



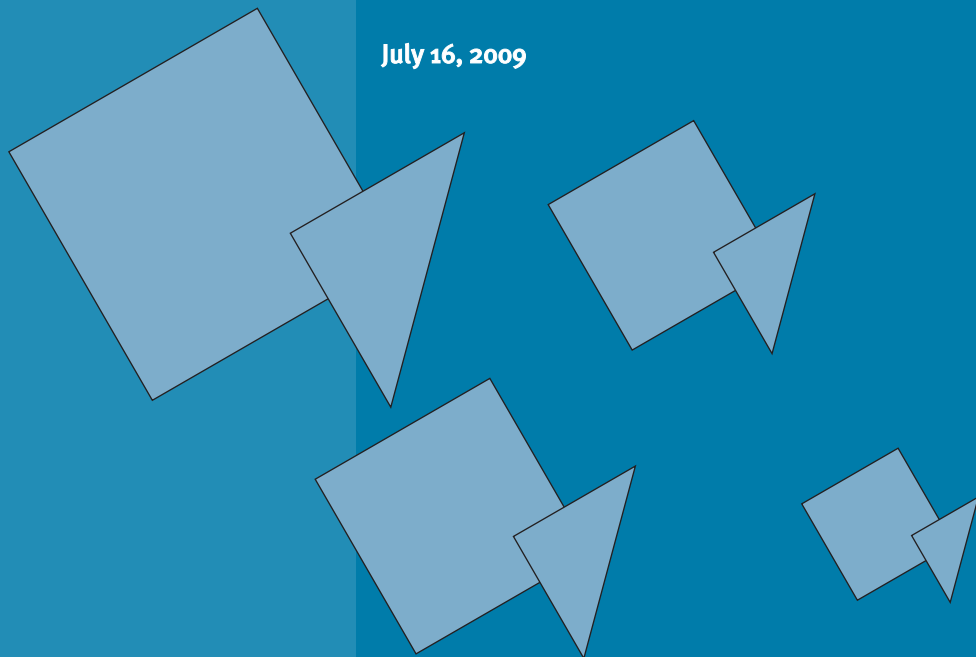
# FINAL FRONTIER

Agenda to protect the ecosystem and habitat  
of India's coast for conservation and livelihood  
security

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Report of the Expert Committee on the draft Coastal  
Management Zone (CMZ) Notification, constituted by the  
Ministry of Environment and Forests, under the  
Chairmanship of Prof M S Swaminathan

July 16, 2009



Ministry of Environment and Forests, New Delhi

July 16, 2009

Dear Shri Jairam Ramesh,

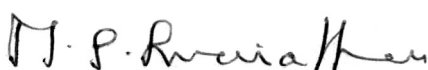
We are grateful for the opportunity given to us to examine the comments received on the draft Coastal Management Zone Notification, 2008. We have studied the views expressed by a wide range of stakeholders both in writing and orally at the 35 consultations held all over the country by the Centre for Environment Education, Ahmedabad. Based on further discussions with Central and state government and Mumbai Metropolitan Representatives and also with the representatives of fishermen and women, we have formulated the recommendations contained in the enclosed Report.

We urge that the Coastal Management Zone Notification of 2008 may be allowed to lapse. Keeping the CRZ Notification, 1991 as the basic framework, suitable additions/amendments may be made taking into account the new challenges likely to arise from climate change-induced sea level rise, and the growing pressure of population on coastal resources and biodiversity. The lives and livelihoods of nearly 25 per cent of our population living within 50 km of the shoreline, as well of the nearly 10 million fisherfolk, will depend upon the decisions we take now to develop enforceable regulations for integrated attention to both ecological and livelihood security. In addition to regulations, education and social mobilization through Panchayats, Nagar Palikas and other local bodies will be vital for ensuring that the unique benefits coastal ecosystems confer are preserved in perpetuity for present and future use.

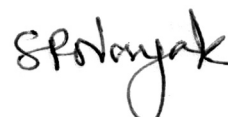
Once again, we thank you and the officials of the Ministry for the support extended to us to complete this task within a month.

With our regards,

Yours sincerely,



**Prof M S Swaminathan**  
(Chairman)  
Chairman, MSSRF



**Dr Shailesh Nayak**  
(Member)  
Secretary, Ministry of Earth Sciences



**Ms Sunita Narain**  
(Member)  
Director,  
Centre for Science and Environment



**Mr J M Mauskar**  
(Member)  
Additional Secretary,  
Ministry of Environment and Forests

## **Contents**

<b>Executive summary</b>	<b>3</b>
<b>TOR of the committee and its work</b>	<b>5</b>
<b>Introduction: Events leading to CMZ Notification, 2008</b>	<b>6</b>
<b>Comments on the draft CMZ Notification</b>	<b>9</b>
<b>TOR 1: Examine the comments received by the Ministry on the draft Coastal Management Zone Notification, 2008</b>	<b>11</b>
<b>TOR 1: Recommendation of the Committee</b>	<b>13</b>
<b>TOR 2: Advise on the policy and legal framework for integrated coastal zone management</b>	<b>14</b>
<b>Agenda for the future</b>	<b>15</b>
<b>Annexures</b>	<b>27</b>

## Executive summary

On June 15, 2009, the Ministry of Environment and Forests (MoEF) constituted a four-member Committee under the Chairmanship of Prof M S Swaminathan to recommend future steps on the draft Coastal Management Zone (CMZ) Notification, 2008. The other members of the Committee were Dr Shailesh Nayak, Secretary, Ministry of Earth Sciences; Mr J M Mauskar, Additional Secretary, Ministry of Environment and Forests; and Ms Sunita Narain, Director, Centre for Science and Environment. The Committee was given the following Terms of Reference (TOR):

- To examine the comments received by the Ministry on the draft Coastal Management Zone Notification, 2008
- To advise on the policy and legal framework for Integrated Coastal Zone Management

The Committee has found in its deliberations that there are a number of areas of concern in coastal areas that need to be addressed. Due to the limited time at its disposal, the Committee has outlined these issues in its report, so that necessary follow-up actions can be taken. The Committee suggests that the government should initiate consultations and amend the Coastal Regulation Zone (CRZ) Notification, 1991 based on the outcome.

### **A summary of the Committee's recommendations is as follows:**

The Committee is clear that the Indian coast is doubly vulnerable today. On one hand, it is facing unprecedented pressures because of industrial and urban development; on the other, it will be threatened by climate change-related devastation – from growing intensities of cyclonic storms to sea surges and eventual sea level rise. All this requires increased attention and vigilance for the protection of the coasts and the people who live there. It is also clear that coastal areas are the habitats of fishing communities. These communities are in double danger as well – ironically, from conservation on one hand and development on the other. Future policies for coastal area management must reverse these trends and find approaches to conserve and protect vulnerable ecosystems and secure the livelihoods and habitats of its people. This is the challenge.

**Recommendation for TOR 1:** Let the CMZ Notification, 2008 lapse and incorporate amendments as recommended in the existing CRZ Notification, 1991 for better coastal management.

### **Recommendations for TOR 2:** An agenda for coastal areas

- Check violations to CRZ through improved space technology-enabled enforcement, strengthened institutions, and regulatory and legal reform.
- Enhance protection to fishing communities and families for habitat and livelihood security through amendments in the CRZ Notification.
- Resolve issues regarding the development and redevelopment of Mumbai, based on locale-specific amendments.
- Introduce regulations to manage the proliferation of ports along the coasts with possible impacts on the coastline by considering cumulative impacts of these developments.
- Introduce tighter standards for disposal of effluents into coastal waters so

that these waters do not become cheaper alternatives to inland pollution management.

- Introduce new management regimes in the Andaman and Nicobar as well as Lakshadweep Islands after deliberation and discussion.
- Introduce any new protection regime – such as critically vulnerable coastal areas – after careful and deliberate understanding of the impact of conservation policies on local communities, particularly fisher families.
- Strengthen protection to mangroves based on clear definitions.
- Include the seaward side to ensure protection from current and future threats, but with safeguards to ensure there is no restriction to livelihoods of fishing communities.
- Introduce measures to greatly strengthen research and regulatory capacity at all levels.
- Introduce policies to cope with and adapt to the future dangers from sea level rise and increased vulnerability of the coasts.

## 1. TOR of the committee and its work

The Ministry of Environment and Forests (MoEF) constituted a four-member Committee on June 15, 2009 under the Chairmanship of Prof M S Swaminathan to recommend future steps on the draft Coastal Management Zone (CMZ) Notification, 2008. The other members of the Committee were Dr Shailesh Nayak, Secretary, Ministry of Earth Sciences; Mr J M Mauskar, Additional Secretary, Ministry of Environment and Forests; and Ms Sunita Narain, Director, Centre for Science and Environment. The Committee was given the following Terms of Reference (TOR):

- To examine the comments received by the Ministry on the draft Coastal Management Zone Notification, 2008
- To advise on the policy and legal framework for Integrated Coastal Zone Management

The Committee has reviewed the comments received by the MoEF on the draft CMZ Notification, 2008. It also held five meetings, including meetings with representatives of different groups, who had sent comments on the draft CMZ Notification to the Ministry (**see Annexure I for TOR**):

- June 27, 2009 – to discuss issues relating to Coastal Regulation Zone (CRZ) and Coastal Management Zone (CMZ)
- July 7, 2009 – to meet representatives of Central and state governments
- July 8, 2009 – to meet representatives of Chambers of Commerce and Industry
- July 11, 2009 – to meet representatives of NGOs and fisherfolks' associations
- July 16, 2009 – to finalise the Report

## 2. Introduction: Events leading to CMZ Notification, 2008

The effort to protect the Indian coast began in the early 1980s at the initiative of the then Prime Minister Ms Indira Gandhi. In 1981, Ms Gandhi sent an advisory to coastal state governments to take adequate precautions while promoting development in the coastal areas. Subsequently, guidelines issued for the protection of beaches were found ineffective without statutory backing. In February 1991, the Ministry of Environment and Forests (MoEF) issued the Coastal Regulation Zone (CRZ) Notification under the Environment (Protection) Act, 1986 to regulate all developmental activities in coastal areas.

The CRZ Notification, 1991 prohibits and regulates certain activities within 500 metres from the High Tide Line (HTL) on the landward side and within 100 to 150 metres from the HTL on the landward side along water bodies influenced by tidal activities – such as creeks, estuaries, bays, etc. The land use is regulated by classifying the 500-metre regulated zone into four categories: CRZ-I (ecologically sensitive and inter-tidal areas), CRZ-II (urban or developed areas), CRZ-III (rural areas) and CRZ-IV (Andaman & Nicobar and Lakshadweep Islands).

In the last 18 years, the Ministry has amended the CRZ Notification 25 times. The issues concerning the implementation of CRZ have also been deliberated and decided upon by various courts of the country. Based on the directions of the Hon'ble Supreme Court on April 18, 1996, the Ministry set up 13 national and state-level Coastal Zone Management Authorities. These State/Union Territory Authorities, set up under the Environment (Protection) Act, 1986 (EP Act, 1986) are institutions mandated to enforce and monitor implementation of the CRZ Notification, 1991. But in this period, violations continued, as did the demands for review of the different provisions of the original Notification.

It was increasingly evident that the implementation of the CRZ Notification was not as successful as anticipated. It was in this context that the Ministry set up, in 2004, an Expert Committee under the Chairmanship of Prof M S Swaminathan to review the existing CRZ Notification and to suggest the agenda for coastal zones. In February 2005, the Committee submitted its Report to the MoEF. The Report contained specific recommendations designed to protect and safeguard the livelihoods of coastal communities and promote conservation (**see Box: Coastal zone management: Guidelines recommended by the M S Swaminathan Report**).

In May 2008, the Ministry issued the draft CMZ Notification, accompanied by an amendment providing for inclusion of green field airports in CMZ areas. In accordance with the Environment (Protection) Act, 1986, the draft was issued for public suggestions and objections within a period of 60 days from the date of issue of the Notification. Based on the requests made by the state governments of Tamil Nadu, Goa and the administration of Puducherry, the draft Notification was re-notified on July 22, 2008 to extend the time period for receipt of suggestions and objections.

### Coastal zone management: Guidelines issued by the M S Swaminathan Report, 2005

- Safeguard the habitats and strengthen the livelihood security of fisher families, who depend upon living marine resources for their food and income. Also, pay attention to the potential threats to coastal farming communities.
- Conserve natural and cultural heritage sites along the coast, including Ramsar sites and Olive Ridley breeding grounds.
- Strengthen the ecological security of coastal areas through mangrove and non-mangrove bio-shields and biodiversity conservation.
- Strengthen the coping capacity of coastal communities to face the challenge of sea level rise caused by climate change, as well as the more frequent occurrence of tsunamis and cyclones.
- Prevent sea water pollution in order to ensure that the fish and other marine products sold in the home market or exported are free from pesticides and other toxic residues, thereby also ensuring the income security of small-scale fisher families.
- Initiate steps to protect the lives and livelihoods of nearly 25 crore people living near the coast, and initiate anticipatory steps to safeguard the future of megacities along the coast like Mumbai, Kolkata, Chennai, Kochi, Vishakapatnam, etc in an era of sea level rise.
- The above will require integrated attention to the landward and seaward sides of the coast.

The key differences between the CRZ Notification and the proposed CMZ Notification are as follows:

- The 1991 CRZ Notification is based on management through regulation, while the 2008 CMZ Notification focuses on management through planning. Furthermore, the CRZ regulates activities in inter-tidal areas (i.e., between Low Tide Line and High Tide Line) and 500 metres from the High Tide Line on the landward side. The aquatic area is not included in the regulations. The CMZ's jurisdiction extends to 12 nautical miles on the seaward side and till the landward administrative boundary of the municipality/panchayat or the ecological boundary, including the aquatic area of the tidal-influenced water bodies and the seabed falling within the coastal management zone jurisdiction.
- The CRZ regulates activities within 500 metres from the High Tide Line on the landward side across the entire coast of the country. This strip is uniform in width and does not take into account any specific area of vulnerability, which may require protection beyond 500 metres. The CMZ requires the area of regulatory control to be demarcated based on a setback line. The setback line would map the specific vulnerability of the stretch of the coast based on elevation, geomorphology, sea level trends and horizontal shoreline displacement (erosion and accretion). In other words, the CMZ area could be more or less than the 500-metre width, depending on vulnerability. The setback would be determined by agencies authorized by the Ministry within two years from the date of issue of the notification.
- In the CRZ, the regulated area is classified into four categories which determine the level of protection and prohibition. In the CMZ, though the categories remain more or less the same, the method of regulation changes. In both CRZ and CMZ, Zone-I consists of areas designated as ecologically



sensitive. The critical difference is that under CRZ, the area defined as Category-I is a no-development zone, with minimal activities permitted in it: over the years, successive amendments have increased the scope of these activities. But this is not the case in CMZ, where in Zone-I, the range of activities permitted is left open to be defined through an integrated coastal zone management plan. In CRZ Category-II, the regulated zone – even within urban areas and municipal limits – is restricted to up to 500 metres. In CMZ, Zone-II denotes all urban and industrial areas as well as ‘areas of particular concern’. Unlike CRZ, this Notification does not make a distinction between urban and rural settlements. Furthermore, the boundary of control in this case is not 500 metres as in CRZ, but the entire municipality or corporation. In CMZ, Zone-III consists of all other open areas, including coastal waters and tidal-influenced inland water bodies. In both CRZ and CMZ, Zone-IV is for Andaman and Nicobar and Lakshadweep Islands, but the difference is that in CRZ, only 500 metres is regulated, while in CMZ, the entire island’s activities will be managed through an integrated plan.

- In the CRZ, there is a list of prohibited and permissible activities under Categories II and III, while limited development is allowed in areas under Category I (**see Annexure II for list of permitted activities**). In the CMZ, management is through the preparation of an Integrated Coastal Zone Management (ICZM) Plan in Zones I and II. The Plan, once prepared, would have to be cleared by the Central government. Most importantly, “development on the landward side of the setback line shall be as per the local town and country planning rules as existed on the day of the notification.” In other words, the development rules will be ‘frozen’ and subsequent changes will require clearance from the Central government. Importantly, the zone of control is no longer 500 metres, but the entire municipal or corporation limit. In CMZ, the development activities permitted in Zone-III are listed in Appendix VI of the Notification. Appendix IV also details the agency which will give permission for the different levels of activities. So, for instance, while fisheries including traditional fish processing, ice plants and crushing facilities require permission only from local authorities, the construction of jetties and fishing harbours would need clearance from the state-level coastal zone management authority. Similarly, an integrated port, harbour, jetty or mooring facility would need to be cleared by the MoEF based on an environmental impact assessment report.

### 3. Comments on the draft CMZ Notification

After the Notification was issued, the Ministry of Environment and Forests received large numbers of suggestions and objections from a cross-section of stakeholders – ranging from state governments to fisherfolks’ organisations. To facilitate public consultation, the Ministry commissioned the Ahmedabad-based Centre for Environment Education (CEE) the task of holding meetings across the country. The CEE conducted 35 consultations with representatives of local communities and non-governmental organizations and submitted a report to the Ministry in September 2008. The key findings of the report were summarized in a presentation made by the CEE Director at the Committee’s first meeting on June 27, 2009 (see **Box: Summary of consultations held by CEE**).

In 2008, the Parliamentary Committee on Science and Technology, Environment and Forests also examined the draft Notification. After consultations, the Parliamentary Committee concluded that the Ministry “should not make haste in implementing the CMZ Notification without addressing the conflict of interests between the stakeholders – mainly the

#### Summary of consultations held by the Centre for Environment Education

- The Coastal Regulation Zone needs to be retained and improvements incorporated in it; furthermore, clarity has to be brought in with regard to setback line, ecologically sensitive areas, Integrated Coastal Zone Management and the methodologies of management, etc.
- The existing CRZ Notification, 1991 has enough scope to manage coastal zones efficiently if implemented effectively, with some improvements and existing violations penalized.
- Representatives from various stakeholder groups, particularly from local communities, should be involved in the entire process of formulation and drafting of the CMZ Notification, 2008 framework.
- The CMZ Notification, 2008 introduces new management methodologies which are open to subjective interpretation and can be used to promote and legalize corporate activities.
- The CMZ notification, 2008 will promote Special Economic Zones (SEZ), thus opening up the coastal space and resources to the industrial sector without considering the basic rights of local communities.
- The roles of the local authorities and state governments are not adequately addressed in the proposed CMZ Notification, 2008 management methodology and structure. The basic rights of and opportunities for local communities and their representatives (Panchayat Members) to participate in and plan the activities in their local environment and settlement areas appear to have been curtailed in the proposed Integrated Coastal Zone Management Plan process.
- Looking at several amendments and impacts of the CRZ Notification, 1991 that have led to a dilution of its original objectives, there are apprehensions about the amendments in the case of the CMZ Notification, 2008 as well, and their impacts, especially on fisherfolk.
- A legislation or an Act on coastal management is needed, which will ensure protection of the coastal ecology and the basic rights of traditional coastal communities. Elected members of the Legislative Assembly should discuss the coastal policies to initiate such an Act. Till the time a comprehensive legislation on the management of coastal zones is enacted, the CRZ Notification, 1991, without amendments, needs to be effectively implemented and violators punished.

fisherfolk and coastal communities.” It recommended that the “CMZ Notification be kept pending/in abeyance till mechanisms/instruments – executive and legislative – are put in place for inclusion and integration of coastal communities through participative, decision-making and control instruments.”

#### 4. TOR 1: Examine the comments received by the Ministry on the draft Coastal Management Zone Notification, 2008

The Committee has reviewed written submissions received in response to the draft CMZ Notification. In addition, in the short time at its disposal, it has discussed the matter with various representatives of Central government agencies, state governments, public sector units, private sector companies, fishers and environmental groups (see **Annexure III for summary of comments received and Annexure IV for minutes of the meetings**). Based on its review and deliberations, the following is noted:

- There is widespread opposition to the draft CMZ Notification. All eight state governments, which have submitted written comments, have recommended that CMZ 2008 should be withdrawn. The draft Notification has also been rejected by fisherfolks' organizations as well as environmental NGOs. Even real-estate developers and the private sector have expressed serious reservations regarding the CMZ 2008.
- There is a widespread concern that the scientific management regime proposed in the draft Notification is open to misinterpretation and abuse. There is some ambiguity about the scientific terminology used and most importantly, a basic uncertainty about the demarcation of the setback line. There is near unanimity among all groups that the demarcation of the setback line is fraught with scientific and data problems and would lead to delays in implementation. Without a clear setback line, even private developers who prefer the management regime of CMZ, are not clear how they will be impacted. It has also been pointed out that the draft Notification includes inconsistencies and also terms and proposals not clarified adequately, which could lead to selective interpretation and high transaction costs. All this could prove to be detrimental to the protection of the coast. It is evident from discussions that however 'unscientific' the present demarcation based on 500 metres is, it is preferred because it is time-tested and clearly understood.
- It is apprehended that the interim period – between the time that the setback line is demarcated and the Integrated Coastal Zone Management Plan is formulated and cleared by the Central government – will be a period of tremendous activity by some interested parties, who might be expecting that these violations would get legalised when the Plan is approved. The Ministry of Agriculture, the nodal agency for fisheries in the country, has requested that the setback line demarcation should be done prior to the Notification. It also says that the definition of setback is ambiguous and could be easily misinterpreted.
- Another overwhelming concern is regarding the change in the prohibitory regime, which may lead to widespread commercial activities and urbanization on the coast. The Karnataka and Kerala governments have expressed their fear that CMZ would legalise all violations made so far under CRZ. Even the Goa government, which is battling for legalisation of the current violations, concurs with this view in its written comments. The Maharashtra government says that CMZ would open up the coast for

commercial activities; the Orissa government points out that the draft Notification allows various activities even in designated sensitive ecosystems. It is needless to say that environmental groups have strongly opposed CMZ on this very ground.

- It has also been suggested that the livelihood rights of fisherfolk have been ignored in the draft Notification. The National Fishworkers Forum says the CMZ curtails accessibility of local communities, but will serve the interests of corporate and large investors in different sectors. Governments and non-governmental groups have all expressed this concern. The Kerala government is categorical: “The coast belongs to the fisher community by tradition and they must not be alienated from their homeland.”
- Even though an effort was made through the consultations held by CEE to publish and distribute material in local languages, it was observed that as the Notification was not widely available, it could not be discussed across the coastal villages. It is feared that the proposed changes are not understood or accepted by large numbers of people who live on the coast. The submissions demand that their participation is necessary before the Notification is finalised.
- A number of agencies have asked that their representatives should be included in the National Board for Sustainable Coastal Zone Management, which is currently proposed to have 32 members.
- While groups have raised issues regarding the draft Notification, most have also pointed to problems in the current CRZ regime and have called for amendments to the CRZ Notification. It has been pointed out that the current system of enforcement is weak and violations are common.

## 5. TOR 1: Recommendation of the Committee

The Committee deliberated on the following four options:

- To continue with the existing CRZ Notification, 1991;
- To incorporate suggestions and objections and to issue a revised CMZ Notification, 2008;
- To let the CMZ Notification, 2008 lapse and to incorporate certain suggested improvements in the existing CRZ Notification, 1991 for better coastal management; or,
- To let the CMZ Notification, 2008 lapse but issue an altogether new notification integrating the key features of CRZ 1991 and CMZ 2008.

After detailed deliberations on the various options and the nature of comments and objections received, the Committee was unanimous in its first meeting held on June 27, 2009 in choosing option 3.

**Recommendation for TOR 1: Let the CMZ Notification, 2008 lapse and incorporate amendments as recommended in the existing CRZ Notification, 1991 for better coastal management.**

## 6. TOR 2: Advise on the policy and legal framework for integrated coastal zone management

The Committee is clear that the Indian coast is doubly vulnerable today. On one hand, it is facing unprecedented pressures because of industrial and urban development. On the other, it will be threatened by climate change-related devastations – from growing intensities of cyclonic storms to sea surges and eventual sea level rise. All this requires increased attention and vigilance for the protection of the coast and the people who live there.

It is also clear that coastal areas are the habitats of fishing communities. These communities are in double danger as well – ironically, from conservation and from development. On one hand, these communities are marginalized and even alienated from their lands because of the need for conservation in marine parks or forested islands. And on the other, they are in jeopardy because of large development projects which displace them and take over their lands and livelihoods. Their land is today prized for tourism and high-end housing projects. Future policies for coastal area management must reverse these trends and find approaches to conserve and protect vulnerable ecosystems and secure livelihoods and habitats of its people. This is the challenge.

The Committee has found in its deliberations that there are a number of areas of concern in coastal areas that need to be addressed. Due to the limited time at its disposal, the Committee proposes to outline these issues in its report, so that necessary follow-up actions can be taken. The Committee suggests that the government may initiate consultations and amend the CRZ Notification, 1991 based on the outcome.

## 7. Agenda for the future

The Committee is outlining below the specific areas that need to be addressed in future.

### 7.1 Check violations to CRZ through improved space technology-enabled enforcement, strengthened institutions, and regulatory and legal reform.

CRZ 1991 did not provide in detail the mechanism for ensuring compliance. The Notification reads: “The Ministry of Environment and Forests and the state or Union territory government and such other authorities at the state or Union territory level, as may be designated for this purpose, shall be responsible for monitoring and enforcement of the provisions of this Notification.”

In 1993, the Indian Council for Enviro-Legal Action filed a writ petition in the Hon’ble Supreme Court on coastal zone management. In 1996, the Hon’ble Court directed the government to set up Coastal Zone Management Authorities under the Environment (Protection) Act, 1986. Subsequently, the National Coastal Zone Management Authority, based in Delhi and headed by the Secretary, MoEF and 13 State/Union Territory Coastal Zone Management Authorities (CZMAs) were constituted.

These Authorities have been delegated powers under the Environment (Protection) Act, 1986 to take punitive action against violations. They are delegated with Sections 5, 19 and 10 of the EP Act, 1986 which give them the powers to inquire into violations, file complaints, verify facts and also take punitive action to temporarily close down polluting or violating units. Over the years, while these powers have indeed been used to check violations, there is a need for reform for more stringent enforcement.

Currently, projects falling within CRZ are sent to the state authority for scrutiny and clearance (projects below an investment of Rs 5 crore are cleared at the state level), while the others go to the MoEF. The MoEF takes decisions based on the recommendations of the state authorities. In addition, proponents for major projects like ports and harbours, which require environmental clearance, also apply under both CRZ and EIA for clearance from the Central government. These processes need to be strengthened.

The Committee would recommend the following actions to be taken:

7.1.1 Use satellite and information technology to map the coast and to monitor real-time violations that are taking place. This mechanism has been used in the case of State of Goa where, based on a decision of the Hon’ble High Court of Bombay, the government undertook mapping of the entire coast to identify violations (**see Box on page 16: Goa: Violations to book**). The Committee recommends that the MoEF should institute a national-level programme to map the coast and to develop technology that can inform authorities of changes/violations as and when they occur.

7.1.2 It is essential to streamline the clearance process under the different



### Goa: Violations to book

In 1998, the Goa Foundation, an environmental NGO based in the state, filed a writ petition (No 422 of 1998 with No.99/1999) regarding violations of the CRZ Notification, 1991 in the state. The matter concerned the construction activities being undertaken in the CRZ-III – restricted for residential and livelihood use by rural communities residing close to the sea.

The petitioners contended that the government was clearing projects in violation of the CRZ Notification. As per the CRZ 1991, construction or reconstruction of existing dwelling units between 200 and 500 metres from HTL in CRZ III areas is permitted, so long as it is within the ambit of traditional rights and customary uses. It also stipulates that the total number of dwelling units should not be more than twice the number of existing units, and the Floor Area Ratio (FAR) should not exceed 33 per cent of the plot size with height 9 metres and 2+1 floors.

The petitioner claimed that the authorities had granted approval to dwelling units in violation of the CRZ and “two villages were virtually sought to be converted into concrete jungle which paradoxically, the CRZ had designed to prevent”. It also claimed that in the name of residential units, people had been allowed to construct shops, hotel rooms, beach resorts, etc.

The Hon’ble Bombay High Court, in its order dated October 13, 2006, directed the state government to identify the violations within one year and the Central government to take action against the violations. To comply with the directives of the Hon’ble Court, the Goa state government assigned M/s Remote Sensing Instruments, a Hyderabad-based company, the task of undertaking temporal analysis based on 1991-2005 satellite data. The computed data indicated an increase of structures from 1991 up to 2005. Furthermore, a detailed survey through DGPS was carried out in the villages of Calangute, Candolim and Baga.

Based on these surveys, the Goa government has identified 4,553 structures that have come up in violation of the CRZ post-1991 in the 200-500 metres zone and another 2,272 structures that have been built post-1991 in the restricted zone of 100 metres along rivers with tidal influence. The Hon’ble High Court has asked for strict action to be taken against these violations. In June 2009, the state government has approached the MoEF, seeking an amendment to the CRZ Notification to provide a one-time exemption to these structures. Clearly, if agreed upon, this would be tantamount to legalizing violations and creating a precedence for further negation of CRZ regulations. The MoEF, in the view of the Committee, must take a highly cautious view of the matter, given its implications as a precedence for the rest of the coast and for future violations.

Source: MoEF

regulations; however, greater diligence and rigour is a must to ensure environmental integrity. Currently, it is observed that state authorities, headed in most cases by the Secretary, Environment are involved primarily with deliberations concerning the clearance of projects. As a result, these authorities have little time to enforce regulations for which they were primarily constituted under the order of the Hon’ble Supreme Court. It would be desirable to change the functioning at the state level so that clearance of projects under CRZ and EIA is done by the State Environmental Appraisal Committees or the Departments of Environment. The role of the state CRZ authorities should be mainly directed towards monitoring and enforcement. This separation of roles will lead to better decision-making and implementation. This will also require that the State Environmental Appraisal Committees have the necessary expertise to review CRZ projects.

7.1.3 Build the capacity of State Coastal Zone Management Authorities; in particular, build information sources for better decision-making. The key

problem of coastal regulations is the lack of scientific data and information to enable decision-making. There is a serious lack of scientific institutional capacity at the state and Central levels. This needs urgent attention.

- 7.1.4 Use web-enabled systems to publish all clearances related to CRZ and its links with EIA clearances. Currently, while the MoEF has put all projects which require EIA and CRZ clearances on its website, all the state authorities have not done so. The Committee has noted that the MoEF has written letters recently to the various state authorities asking for all clearance-related data to be published in the public domain. The Committee would strongly reiterate this directive and recommend that this action should be taken urgently.
- 7.1.5 Bring changes in the EP Act, 1986 to ensure better compliance. Currently, violations under the provisions of the EP Act (Sections 21 and 22) are non-cognizable and bailable, which delays and impedes successful enforcement. The financial penalties provided under the Act – a maximum of only Rs 1 lakh – are also insufficient as deterrents. The Committee recommends that these provisions should be reviewed and changes made to improve enforcement.

## **7.2 Enhance protection to fisher families for habitat and livelihood security through amendments in CRZ.**

### **7.2.1 Recommendations concerning fisherfolk dwelling units in CRZ-III:**

As per the CRZ Notification, 1991, the area defined as CRZ-III is where rural communities (including fisherfolk) reside. In this zone, the area between the HTL till 200 metres is a 'No-development Zone'. No constructions are permitted within this zone except for repairs of existing authorized structures not exceeding the existing Floor Space Index (FSI), existing plinth area and existing density (frozen as per 1991). Activities like agriculture, horticulture, gardens, pastures, parks, playfields and forestry are permissible within this no-development zone. Furthermore, construction/reconstruction of dwelling units between 200-500 metres from the HTL is permitted so long as it is within the ambit of traditional rights and customary uses such as existing fishing villages and *gaothans*. The construction and reconstruction is subject to restrictions. In this zone, infrastructure for local communities such as public rain shelters, community toilets, water supply, schools, dispensaries, etc are permitted.

The issue of restricted development of the dwelling units, based on FSI of 1991 (restricted to one floor plus two floors, subject to 9 metres height) has been raised by some fisherfolk organizations. They prefer a higher FSI to cater to growing family needs. This seems justifiable; however, any change must also bear in mind the need to ensure continued ownership and use by fisherfolk of these prized properties. The Committee would recommend that government should discuss this matter and take a considered decision on the raising of FSI in Zone-III, subject to ownership and usage restrictions.

### **7.2.2 Recommendation concerning inclusion of livelihood-related activities**

The livelihood needs of fisherfolk – activities concerning their occupation, namely fishing – are seen as left ambiguous in the 1991 CRZ Notification. As a result, on several occasions, fisherfolk communities

have raised demands that their genuine needs have been ignored. In the CMZ Notification, 2008, an effort was made to correct this ambiguity by including the provision that there would be “no restriction in fishing and fisheries related activities of local communities living in the area”. Currently, in CRZ 1991, there is no explicit mention of activities which relate to the ‘profession’ of traditional fisherfolk – fish drying, auction halls, net-mending areas, etc. This is a serious anomaly which impinges on the lives of fisherfolk.

The Committee recommends that the CRZ Notification, 1991 should review the list of such activities and suggest their inclusion in the permissible list in Zones II and III. The list will have to be carefully evaluated to ensure that it does not lead to misuse. For instance, there is a case to be made for inclusion of ‘fish processing units’ in the permissible activities. However, it is also clear that such units could potentially be large, polluting and owned by non-fishers.

In the no-development zone of CRZ-III (0-200 metres), while dwelling units are allowed for fisherfolk, economic activities like tourism are not permitted. There is a growing demand for inclusion of such activities in this zone, under the ownership of fisherfolk. This demand, however legitimate, can lead to a proliferation of tourism units in this zone and will be difficult to regulate in terms of size, impact or ownership. The Committee is of the view that this modification, if considered, must be handled with extreme caution.

### **7.2.3 Recommendations concerning legislation for the rights of fisherfolk**

The Committee heard testimonies of fisherfolk regarding how development projects had displaced their livelihoods and homes. For instance, in Versova in Mumbai, Machlipatnam on the Andhra Pradesh coast and Mundra in Gujarat, large developmental activities – from housing to ports – have encroached upon the habitats of fisherfolk and affected their livelihoods. The fishers recounted how their struggles against large corporations and building contractors have been long and difficult.

The Committee endorses the recommendation made by Prof M S Swaminathan to the Parliamentary Committee reviewing CMZ on the need for consideration of a separate legislation, along the lines of the Traditional Forest Dwellers Act, 2006 for securing traditional fisher families’ rights by the relevant Union ministry.

### **7.3 Resolve issues regarding the development and redevelopment of Mumbai based on locale-specific amendments.**

In CRZ-II, construction of buildings on the landward side of an existing road or existing building structure is permitted. The definition of an authorized existing building is that such a building must have existed prior to February 19, 1991. This provision, important to regulate development in the 500-metres zone, is open to different interpretations, and has proven to be difficult to implement. It has led to large numbers of litigation, many of which are still pending. This issue has reached a flashpoint in the city of Mumbai, with its high-priced land and large slum population.

The Committee had discussions with builders' associations, NGOs and state government officials with regard to rehabilitation of slums as well as rehabilitation of the dilapidated structures in the municipal area of Mumbai. It was explained that the existing dwellings are located on the landward side, within 500 metres and close to the sea. It is contended that as development and redevelopment on the 500-metre zone is restricted through the FSI – CRZ says that the FSI should be as it existed on February 2, 1991 – it is leading to a situation where builders do not have the FSI incentive to rebuild. An NGO specifically brought out the issues regarding pre-1940 chawls and housing, which are in very bad condition and are a health hazard to their tenants.

The Committee was informed that the issue of FSI has been discussed in the Hon'ble High Court of Bombay. In writ petition number 1019, of 1999, filed by a city builder, the Hon'ble High Court upheld the Ministry's clarification which states that the word 'existing Floor Space Index' shall mean 'FSI as existed from the date of issue of the Notification, i.e. February 19, 1991'. As per this clarification, the existing FSI was 1.00 in rural areas and 1.33 in urban areas of Mumbai.

The Committee was also informed that the Ministry had set up a committee in May 2000 to examine the matter precisely related to the Mumbai slums and other dilapidated structures in the CRZ zone of the city. This committee, under the chairmanship of D M Sukthankar, former Union Urban Development Secretary, concluded that a higher FSI should be permitted. This committee recommended that FSI in Mumbai CRZ areas should be as per the development control regulations – existing FSI in non-CRZ areas. The Ministry did not accept the recommendations of the Sukthankar report, in view of the directives of the Hon'ble High Court of Bombay.

The Committee also asked developers and city administrators about the change in FSI that they would require. Most builders argued that they needed a very high – even unlimited – FSI to make the projects financially viable. Their argument was that to provide free housing for existing dwellers who live in cramped conditions, they needed to construct more within the same area. And to make this housing viable, they needed to build more to sell and to recover their costs.

On the other hand, the Committee also heard from fisherfolks' representatives that they did not benefit from the slum redevelopment schemes. They explained that in the name of slum rehabilitation or reconstruction of dilapidated structures, the houses of local communities were given the least priority. The prime land, especially the sea-facing properties, belonging to these communities were sold at exorbitant costs by the developers, while the redeveloped area earmarked for fisherfolk was small and on marginal lands. They requested the Committee to debar all projects of slum redevelopment in these lands, arguing that only projects which secured their ownership should be permitted.

The Committee recognizes the special case of Mumbai and its need for redevelopment of existing properties. However, it is not clear how this redevelopment, specific to certain areas of the city, can be allowed without jeopardizing the regulatory control, so essential for coastal areas,

in other CRZ-II areas. The Committee recommends that the government should take a careful view of this issue, perhaps restricting permitted construction to redevelopment of specified buildings in some specific areas.

It is also imperative that state governments must review their policies for private-developer based building projects in CRZ areas. The government must consider public finance for housing so that this development can be used for meeting the needs of existing households, without compromising on ecological safety.

#### **7.4 Introduce regulations to manage the proliferation of ports along the coasts, with possible impacts on the coastline, by considering cumulative impacts of these developments.**

The Committee noted that currently, the shoreline of the country is undergoing a major change because of a large number of port and harbour projects. These projects involve large quantities of dredging, shore protection works, breakwaters and reclamation. The problem is that there is little information of the cumulative impacts of these projects on the coastline. Officials of the Union Ministry of Shipping explained that it was difficult to track all projects, because permissions are given based on their scale and ownership. The Union Ministry of Shipping is involved in 'major public sector ports, while state governments give clearance to minor ports as well as upgraded ports being proposed by private developers'. Experts are unanimous that each structure would impact the shoreline – particularly the beach formation. Already, many of these infrastructure projects have caused significant shoreline changes, as in Ennore, Puducherry, Alibag, Digha and Dahej.

It is also observed that the shoreline is being impacted adversely by mining projects and by interventions like the building of shore-protection structures like groynes (**see Box: Blocking the sea**).

Under the existing CRZ and EIA notifications, various port projects are indeed regulated. Under the EIA Notification, the ports which attract cargo-handling capacity need clearance. In other words, the ports which may only involve dredging or disposal of dredged material or shore-protection projects, will not be included. The EIA Notification also categorises the clearance required based on the handling capacity of the port – ports with a handling capacity higher than 5 million tonnes per annum require clearance from the MoEF, while the rest can get clearances from State Environmental Appraisal Authorities. In CRZ 1991, all port projects require clearance from the Central government, but only for components which fall within the land area of CRZ; this is because CRZ 1991 has no jurisdiction in the water area.

The Committee was of the view that these developments have all led to serious threats to the coast, as especially beaches face severe erosion and shorelines are visibly changing. Given that the Central and state governments propose to construct several ports and harbours all along the shore in the coming years, these projects could have irreversible adverse impacts on the coast. The Committee recommends the following:

##### **7.4.1 The government must immediately study the cumulative impacts of the**

### Blocking the sea

Coastal erosion is a serious problem in Puducherry. But the beaches did not disappear overnight. Activists say the problem began in 1989, when a harbour was built at the southern tip of the Union territory. Two breakwaters were constructed as a part of the harbour which stopped the littoral drift, the natural south to north movement of sand.

The country's eastern coast has a high littoral drift with an estimated 6 million cubic metres of sand moving south to north along the coast. The breakwaters in southern Puducherry meant that sand from the beaches of the state moved north, but there was no sand to replenish it. So the area north of the breakwater lost all its beaches.

Consulting Engineer Services, a New Delhi-based organization which designed the harbour, had anticipated this problem. It had incorporated a sand bypass system in the harbour's design to obviate sea erosion: silt from the harbour would be dredged and artificially pumped to the other side, restoring the movement of sediments along the coast. Says M D Kudale, chief research officer of Central Water and Power Research Station (CWPRS), "A sand bypass system was put in place but seldom used except for a brief period between 2000 and 2001, when small stretches of beach began to reappear. But the system was discarded in 2002, and the beaches disappeared once again."

#### SAND LOSS

By 2002, northern Puducherry had lost all its sand. Structures along the coast began to crumble as sea water intruded into their foundations. In 2002-03, the state government decided to build a seven-km long seawall consisting of boulders along the coast; Rs 40 crore was spent on the construction. While Puducherry was saved temporarily, the problem of erosion was transferred to villages in Tamil Nadu in the north.

By 2006-end, areas in the state north of Puducherry had lost 200 metres of beach and the sea waves destroyed a few houses and killed a child. The Tamil Nadu government had to fortify these villages with a seawall. Meanwhile, in 2002, experts from the Indian Institute of Technology, Chennai and the National Institute of Ocean Technology (NIOT) suggested that groynes be erected on a trial basis in Puducherry. Civil society groups like the Indian National Trust for Art and Cultural Heritage and Citizens Forum for Puducherry opposed the move, contending that groynes would only transfer the problem of erosion towards the north of the structures — much like the breakwaters. The issue was raised in the Union territory's Legislative Assembly in 2002. The government then assured that it would seek a second opinion on the subject. In January 2008, Pondycan along with another NGO, Coastal Action Network, filed a public interest litigation in the Hon'ble Chennai High Court, seeking a stop on the construction work. A month later, the Court directed that the Public Works Department should get environmental clearances for the project. The Department applied for CRZ clearance in February 2008. Meanwhile, in January this year, the Tamil Nadu government initiated an enquiry on erosion in Kottakuppam block in Villupuram district. The report of the enquiry noted: "All villages in Kottakuppam block and other areas of Vannur taluk of Villupuram north of Puducherry, are at the risk of sea erosion because sea walls/groynes had blocked the natural transport of sand up and down the coast." It further added that if construction proceeds further in Puducherry, it would "aggravate the erosion on Tamil Nadu coast especially in Villupuram district". The proposal from the Puducherry administration seeking clearance from the MoEF for constructing the groynes is under consideration, while no proposal has been received from the government of Tamil Nadu.

Source: Down To Earth

individual projects on the coastline, pending which there should be a moratorium on expansion of existing ports and initiation of new projects.

7.4.2 The CRZ 1991 should be modified to include the seaward side so that port projects are regulated in terms of their impacts on the sea and its land

interface. In the CMZ 2008, an effort was made to regulate all activities related to the development of a port – including ancillary and road and transport-related activities – through an integrated port management plan. The CRZ 1991 should be amended to include this provision.

7.4.3 The amendments proposed in the EIA Notification of January 9, 2009 would require that modernisation or expansion proposals without any increase in pollution load and/or without any additional water and/or land requirement will be exempted from environmental clearance. This could lead to major impacts on the coast, as existing minor and major projects could increase in size and impact without any scrutiny or regulation. The Committee recommends that the Ministry should examine this amendment in the EIA notification in the light of its recommendations above.

**7.5 Introduce tighter standards for disposal of effluents into coastal waters so that these waters do not become cheaper alternatives to inland pollution management.**

The Committee is of the view that pollution of the coast is a serious threat. The Committee heard from representations of fisherfolk that fish resources have depleted over a period of time in many places because of effluent discharges into coastal waters. Taking advantage of lax effluent discharge standards, some industries are basing their operations in coastal areas. There is also a growing trend towards building pipelines for disposal from common effluent treatment plants into the sea. The problem is that it is impossible to monitor whether effluents are indeed being treated before disposal or if they are simply being dumped into the sea. Similarly, most cities and municipalities located in coastal areas discharge untreated sewage into the surrounding sea. The sea and the coast are also being used as a convenient dumping ground for solid wastes.

Under CRZ 1991, it is provided that “discharge of untreated waste and effluents from industries, cities or towns and other human settlements is a prohibited activity. Schemes shall be implemented by the concerned authorities for phasing out the existing practice, if any, within a reasonable time period, not exceeding three years, from the date of this notification.” This provision has been completely ignored in the past and in fact, cities are discharging their effluents with impunity. There is also a growing trend to lay underwater pipelines for discharge of effluents. These practices will be highly detrimental to marine life.

The Committee strongly recommends that action must be taken to mitigate pollution in the sea. It recommends that standards for effluent disposal should be revised; that there should be a strong monitoring programme with public data access on the quality of sea water; and that underwater effluent pipelines should be disallowed with amendments to CRZ 1991.

**7.6 Introduce new management regimes in Andaman and Nicobar as well as Lakshadweep Islands after deliberation and discussion.**

The Committee observed that the CRZ Notification, 1991 stipulates an

uniform 500-metres regulation along the islands of Andaman and Nicobar and Lakshadweep. This provision creates different problems for differently sized and located islands. In cases where the islands are small, the entire landmass of the island could be notified under CRZ, which in the absence of management plans, could lead to problems for the island-dwellers. On the other hand, in large islands, many regions which are ecologically fragile are not included in the 500-metres regulation. There is also a growing concern about the special vulnerability of the islands because of sea level rise.

These issues require a review into the CRZ Notification, 1991. The CMZ Notification, 2008 had advocated that the islands should base their development on an Integrated Coastal Zone Management Plan, which would require clearance from the MoEF. The Committee noted that these management plans have already been prepared for selected islands and approved by the respective administrations.

The Committee recommends that a separate island protection zone notification could be issued for the integrated management of the islands. This notification should keep in view the ecology, socio-economic issues, especially of fisherfolk, sea level rise and sustainable development as well as the impacts of the tsunami of December 26, 2004. The island protection zone notification should be finalized after deliberations with the island administration and its people.

### **Jambudwip: Conservation without people**

Jambudwip Island is a tiny dot in the Bay of Bengal. A few years ago, it hit the headlines when wildlife activists dragged fisherfolk who used the landmass to dry their fish, to the Hon'ble Supreme Court. A case was filed regarding 'encroachment' of this island, partly covered by mangroves. The Apex Court's Central Empowered Committee (CEC), which advises it in all forest matters, in its report to the Court contended that fish drying was a non-forest activity, and therefore disallowed under the Forest Conservation Act, 1980.

The fisherfolk appealed. They had to go out into the open sea for days, putting life on hold and everything they had at risk. Jambudwip was a convenient transit camp; they used this nearest landmass, with a natural harbour, only to dry fish. They had no refrigeration facilities; this was the only way they could preserve fish for sale in the mainland. Their practices were sustainable – fishing nets were handcrafted to catch only the adult fish, leaving the small to the sea. They used the sun to dry fish. They took from nature only what they needed.

The fishers also explained that their use was not destructive to the ecology of the island, and, in fact, it was in their best interest to protect the mangroves as a buffer to the harsh sea. The permits and payments made to the forest department showed the island was in use from 1950. Destruction to the mangroves was marginal – satellite imagery confirmed the island had, over these long years of use, lost only 200 hectares of forest, out of its 2,000 hectares. The fisherfolk also put forward a plan – use the money we pay for permits to the forest department to plant mangroves; create a sustainable management plan for the island; restrict boat numbers.

But these pleas were unheard. The fishers were disallowed from using the island in the future and livelihoods of over 10,000 people engaged in fishing, drying, transporting and selling fish ended. Conservation in this case made enemies, not friends.



**7.7 Introduce any new protection regime – such as critically vulnerable coastal areas – after careful and deliberate understanding of the impacts of conservation policies on local communities, particularly fisher families.**

The CRZ Notification, 1991 declares areas like national parks/marine parks, sanctuaries, reserve forests, wildlife habitats, mangroves, corals/coral reefs, areas close to breeding and spawning grounds of fish and other marine life, areas of outstanding natural beauty/historically/heritage areas, areas rich in genetic diversity, areas likely to be inundated due to rise in sea level consequent upon global warming and such other areas as may be declared by the Central government or concerned authorities at the state/Union territory level from time to time, and the area between the Low Tide Line and the High Tide Line in CRZ-I as ecologically sensitive. Over the years, this open-ended definition has led to ambiguity and subjective interpretation.

In CMZ Notification, 2008, an effort was made to clarify the areas that should be considered as ecologically sensitive. A list of 12 such areas – ranging from mangroves to nesting grounds of birds – has been provided in Appendix II of the Notification.

Furthermore, the Committee is also aware that there are large marine parks, sanctuaries and national parks along the coastline of the country – Chilka, Pulikat, Pichawaram, Gulf of Mannar, Vembanad, Coringa, Gulf of Kachchh etc – which are also inhabited by fishers. These large biospheres require special attention, since they provide livelihoods to local communities and are also affected by developmental activities. It was proposed to the Committee that these regions could be provided with further protection by declaring them as Critically Vulnerable Coastal Areas (CVCA).

The Committee noted that in some cases, conservation has led to the impoverishment of fisherfolk. It noted instances from Orissa, where there have been cases reportedly of suicides by desperate families of fishers, dispossessed because of the creation of Bitharkanika National Park. Similarly, at Jambudwip, a small island off the coast of Bay of Bengal, fishers have been thrown off the island they were traditionally using for drying fish, because of intervention by some conservationists (**see Box: Jambudwip: Conservation without people**). These past experiences must not be repeated and efforts must be made to enjoin the interests of fishers with that of conservation.

The Committee recommends that the Ministry may take a view on the creation of Critically Vulnerable Coastal Areas based on the above factors.

**7.8 Strengthen protection to mangroves based on clear definitions.**

The CRZ Notification, 1991 provides for the protection of mangroves irrespective of their density. However, it is noted that often, state governments take the view that mangroves above 1 hectare in density and 1 metre height should be recognized as ‘mangroves’ for protection. The Hon’ble High Court of Bombay (writ petition 3246 of 2004) has directed the Maharashtra state government to map the mangrove area and declare all such areas as ‘forests’ for protection. However, it is understood that

this work to map mangroves and its declaration is still incomplete. As the definition is unclear, it is possible to impact large mangrove sites because of certain development projects. The committee recommends that the protection of mangroves is critical, particularly as these provide bioshields and nurseries for fish breeding in the coast – protecting against disasters like tsunamis or cyclones and providing livelihoods to fishers. It is also important to recognize that mangroves are difficult to regenerate. Once these mangrove areas are destroyed, new mangrove plantations do not come up easily.

The Committee recommends that the Ministry should conduct a nation-wide mapping of existing and potential mangrove areas. It must provide a definition of mangrove areas that need to be protected and include these and other suitable areas into its afforestation projects, like the Green India project. It should also include the concept of restoration – of degraded areas, mangroves or coastal, sandy beaches – into the plan. All mangrove areas should be strictly protected as bioshields and sea-productivity zones.

#### **7.9 Include the seaward side to ensure protection from current and future threats, but with safeguards to ensure there is no restriction to livelihoods of fishing communities.**

The coastal environment depends upon the hydrodynamics of the waters of the sea. We cannot plan or manage the land, without planning for the seawater. Furthermore, what is done on land could have major impacts on the sea – from pollution to construction. The Committee has informed about how in some cases, promoters of port and jetty projects were filling up the land in the sea – reclamation to use for other purposes – without any permissions. In CRZ 1991, the seaward side had been included and so its regulation was not possible. CMZ 2008 included the area up to territorial water limits (12 nautical miles measured from the appropriate baseline). It also included the seabed in its regulatory ambit.

Fishing communities have raised objection to this inclusion of the seaward side in CMZ 2008. They contend that the classification of the sea area under the Notification would have implications for the livelihoods of the fishing community. It would restrict their access and instead, would open out the sea for industrial development. Clearly, this should not be the aim of the regulation.

The Committee recommends that the seaward side should be included in the CRZ 1991. But the amendment must take into account the concerns raised by fishing communities and ensure strong and effective safeguards.

#### **7.10 Introduce measures to greatly strengthen research and regulatory capacity at all levels.**

It is clear that coastal areas face enormous challenges. But if these are to be managed, then we will need institutions for coastal research. Currently, there is a huge gap in data collection and information and more importantly, on using the knowledge for changing policy and practice. It is also clear that we need to strengthen the current regulatory institutions at the Centre and at the state for better decision-making, including the setting up of a new institute for coastal zone management. This will

require enhancing the capacity of current institutions and building new ones dedicated to coastal research. It will also require involving people – fishers and environmentalists – in this research so that their knowledge can be used to learn the practice of the future. Further, the National Board for Sustainable Coastal Management may be set up to assist the Ministry and the state governments and to address the policy and legal issues, including undertaking conflict resolution studies.

The Committee would recommend that urgent steps are taken to build institutional capacity for the coasts.

#### **7.11 Introduce policies to cope and adapt to future dangers from sea level rise and increased vulnerability of the coasts.**

The Committee is of the opinion that the coastal areas of the country face a danger due to sea level rise in future and the projected increase in frequency of storms and tidal surges. These developments would not only endanger inhabitants of coastal areas, but also have an adverse impact on the coastal ecosystem which provides livelihood support to millions. It is imperative that the Ministry undertakes a project to demarcate the vulnerability and hazard line along the coast. This will take into account present and future risks because of projected sea level rise and other threats. Once done, the demarcated vulnerability and hazard line must be incorporated into the CRZ 1991. This will initiate steps to improve protection of critical infrastructure and thickly populated areas. The study will also provide policy directions for adaptation strategies in our coastal areas. It is clear that the coast will need more protection measures and investment in adaptation to cope with the coming devastations.

## Annexure I

### No.11-83/2005-IA-III(Pt.)

Government of India  
Ministry of Environment and Forests  
(IA-III Division)

Paryavaran Bhawan,  
CGO Complex, Lodhi Road,  
New Delhi – 110003.

Dated, the 15<sup>th</sup> June, 2009

### ORDER

**Sub: Constitution of an Expert Committee for finalization of the Coastal Management Zone Notification - regarding.**

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1. Ministry of Environment and Forests has issued a draft Coastal Management Zone Notification, vide S.O No.1070(E), dated 1.5.2008, and an Amendment to this Notification was issued vide S.O.No.1120(E), dated 9.5.2008 inviting public suggestions and objections in accordance with the Environment (Protection) Act, 1986 within a period of 60 days from the date of issue of the notification. Further, based on the requests made by the State Government the draft Notification had been reissued on 22.7.2008.
2. The Ministry has received a large number of comments on the above draft Coastal Management Zone Notification. To examine these comments the Ministry has decided to constitute an Expert Committee under the Chairmanship of Prof. M. S. Swaminathan. The composition of the Committee is as follows:-
  - (i) Prof. M. S. Swaminathan, Chairman, M S Swaminathan Research Foundation MSSRF, 3<sup>rd</sup> Cross Street, - Institutional Area, Taramani, Chennai – Chairman
  - (ii) Dr. Shailesh Nayak, Secretary, Department of Ocean Development, New Delhi
  - (iii) Ms. Sunita Narain, Centre for Science and Environment, 41, Tughlakabad Institutional Area, New Delhi-110062.
  - (iv) Shri J. M. Mauskar, Additional Secretary, Ministry of Environment and Forests, New Delhi
3. The Committee shall:-
  - (i) examine the comments received by the Ministry on the draft Coastal Management Zone Notification, 2008
  - (ii) advise on the policy and legal framework for the Integrated Coastal Zone Management.
4. The Committee may co-opt additional Members, if required and shall submit its report by 15.7.2009.
5. The Committee may convene its meeting(s) anywhere in the country. TA/DA and sitting fee for non-official members will be paid as per norms.
6. This issues with the concurrence of the IFD vide IFD Dy. No.418/DS/IFD, dated 11.6.2009.

**(Dr. A. Senthil Vel)**  
**Additional Director**  
**Telefax: 24360694**  
**e-mail: senthil.vel@nic.in**

## Annexure II: List of permissible activities in CRZ

Sl. No.	Activites	CRZ-I(i)	CRZ-I(ii)	CRZ-II	CRZ-III (HTL-200m)	CRZ-III (200-500m)	CRZ-IV
1	New industries	X	X	X	X	X	X
2	Expansion of industries	X	X	X	X	X	X
3	Atomic energy projects	√	√	√	√	√	√
4	IT	X	X	X	√ (SEZ)	√ (SEZ)	X
5	SEZ Projects	X	X	√ (SEZ)	√ (SEZ)	√ (SEZ)	X
6	Non conventional energy	X	X	√	√	√	√
7	Desalination	X	X	√	√	√	√
8	Air strips	X	X	√ (LAK)	√ (LAK)	X	√
9	POL products	X	X	√	√	√	√
10	L&G	X	√	√	√	√	X
11	Fish processing	X	X	X	X	X	X
12	Hatchery	X	X	X	X	X	X
13	Fish drying	X	X	X	√	√	√
14	Treated effluents	X	X	√	√	√	X
15	Strom water drains	X	X	√	√	√	X
16	Municipal waste	X	X	X	X	X	X
17	Landfill	X	X	X	X	X	X
18	Ash from TPS	X	X	X	X	X	X
19	Land reclamation	X	√ (P&H)	√ (P&H)	√ (P&H)	√ (P&H)	√ (P&H)
20	Expansion of Ports/Harbours	X	√	√	√	√	√
21	Jetty	X	√	√	√	√	√
22	Wharves	X	√	√	√	√	√
23	Quays	X	√	√	√	√	√
24	Slipways	X	√	√	√	√	√
25	Bridges	X	√	√	√	√	√
26	Sea-links	√	√	√	√	√	√
27	Erosion control	X	√	√	√	√	√
28	Tidal regulators	X	√	√	√	√	√
29	Prevention of salinity ingress	X	√	√	√	√	√
30	Commercial Complex	X	X	√	X	X	X
31	Mining of Sand/Rock	X	X	X	X	X	X
32	Rare mineral	X	X	√	√	√	√
33	of Oil and Gas	√	√	√	√	√	√
34	Groundwater drawl	X	X	√	X	√	√
35	Horticulture	X	X	√	√	√	√
36	Agriculture	X	X	√	√	√	√
37	Fisheries (Aquaculture)	X	X	X	X	√	√
38	Pipelines	√	√	√	√	√	√
39	Altering sand dunes	X	X	X	X	X	X
40	Defense Projects	X	√	√	√	√	√
41	Conveying systems	√	√	√	√	√	√
42	Transmission lines	√	√	√	√	√	√
43	Embarkation facility	√ (LAK)	X	X	X	X	√
44	Thermal power plant	X	X	X	X	X	X
45	Housing schemes	X	X	√	X	X	X

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Sl. No.	Activites	CRZ-I(i)	CRZ-I(ii)	CRZ-II	CRZ-III (HTL-200m)	CRZ-III (200-500m)	CRZ-IV
46	Weather radars	√	√	√	√	√	√
47	Demolishing/Reconstruction of Archeological, heritage public structures.	X	X	√	X	X	X
48	Dispensaries	√ (SB)	X	√	√	√	X
49	Schools	√ (SB)	X	√	√	√	X
50	Public rain shelters	√ (SB)	X	√	√	√	X
51	Community toilets	√ (SB)	X	√	√	√	X
52	Roads	X	X	√	√	√	√
53	Water supply	X	√	√	√	√	√
54	Drainage	X	X	√	√	√	√
55	Sewerage	X	√	√	√	√	√
56	Saltpan	X	√	√	√	√	√
57	Storage of food grains	X	√	√	√	√	√
58	Storage of fertilizers	X	√	√	√	√	√
59	Storage edible oil	X	√	√	√	√	√
60	Parks	X	√	√	√	√	√
61	Play fields	X	X	√	√	√	√
62	Forestry	X	X	√	√	√	√
63	Beach resorts	X	X	√	X	√	√
64	Coral mining	X	X	X	X	X	X
65	Underwater blasting	X	X	X	X	X	X
66	Dwelling units	X	X	√	X	√	√
67	Reconstruction of structures	X	X	√	√	√	√

P&amp;H – Port and Harbours

SEZ – Special Economic Zones

SB – Sundarbans

LAK - Lakshdweep

**Note:** The above details are subject to approved CZMP of respective States/UTs, Court Judgments, interpretations with respect to local regulations and the provision of CRZ notification in specific para. Activities less than Rs.5 crores are approved by the concerned State Government. Activities more than Rs.5 crores to be cleared by MoEF.

### Annexure III: The details of observations / recommendations by the Coastal States on CMZ Notification , 2008

Sl. No.	Name of the State	Comments		
		Suggestions for incorporation	Concern on CMZ	Recommendation
1	Gujarat	<p>CRZ Notification 1991 should be enforced.</p> <p>The coastal policy and legislation to be tailor made for different States for different coastal environments.</p> <p>It is unclear how activities will be handled amongst various government departments concerned with implementation of CZM Notification, 2008.</p>	<p>Zonation not demarcated clearly in CMZ.</p> <p>Livelihoods rights of the fishermen ignored.</p> <p>Role of the local communities in ICZMP is not mentioned.</p>	<p>CMZ Notification, 2008 to be withdrawn.</p>
2	Maharashtra	<p>During the last 17 years of CRZ existence, High Tide Line (HTL), Low Tide Line (LTL) has not been demarcated as yet.</p> <p>The role of village Panchayat and other Public Authorities in implementing CMZ is not clear.</p>	<p>Rights and livelihood of the fishing and other local communities including coastal ecology are not protected.</p> <p>CMZ would open up the coast for commercial activities.</p> <p>The management activities of CMZ are ambiguous.</p>	<p>Not favouring/ supporting CMZ.</p> <p>CRZ Notification 1991 should be strengthened and enforced with active participation of local communities.</p>
3	Goa	<p>CRZ Notification, 1991 should be strengthened by drawing some good features of CMZ such as Setback Line and develop ICZMP for practical implementation, effectively.</p>	<p>The drafting process of the CMZ notification 2008 is controversial.</p> <p>If CMZ comes into force, there is fear that all the violations of CRZ would be regularized.</p>	<p>CMZ Notification 2008 should be withdrawn</p>
4	Karnataka	<p>CMZ lead to denial of the rights of fishermen communities, who live near the coast for their livelihood.</p> <p>CMZ must protect the coastal ecosystem.</p> <p>Since the local bodies on the coast with more than 400 persons per square kilometer, come under "Areas of Particular Concern" and hence in CMZ II, most of the coastal fishing villages in Karnataka coast will come under CMZ II, opening up the coast to the external stakeholders.</p>	<p>The "Setback line" which is yet to be demarcated will be a "Lakshman Rekha" for construction of community dwelling units and related activities.</p> <p>Rapid urbanization on the coast through CMZ will be disastrous for the eco-system and environment.</p> <p>CMZ will lead to regularization of illegal structures that came up since 1991, violating the current CRZ –II areas</p>	<p>CMZ notification should be withdrawn.</p> <p>Recommended to implement the Original CRZ Notification 1991, and ensure its strict enforcement.</p> <p>Violators should be punished.</p>
5	Kerala	<p>Each coastal State requires a different Management Plan for its development and protection.</p> <p>In the case of Kerala, a state characterized by backwaters and more than 40 rivers, most of the inland water bodies which will be affected by high tide, will come under CMZ III. Hence, while CRZ affects only the sea coast, CMZ will affect the inland water bodies also.</p> <p>The setback line is not very clear to anybody.</p>	<p>Violations of CRZ Notification, 1991 are likely to be regularized by CMZ.</p> <p>The law is likely to be diluted to suit the interests of industry, tourism, mining and real estate lobbies</p> <p>The coast belongs to the fisher community by tradition - do not alienate this community from their homeland.</p>	<p>CMZ should be scrapped and CRZ should be implemented without diluting it with the amendments made.</p> <p>CMZ favours large investment sectors like tourism, industry,</p>

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Sl. No.	Name of the State	Comments		
		Suggestions for incorporation	Concern on CMZ	Recommendation
				refineries, mining, besides SEZs.
6	Andhra Pradesh	<p>The activities that might happen in the 12 nautical miles (territorial waters) need to be listed out and no activity, which threatens the livelihoods of fishermen should be allowed.</p> <p>A comprehensive legislation is the need of the hour to protect the marine resources, fishermen rights and to protect the ecology- Traditional rights of fishermen should be clearly stated.</p> <p>Consultations should cover substantial representation of fisher communities and Panchayats and decision should be taken only after considering their opinion.</p> <p>Clear guidelines for categorization of island villages should be given arid protection of the same should be ensured in the wake of global warming.</p>	<p>While CRZ Notification, 1991 has a mandate for protection of the coastal environment, CMZ Notification, 2008 appears to be more 'development' or industry driven.</p> <p>While 500 meters demarcation as in CRZ Notification, 1991 should remain, setback line concept of CMZ can be integrated into CRZ.</p>	CMZ Notification, 2008 severely affects the livelihood of the local communities and their traditional lifestyle.
7	Orissa	<p>CRZ, 1991 protects the rights of traditional fisher folk, their livelihood needs and coastal ecology.</p> <p>A comprehensive Act needs to be in place for coastal management.</p> <p>The permission for fishing within 12 nautical miles should be controlled by the State Government only.</p> <p>Foreign vessels should not be allowed to fish in coastal zone waters.</p> <p>The local community representatives must have the right to plan developmental activities in their immediate surroundings especially in case of external industrial projects coming up in coastal areas.</p>	<p>The violations in CRZ are being regularized in the name of CMZ.</p> <p>No consultation was done with the local communities who are the primary stakeholders.</p> <p>CMZ Notification allows various activities in these sensitive ecosystems.</p> <p>The CMZ notification allows a number of new stakeholders ignoring the local fishermen, who traditionally linked to the sea and real owners and protectors of the coast.</p>	<p>Since its formulation CRZ 1991, is not implemented effectively.</p> <p>CMZ to be withdrawn as there is no Zonation has been demarcated clearly for management.</p>
8	West Bengal	<p>Zonation criteria in CMZ and the management methodology to be clearly defined.</p> <p>The Draft Notification uses the words "sustainable development", "sustainable coastal zone management practices" and The definition of 'green field airports' "sound scientific principles" which are not clearly defined.</p>	<p>CMZ notification has not at all considered the strengths of CRZ notification on the other hand will legalize all the violations that have taken place under CRZ so far.</p> <p>definition of 'green field airports' which is added as amendment is not given in the notification.</p>	CMZ notification 2008, is not beneficial to the local communities.



**Comments of Fishermen' Forum**

Name of the State	Comments		
	Suggestions for incorporation	Concern on CMZ	Recommendation
National Fish Workers' Forum (NFF), Kolkata	<p>Protection of coastal ecology and recognition of basic rights and livelihood of the local communities over the sea and the coast should be at the heart of any coastal zone planning.</p> <p>Coastal management plan should be framed by taking coastal fishermen /local communities into confidence.</p> <p>Bottom-up public participation approach is preferred rather than top-down- decisions made by Government.</p> <p>Demands elaborate consultation with fishing community as recommended by Parliamentary Standing Committee before drafting any legislation. Notification on coastal issues.</p>	<p>CMZ legalizes all violation made so far as per CRZ Notification.</p> <p>Curtail accessibility of local community to the shore and sea resources and serve the economic interests of the corporate sector/ large sector / large investors like tourism industry, refinery, mining, etc.</p> <p>A High Power Committee, along the lines of the P. Morari Committee should be formed to lead this process of consultation.</p> <p>NFF rejects formation of another committee again chaired by Prof. Swaminathan to recommend a new draft Notification for the coastal zone.</p> <p>High level delegation of NFF would meet HMoEF, Other Ministers and Hon'ble PM. In first week of July, 2009. State level dharna proposed on 30.06.2009 declaring it as National Day of Action.</p> <p>(HMoEF given timefor discussion on 02.07.2009 at 3.00 p.m.)</p>	

**Central Government**

Sl. No.	Name of the Ministry / Department	Comments		
		Suggestions for incorporation	Concern on CMZ	Recommendation
1	M/o. Agriculture	<p>Sandy beaches, sand dunes, mudflats, coastal freshwater bodies to be removed from the list of Ecologically Sensitive Areas (ESA);</p> <p>The definition of Setback Line is ambiguous and therefore could easily be misinterpreted. Moreover the Setback Line is to be demarcated in 2 years time after the passing of the CMZ act. The Setback Line demarcation should be done prior to passing of the CMZ Act.</p> <p>The Notification to be provided in local languages</p>	<p>Appendix-VI (i) (c) should read 'Mari culture including hatcheries and Coastal Aquaculture as regulated by Coastal Aquaculture Authority Act, 2005'. This is required because traditional Aquaculture is not the only method approved by Coastal Aquaculture Authority. Further as per CCA 2005 aquaculture is already a permitted activity in the CRZ.</p>	
2	M/o. Urban Development	<p>The parameters of the setback line to be reviewed keeping in view the climate change seismic activity and natural hazard.</p> <p>The institutional setup procedures fo mapping etc to be spelt out.</p>	<p>ESA need to be demarcated and protected keeping in view the local requirements and prevailing amendment.</p> <p>In the National Board representative of tribal leader of A&amp;N to be included</p>	

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Sl. No.	Name of the Ministry / Department	Comments		
		Suggestions for incorporation	Concern on CMZ	Recommendation
3	M/o. Urban Development	<p>Setback line parameters to be reviewed keeping in view the dynamics of the ocean;</p> <p>ESA to be demarcated;</p> <p>The provisions of proposed CMZ regulations need to be in harmony with the Allocation of Business Rules, 1961 without bringing in conflicting provisions in CMZ areas for town and country planning, powers of local Municipal Corporations and Municipalities, and for providing water supply, sewerage, drainage and sanitation.</p>		
4	M/o Civil Aviation	Appendix-VI with respect to activities that can be permitted in CMZ-III with Environmental Impact Assessment and Environmental Management Plan to be approved by Ministry of Environment & Forests should also include expansion & upgradation activities for development of existing Airports/Heliports or development of Greenfield Airports in CMZ-I as well in view of essential requirement to provide reliable connectivity & economic development of remote coral islands of Lakshadweep and Andaman & Nicobar Islands.		
	Comments expressed by CIDCO	<p>Time frame should be prescribed for preparation of ICZMP on part of local authority, and approval of same on part of the Central Govt. The role of National Coastal Zone Management Authority and that of State Coastal Zone Management Authorities need to be defined.</p> <p>Mangroves etc. which grow in manmade water bodies (like holding ponds, flood control channels, etc.) should not be given status of CMZ I.</p> <p>Activities requiring water front such as ports, water transports terminals, water sports marina etc should be allowed in CMZ-I, CMZ-II and CMZ-III.</p>	Once the Setback Line is delineated, development should be allowed as per the approvals obtained from the local authority. The condition of approval from ICZMP should be deleted.	
5	M/o Commerce & Industry			No comments
6	M/o Petroleum & Natural Gas	Many facilities for Paradip Refinery project (PDRP) like crude oil pipelines & product pipelines corridor from refinery to south Jetty and facilities within the refinery boundary wall have been constructed and planned as per the Coastal Regulation Zone Notification, 1991. Considering such cases of huge investment, the new notification should be	The creek having mixed water from a river body and sea should be kept under CMZ-III with Set-back Line of 100m. Such creek of PDRP of IOCL is Santra Creek, which is a nalla of 40 sq. km. Catchment area as per Oct' 98 report of the Govt. of Orissa, Department. of Water Resources and Setback Line of	

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Sl. No.	Name of the Ministry / Department	Comments		
		Suggestions for incorporation	Concern on CMZ	Recommendation
		made applicable only for new projects with prospective effect.	100m as per the Forest & Environment Department, Govt of Orissa. The refinery layout has been firmed up considering Set-back Line of 100m as per CRZ notification, 1991.	
7	D/o Atomic Energy (DAE)	As per CRZ-1991 notification, 'projects of DAE' were placed under permissible activities. Similarly, mining of those rare minerals containing monazite not available outside CRZ areas was also permitted activity. It is therefore suggested that provision similar to CRZ-1991 notification may be made in the proposed CMZ-2008 notification with respect to the Projects of the Department of Atomic Energy incorporate the following-  "Projects of the Department of Atomic Energy including expansion and modernization of existing projects, and mining of placer minerals containing monazite in coastal areas" as permissible activities in CMZ areas.		
8(a)	D/o Space, National Remote Sensing Agency, Hyderabad	In the draft notification, the CMZ Act/Rule covers the entire coast as a system including seaward boundary (12 nautical miles) rather than shoreline as in CRZ. This is in principle with scientific approach for sustainable coastal protection and environmental conservation.  The term Integrated Coastal Zone Management Plan (ICZMP) is perceived as land utilization/usage and development plan for ICZM implementation. This helps futuristic and long-term protection of coast. The Set-back Line forms the basis for CMZ and ICZMP and replaces the erstwhile HTL and 500 meter boundary. The time frame for determining the Set-back Line is not specified.	The Setback Line (as per definition given in the draft notification) implies an arbitrary line depending on the vulnerability, which is location dependent, subjective of natural process and influence of tidal periodicity in time and space. Fixing of such a line requires analysis of historical data and modern techniques like remote sensing and GIS.  The concept of Integrated Coastal Zone Management (ICZM) in this notification ensures scope for decision-making on protection of coastal population and infrastructure. This provides conservation and sustainable development of coastal resources.	
8(b)	D/o Space Applications Centre, Ahmadabad	Sr. No. (vi): Coastal freshwater bodies such as creeks, lakes etc. Creeks are not coastal freshwater bodies. Instead of writing coastal fresh water bodies, it should be written as Inland/tide water bodies such as estuaries, lakes, lagoons, creeks (refer Annexure-II of the M.S. Swaminathan Committee Report) Creeks, lagoons are also purely tidal in a number of places on the Indian coast. All the coral reef lagoons are purely tidal. The creeks in the mangrove areas in most of the mangrove habitats of Gujarat, etc., are purely tidal in nature.		

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Sl. No.	Name of the Ministry / Department	Comments		
		Suggestions for incorporation	Concern on CMZ	Recommendation
9	M/o Earth Sciences (INCOIS)	<p>The definition of ICZM should include protection and conservation of coastal and marine ecosystems and resources.</p> <p>There is no justification of classifying backwater islands in CMZ IV (b). These islands cannot be and should not be equated with the Lakshadweep and Andaman and Nicobar Islands.</p> <p>The main reason for making this suggestion is non-availability of elevation, geomorphology, sea level trends and horizontal shoreline displacement data at the cadastral scale, at present.</p>	<p>Notification of the Setback Line: Though the Setback Line needs to be drawn on cadastral scale; however this will be a huge task for the Central Government to take up. It may be a good idea to prepare maps on a smaller scale, say, 1:25,000 or so by the Central Government.</p> <p>The preparation of maps at cadastral scale may be left to concerned parties / local bodies / State Governments.</p>	
10	Ministry of Shipping, Road Transport & Highways and Major Port Authorities	<p>Department of Shipping should be given a permanent representation in the proposed National Board for Sustainable Coastal Zone Management (NBSCZM).</p> <p>The same criteria as applicable to airports should be made applicable for expansion and modernisation of Ship building Yards and existing sea ports.</p> <p>The type of industries to be permitted in the proposed SEZ's may specifically be incorporated in the CMZ notification to facilitate the environmental clearance of SEZ's to be established in the Coastal Zones.</p> <p>In the definition of coastal zone, area from the territorial waters limit (12 nautical miles measured from the appropriate baseline) not clear in Draft CMZ 2008, requires some more in-depth definition/clarifications.</p> <p>Most of the land available with KPT is tidal affected and covers with Mangroves, Mudflats etc. Therefore, while framing the Integrated Coastal Zone Management Plans for CMZ-1 area it is also required to consider the future development of the Port Projects with necessary EIA and EMP.</p> <p>A provision under Para 6(iii) Coastal Management Zone-II, should be introduced as below:          "With regard to economically important areas of Ports &amp; harbours, the Deptt. of Shipping in the Ministry of Shipping, road transport &amp; Highways would prepare an Integrated Coastal Zone Management Plan and submit it</p>	<p>Major ports should be treated as separate entities for the purpose of preparation of Integrated Coastal Zone Management Plan (ICZMP) under CMZ notification 2008. The development activities of the Ports, both seaward and landward side of the Set-back Line may be regulated based on the ICZMP of the Ports for which one time CMZ clearance be accorded, and thereafter there should be no further need to obtain clearances of individual projects so long as the projects conform to the ICZMP.</p> <p>Natural Gas, so as to read as below:          "Pipelines for transfer of petroleum or chemicals or liquefied natural gas, storage facilities for storage of petroleum or chemical products or liquefied natural gas and re-gasification facilities".</p> <p>Development of facilities in the existing ports may be permitted with the approval of State or Union Territory Coastal Zone Management Authority.</p> <p>It is felt that a separate Port Zone under CMZ notification along with permissible and prohibited activities within this zone would be more appropriate. This will provide uniform guidelines to all the Major Port and non-major ports in the country.</p>	

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Sl. No.	Name of the Ministry / Department	Comments		
		Suggestions for incorporation	Concern on CMZ	Recommendation
		<p>to MoEF. Such plans would be accorded clearance by a special committee constituted by the Central Government.”</p> <p>In Appendix-VI (iii), item (x) shall be modified for including the item of Liquefied</p> <p>As per the notification, any development of Ports and harbours in green field site will be falling under CMZ III. For development of any new Port the Indian Ports Act as well as Major Port Trusts Act empowers the Central/State Government to Notify the Port limits. It is not clear whether such notification can be issued only after getting the clearance of area identified from the Ministry of Environment &amp; Forests.</p>	<p>The notification also specifies under item no. (iv) in Appendix V-Guidelines for preparation of integrated management plan for CMZ II areas, that “No construction shall be permitted on the seaward side of any existing (as on 2008) approved building or tarred or surfaced road in the area”. This clause is detrimental to the ports as it prohibits further development in the port on seaward side.</p>	
11	M/o Textiles			No comments
12	M/o Panchayati Raj	<p>Chodan - Mandal Village Panchayat, Tiswadi, Goa has passed a resolution stating that the move to replace existing Coastal Regulation Zone with Coastal Management Zone will effect fishing activities besides this there would be no easy access on Coastal sides as the construction coming up with the help of Coastal Management Zone would then completely block the public visiting the beaches/coastal areas and hence it is unanimously resolved and decided to oppose the move to replace existing Coastal Regulation Zone rules with Coastal Management Zone.</p>	<p>It was resolved by Gram Sabha members that we are not in favour of Coastal Management Zone (CMZ) as proposed in the 2008 notification and demand that the same be scraped forthwith and further resolved that existing CRZ notification of 1991 be maintained and strengthened to be more effective.</p>	
13	M/o Defence	<p>Chief Hydrographer to the Government of India, who heads the National Hydrography Office (NHO), should also be included in the list of experts.</p>	<p>Appendix - V of the draft Notification (Guidelines for preparation of Integrated Management Plan for CMZ II areas) may suitably incorporate necessary provisions to address the security concerns regarding strategically important areas, such as ports/harbours and defence installations.</p>	
14	M/o Mines,			'No objection'
15	Planning Commission	<p>Constitution of an Authority under the Environment (Protection) Act, 1986 would provide for not only the statutory backing required but also financial support for functioning of wetlands.</p> <p>Appendix - III of the notification lists areas of concern in CMZ II and does not include hotels and residential areas near the coast line and these also do not figure in Appendix-VI-CMZ III of permissible development activities. The inclusion / Exclusion require detailing.</p>	<p>The demarcation between the Setback line and the water body including the backwaters is not clearly discernible and permission of boating activity in lakes which are contiguous with the sea front needs reconsideration.</p> <p>Boating as part of tourism could be permitted with the approval of the State or Union Territory Coastal Zone Management Authorities</p>	

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Sl. No.	Name of the Ministry / Department	Comments		
		Suggestions for incorporation	Concern on CMZ	Recommendation
16	Office of The Salt Commissioner, Govt. of India, Jaipur	The Salt Commissioner to Govt. of India should also be included as a member on National and State/UT Coastal Zone Management Authorities.		
17	The Union Territory of Andaman & Nicobar Islands	<p>CMZ-IV is also required to be included under SETBACK LINE in the Appendix-I, otherwise the primary objective may be lost sight of in the Integrated Coastal Zone Management Plan, since the Union Territory of Andaman and Nicobar Islands is no less vulnerable to natural and manmade hazards, protection from which is the main objective of the CMZ, Notification.</p> <p>As CMZ-IV will be managed entirely on the basis of Integrated Coastal Zone Management Plan, a detailed guideline is required to be adduced to the Notification for CMZ-IV.</p> <p>There is no designated authority to take cognisance of CMZ violations and also a defined procedure for filing the complaints before the appropriate Court of Law. Provision for the same may be provided for in the notification.</p>		
18	The Administration of Union Territory of Lakshadweep Islands			Endorsed
19	The Union Territory of Puducherry		Coastal Regulation Zone Notification, 1991 should be implemented in its original form without any amendments.	Opposed
20	The Administration of Union Territory of Daman & DIU			

## Annexure IV

### **Resume of the first meeting of the Expert Committee for finalization of the Coastal Management Zone (CMZ) Notification held under the Chairmanship of Prof. M. S. Swaminathan on 27<sup>th</sup> June, 2009 in Room No.402, 4<sup>th</sup> Floor, Ministry of Environment and Forests, Paryavaran Bhawan, CGO Complex, Lodhi Road, New Delhi**

1. The meeting of the Expert Committee for finalizing of the CMZ Notification was held on 27.6.2009 in Ministry of Environment and Forests under the Chairmanship of Prof. M.S. Swaminathan. List of participants who attended the meeting is Annexed.
2. Chairman welcomed the Expert Members and briefly mentioned the steps to be taken for fulfilling the two Terms of Reference given by Ministry of Environment and Forests namely (a) analysis of comments referred and (b) advise on policy and legal framework.
3. The Chairman in his introductory remarks emphasized the need for any Notification to have the following principles as the bottom line:-
  - a. Safeguarding and strengthening the livelihood security of fisher and other coastal communities.
  - b. Strengthening the ecological security of coastal areas through bioshields and biodiversity conservation.
  - c. Conservation of cultural and natural heritage sites including Ramsar sites and Olive Ridley breeding grounds.
  - d. Strengthening the coping capacity of coastal communities to face the challenge of sea level rise caused by global warming as well as the more frequent occurrence of severe cyclonic storms and tsunamis.
4. After these opening remarks the Chairman requested Shri Jairam Ramesh, Hon'ble Minister for Environment and Forests to brief the Committee. The Minister welcomed the Members of the Committee and he emphasized that the new Coastal Zone Regulation/Management should lay strong foundations for the welfare of the fishing communities and other local communities living on the coast as indicated in the opening remarks of the Chairman. With these brief remarks the Minister thanked the Members of the Committee and left the meeting along with Shri Vijai Sharma, Secretary (E&F).
5. The Chairman requested Dr. A. Senthil Vel, Additional Director to make a brief presentation. Dr. A. Senthil Vel in his presentation explained the issues related to Coastal Regulation Zone (CRZ) Notification, CMZ Notification and dealt in detail the suggestions and objections received on the draft CMZ Notification. The compilation of the comments, letters received from the National Fishworkers' Forum dated 27.6.2009, letter from Minister for Fisheries and Registration, Government of Kerala dated 9.6.2009, Chief Minister Goa, letter dated 10.6.2009 were circulated during the meeting to the Members alongwith a draft notification on management of Andaman & Nicobar and Lakshadweep Islands.
6. After the presentation, Chairman invited comments from Shri Kartikeya V. Sarabhai, Director, Centre for Environmental Education (CEE), who was a Special Invitee to the Expert Committee because CEE was assigned the work of consulting the local communities regarding the draft CMZ Notification, 2008 and submit a report to Ministry of Environment and Forests. Shri Sarabhai informed the Committee regarding the major issues that were raised during his consultation with the local communities on the draft CMZ Notification, 2008. Shri Sarabhai explained in detail various suggestions and objections. Some of the major comments were,-
  - a. Coastal Regulation Zone to be retained and improvements incorporated. Further, clarity to be brought in with regard to setback line, ecological sensitive areas, Integrated Coastal Zone Management and methodologies of management etc.
  - b. Existing CRZ Notification, 1991 has enough scope to manage coastal zones efficiently if implemented effectively with some improvements and existing violations penalized.
  - c. Involve representatives from various stakeholder groups, particularly from local communities in the entire process of formulation and drafting of CMZ Notification, 2008 framework.
  - d. CMZ Notification, 2008 introduces new management methodologies which are open to

- subjective interpretation and can be used to promote and legalize corporate activities.
- e. CMZ notification, 2008 will promote Special Economic Zones (SEZ) thus opening up the coastal space and resources to industrial sector without considering basic right of the local communities shall be addressed.
  - f. The roles of the local authorities and State Government which are not adequately addressed in the proposed CMZ Notification, 2008 management methodology and structure. The basic right and opportunity for the local communities for their representatives (Panchayat Members) to participate and plan the activities in their local environment and settlement areas appear curtailed in the proposed Integrated Coastal Zone Management Plan process.
  - g. Looking at several amendments and impacts of CRZ Notification, 1991 leading to the dilution of its original objectives, there are apprehensions about the amendments in the case of CMZ Notification, 2008 too and their impacts, especially on the fishers.
  - h. Legislation or an Act on coastal management is needed wherein the coastal ecology and basic rights of the traditional coastal communities are protected. Elected members of the legislative assembly should discuss on the coastal policies to initiate such an act. Till the time a comprehensive legislation on the management of coastal zones is enacted, the CRZ Notification, 1991 without amendments needs to be effectively implemented and violators punished.
  - i. He also emphasized that the new Coastal Management Zone Notification should incorporate education, social mobilization, regulation and community participation.
7. Shri Sarabhai concluded stating that the fisherman on the whole were in the favour of the CRZ Notification, 1991 since, it provided 500 mts of regulated area. Hence, they could visually see 500 mts and accordingly, take necessary steps and he requested permission of Ministry of Environment and Forests for putting the report in public domain.
  8. The Committee also dealt in detail the observations made by the Parliamentary Committee on Science and Technology, Environment & Forests and noted the recommendation which are as follows:-
    - a. Bottom up rather than top down and people's participation in policy formulation.
    - b. Common management plan for the entire coastal area of the country is not a workable proposition. It feels that it should rather be specifically designed for different States keeping in mind the diverse nature of the people and culture. Further, State Governments should have enough participation in ICZM Plan preparation.
    - c. NGOs, fishermen to be included in the National Board for Sustainable Coastal Zone Management.
    - d. Concerns of the poor and marginalized sections of the coastal communities must be reflected and addressed in the Policy.
    - e. Should not make haste in implementing the CMZ notification without addressing the conflict of interests between the stakeholders – mainly the fisher folk/coastal communities.
    - f. *CMZ notification be kept pending/in abeyance till mechanisms/instruments-executive and legislative are put in place for inclusion and integration of coastal communities through participative, decision making and control instruments.*
  9. Ms. Sunita Narain, Director, Centre for Science and Environment while expressing her concern regarding the implementation of CMZ Notification informed the Committee that it would be difficult for the Ministry to regulate the entire municipal area. Hence, she was also of the opinion that the CRZ Notification of 500 mts could be continued with some amendments to incorporate key issues of concern.
  10. Dr. Shailesh Nayak, Secretary, Ministry of Earth Sciences welcomed the Ministry's steps for incorporating the aquatic part within the regulations, since the aquatic dynamics plays an important role in determining the coastal environment.
  11. Shri J. M. Mauskar, Additional Secretary said that the CRZ Notification has been well understood by the coastal communities by and large and improvements in the CRZ Notification may be better rather than bringing in a new concept which is still at the experimental stage.
  12. Dr. V. Selvam, Director, Coastal Systems Research, MSSRF, indicated that the fishermen were of the view that, the CMZ Notification would regularize the violation of CRZ Notification, promote development in the coastal areas and the fishermen and their dwelling units would be relocated behind the vulnerability line on the landward side.
  13. After elaborate discussions the following were the important decisions/issues considered by



the Committee:-

- (i) The CMZ Notification has not been understood by the local communities and many of its scientific terminologies are unclear and may be open to misuse and selective interpretation.
  - (ii) The main thrust of the CMZ Notification is on the vulnerability line which is demarcated based in the four parameters, namely, (i) Tides, (ii) Waves, (iii) Sea level rise due to existing natural factors and the climate change and (iv) Horizontal displacement of shoreline. Based on these parameters the vulnerability line could differ from area to area. Hence, it will be difficult for the communities and the stakeholders to abide by the CMZ regulation until unless the vulnerability line is demarcated on the ground. In the period before the vulnerability line is demarcated there could be a sudden increase in violations and trigger large scale development.
  - (iii) It was agreed the seaward side — the water area up to territorial limit and the tidal influenced water body — need be included in coastal management. As such, regulation may be needed for conserving and protecting the ecologically sensitive areas even in the aquatic zone similar to that of the regulations on the landward side.
  - (iv) Special considerations can be given to Sunderbans as the area is not only ecologically sensitive but is prone for sea level rise and has been extensively damaged during the recent Aila cyclone. The local communities living in Sunderbans have also experienced damage to property and loss of life.
  - (v) The ecologically sensitive areas such as Chilka, Pulikat, Pichawaram, Gulf of Mannar, Vembanad, Coringa, Gulf of Kachchh could also need attention for ensuring better conservation. The Committee agreed to consider in its deliberations the need to declare these areas as Critically Vulnerable Coastal Areas so that management plans could be prepared for conservation and protection.
  - (vi) The work assigned by Ministry to Centre for Environment and Development (CED) for the purpose of management of ecologically sensitive areas and demarcation of their biological boundaries was discussed. The Committee sought for the Report from CED at the earliest.
  - (vii) It was agreed that the coast especially the beaches are facing severe erosion and the shorelines are changing. These could be due to natural or manmade activities such as construction of ports, harbours, groynes, shore protection measures etc. It was also indicated that the Central Government/State Governments propose to construct several ports and harbours all along the shore in the coming years. These could have irreversible adverse impact on the coast if such infrastructures are constructed without scientific studies. It was also discussed that there is a need to study the cumulative impact of the individual projects on the entire coastline. Keeping in view the seriousness of the matter the Committee suggested that the Ministry should study the impacts of such projects and also make policy changes to ensure the damage to the beaches and coastline is mitigated.
  - (viii) For the purpose of protecting the islands of Andaman & Nicobar and Lakshadweep it was thought that a possible approach could be to separate these from the rest of the coastal areas. In this case, a special dispensation de-linking the islands from the CRZ Notification could be considered. This "Island Protection Zone (IPZ)" Notification could be based on the principles mentioned by the Chairman in his opening remarks and put for further discussions. The Committee agreed to discuss this approach in the further meetings.
14. The Committee desired that a chart may be prepared indicating the provision of the CMZ Notification and corresponding provision or changes made in the CMZ Notification, comments received from stakeholders regarding the said provision and how it is proposed to incorporate the comment into the new Coastal Zone Management approach.
  15. The Committee desired that the gist of the Report of CEE who had undertaken consultations with the local communities and NGOs with regard to the CMZ Notification may be put on the Ministry's website.
  - 16.1 Dr. Nalini Bhat, Adviser informed the Committee that there is an Order of Central Information Commission stating that the Ministry shall seek opinion of the public before issue of the draft Notification itself.
  - 16.2 The Committee was of the view that the local communities and the NGOs need be heard. Hence, it was decided that all the fisherman or NGOs who have provided their suggestions

and objections to the draft CMZ may be invited to the Ministry and the Committee would hear them. For this purpose it was decided to hold the meeting of the fishermen and the NGOs on 11<sup>th</sup> July, 2009 in the Ministry for full day.

- 16.3 It was also decided to hold discussions with the Central and State Governments. The Committee agreed to hear the Central and State Government on the afternoon of 7<sup>th</sup> July, 2009 in Ministry of Environment and Forests.
- 16.4 Further, the Committee will also hear the Chamber of Commerce, Industry Association etc., on the afternoon of 8<sup>th</sup> July, 2009 in Ministry of Environment and Forests.

The meeting ended with thanking the Chair.

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### List of the participants

1. Prof. M. S. Swaminathan, Chairman, M S Swaminathan Research Foundation (MSSRF), 3<sup>rd</sup> Cross Street, Institutional Area, Taramani, Chennai.
2. Dr. Shailesh Nayak, Secretary, Department of Ocean Development, Mahasagar Bhawan, Block-12, C.G.O. Complex, Lodhi Road, New Delhi-110003.
3. Ms. Sunita Narain, Centre for Science and Environment, 41, Tughlakabad Institutional Area, New Delhi-110062.
4. Shri J. M. Mauskar, Additional Secretary, Ministry of Environment and Forests, New Delhi.
5. Dr. Nalini Bhat, Adviser, Ministry of Environment and Forests, New Delhi
6. Shri Kartikeya Sarabhai, CEE, Ahmedabad.
7. Dr. V. Selvam, Director, Coastal Systems Research, M S Swaminathan Research Foundation (MSSRF), 3<sup>rd</sup> Cross Street, Taramani Institutional Area, Chennai
8. Shri P. Madeswaran, Director, Department of Ocean Development, Mahasagar Bhawan, Block-12, C.G.O. Complex, Lodhi Road, New Delhi-110003.
9. Dr. A. Senthil Vel, Additional Director, Ministry of Environment and Forests, New Delhi.

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**Resume of the second meeting of the Expert Committee for finalization of the Coastal Management Zone (CMZ) Notification held under the Chairmanship of Prof. M. S. Swaminathan on 7<sup>th</sup> July, 2009 in Room No.403, 4<sup>th</sup> Floor, Ministry of Environment and Forests, Paryavaran Bhawan, CGO Complex, Lodhi Road, New Delhi**

1. The second meeting of the Expert Committee for finalizing of the CMZ Notification was held on 7.7.2009 in Ministry of Environment and Forests under the Chairmanship of Prof. M.S. Swaminathan. The second meeting of the Committee was called for to hear the suggestions and objections made by Central and State Governments/agencies to the draft Coastal Management Zone Notification, 2008. List of participants who attended the meeting is Annexed. The compiled version of the comments which were already received from the Central and State Governments were circulated to the Members.
2. The resume of the first meeting was considered and the Members suggested certain changes which were taken note of.
3. The Chairman welcomed the officials of Central Ministries and State Governments/agencies and invited their comments on the draft Coastal Management Zone Notification, 2008.
4. Officials from Nuclear Power Corporation India Limited (NPCIL) indicated that specific provision needs to be made in the Coastal Management Zone Notification providing for all facilities relating to nuclear power generation, atomic mineral mining both in onshore and offshore. It was mentioned that thorium deposits were available on the beaches which needs to be mined mostly by manual method should be permitted in all coastal areas. It was also brought to the notice of the Committee that once the nuclear facilities are installed on the coast, there is no restriction of fishing activities in the coastal waters near the nuclear installations. Further, there is no record of destruction of fisheries due to the discharge of cooling water from the nuclear plant. NPCIL requested that the Department of Atomic Energy (DAE) projects may be treated on par with the defence projects mentioned in the notification. The Integrated Coastal Zone Management Plans of DAE project shall be prepared by DAE and one time approval obtained from Ministry of Environment and Forests.
5. The officials from Ministry of Shipping mentioned to the Committee that ports and harbours to be permitted on par with the green field airports who have been permitted in the CRZ-I areas. It was indicated that the Ministry of Shipping would undertake the Integrated Coastal Zone Management Plan preparation for the port area and seek one time approval of the Plan. The individual projects would be cleared by Ministry of Environment and Forests only if it attracted Environment Impact Assessment Notification, 2006. During discussions, it was mentioned that the ports are not consulted by other project proponents who propose to set up ports and harbours within the close vicinity of the existing port. The Committee observed that such lack of consultation/coordination of the port authorities is serious keeping in view the impact on the coastal areas due to such mega constructions which can cause serious erosion/accretion, loss of habitats, adverse impact on coastal communities etc. In view of the above the Committee reiterated the need for undertaking a comprehensive study along the coastline to assess the impact of such development along the coastal areas.
6. The officials from Town and Country Planning Office, Ministry of Urban Development indicated that the setback line should be done in a time bound manner and the parameters shall include the sea level rise and the local characteristics of the area. He also suggested that a National Board for Sustainable Coastal Zone Management shall include tribal leaders of Andaman & Nicobar Islands and fishermen communities.
7. Officials from Ministry of Agriculture mentioned that the mariculture and aquaculture activities shall be regulated as per the Coastal Aquaculture Act. Further, the National Board for Sustainable Coastal Zone Management shall also include Members from Aquaculture Authority. He also pointed out certain discrepancy in the notification with regard to dredging and construction of fishing harbours and requested for corrections to be carried out.
8. Shri Lalu Bhai Patel, Member of Parliament, Lok Sabha who appeared on behalf of Administration of Daman and Diu indicated that the Daman and Diu has a very small coastal stretch which has sea on one side and several riverlets and creeks in the land areas. The CRZ regulations has affected development in Daman and Diu. He requested the Ministry to consider declaring Daman and Diu as CRZ-II except for the portions declared as CRZ-I, where there are forest areas. He requested for permitting cremation grounds in CRZ areas.
9. Shri Nanda from Government of Gujarat indicated that the setback line demarcation would

take a long time until such time the vulnerability line is drawn the CMZ Notification cannot be imposed. Hence, there would be a vacuum in the regulations which will lead to violations. He appreciated the move to link the seaward side in the coastal management. He also suggested that the mangroves of all kinds should not be disturbed and peoples involvement should be built-in for promoting conservation of mangroves. He pointed out the discrepancies in the port related activities which are mentioned in Coastal Management Zone-II and also in Coastal Management Zone-III. Further, dredging activity is mentioned in Coastal Management Zone-III, separately which needs to be corrected. He indicated that for the purpose of clearance of project in coastal areas about four clearances from various agencies are required, which is extremely time consuming. He requested for a single window streamlined process for clearance.

10. The official from Karnataka also indicated his apprehension towards demarcation of the vulnerability line in a specific time. He requested for including Members of Maritime States in the National Board and to give more powers to the Coastal Zone Management Authorities for according clearance to plans and coastal projects. With regard to the population density criteria for determining the areas as Coastal Management Zone-II, he suggested that the recent census of 2000 may be considered. With regard to the clearance process he suggested a single window mechanism for clearance.
11. Shri Anna Malai from Government of Tamil Nadu mentioned that the Chief Minister, Tamil Nadu has written a letter seeking further extension of time for obtaining suggestions and objections from the people on the notification and also to provide Tamil version of the notification to the Government. He suggested that the freezing of development on the landward side of the vulnerability line will have an adverse impact on cities development. Further, he also suggested that the forest related activities, not to be subjected to clearance.
12. Shri G. S. Gill from CIDCO suggested that Metropolitan cities like Mumbai should be provided a special status and developmental regulations in such metropolitan cities should be left to local town planning authorities. Any freezing of development would have adverse impact on the development of such cities as there is no means to control the rural migration of people to cities. The mangroves in the holding ponds should be permitted to be removed by dredging in order to maintain a suitable holding capacity during flooding conditions. Shri Gill dealt in detail the issues relating to housing in Mumbai and indicated that large population lives in slums and dilapidated houses. In order to provide them a secured decent living condition as per National Policy for Housing and Settlement a Floor Space Index, which is economically viable should be provided. There shall not be any freezing of Floor Space Index on the seaward or landward of the vulnerability line and shall be as per DCR Rules. He also suggested that there should be clear guideline for demarcating the vulnerability line and a single agency to be assigned for the work so that there are no disputes at a later stage. The data pertaining to vulnerability line shall be provided in the digital form or on a large scale map by Ministry of Environment and Forests.
13. The Chairman after hearing the officials assured them that the comments provided by the officials would be duly considered.

The meeting ended with thanking the Chair.

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**List of participants (7.7.2009)**

1. Prof. M. S. Swaminathan, Chairman, M S Swaminathan Research Foundation MSSRF, 3<sup>rd</sup> Cross Street, Institutional Area, Taramani, Chennai.
2. Dr. Shailesh Nayak, Secretary, Department of Ocean Development, Mahasagar Bhawan, Block-12, C.G.O. Complex, Lodhi Road, New Delhi-110003.
3. Ms. Sunita Narain, Centre for Science and Environment, 41, Tughlakabad Institutional Area, New Delhi-110062.
4. Shri J. M. Mauskar, Additional Secretary, Ministry of Environment and Forests, New Delhi.
5. Dr. Naini Bhat, Adviser, Ministry of Environment and Forests, New Delhi
6. Dr. A. Senthil Vel, Additional Director, Ministry of Environment and Forests, New Delhi.
7. Dr. Jitendra Singh, NPCIL, Mumbai.
8. Shri A. B. Awati, Scientific Officer-G, Deptt. Of Atomic Energy, Strategic Planning Group, Anushakti Bhavan, C.S.M. Marg, Mumbai-400001.
9. Shri C. B. Jain, Project Director (JNPB), Nuclear Power Corporation of India Limited, 2, ENT Block, Nub, Anushakti Nagar, Mumbai.
10. Capt. Subash Kumar, Chairman, Chennai Port Trust, Chennai. Tamil Nadu
11. Ms. Geetu Joshi, Deputy Secretary (Port Development), Ministry of Shipping.
12. Shri G. P. Rai, Manager-I (PPD), Jawaharlal Nehru Port Trust, Admn Bldg, Sheva, Tal. Uran, Navi Mumbai-400 707.
13. Shri Udit Ratna, Town & Country Planner, Town and Country Planning Organisation, E-Block, Vikas Bhawan, IP Estate, New Delhi-2.
14. Shri Satheesh Kumar P.M., Senior Engineer, Civil, Cochin Port Trust.
15. Shri P. Madeshwaran, Scientist-F, Ministry of Earth Sciences, New Delhi.
16. Shri Shanker L., Deputy Commissioner (Fishing Harbour), Ministry of Agriculture. Department of Animal Husbandry, Dairying & Fisheries, Krishi Bhavan, New Delhi.
17. Dr. R. Annamalai, Director, Environment Department, Panagal Buildings, Saidapet, Chennai, Tamil Nadu.
18. Shri Kanwer Pal, Secretary (Ecology and Environment), Government of Karnataka, Bangalore.
19. Ms. Uma Adusumilli, Chief, Planning Division, MMRDA, Mumbai.
20. Shri S. K. Nanda, Principal Secretary, Gujarat.
21. Shri Lalu Bhai Patel, Daman and Diu, Member of Parliament, Lok Sabha.
22. Shri G. S. Gill, Vice CMD, CIDCO, Nariman Point, Mumbai.

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**Resume of the third meeting of the Expert Committee for finalization of the Coastal Management Zone (CMZ) Notification held under the Chairmanship of Prof. M. S. Swaminathan on 8<sup>th</sup> July, 2009 in Room No.402, 4<sup>th</sup> Floor, Ministry of Environment and Forests, Paryavaran Bhawan, CGO Complex, Lodhi Road, New Delhi**

1. The third meeting of the Expert Committee for finalizing of the CMZ Notification was held on 8.7.2009 in Ministry of Environment and Forests under the Chairmanship of Prof. M.S. Swaminathan. For the third meeting the Chamber of Commerce, Industry Association etc., were invited. List of participants who attended the meeting is Annexed.
2. The resume of the first meeting held on 27.6.2009 was circulated alongwith the draft notification on Island Protection Zone (IPZ).
3. The Chairman welcomed the Members of the Association and invited their comments on the draft Coastal Management Zone Notification, 2008 one by one.
4. The Member from CREDAI, Tamil Nadu suggested that the demarcation of the vulnerability line should be left to the local body. Further, in the Coastal Management Zone Notification there is no explicit mention of housing. Hence, the same should be incorporated. He sought clarity with regard to the criteria of 400 persons per square km for declaring as Coastal Management Zone-II.
5. The Member from Kerala Builder Association mentioned that the backwater areas in Kerala should be treated separately, since, the area along the backwaters are more than the seashore in Kerala and such backwaters areas are thickly populated. He requested the Ministry to suggest the guidelines for demarcating the setback line and leave it to the local bodies for implementing.
6. The Members from CREDAI, Mumbai indicated that in Mumbai more than 60% of people live in slums and about 16,000 old buildings are located in the CRZ area. These old buildings are crumbling and several deaths have occurred over a period of time. In order to provide a decent housing for the slum dwellers and for the people in the old buildings a higher Floor Space Index is required to make it viable. Hence, they requested the Ministry to consider providing higher FSI as provided in the DCR Rules.
7. The Member from Remaking of Mumbai reiterated the same issues as mentioned by CREDAI, Mumbai. While, highlighting the housing conditions of Mumbai, he requested the Ministry to permit higher FSI in all developed areas and subject to the condition that the environmental issues are taken into consideration in the byelaws.
8. The Member from ACE Links also suggested the same as above and appreciated the Coastal Management Zone Notification as it provides for zonal planning.
9. The Members for Alkani Manufactures Association and Tata Chemicals indicated that the existing units of caustic soda, salt manufacturing units and other products which use seawater as raw material shall not be disturbed. They also requested for permitting expansion and modernization of such units in the CRZ area. The Member from Tata Chemicals suggested that the Coastal Management Zone Notification is a way forward for integrating the social and livelihood issues in the zonal plan. The Ministry could stipulate conditions on the units operating in the area to have social responsibility as a part of their project.
10. The Member from Ganesh Benzoplast suggested that storage of all products should be permitted in the coastal areas to be stored and handled.
11. The Chairman after hearing the officials assured them that the comments provided by the officials would be duly considered and action taken.  
The meeting ended with thanking the Chair.

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**List of Participants (8.7.2009)**

1. Prof. M. S. Swaminathan, Chairman, M S Swaminathan Research Foundation MSSRF, 3<sup>rd</sup> Cross Street, Institutional Area, Taramani, Chennai.
2. Dr. Shailesh Nayak, Secretary, Department of Ocean Development, Mahasagar Bhawan, Block-12, C.G.O. Complex, Lodhi Road, New Delhi-110003.
3. Ms. Sunita Narain, Centre for Science and Environment, 41, Tughlakabad Institutional Area, New Delhi-110062.
4. Shri J. M. Mauskar, Additional Secretary, Ministry of Environment and Forests, New Delhi.
5. Dr. Naini Bhat, Adviser, Ministry of Environment and Forests, New Delhi
6. Shri P. Madeswarn, Director, Department of Ocean Development, Ministry of Earth Sciences, New Delhi.
7. Dr. A. Senthil Vel, Additional Director, Ministry of Environment and Forests, New Delhi.
8. M/s Ace Links, 1401, Continental Tower, Shery Rajan Road, Rizvi Complex, Bandra (W), Mumbai-400050.
9. Shri Amit Ranjan, Mahindra Holidays, 873/4, Neetaji Subhas Place, Pitampura, New Delhi.
10. Dr. Y. R. Singh, Executive Director, AMAI.
11. Dr. Arup Basu, Tata Chemicals Limited, Andheri – Kurla road, Andheri-(E), Mumbai-400059.
12. Shri Ramesh Pilani Podriguez, M/s Ganesh Benzo Plast, Marein Limes, Mumbai.
13. Shri Thankachan Thomas, Kerala Builders Forum, Cochin.
14. Shri Prakash Challa, Vice President, CREDAI, Chennai.
15. Shri G. P. Savlani, Resident Director, CREDAI, 105, Ansal Bahwan, 16, K. G. Marg, New Delhi-1.
16. The General Manager (Real Estates), Avarsekar & Sons Pvt. Ltd., 1252, Pushpanjail Apts., First Floor, Old Prabhadevi Road, Prabhadevi, Mumbai – 400 025.
17. The Chairman & Managing Director, Uniy Reality and Developers Ltd., K.K. Tower, Ground Floor, Parel Tank Road, Off. G. D. Ambedkar Marg., Parel, Mumbai – 400 012.
18. The Chairman & Managing Director, Lok Housing and Constructions Ltd., Lok Bhavan, Ground Floor, Lok Bharti Complex, Marol Maroshi Road, Marol, Andheri (E), Mumbai – 400 059.
19. Federation of Association of Maharashtra, Mumbai.
20. Remaking of Mumbao Federation, 18, Moti Building.
21. Shri D. D. Lavania, Unity Infras Projects Limited, Mandoli Prison Complex, Harshvihar Delhi-93.
22. Shri K. K. Sharma, , Mangalore Chemicals & Fertilizers Limited, 1002, Bhikaji Cama Bhawan, New Delhi-66.
23. Ms. Nidhi Ladha, CII, Thapar House, 2<sup>nd</sup> Floor, 124, Janpath, New Delhi-1.

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**Resume of the fourth meeting of the Expert Committee for finalization of the Coastal Management Zone (CMZ) Notification held under the Chairmanship of Prof. M. S. Swaminathan on 11<sup>th</sup> July, 2009 in Room No.403, 4<sup>th</sup> Floor, Ministry of Environment and Forests, Paryavaran Bhawan, CGO Complex, Lodhi Road, New Delhi**

1. The fourth meeting of the Expert Committee for finalizing of the CMZ Notification was held on 11.7.2009 in Ministry of Environment and Forests under the Chairmanship of Prof. M.S. Swaminathan. For the fourth meeting the fishermen and fishermen associations were invited. List of participants who attended the meeting is Annexed.
2. The Chairman welcomed the Members of the Association and invited their comments on the draft Coastal Management Zone Notification, 2008 one by one.
3. Ms. K. Hemalata, General Secretary, All India Fishers & Fisheries Workers' Federation mentioned that if the CMZ Notification is finalized thousands of fishers would be displaced and their livelihood affected. Large industrial development, thermal powers, ports etc., would be constructed in the coastal areas which will affect the fishermen. She emphasize that the CRZ Notification prohibits activities and imposes regulation on development, while, the Coastal Management Zone Notification allow setting up of industries, resorts, green filed airports etc. The Federation has requested for a detailed and wide spread consultations before finalizing any notification. She also mentioned that developmental activity in the coastal areas should be permitted only after the approval of the Gram Sabhas and the elected local bodies. Trade union representing fishers should be included in the National Board.
4. Shri Mahesh Pandya, Paryavaran Mitra, Ahmedabad agreed to the comments of Ms. K. Hemalata and brought to the notice of the Committee regarding the violations in Gujarat especially at Mundra. He informed the Committee that large scale destruction of mangroves are taking place in the Mundra Region for developing SEZ. In spite of several representations, the Authorities have not taken any action so far and the SEZ is in progress.
5. Mr. Manger, Chairman, Juhu Narayan, Juhu Moragaon, Mumbai brought to the notice of the Committee the hardship faced by the fishing communities living in the Mumbai area. He informed that in the name of slum redevelopment State Government gives away the land of the fishermen community to the builders with a assurance that the fishermen community would get a decent dwelling unit, but this has not happened. The fishermen communities who occupy the prime land in Mumbai are displaced and their land sold at premium price to the developers. They also showed pictures of illegally constructed building in the fishing, village in Versova against which they are fighting a legal battle for several years. They requested the Committee to address the issues of the fishing community and to provide them the rights and ensure that their livelihood is not affected. They also informed that if permitted they would construct their own houses but would require a higher Floor Space Index to meet for the growing family needs.
6. Shri Ravindra D. Bhosale, Pune informed that he was unable to attend the meeting on 8.7.2009 which was ment for hearing the developers. He requested the Committee to permit tourism projects which are located on the elevated areas of coast.
7. Shri T. S. Pawar, President, MHADA, Mumbai inform the Committee that about 10,000 people from economically weaker section which have been allotted land in Mumbai are unable to undertake construction since, these plots fall in the buffer area of the mangroves. He requested the Committee to consider their views and amend the notification accordingly.
8. The Representative from the Green Peace agreed with the comments made by the above Representatives.  
The meeting ended with thanking the Chair.

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**List of the participants (11.7.2009)**

1. Prof. M. S. Swaminathan, Chairman, M S Swaminathan Research Foundation MSSRF, 3<sup>rd</sup> Cross Street, Institutional Area, Taramani, Chennai.
2. Dr. Shailesh Nayak, Secretary, Department of Ocean Development, Mahasagar Bhawan, Block-12, C.G.O. Complex, Lodhi Road, New Delhi-110003.
3. Ms. Sunita Narain, Centre for Science and Environment, 41, Tughlakabad Institutional Area, New Delhi-110062.
4. Shri J. M. Mauskar, Additional Secretary, Ministry of Environment and Forests, New Delhi.
5. Dr. Naini Bhat, Adviser, Ministry of Environment and Forests, New Delhi
6. Dr. V. Selvam, Director, Coastal Systems Research, M S Swaminathan Research Foundation (MSSRF), 3<sup>rd</sup> Cross Street, Taramani Institutional Area, Chennai
7. Shri P. Madeswari, Director, Department of Ocean Development, Ministry of Earth Sciences, New Delhi.
8. Dr. A. Senthil Vel, Additional Director, Ministry of Environment and Forests, New Delhi.
9. Advocate Laxman Narayan, Bedetar, R No.B107<sup>1/2</sup>, Shastrinagar, Pratiksha Nagar, Sion (E), Mumbai. Mobile:09221004093. [(a) Friends of Society – NGO (b) National Association of Fishermen and (c) Koli Makasangh, Mumbai].
10. Ms. K. Hemalata, General Secretary, All India Fishers & Fisheries Workers' Federation, BT Ranadive Bhawan, 13-A, Rouse Avenue, New Delhi. Mobile:9868280410.
11. Shri Mahesh Pandya, Paryavaran Mitra, 502, Raj Avenue, Thaltej, Ahmedabad-380059. Ph:079-26851801 / 26851321. e-mail: paryavaranmitra@yahoo.com
12. Mr. Mangera, Chairman, Juhu Narayan, Juhu Moragaon, R.R.M. road, Juhu, Mumbai-400049. Mobile:09869019325 / 09892461567.
13. Shri Sanjiv Gopal, 60, Richmond, Lawn, Bangalore-25.
14. Shri Rahul N. Pardesh, 71B Ratnasanat Society, New D. N. Nagar, Link Road, Andheri (W), Mumbai-53. Mobile: 09869039310 / 09221237869.
15. Shri Ravindra D. Bhosale, "Shruti Vill", Yamuna Nagar Higadi, S. No.21, Plot No.100, Pradhikam, Pune-411044. Mobile:9881636558.
16. Shri T. S. Pawar, President, MHADA, Bhukhand, Mumbai. 09892782408.

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