes pertaining to clearances and makes no mention of how violations will be dealt with. The Draft CMZ Notification excludes participation of state governments and of local self-governments and limits their responsibility to merely implementing decisions and policies laid down by the central government.

Part IV

The Way Forward

The experience of the past fifteen years shows of attempting to regulate activities on the Indian coast has been the lack of will in implementing the CRZ Notification by the state and central governments rather than its ability to protect coastal areas. Its dilutions cannot be condoned and perpetrators of its violations cannot be let off the hook.

The Swaminathan Committee's recommendations contain certain positive elements that may be incorporated in the present coastal regulation frameworks. These are:

1. Inclusion of marine areas including the seabed up to 12 nautical miles and inter-tidal water bodies into the ambit of coastal regulation

2. Extending the coastal regulation zone to include biological boundaries of ecologically sensitive areas rather than restricting it to 500m from HTL

3. Undertaking vulnerability mapping and demarcating the setback (actually hazard or risk) line, which if complemented with provisions of the CRZ Notification, 1991 of creating coastal regulation zones from the HTL, may provide added instruments to regulate, prohibit or permit activities

4. Constitution of a separate division in the MoEF to handle coastal issues

5. Constitution of a National Board for Sustainable Coastal Zone Management

6. Creation of a National Institute fro Sustainable Coastal Zone Management with two regional centres at Andaman & Nicobar Islands and Lakshadweep.

7. Institutional structure for Sustainable Coastal Zone Management.

The draft CMZ Notification is a blue print towards regularising all attempts by MoEF to dilute (through series of amendments) and to dismiss the CRZ Notification as anti-development and a framework that fails to give adequate protection to the coast. Moreover, the proposed Draft Notification makes a substantial departure from providing a robust framework for protection of coastal ecosystems and communities. It has been selective in taking recommendations of the Swaminathan Committee. The result has been a feeble management framework, ambiguous in its processes and considerably undemocratic in its nature as compared to the CRZ Notification, 1991.

Therefore, the Ministry of Environment and Forests should strengthen the current CRZ Notification and scrap the proposed CMZ Notification. There is a need to revisit earlier amendments and reconsider recommendations of previous Committees like Fr. Saldanha Committee and Dr. Arcot Ramachandran Committee constituted to look into aspects of the CRZ Notification.

The various committees that were constituted are[48]:

1. B.B. Vohra Committee
2. Prof. N. Balakrishnan Nair Committee - on issues relating to Kerala on Coastal Regulation Zone
3. Fr. Saldanha Committee - I
4. Dr. Arcot Ramachandran Committee
5. Fr. Saldanha Committee - II
6. D.M. Sukthankar Committee - I
7. D.M. Sukthankar Committee - II

For details on date of constitution, mandates and recommendations of these committees, and response of the MoEF, refer annexure 5. Most recommendations of the Committees, except Fr. Saldanha Committee I & II, and Dr. Arcot Ramachandran Committee, have been to dilute the CRZ Notification. The recommendations of the Fr. Saldanha Committee I & II, and Dr. Arcot Ramachandran Committee may be considered to strengthen the CRZ Notification. The recommendation of the BB Vohra Committee to demarcate the HTL is also noteworthy in this regard. In addition, the MoEF could consider the following:

- No further permission on sand mining beyond 31st December 2005 in the Andaman & Nicobar Islands

- Ocean Regulation Zone: Inclusion of several activities for prohibition/regulation in the ocean part of the coastal zone; Construction of dwelling units within 200 metres in CRZ-III only for bonafide traditional settlers; and to make EIA mandatory for all activities irrespective of the zones.

The MoEF should initiate processes of consultation and invite comments from coastal community organisations, fisherfolk associations, civil society organisations, local self governments, state governments and research, academic institutions to strengthen the CRZ Notification. The various violations of the CRZ Notification need to be dealt with sternly and decisively. The demarcation of the HTL and CRZ areas needs to be undertaken on priority. Simultaneously, the process of updating and finalising the coastal zone management plans should be done through participation of local self governments and civil society organisations. The plans and maps need to be made available in local languages prior to becoming approved working documents.

In the long term perspective, the Government of India should consider formulating a coastal zone policy and enact a separate law to safeguard the diverse coastal ecosystems and protecting the lives and livelihoods of the coastal community of India. Coastal regulation in India needs to be governed by legislative and legal processes and the CRZ Notification needs to be upgraded to the status of law from a sub-ordinate notification under the Environment (Protection) Act, 1986.

[48] MoEF, 2005

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List of abbreviations used

1.	A&N	Andaman & Nicobar Islands
2.	CMZ	Coastal Management Zone
3.	CPCB	Central Pollution Control Board
4.	CRZ	Coastal Regulation Zone
5.	CZMA	Coastal Zone Management Authority
6.	CZMP	Coastal Zone Management Plan
7.	EIA	Environment Impact Assessment
8.	EP Rules	Environment (Protection) Rules
9.	EPA	Environment (Protection) Act (1986)
10.	ESA	Ecologically Sensitive Areas
11.	GoI	Government of India
12.	HC	High Court
13.	HTL	High Tide Line
14.	ICZM	Integrated Coastal Zone Management
15.	ICZMP	Integrated Coastal Zone Management Plan
16.	LNG	Liquefied Natural Gas
17.	LTL	Low Tide Line
18.	m	metres
19.	MoEF	Ministry of Environment and Forests
20.	MoPNG	Ministry of Petroleum and Natural Gas
21.	MoST	Ministry of Surface Transport
22.	NDZ	No Development Zone
23.	NOC	No Objection Certificate
24.	SC	Supreme Court
25.	SCC	Supreme Court Cases
26.	SEZ	Special Economic Zone
27.	SPCB	State Pollution Control Board
28.	UoI	Union of India
29.	UT	Union Territory
30.	WP	Writ Petition

Annexure 1

EQUATIONS Analysis of the CRZ Notification, 1991 as amended upto 25.06.2005

Section	Positive	Negative	Unclear
1. Introduction	Imposes restrictions on activities in the coastal zone	Does not include areas on the seaward side of the Low Tide Line (LTL)	
2. Prohibited activities 2(i)	Prohibits setting up of new and expansion of existing industries No setting up of: Units for power generation through non-conventional sources Desalination plants Airstrips in A&N and Lakshadweep Islands in CRZ-I areas	Allows "non-polluting industries" like IT, services in CRZ of Special Economic Zones	What are the criteria for understanding which industries need waterfront and / or foreshore facilities?
2(ii)	Units and processes dealing with hazardous waste substances in CRZ-I have been prohibited; in other areas subjected to safety regulations		
2(iii)	While prohibiting setting up of new and expansion of existing fish processing units including warehousing, excludes hatcheries and natural fish drying		
2(iv)	Setting up & expansion of waste disposal units have been prohibited	(iv.c) Disposal of treated wastes and effluents from tourism establishments located in non-CRZ-I areas is permitted (iv.d) such units are permitted in A&N and Lakshadweep Islands	
2(v)	Untreated wastes and effluents have been prohibited		

Section	Positive	Negative	Unclear
2(vi)	Land filling from waste dumping has been prohibited		
2(vii)	Prohibition of wastes, ash from thermal power stations		
2(viii)	Land reclamation for tourism and entertainment activities not permitted		
2(ix)	Mining of sand, rocks and substrata materials is prohibited Although allowing sand mining in A&NI, a process to phase it out has been suggested		
2(x)	Prohibits drawal of groundwater within 200m of HTL; allows only manual extraction for drinking, horticulture, agriculture and fisheries		
2(xi)	Prohibition of construction activities in CRZ- I		
2(xii)	Any construction between HTL and LTL is prohibited		
2(xiii)	Alteration of natural forms is prohibited		
3. Regulation of permissible activities	Permissible activities are regulated		
3(1)			What are the criteria for understanding which industries need waterfront and / or foreshore facilities?
3(2.i)	Construction of various activities have been generally prohibited		(i.a) validity of clearance is 5 years what is the criteria? Evaluation is required.

Section	Positive	Negative	Unclear
3(2.ii)	Provision for Lakshadweep only; scientific study of impacts suggested prior to clearing activities		
3(2.iii)		Foreshore facilities for thermal power plants permitted (iii.a) (iii.c) SEZ projects accepted	
3(2.iv)	Regulation of demolition or reconstruction of buildings of architectural, historical, heritage and public use		
3(2.v)	Regulation of activities above Rs. 5 crores investment; less than Rs. 5 crores delegated to state / UT level authorities		
3(3.i)	Preparation of CZMPs suggested		
3(3.ii)	Delegates responsibility of regulation to state / UT level authorities		
3(3.iii)	No violation of the CRZ Notification is allowed even if CZMPs are not approved		
4.			What is the process of monitoring and enforcement is not clear
Annexure-I:			
6(1)			Is 500m from HTL enough?

Section	Positive	Negative	Unclear
6(2)CRZ-II(i)			When the notification says road becomes the demarcating feature to allow, does it include the norm of not allowing activity within 200m of HTL?
6(2)CRZ-III (i.a)	Construction of dispensaries, schools, public rain shelters, community toilets, bridges, roads and provision of facilities for water supply, drainage, sewerage which are required for the local inhabitants may be permitted		
6(2)CRZ-III(i.b)		NDZ reduced to 50m in A&NI for tourism development purposes	
6(2)CRZ-III(ii)		Tourism allowed in vacant plots between 200 & 500m in CRZ-III areas	
6(2)CRZ-III(iii)	Dwelling units, public amenities permitted between 200 & 500m in CRZ-III areas		
6(2)CRZ-III(v)		SEZs accepted, beach resorts and recreational facilities permitted	
6(2)CRZ-IV(i.d)		NDZ reduced to 50m in A&NI for tourism development purposes	
Annexure-II		Limited to CRZ-III; CRZ-II should also have been included	
7(1.i)	Any tourism establishment within 200m of HTL and inter-tidal area has been prohibited		
7 (1.v)	Ground water shall not be tapped within 200ms of the HTL		

Section	Positive	Negative	Unclear
7 (1.vi)	Extraction of sand, levelling or digging of sandy stretches not permitted		
7 (1.viii)	Necessary arrangement for the treatment of the effluents and solid wastes must be made. It must be ensured that the untreated effluents and solid wastes are not discharged into the water or on the beach and no effluent/solid waste shall be discharged on the beach		
7(2)	Construction of tourism establishments in Ecologically Sensitive Areas not permitted.		

Annexure 2

A CHRONOLOGY of AMENDMENTS & EVENTS RELATED TO THE CRZ NOTIFICATION

EQUATIONS gratefully acknowledges Ms. Aarthi Sridhar (ATREE) for contributing the chronology of amendments

Date of amendment / order / event & legal clauses	Details / comments / features
31st December 1992	• *Intense pressure from hotel & tourism lobby on Govt. of India that the restrictions under CRZ severely limited their scope of work.* • As a consequence, the BB Vohra Committee set up by the Central Government to study the CRZ Notification and its implications and submitted its report with recommendations to GoI on December 31, 1992. • S.O 690(E) Corrigendum dated 19th September 1994 rectified that the BB Vohra Committee was set up to look into 'tourism' and hotel facilities in the said zone' (i.e. CRZ)
11th November 1993 S.O. 859 (E)	• *Based on pressure from the tourism lobby, amendments were proposed to CRZ Notification* • A draft notification was issued inviting objections and suggestions from the public.
18th August 1994 later changed to **16th August 1994** vide Corrigendum dated 19th September 1994 S.O. 595 (E) EPA, 3(2)(v), 3(1) EP Rules 5(3)(a), 5(3)(d)	• Amendment stated that HTL was to be demarcated by demarcating authority constituted by GoI in consultation with Surveyor General. • Importantly, the resultant amendment, in clarifying the meaning of HTL: ➤ Significantly amended the mandatory CRZ of 100m for rivers, creeks, etc to 50m ➤ Gave expansive powers to Central Government, which could now grant permission for construction on the landward side within 200m from HTL (i.e. No Development Zone {NDZ}) according to its discretion. • Did not allow for flattening of sand dunes while landscaping, but allowed live and barbed fencing and conditional construction of basements. • Goal posts, net posts, lamp-posts were allowed. • Basements were permitted subject to receipt of No Objection Certificate from State Ground Water Authority and provided it would not obstruct the free flow of ground water. • Permitted plot falling in NDZ areas to be included for FSI calculation, although no construction would be permitted in NDZ.
18th April 1996 The Supreme Court's judgment in the Indian Council for Enviro Legal Action case:	The SC dealt with two main contentions of the petitioner; that of non-implementation of the notification and the validity of the 1994 amendment. • The SC ***quashed*** 3 of the proposed amendments of August 1994: 1. The relaxation of CRZ limits to 50m from 100m limit for rivers, creeks, etc. 2. Unbridled power granted to the Central Government 3. The area of NDZ to be taken into account while calculating FSI-FAR be 100 per cent. (FSI-FAR indexes, it was decreed, could take into account only 50 per cent of NDZ in its calculations.)

Date of amendment / order / event & legal clauses	Details / comments / features
Writ Petition (Civil) 664 of 1993 I.A 19 of 1995 by The Goa Foundation, India Heritage Society (Goa chapter), Nirmal Vishwa.	Regarding the Notification implementation, the Supreme Court: 1. Pulled up enforcement authorities for dereliction of duties, while directing authorities to implement the Notification. The court further commented that a single authority may not be able to monitor the CRZ, and suggested the constitution of State and National Coastal Zone Management Authorities, which could also draw upon the resources of NGOs to help implement laws. 2. Ruled that CRZ for rivers be reinstated as a minimum of 100m in the absence of adequate justification to reduce it to 50m, and quashed the move to grant the Central Government arbitrary "unguided and uncanalised" powers to grant permissions for relaxation of NDZ limits. In addition, the court directed that CZMPs of all coastal states and union territories must be submitted by end June 1996, and set the date of hearing compliance of submission and finalisation regarding this for September 1996. 3. Directed that in matters dealing with local geographical areas, the High Court must see that the law is enforced and hear complaints made by local inhabitants. The Supreme Court would only scrutinise matters regarding approval of CZMPs, or any suggested modifications in existing classification of areas. 4. Issued show cause notices to the chief secretaries of states of Andhra Pradesh, Karnataka, Gujarat and Kerala for not having submitted their management plans as directed in interim orders issued earlier. 5. Finally, ruled that till the CZMPs are finalised, the interim orders mentioned above would continue to operate.
31st January 1997 S.O.73(E) EPA 3(1), 3(2)(v), EP Rules5 (3)(a), 5(4)	• This amendment was result of requests from A&N Islands Administration to Central Government regarding difficulties faced by local people due to restrictions on withdrawal of ground water and prohibition of sand mining in CRZ. • No objections were invited for this amendment. • Manual drawal of ground water through ordinary wells or hand pumps was permitted for drinking purposes for local inhabitants only. • Permission for the same was required from Secretary, Department of Environment • Sand mining was allowed in A&N Islands as long as a special Committee gave permission based on certain conditions. • Mining was permitted upto 31st March 1998 and **not beyond.** ***(This means a prohibition exists on the extension of the deadline)***
9th July 1997 S. O. No. 494(E) EPA 3(1), 3(2)(v), EP Rules5 (3)(a), 5(4)	• No objections were invited for this amendment. • The Court has issued no orders to date. • The rationale was that State Governments had expressed need for several essential facilities to be constructed in the coastal zones. • Several provisions of the amendment continue to be operative.
20th April 1998 S.O 334 (E) EPA 3(1), 3(2)(v), EP Rules 5(3)(a), 5(4)	• This rationale for this amendment was stated again to be difficulties faced by local people of A&N Islands due to restrictions on sand mining. • No objections were invited for this amendment. • The amendment extended the permission for sand mining to the 30th September 1998, ignoring prohibition of extension of this deadline as stated in 31st January 1997 amendment.

Date of amendment / order / event & legal clauses	Details / comments / features
30th September 1998 S.O 873(E) EPA 3(1), 3(2)(v), EP Rules 5(3)(a), 5(4)	• Based on the same rationale of difficulties of local people of A&N Islands another amendment was issued. • No objections were invited for this amendment. • Permission for sand mining was extended upto 30th September 1999 • The permitted quantity of sand for mining was to be based on the "requirements of 1998-99 and 1999-2000 annual plans." • This amendment also ignores prohibition of extension of this deadline as stated in 31st January 1997
29th December 1998 S.O 1122(E) EPA 3(1), 3(2)(v), EP Rules 5(3)(a), 5(4)	• No objections were invited for this amendment. • The Central Government is said to have deliberated upon and decided to simplify procedure for demarcation of HTL, which it laid down in this notification • The HTL is defined as the line on land up to which the highest water line reaches during spring tide • The amendment lays down that HTL shall be demarcated uniformly in all parts of the country by demarcating authority or authorities so authorised by Central Government, in accordance with general guidelines issued in this regard. • However these have not been spelt out in the Notification.
Draft amendment dated 5th August 1999 S.O 692(E) EPA 3(1), 3(2)(v), 6	• Objections were invited to this amendment • The notification states that inhabitants of the CRZ area have faced difficulties and there is a need for infrastructure facilities along the coast • It sought once again to reduce CRZ for rivers, creeks and backwaters to 50m based on certain conditions. • It also stated that for permitted facilities for storage of petroleum products in Annexure - III, both MoEF and MoST were involved depending on location of project and port limits (port limits are those that have been notified as such before the 9th July 1997 amendment) • Facilities for receipt, storage and regasification of Liquefied Natural Gas were permitted according to guidelines issued by MoPNG and MoEF. • It permitted salt harvesting in CRZ-I areas between the LTL and HTL provided they were not classified as CRZ-I • It removed the authority for permitting construction along CRZ-III areas, which was introduced by the 9th July 1997 amendment. • Permission for construction required for 'local inhabitants' is to be granted by either the Centre or State or any designated authority (however it is not specified which of these is the final authority). The amendment lays down more conditions under which such construction maybe permitted. • Constructions in CRZ III between 200-500m from HTL, were previously permitted for meeting traditional rights and customary uses. The words 'local inhabitants' have replaced the previous words 'traditional rights and customary uses'. The term local inhabitant used in this clause and elsewhere in the notification is defined as a person or his descendants who have been inhabiting in the area prior to the 19th February, 1991. • Relaxations were made for reconstruction / alteration of existing buildings allowing for horizontal landward extension of dwelling unit not exceeding a total plinth area of 100m. • It made 'exploration for extraction of oil and natural gas in CRZ a permissible activity requiring permission from the MoEF'.

Date of amendment / order / event & legal clauses	Details / comments / features
29th September 1999 S.O. 998 (E) EPA 3(1), 3(2)(v) EP Rules 5(4)	• No objections were invited for this amendment. • Using the rationale that local people of A&N Islands faced difficulties, another amendment was issued. • Permission for sand mining was extended upto 30th September 2000.
4th August 2000 S.O 730 (E) EPA 3(1), 3(2)(v), 6	• The amendment is the final notification for 5th August 1999 draft amendment. • The amendment states that all objections and suggestions relating to oil and natural gas exploration; procedure for according clearance to storages of specified petroleum products and receipt, storage and regasification of LNG and points raised by the petitioner in Delhi High Court in civil writ petition No. 4198/98 have been duly considered by the Central Government • This final amendment to earlier draft retained only two of proposed changes and withdrew the rest. • The changes were ones related to para 2(ii) about facilities for receipt, storage and regasification of LNG, which was permitted according to guidelines issued by the MoPNG and MoEF and 3(2)(ii) about exploration for oil and gas in the CRZ.
12th April 2001 S.O 329(E) EPA 3(1), 3(2)(v), EP Rules 5(3)(a), 5(4)	• No objections were invited for this amendment. • Projects of Department of Atomic Energy were exempted from prohibition. • Facilities for receipt and storage of petroleum products and LNG as specified in Annexure III appended to the Notification and facilities for regasification of LNG were permitted provided certain guidelines were followed. • The delegation of powers to accord clearances to MoST were withdrawn. • Land reclamation etc was permitted for certain activities provided that reclamation was not done for commercial purposes such as shopping and housing complexes, hotels and entertainment activities. • Mining of sands, rocks and other substrata materials was permitted for exploration and extraction of oil and natural gas • Construction activities related to projects of Department of Atomic Energy were treated as permissible activities requiring permission from the MoEF. • Operational constructions for ports, harbours and light houses and constructions for activities such as jetties, wharves, quays and slipways, pipelines, conveying systems including transmission lines were also added to permissible activities needing MoEF clearances. • Projects relating to Department of Atomic Energy and (b) Pipelines, conveying systems including transmission lines were permitted in CRZ-I (i) areas • In the CRZ-I area, exploration and extraction of natural gas was permitted. • The West Bengal CZMA was made responsible for according permission for construction of dispensaries, schools, public rain shelters, community toilets, bridges, roads, jetties, water supply, drainage, sewerage which are required for traditional inhabitants of the Sunderbans Biosphere Reserve • The amendment permitted storage of petroleum products specified in the Annexure in any part of CRZ other than CRZ-I areas. Previously this was restricted only to port areas. • LNG was added to list of petroleum products on Annexure III • Environmental clearances accorded by MoST from 9th July 1997 till publication of this Notification are valid. All proposals for environmental clearance pending with MoST stand transferred to MoEF from date of publication of this Notification.

Date of amendment / order / event & legal clauses	Details / comments / features
3rd October 2001 S.O 998(E) EPA 3(1), 3(2)(v), EP Rules 5(3)& (4)	• No objections were invited for this amendment • The rationale was that local people of A&N Islands faced difficulties, yet another amendment was issued. • Permission for sand mining was extended upto 30th September 2002. • The dates for annual plans were also extended by a year.
11th January 2002 Draft amendment S.O 51(E) EPA 3(1), 3(2)(v), 6 EP Rules 5(3)(a),	• The rationale for this amendment is stated to be: ➤ The inhabitants of areas falling within CRZ are facing difficulties and there is a need for infrastructural facilities in these areas. ➤ The Central Government is stated to have had consultations with state governments and taken a decision to permit construction of dwelling units and development of infrastructural facilities for local inhabitants; housing schemes of Urban Development Authorities which had been approved prior to 19th February 1991, facilities and activities including setting up of **non polluting industries in the field of information technology and other service industries** in the **Special Economic Zones,** and salt harvesting by solar evaporation of sea water in the said zone. • It introduced a 90-day time limit for assessment of projects and 30 days for conveying a decision on the clearance status of projects proposed within the CRZ. • It introduced the same provisions (with slight modifications) for the Note of Para 1 (i) of the notification that the 5th August 1999 draft amendment introduced. This was despite these proposed provisions of 5th August 1999 draft amendment being excluded in the subsequent amendments dated 4th August 2000 and 12th April 2001, and 3rd October 2001. • The **draft** amendment exempted "non polluting industries in the field of information technology and other service industries in the CRZ of Special Economic Zones" from prohibitions as Para 2 (i) (c). • It sought to exclude mining of certain minerals under Atomic Energy Act, 1962 from the prohibited activities clause, subject to EIA studies and an approved mining plan. • Housing schemes in CRZ area, mining of rare minerals and specified activities/facilities in SEZ were to be permissible activities requiring clearances from MoEF • Salt harvesting by solar evaporation of sea water was to be permitted in CRZ-I areas • In CRZ-II areas, exemption was made for housing schemes of State Urban Development Authorities • Further relaxations were sought for CRZ-III areas, based on similar changes proposed in 5th August 1999 draft amendment. **All activities within SEZs were permitted.** • This amendment substitutes the words 'local inhabitants' for traditional rights or customary uses. • The notification replicates all other provisions of the 5th August 1999 draft amendment as far as relaxations for constructions for 'local inhabitants' etc are concerned despite most of these being omitted in subsequent final amendments.

Date of amendment / order / event & legal clauses	Details / comments / features
21st May 2002 S.O 550(E) EPA 3(1), 3(2)(v), EP Rules 5(3)	• The amendment is the final notification for the draft 11th Jan 2002 amendment. • It redefined distance upto which CRZ is measured along the rivers, creeks etc, as upto the point where a minimum salinity level of 5 ppt is recorded. • All the provisions that were common to the 5th August 1999 draft and the 11th January 2002 draft were struck down by this final amendment. • It permitted "non-polluting industries in the field of information technology and other **service industries** in CRZ of Special Economic Zones (SEZ)" • It retained the time limit on assessment of project documents that was proposed in the 11th January 2002 draft. • Certain changes were made to activities permitted in CRZ I, II & III zones.
19th October 2002 S.O 1100 (E) EPA 3(1), 3(2)(v), EP Rules 5(3)& (4)	• No objections were invited for this amendment. It was issued in 'public interest' using Rule 5(4) of the EP Rules • Rationale was 'to harmonise & elaborate provisions of the Notification' and to provide permission for setting up of certain projects that were presumably in public interest. • It stated that clearances given for activities in CRZ area were valid for 5 years before which construction or operations should commence. However further actions have not been elaborated on, for instance, on adherence to clearance conditions. • The following activities required MoEF clearances to be set up in CRZ areas: ➤ In CRZ-I areas installation of weather radar for monitoring of cyclone movement and prediction by Indian Meteorological Department was permitted. ➤ In the CRZ-I between HTL and LTL, the following was permitted: desalination plants, storage of non-hazardous cargo such as edible oil, fertilizers and food grain within notified ports. ➤ In CRZ II and III areas list of products in Annexure III was permitted subject to conditions mentioned in Para 2(ii).
16th January 2003 S.O 52 (E) EPA 3(1), 3(2)(v) EP Rules 5(3), 5(4)	• No objections were invited for this amendment since it was stated to be in public interest. • Rationale was that A&N Administration had stated that local population was facing difficulties due to restrictions on sand mining • It extended sand mining in A&N Islands upto 31st March 2003. • This was to be permitted by a Committee from 1st April 2002 to 31st March 2003 • There was total upper limit fixed on amount of sand that could be mined at 55,127 cu.m and this was only to be permitted for construction purposes on a case by case basis. • The sand was to be mined from selected sites inter alia based on rate of replenishment of deposition of sand • Permission could be granted based on mining plans, with stipulations on safeguards to prevent damage to the sensitive coastal eco-system including corals, turtles, crocodiles, birds nesting sites and protected areas.

Date of amendment / order / event & legal clauses	Details / comments / features
22nd April 2003 S.O 460(E) EPA 3(2)(1), 3(2)(v) EP Rules 5(3), 5(4)	• This amendment was issued using the public interest clause without inviting objections to the same. • Rationale given by Central Government was that it had been informed that large sized projects were being implemented without clearance from MoEF and that this resulted in destruction of mangroves, depletion of ground water and certain other activities involving ecological damage. • It sought to add a few more activities to list of permissible activities requiring environmental clearance from MoEF. These were: ➤ The demolition or reconstruction of buildings of archaeological or historical importance, heritage buildings and buildings under public use (defined in the amendment as including use for purposes of worship, education, medical care and cultural activities. • All other activities involving an investment of less than five crore rupees were to be regulated by the State level authorities in keeping with provisions of the Notification in Annexure I; any project costing more than five crores required clearance from MoEF
30th May 2003 S.O.635 (E) EPA 3(1), 3(2)(v)	• No objections were invited for this amendment either. • Rationale was that local people A&N Islands were faced with difficulties • Permission for sand mining was extended upto 31st March 2004. • The dates for the annual plans were also extended by a year. • The quantity of sand to be mined was fixed at 44,102 cu.m only for construction purposes
30th May 2003 S.O.636(E) EPA 3(1), 3(2)(v) EP Rules 5(3), 5(4)	• No objections were invited for this amendment as this was in public interest • The amendment was introduced presumably taking into consideration requirement of construction of jetty and wharves for embarkation and disembarkation in Lakshadweep. • The amendment revised the Committee to permit sand mining • Permission for sand mining was extended upto 30th September 2001. • The dates for the annual plans were also extended by a year.
24th June 2003 S.O.725(E) EPA 3(1), 3(2)(v) EP Rules 5(3), 5(4)	• The notification introduced another clause under norms for development *for CRZ IV for setting up of facilities for treatment of wastes and effluents arising from hotels, beach resorts & domestic sewage and disposal of treated wastes and effluents in areas other than CRZ-I* • This was to be based on a detailed scientific study to assess environmental impact of the same.
24th July 2003 S.O.838 (E) EPA 3(2)(1), 3(2)(v) EP Rules 5(3), 5(4)	• This amendment was issued using the public interest clause without inviting objections to the same. • The amendments were introduced by Central Government after it had considered specific requirements of projects relating to Department of Atomic Energy in terms of their location

Date of amendment / order / event & legal clauses	**Details / comments / features**
25th January 2005 SO.Nil (E)	• The amendment states that in A&N Islands, mining of sand may be permitted for construction purpose on a case to case basis by a Committee constituted by the Lieutenant Governor of the Andaman and Nicobar Islands consisting of – (1) the Chief Secretary, Andaman & Nicobar Administration; (2) Secretary, Department of Environment; (3) Secretary, Department of Water Resources; and (4) Secretary, Andaman Public Works Department; • That total quantity of sand to be mined shall not exceed 28,226 cu m for period ending on 31st December, 2005 and that sand mining shall be undertaken only in those areas identified as accreting areas by Institute for Ocean Management (IOM), Chennai and based on rate of replenishment or deposition of sand; • That permission as may be granted under this sub-paragraph for mining of sand shall be based on mining plans and shall stipulate sufficient safeguards to prevent damage to the sensitive coastal eco-system including corals, turtles, crocodiles, birds nesting sites and protected areas • A&N Administration to identify alternate construction materials within period of one year i.e., from 1st January, 2005 to 31st December, 2005; • A monitoring Committee shall be constituted for monitoring the mining activity and environmental safeguards taken, by A&N Administration. • The monitoring Committee shall comprise of representatives from Union Territory Administration, Regional Office of the Ministry of Environment and Forests, Bhubaneswar and an NGO based at Andaman and Nicobar. • The monitoring report shall be sent quarterly to Ministry of Environment and Forests

Annexure 3

EQUATIONS Analysis of the Swaminathan Committee Report Recommendations, 2005

Section	Positive	Negative	Unclear
Chapter 4: Suggestions of the Committee for ICZM			
(1)		Does not state rights of coastal communities in the ICZM policy	
(2)	Includes marine areas with the seabed and biological boundaries on landward side; inter-tidal water bodies Recognises regulatory and management systems		Administrative boundary needs to be defined more clearly
(3)	Regulation is stated	Role of local self governments has been excluded from decision making and limited only to education and social mobilisation programmes	Social mobilization as a strategy needs explanation
(4)			National Environment Policy's position on coastal protection and regulation
(5)		Limited only to birds; what about turtle nesting sites? The approach to coastal regulation is limited to scientific principles; omits traditional knowledge and practices as a potential source of protection wherever available	
(6)	Precautionary principle as an approach is suggested		

Section	Positive	Negative	Unclear
(7)	Strong conservation focus		The term ecological economics has not been defined
(8)	Gender, social equity is taken cognisance of	Blurs boundaries with regard to decision making process. Stakeholders cannot be parties in decision making, rather the rights holders have the right to take decisions	
(9)		Protection and conservation approach is limited and excludes important aspects like community's traditional/ customary rights of access and control of natural resources, livelihood security and strict enforcement of regulation	
(10)	Strong conservation focus		
(11)		Coastal areas need to be left in their natural formations. Bio-shields *(salicornia, casuarina)* interfere with and alter natural process of sand dune formations and growth of other endemic coastal vegetation. Such plantations are appropriated by forest departments destabilising access and control of community and local governing bodies The scientific basis of such emphasis on bio-shields is also questionable whether this is being suggested based on impact assessment studies	

Section	Positive	Negative	Unclear
(12)			Lessons from the tsunami are far more than just bio-shields, which need to be taken into account e.g. places without bio-shields, solid structures have been far less affected than those with them.
Chapter 4.1: Recommendations w.r.t. TOR			
4.1.1.	The MSSC recognises that there are problems in the manner in which the MoEF has treated recommendations of the various Committees. Many suggestions on various amendments from civil society have been disregarded.		
4.1.1. (i)	The Committee has taken cognisance that CRZ would have been strengthened had the MoEF taken note of the various representations, suggestions and requests		
4.1.1.(ii)	Takes a more inclusive stand as far as coastal and marine ecosystems are concerned		
4.1.1.(iii)			The relationship between management and regulation needs to be clarified.
4.1.1.(iv)	Regulatory framework has been emphasised		
4.1.1.(v)	Coast as a common property resource has been acknowledged to private ownership	Collective and democratic initiatives are required at all levels rather than just at local community level	
4.1.1.(vi)	Emphasis on regulatory framework. Option of strengthening CRZ principles has been stated		

Section	Positive	Negative	Unclear
4.1.1.(vii)		Environmental problems in coastal areas have been linked to activities outside it; impacting activities inside it also need to be accounted. A distinction also needs to be made between coastal resource users and coastal communities who have traditional rights of access and use of coastal resources.	
4.1.1.(viii)	Recommendation is progressive and needs to be put in practice	Public hearing only cannot be the basis on which the MoEF considers a project. The decision needs to rest with the local governing body. This aspect does not get mention in the recommendation	
4.1.1.(ix)	Takes a strong stance against aquaculture	Policy objectives need to be harmonised on the basis of a rights based approach and not only on basis of resource users	
4.1.1.(x)	Recommendation is progressive and needs to be put in practice. Calls for consideration of traditional and modern scientific knowledge for environmental and social impact assessments.		
4.1.1.(xi)	Progressive, public hearing may also be considered for defence projects.		
4.1.1.(xii)			Very general

Section	Positive	Negative	Unclear
4.1.2.		The objective does not include defining & enlisting customary & traditional use of resources and recommending methodologies to identify and safeguarding them	
4.1.2.(i)	A general recommendation but covers major concerns of coastal environment and communities		
4.1.2.(ii)	Covers major concerns of coastal environment		
4.1.2.(iii)	Covers major concerns of coastal environment		
4.1.2.(iv)	States a need for people's participation in conservation and management of various coastal ecosystems	Almost a repetition of guiding principle no (11), concerns on bio-shields applicable to this as well	
4.1.2.(v)		Activities with a track-record of environmental degradation have been allowed with taxes and cesses instead of being located elsewhere or prohibited in coastal areas	
4.1.2.(vi)	General recommendation covering issues of protecting heritage along the coasts	May pave the way for increase in tourism activity if safeguards are not put in place	
4.1.2.(vii)	Progressive, needs to put into practice	Limits the role of community to consultation and involvement, without mentioning decision-making	
4.1.2.(viii)	Covers concerns of freshwater use		
4.1.2.(ix)	Element of equity brought in along with public participation in environmental decision making		

Section	Positive	Negative	Unclear
4.1.2.(x)			Repetition of 4.1.2.(vi), could have been merged
4.1.2.(xi)	Environmental concerns incorporated, refers to WSSD		
4.1.2.(xii)	Reference to CBD made		How this suits the Indian context could have been dealt with in more detail
4.1.2.(xiii)		Coastal 'bio-shield' being suggested for sequestration of carbon	
4.1.2.(xiv)		While the recommendation itself if useful, role of community in protection and management of coastal areas should also have been emphasised	
4.1.2.(xv)			How useful will the implementation of this recommendation be is not clear. Will it help, allow community to take decisions? Or is it another elaborate exercise to support industry EIAs?
4.1.3.	The objective says revisiting the CRZ Notification, 1991 and suggested appropriate amendments		
4.1.3.(i)	Acknowledges need for transparency in current implementation of CRZ	The profile of "different stakeholders" has not been made available	How to remove the ambiguity and non-transparent way of implementing the CRZ has not been touched upon
4.1.3.(ii)	Various amendments have been detrimental to the coastal areas is acknowledged. Strengthening of CRZ has been suggested.	While a scientific argument is being given for strengthening of CRZ, the process of implementing CRZ has been omitted	

Section	Positive	Negative	Unclear
4.1.3.(iii)	Recognises the dilution of CRZ.		
4.1.3.(iv)		Similar to 4.1.2.(v)	
4.1.3.(v)	Suggestion to prohibit permanent structures in vulnerable areas except for community protection	Omits livelihoods	How to identify vulnerable areas
4.1.3.(vi)			Not a recommendation, but a useful backgrounder
4.1.3.(vii)			More of an analysis than recommendation
4.1.3.(viii)		Omits institutions of local self government and non-governmental organisations. A program instead of project would have been more useful.	
4.1.3.(ix)		May not be a good idea to do away with HTL as it gives a good reference point to gauge the interface between land and marine ecosystems. It is also useful to understand dynamics of climate change; sea level rise and natural phenomenon offsets like subsidence and uplift	
4.1.3.(x)	Helpful for conservation and regulation provided there is an organic link to those processes		
4.1.3.(xi)	Helpful for conservation and regulation provided there is an organic link to those processes and the opportunities for effective participation are given		
4.1.3.(xii)			More of an analysis than recommendation
4.1.3.(xiii)	Helpful for conservation and regulation		

Section	Positive	Negative	Unclear
4.1.3.(xiv)		Concerns on bio-shields suggested have been stated earlier	
4.1.3.(xv)			Only monitoring impacts of hard structures has been suggested without considering removal if the impacts are high
4.1.3.(xvi)	General		
4.1.3.(xvii)	General		
4.1.3.(xviii)	General		The kind of facilities that can be allowed have not been outlined
4.1.3.(xix)	Good for promoting fisheries		
4.1.3.(xx)	Helpful for conservation and regulation provided there is an organic link to those processes		
4.2.	Helpful for conservation and regulation	If the same priority to coastal issues need to be given as that of wildlife, then the Board should be chaired by the PM	
6.			
6.1.1.	The aspects of the definition are well known		
6.1.2.		Need a more scientific definition of coastal zone	
6.1.3.	A new term Areas of Particular Concern has been brought in that would include inter alia tourism areas		The CRZ Notification, 1991 gives a better description of classification of CRZ areas
6.1.4.(i)		The responsibility to identify and declare ESAs should not rest only with MoEF, but it should be a participatory process involving both rights and stake holders	The concept of ESAs whether it is as per the criteria of E(P)A, 1986 needs to be clarified
6.3	The suggestion to have a coastal policy and rules (hopefully to implement the Notification) is valid		

Annexure 4

EQUATIONS Analysis of the Proposed CMZ Notification, 2008

Section	Positive	Negative	Unclear
1. Introduction			Why is there a need for a new notification when the current one can be amended based on +ve recommendations of MSSC report
		Proposals for development and expansion of green field airports in coastal areas	
2. Objective	Ecological considerations, sustainable livelihoods acknowledged		
3. Definitions			
a. coastal zone			An ecological definition of coastal zone is required rather than stating that the landward boundary of local self-government / authority abutting the coast
b. ICZM	Acceptable provided other provisions for regulating activities in CRZ are taken care of		
c. ICZMP			More details required like objective, scope, structure, content, permissible & non-permissible activities
d. LSG / LA		Role of panchayats omitted	
e. Setback line			It is actually a hazard risk line

Section	Positive	Negative	Unclear
f. ESA	Acceptable		Can these also be notified, linked under EPA?
4. Categorisation	CMZ-II categorises areas with certain activities as "areas of particular concern"	CMZ-I omits inter-tidal areas CMZ-III does not recognise rural, urban areas occupied by coastal communities, fishing hamlets	
4(i) NBSCZM	The members list is progressive then the NCZMA under the CRZ Notification, 1991	NGOs not included in the list of members Impact assessment officials from MoEF, expert not included	
4(ii) state / UT level EAA		No representation of local self-governments, civil society organisations in the authority like the CZMA	
5. Management			
5(I) setback line	Does not take into consideration important features like land use pattern by the local communities and customary rights and practices of the coastal communities	The MoEF alone cannot decide on the setback line	
5(II) CMZ-I	Identification of ESAs will be jointly done by MoEF and) state / UT level governments Delegation of regulatory powers to state / UT CZMAs	ICZMP may become the criteria for allowing activities whereas CRZ considered CRZ-I areas as NDZs	What is the implementation, monitoring and accountability structure?
5(III) CMZ-II		No ICZMP for CMZ-II areas Resorting to coastal protection structures as a feature for allowing / prohibiting an activity may not be an option	
5(IV) CMZ-III		No ICZMP for CMZ-III areas	

Section	Positive	Negative	Unclear
5(V) CMZ-IV		ICZMP may become the criteria for allowing activities whereas CRZ considered CRZ-IV areas as NDZs	
6. Operation of CRZ			Instead of doing away with CRZ Notification, 1991 it can be amended to incorporate the provisions of this section
Appendix-V		Some activities like public toilets, beach tourism, discharge of effluent and sewage should not be allowed in close proximity to coastal areas	

Annexure 5

Various Committees constituted by MoEF on CRZ implementation

Committee	Date	Issues covered	Recommendation/ observations	Action by MoEF
1 B.B. Vohra Committee	January, 1992	Tourism	Reduction of distance of the NDZ in selected coastal stretches for promoting tourism	Reduced NDZ area all along tidal water bodies from 100 to 50 m (amendment dt. 18th August, 1994)
			Landscaping in the NDZ by dressing of sand dunes, live fencing along the resorts and permitted playfields but not swimming pools in the NDZ	Prohibited flattening of sand dunes in the CRZ area, while maintaining status quo as in CRZ Notification with regard to height and Floor Space Index (FSI), subject to ground +1 only. For the construction of basement, NOC was to be obtained from the Ground Water Board (amendment dt. 8th August, 1994)
			Public access between two resorts to be 6 m	Maintained 20 m distance between two resorts (amendment dt. 8th August, 1994)
		Demarcation of HTL	HTL demarcation was not clearly defined	Defined HTL and demarcation agencies (amendment dt. 8th August, 1994)
		Drawal of Groundwater in the NDZ including CRZ areas	No drawal of Groundwater in the NDZ including CRZ area, except by manual extraction	Considered earlier (amendment dated 9th July, 1997)

Committee	Date	Issues covered	Recommendation/ observations	Action by MoEF
2. Prof. N. Balakrishnan Nair Committee	December, 1996	Kerala on CRZ	Inclusion of census towns and panchayats, which are substantially built up to be declared as urban areas (CRZ-II)	None
			CRZ area in case of inland tidal water bodies to be relaxed, to permit all ports and harbour constructions and port related industries	
			Storage of petroleum products in CRZ	CRZ amended (amendment dated 9th July, 1997)
			Reclamation to be made permissible for approved projects	Not considered
			Locating non-polluting industries, relaxation for tourism potential areas and construction of fishermen houses in 200-500 m	Not considered
			Drawal of ground water between 0-200 m by manual method	Considered earlier (amendment dated 9th July, 1997)
			Setting up fish processing units	Permitted modernizing of the fish processing units and setting up of effluent treatment plants for such existing plants (amendment dated 9th July, 1997)
			Reduction of CRZ to 50m along tidal water bodies keeping in view the unique conditions of Kerala	Not considered

Committee	Date	Issues covered	Recommendation/ observations	Action by MoEF
3. Fr. Saldanha Committee - I	December, 1996	Advice on withdrawal of groundwater and extraction of sand in Andaman & Nicobar Islands	Extraction of groundwater extraction by manual method in 50-200 m from the HTL for local communities of Andaman & Nicobar Islands	Permitted (amendment dated 31st January, 1997)
			Mining of sand in the CRZ area for a short period for 1-2 years only	Permitted mining of sand in the CRZ area, and thereafter MoEF has been periodically extending on yearly basis (amendment dated 31st January, 1997) Permitted mining of sand in the CRZ area for a quantity of 28,266 CBM for a period upto 31st December, 2005 with a condition that no further permission would be granted
4. Dr. Arcot Ramachandran Committee	1996	Ocean Regulation Zone - activities that need to be included in the seaward side of the coast	Inclusion of several activities for prohibition/regulation in the ocean part of the coastal zone (see note below)	No action taken
5. Fr. Saldanha Committee - II	June, 1997		Construction of dwelling units within 200 metres in CRZ-III only for bonafide traditional settlers; criteria laid down	No amendment after issuing a draft dt. 11th January, 2002
6. D.M. Sukthankar Committee - I	May, 2000	Relating to Mumbai and Navi Mumbai	Increase in Floor Space Index (FSI) for undertaking slum redevelopment schemes and rehabilitation of dilapidated structures	No action on the report since the recommendations were not in line with the CRZ Notification

Committee	Date	Issues covered	Recommendation/ observations	Action by MoEF
			Transfer and Developmental Rights (TDR) in Coastal Regulation Zone area wherever the FSI has not been consumed fully)	No action on the report since the recommendations were not in line with the CRZ Notification
			Amendment to provide for expansion of mega cities in CRZ areas	
			Development of plots which have been allotted in the inter tidal area and also construction of missing links in CRZ area	
7. D.M. Sukthankar Committee - II	March, 2000	Examine the issues of coastal zone management in a holistic manner prepare a National Coastal Zone Policy of India (NCZP)	Coastal zone should be demarcated based on risk from erosion and flooding. Environmental clearance procedure to be adopted for developmental activities	No action taken

Note:

Recommendations of Dr. Arcot Ramachandran Committee

- Include construction of Ports and Harbours, waste disposal, sea bed mining, OTEC plant, oil and natural gas exploration, ship breaking, etc., which are not covered under CRZ
- Ocean area from Low Tide Line upto territorial waters was proposed as Ocean Regulation Zone (ORZ); categorised into
  - Ecologically sensitive area (ORZ-I)
    - Prohibited activities: construction of civil and other manmade structures like breakwaters, disposal of untreated waste etc.
    - Exceptions to these activities were to be given based on the no impact distance from the outer limits of the ecologically sensitive areas.
    - Reclamation of seabed for human settlement, construction of artificial islands, etc., dumping of plastics are also to be prohibited in all the three zones.
  - Sea off developed areas (ORZ-II)
  - Sea off undeveloped and underdeveloped areas (ORZ-III)
    - Permissible activities in ORZ II and ORZ III: include disposal of treated wastes, the volume and characteristics of which will be limited within the waste assimilative capacity of receiving seawater body.

EIA was made mandatory for all the activities irrespective of the zones.

EQUATIONS (Equitable Tourism Options)
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