

Coastal Zone Management: Better or Bitter Fare?

Is the proposed coastal zone management notification designed for better management of the coasts? What evidence exists to show that conservation and sustainable livelihoods are the objectives of this new set of rules. This article examines the content and process behind this notification.

MANJU MENON,
SUDARSHAN RODRIGUEZ,
AARTHI SRIDHAR

The Coastal Regulation Zone (CRZ) notification introduced in 1991 by the ministry of environment and forests (MoEF) under the Environment Protection Act, 1986 was hailed as progressive by fisherfolk activists and environmental groups as it recognised that coastal areas needed some form of protection from unregulated development. However, the run-in period of the CRZ notification synchronised with India's economic reforms and this had a big influence on the implementation of its original objective. The clauses of the notification prohibiting and restricting activities along the coast remained unimplemented, the mandatory coastal zone management (CZM) plans that were to be prepared to ensure that sensitive areas were protected did not materialise and there was no institutional mechanism to ensure the implementation [Menon and Sridhar 2007]. The non-implementation of this law was discussed extensively even by the Supreme Court of India [Anon 1996].

Flawed Premise

The MoEF plans to introduce a new notification replacing the CRZ notification of 1991 [Anon 2007; Bhalla 2007; Sethi 2007]. The proposed CZM notification is presumably based on the recommendations of the Swaminathan Committee which the MoEF set up in 2004 to review the CRZ notification. The two main premises the MoEF puts forth for promulgating the CZM notification are contested below:

(a) There have been several amendments to the CRZ Notification, 1991 based on recommendations of various committees,

which are consistent with the basic objective of the notification, but that there were continued difficulties posed by the CRZ Notification in its effective implementation (para 2 of the CZM Notification).

The CRZ notification per se did not pose problems in implementation as much as a lack of willingness to implement it. The MoEF's repeated amendments rendered the notification difficult to comprehend, self-contradictory and very confusing [Menon and Sridhar 2007]. The most striking example is that the original law envisioned permitting only activities requiring the waterfront or foreshore in the CRZ area, but each dilution permitted new industries (not necessarily "coastal" in nature) in this sensitive zone [Goenka 2000; Divan and Rosencranz 2001; Upadhyay and Upadhyay 2002; Sridhar 2005]. In effect, 16 years of active collusion between commercial interest lobbies and the government ensured repeated dilutions to this law and total non-implementation of its regulatory procedures compromising its primary objectives. Of the 19 dilutions, that were brought in through amendments, only three were put out for public comment before finalisation.

(b) The CZM Notification is proposed as a replacement for the CRZ Notification based on the recommendations of the Swaminathan Committee's Report which contained recommendations to build on the strengths of existing regulations.

This second rationale for promulgating the CZM notification is misleading since the Swaminathan Committee report is not a widely accepted document devoid of controversy. It falls short on several counts and the absence of citizen participation in its drafting has been a serious concern since its objectives have far-reaching implications. Pro-industry influences are evident in the Swaminathan Committee report. The initial discussion chapters on integrated CZM and the final chapter containing the

regulatory/management recommendations are completely disjoint [Sridhar et al 2006].

Reading between the Lines

The proposed CZM notification is yet another example of the MoEF's "double speak" on environment issues and recent policy/legal reforms. The notification espouses politically correct objectives – "sustainable development", "sustainable livelihoods" and "conservation of ecologically and culturally significant coastal resources"¹ but the subsequent clauses contain no indication of how these objectives will be achieved. We examine various clauses to see how they are antithetical to the stated objectives of (a) conservation, (b) sustainable development, and (c) sustainable livelihoods that it is supposedly based on. A comparison is also made with the initial CRZ notification to see, if the notification scores above the earlier one or, whether it is indeed, more regressive in realising such objectives.

(a) *Conservation design of the CZM notification:* The conservation design of the notification is similar to the CRZ notification, but varies in the degree of regulation of activities. The CZM notification attempts to delineate areas as CZM I, II, III and IV zones and establish different ways of managing activities here.

Protection and conservation of ecologically sensitive areas: One of the criticisms of the CRZ notification was that it used terms that were not adequately defined. However, the CZM does no better in this respect. Without any clear definitions, the ecologically sensitive areas of CZM I such as nesting beaches or mangroves will not be identified or protected. Ironically, a qualification accompanies the clause on management of these sensitive CZM I areas. The protection and conservation of CZM I areas is subsumed by development and economic considerations as the protection measures for CZM I will be undertaken subject to "technical feasibility and costs" and only "if consistent with the provisions of the National Environment Policy (NEP)". The NEP which was finalised in 2006 clearly states that, it is drafted in line with the recommendations of the Govindarajan Committee report on investment reforms. The critics of the NEP argue that under the garb of safeguarding livelihood and development concerns, it actually dilutes environmental regulations to promote industrial development

[Kothari 2004; Open Letter 2004; Upadhyay 2004; CSS 2004; TBS 2004a; TBS 2004b; TBS 2004c; Ghotge 2004; Lele and Menon 2004].

The CRZ I areas under the CRZ notification were initially defined as the areas where no activities would be permitted until several dilutions were introduced to change that. The proposed CZM notification builds on this regressive trend and establishes that various activities will be allowed in these sensitive ecosystems as long as they are recorded in the "Integrated Coastal Zone Management Plans" (ICZMP).

(b) Sustainable development: There is no operational definition of the term "sustainable development" anywhere in the CZM notification. Appendix III of the proposed CZM notification contains an assorted listing of various "areas of particular concern" that are identified as CZM II areas. Typically, the constituents of this list are those which are currently subject to prohibitions or restrictions in the CRZ notification. These areas such as special economic zones and notified tourism areas stand to gain immensely by their presence on this list as the CZM II areas will hardly be subject to regulations.

The management mechanism within the CZM II areas makes little conservation sense. The management measure states that activities and constructions that lie behind setback lines (Option A), coastal protection structures (Option B or largely sea walls) will not be subject to any regulation. Only activities on the seaward side of setback lines will be subject to regulations and this has major implications only for the coastal communities such as fisherfolk. The CZM II offers local authorities an option of choosing setbacks or sea walls as their management strategy. This implies that the CZM II areas will not be affected by regulations of the notification, if these areas are walled. The availability of these narrow options will most certainly result in the walling of most of India's coastline without an objective consideration given to softer options for coastal protection. It is now widely acknowledged that many of these hard options have serious ecological and environmental impacts [Hedao 2005; Pandian et al 2004; Mani 2004]. The sea walls do not prevent erosion they only transfer the problem further along the shore [Bhalla 2006; Bhalla 2007].

Setback lines: Within CZM II and III, activities which do not require shoreline access can be set up beyond a setback

line. The setback line is based on the mapping of coastal vulnerability to "natural and man-made hazards". There is no indication if this setback line will be constant or dynamic, or a clear time frame to map the same. Importantly, there is the central question of whether the concept of setbacks alone provides any protective function at all, considering that several activities are allowed on the seaward side and all activities can take place unregulated on the landward side.

Inaccurate interpretation of 'vulnerability': The use of the word "vulnerability" to define setbacks is not defined in the draft and the current description in Appendix I is inaccurate. The right term to be used is a hazard line based on a given risk.² Vulnerability is the "level of exposure of human life, property, and resources to impact from hazards" and is derived by calculating a certain defined level of risk to coastal hazards.³ Hazard being "an event or physical condition that has the potential to cause fatalities, injuries, property damage, infrastructure damage, agricultural loss, damage to the environment, interruption of business, or other types of harm or loss"⁴ and risk is defined as "the potential for losses associated with a hazard, defined in terms of expected severity and/or frequency, and locations or areas affected".⁵

Thus, what the draft claims as a "vulnerability map" is actually a hazard risk line, a risk being defined by the notification as "based on coastal hazards with a one per cent (1 per cent) probability of occurrence in any given year, after accounting for the median estimates of mean sea level rise and horizontal shoreline displacement in the next one hundred (100) years". Thus, only when one overlays exposure of human life, i.e., population density, existing property and resources with the hazard risk line does one get a vulnerability map. This glaring conceptual error in a proposed legislation that claims to incorporate scientific principles for coastal management indicates its intent to obfuscate issues.

The six listed parameters for the hazards risks (aka vulnerability mapping) are actually incomplete. The important parameters omitted are wind speeds and data on extreme weather events till date which are directly indicative of coastal hazards in addition to the parameters listed. This omission is surprising given that one of the CZM notification objectives is "ensuring protection to coastal populations

and structures from risk of inundation from extreme weather and geological events; and by ensuring that the livelihoods of coastal populations are not unduly hampered".

Management by omission – ICZMPs: While the "hands off" management strategy for CZM II and III areas translates to turning a blind eye to all activities beyond setbacks and protection structures, the management strategy for CZM I and IV areas is even more hazy. The activities here are to be decided by the ICZMPs on which the entire CZM I and IV are based is devoid of formulation guidelines, let alone procedures for transparency and public participation in the planning process. The CZM II and III areas do not even require any ICZM planning process.

Sustainable development would imply some measure of regulation or restriction on the development activity itself. However, the CZM notification not only allows activities that are proven to be far from environmentally sustainable, but also ensures that these remain unregulated through the hands off management.

(c) Livelihoods and the CZM notification: Whose livelihoods does the CZM notification seek to safeguard? In the CZM notification, there is no concern or focus on the rights and access of coastal communities, especially fishing communities. Given that the proposed legislation aims to govern and "manage" development on the coast, this omission has significant implications for coastal communities. This is a big departure from the CRZ notification which recognised fishing settlements and permitted certain rights and protection for the same.

The CZM notification states that the coastal panchayats with more than 400 persons/sqkm shall be declared as CZM II areas. This means that many of the earlier CRZ III categories would now become CZM II. The CRZ notification had stringent regulations and a No Development Zone of 200 m for CRZ III areas that were characteristically coastal towns and villages with low levels of development. By putting these areas under CZM II, the precautionary principle and livelihood protection measures that were applicable to the CRZ III areas to restrict urbanisation pressures and ensure livelihood security, rights and access of coastal communities had been done away with.

Appendix V of the CZM is a list of activities that are to be allowed on the seaward side of the setback line. The list

titled “activities requiring access to the shoreline” includes the undefined categories such as beach tourism and watersport facilities. Conspicuous by its absence are dwelling units of fisher communities, their livelihood activities and supportive minor infrastructure that they may need to carry on their livelihood such as boat yards, fish drying areas, storage of gear and parking for their craft. By permitting the activities in the appendix on the seaward side of the set back line, and at the same time, pushing back all dwelling units of fisher communities behind the line, the government is facilitating the transfer of ownership and access of beach fronts from the fisher communities to non-coastal agencies with commercial interests.

The management strategy encouraging coastal protection measures such as sea walls will affect traditional fishing communities as beach space and the shore front is essential for their livelihood related activities like landing their craft, drying, mending nets and the storage of fishing gear. The fisher communities have generally opposed the building of sea walls in Tamil Nadu, as they consider it to be a hindrance to the landing and movement of their boats [Viswanathan 2005]. John Kurien states that sea walls in Tamil Nadu are likely to be the “death knell” of the catamaran, as they need sandy beaches to land in and would otherwise be destroyed [Sridhar 2005].

End of the Road

Management sans monitoring or implementation structure: The CZM sets itself apart from the CRZ notification in a striking manner in that it contains absolutely no monitoring mechanism. There is no detail available about how the large and unwieldy 32-member national board for sustainable CZM will function. Operational details, powers and functions of the implementation agencies are not specified. The present CZM notification does away with the three-tier CZM authorities at the national, state and district and merges this agency instead with the recently announced state/union territory environmental expert committees (an agency already entrusted with the responsibility of implementation of the provisions of the new EIA notification 2006). Finally, there are absolutely no procedures laid out for clearance of projects mentioned in the notification. The proposed notification is, therefore, by no means an improvement

over the CRZ notification in terms of ensuring sustainable development or livelihoods or conservation.

The CZM notification in its present form exemplifies the recent negative trend of “regulatory capture” – a conscious process where environmental governance is influenced by commercial lobbies and environmental laws are dictated by investment priorities. While the concerned citizenry busies itself demystifying this implausible law, the MoEF needs only to acclimatise to another era of non-implementation under the CZM notification. ■■■

Email: manjumenon1975@gmail.com

Notes

- 1 See Pt 2 on Objectives of the draft CZM notification 2007.
- 2 See NOAA Vulnerability Assessment Techniques and Applications (VATA) web site Glossary, available at <http://www.csc.noaa.gov/vata/glossary.html> and NOAA Risk and Vulnerability Assessment Tool (RVAT) available at <http://www.csc.noaa.gov/rvat/glossary.html>
- 3 NOAA, 2006, Vulnerability Assessment Techniques and Applications, available at <http://www.csc.noaa.gov/vata/intro2.html>
- 4 Ibid 2.
- 5 Ibid 3.

References

- Anon (1996): JT 1996(4)SC263 = 1996(5) SCC 281, Indian Council for Environ Legal Action vs Union of India and Ors, WP (Civil) 664 of 1993.
- (2007): ‘Coastal Zone Management Notification’, Ministry of Environment and Forests, New Delhi, p 120.
- Bhalla, R S (2006): *Policy Support for the Green Coast Project*, Foundation for Ecological Research, Advocacy and Learning (FERAL), Pondicherry, August.
- (2007): Green Coast Project: Policy Support and Field Research conducted by the Foundation for Ecological Research Advocacy and Learning (FERAL), presentation at Policy Road Show: Challenges Ahead, NGO consultation organised by Green Coast project on February 6, Pondicherry.
- Bhalla, N (2007): ‘New Law May Threaten Indian Marine Life, Fishermen’, *Reuters*, May 25.
- CSS (2004): *CCS Review of the National Environment Policy, 2004: Institutions, Incentives and Communities in the Environment*, Centre for Civil Society, New Delhi, p 9.
- Divan, S and A Rosencranz (2001): *Environmental Law and Policy in India, Cases, Materials and Statutes*, second edition, Oxford University Press, New Delhi.
- Goenka, D (2000): ‘The Fragile Coastline’, *Seminar*, New Delhi.
- Ghotge, S (2004): *Draft NEP 2004: Comments on the Policy Framework*, DNRM list serve, archived at www.panchayats.org, last updated on October 19, accessed on October 19.
- Hedao, P (2005): ‘Protecting the Coast – Restoration of Coastal Ecosystems’, presentation

at workshop on Post-Tsunami Rehabilitation in Fishing Communities, organised by TRINet on November.

- Kothari, A (2004): ‘Draft National Environment Policy 2004: A Critique’, *Economic and Political Weekly*, October 23-29, 39(43), pp 4723-27.
- Lele, S and Ajit Menon (2004): *Draft NEP: A Flawed Vision*, Centre for Interdisciplinary Studies in Environment and Development, ISEC Campus, Bangalore, p 7.
- Mani, J S (2004): ‘Numerical Study on Coastal Defence at Chennai and Related Management Strategies’, *Natural Hazards*, Vol 31, Issue 2, pp 523-36.
- Menon, M and A Sridhar (2007): ‘An Appraisal of Coastal Regulation Law in Tsunami-Affected Mainland India’ in *Report on Ecological and Social Impact Assessments Post-Tsunami in Mainland India; Draft Submitted to UNDP, Post-Tsunami Environment Initiative*, pp 105-49.
- Open Letter (2004): Will the Draft National Environment Policy Really Safeguard India’s Environment? Open Letter to the Prime Minister of India dated October 29.
- Pandian, P K, S Ramesh, M V R Murthy, SRamachandran, S Thayumanavan (2004): ‘Shoreline Changes and Near Shore Processes Along Ennore Coast, East Coast of South India’, *Journal of Coastal Research*, Vol 20, No 3 pp 828-45.
- Sethi, N (2007): ‘Government Plans to Ease Curbs on Activity Along Coast’, May 24, *The Times of India*.
- Sridhar, A, R Arthur, D Goenka, B Jairaj, TMohan, S Rodriguez and K Shanker (2006): *Review of the Swaminathan Committee Report on the CRZ Notification*, UNDP, New Delhi.
- Sridhar, V (2005): ‘Living on the Edge’, *Frontline*, Vol 22, Issue 03, available at <http://www.hinduonnet.com/fline/fl12203/stories/20050211006201500.htm>
- TBS (2004a): Proceedings of the Preliminary Discussion on the Draft New Environment Policy 2004, October 15, Tarun Bharat Sangh, Jaipur.
- (2004b): Proceedings of the Second Discussion on the Draft New Environment Policy 2004, October 24, Tarun Bharat Sangh, Jaipur.
- (2004c): Analysis of the Draft New Environment Policy 2004, Tarun Bharat Sangh, Jaipur.
- Upadhyay, S and V Upadhyay (2002): *Handbook on Environmental Law (Vol II) – Water Laws, Air Laws and the Environment*, first edition, LexisNexis, New Delhi, pp 297-321.
- Upadhyay, V (2004): ‘National Environment Policy 2004: A Critique of the Draft’, *Economic and Political Weekly*, September 25, 39(39), pp 4306-08.
- Viswanathan, S (2005): ‘For a Bio-shield’, *Frontline*, Vol 22, Issue 03, January 29, see <http://www.hinduonnet.com/fline/fl2203/stories/20050211007000800.htm>.

Economic and Political Weekly

Available from

Star News Agency
Mahendra Chambers,
Magazine Market
146, D N Road
Mumbai - 400 001