Coastal management policy in India: a commentary

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Development activities generally target coastal areas for many reasons, port facilities being a major one. Other factors include availability of a high degree of infrastructure facilities, skilled and unskilled labour, and easy market access. But the actual development scenario is controlled by geographic conditions of the area since it would be unpractical to ignore the surroundings in any development plans. These geomorphic conditions possibly made the two Indian coasts, the East and the West, exhibit two subtly different patterns of settlement and anthropogenic activities. The West Coast, except for the area around the Gujarat coast, is mostly a narrow strip of hilly land (~50 km in width) between the Arabian Sea and the Western Ghats, the western range of the mountainous Deccan Plateau. It has rocky promontories interspersed with small rivers and estuaries. The industrial and commercial trades here were largely limited to port areas at a few places such as Kochi, Mumbai, and Surat in the past, Kandla, Mangalore, and Mormugao being additions in the last half century. The rest of the coast was characteristically rural in nature without much conflict between man and the environment. On the East Coast, with broader coastal planes and rich deltaic soil available at the mouths of the great Indian rivers such as the Ganges, the Godavari, the Mahanadi, and the Krishna, the local population had been traditionally practising agriculture on a large scale. The port and harbour activities were extensive too. Many townships with large populations grew up on the eastern side whereas on the West Coast population migration to the cities such as Mumbai resulted in a different pattern of urban dwelling—the big cities and the villages.

Coastal environment and development

India has regulatory agencies such as the CPCB (Central Pollution Control Board) with branch offices in all states for assistance, and on the marine side, the Coast Guard to take care of coastal oil spills and other marine matters. They are armed with laws such as the Environment Protection Act (1986), and various other legal environmental regulations such as the Air Act and the Water Act. But these organizations bear an inherent weakness. They are understaffed and receive funds that are barely sufficient to enable them to stay afloat. The Department of Industry, on the other hand, would rather not consider pollution as its mandate.

With the extensive, intensive, and haphazard industrialization as well as ineffective monitoring agencies, there is little surprise that the coastal environment was ignored till the late 1980s. However, environmental impact assessment reports and scientific monitoring exercises undertaken separately by the CPCB and the DOD (Department of Ocean Development), Government of India, made authorities sit up and take notice of the polluted coasts. The CPCB had in the 1980s surveyed the entire coastline of India with the help of discussions and interviews with stakeholders on the coasts, including scientists. The DOD, since 1988, has been conducting nationwide surveys of pollution of the Indian seas. Both have reported environmental degradation, especially in the creeks and estuaries in industrial areas.

A letter from the then Prime Minister, Mrs Indira Gandhi, in the early 1980s to all the coastal governments pressed a panic button for coastal stakeholders. The letter directed that 'a no-development zone' be declared up to 500 metres from the high tide line along the coastal stretches. There were several protests in the media and
much litigation, with the decisions regarding the set back line for the 'no development zone' vacillating between 200 and 500 metres from the high tide line. While Mrs Gandhi’s letter sent the developer’s lobbies scurrying into action, the February 1991 Notification of the MoEF (Ministry of Environment and Forests) (MoEF 1991), asking all coastal states and the union territories to categorize their coastal stretches into different regulatory/protective zones was a clarion call for concerted action against what was viewed as the central government’s dictates to the state governments. Currently, approximately 700 cases from Goa alone (the smallest of the nine coastal states) are pending for judicial verdict in the Supreme Court.  

The Coastal Regulation Zone/Integrated Coastal Management notification and its implementation

The above notification of February 1991 defines different categories (1, 2, 3, and 4) of CRZ (Coastal Regulation Zones) along the coastal stretches of India according to the extent of protection and development involved. It elaborates on the regulated and prohibited activities in these zones and mentions penal action in case of violations. In a small clause, it also directs the state governments to submit their coastal zone management plans based on the demarcation of zones.

Ever since the release of these guidelines, in many fora and committee discussions all over India, people, including scientists, have tended to instinctively equate ICM (Integrated Coastal Management), which has a positive approach and goals, with the CRZ, which involves protection of eco-sensitive areas and hence has regulatory and prohibitive clauses. One of the simplest and most telling criticisms offered to this notification has been that it has a negative approach—rather than saying what is allowed, it focuses on what is not allowed. It is difficult to convince those opposed to the notification that except for the regulated and banned activities, the rest are allowed.

Unfortunately, for a few years after the issue of the notification, the MoEF did not set up any institutional framework or designate an existing one to prepare the ICM plans or identify and categorize the CRZ along the coastal stretches. In true bureaucratic fashion, most of the coastal states and centrally administered territories delegated this complex job to town and country planning departments, which, in India, are mostly staffed by builders and architects.

Now that the national- and state-level authorities the NCZMA (National Coastal Zone Management Authority) and SCZMA (State Coastal Zone Management Authority), respectively, have been formed to pilot the ICM plans in India, the kind of spirit shown in the Florida Keys National Marine Sanctuary (Barley 1993) in the US is absent in the deliberations of these committees. The ‘user friendly’ approach of the Keys’ ICM programme would have been ideal in the Indian situation, but the Indian government never took the public into confidence while issuing notifications, nor involved them in any decision-making process, nor even in any committees. In India, the SCZMAs have inefficient pollution control boards without scientific assistance. Whereas, in the US, the Advisory Council has half of its 22 members representing the user groups, and the remaining representing the environmental groups, science, education, government departments and the citizenry, the SCZMA typically has 8–10 members in total known more for their compliance rather than their unbiased views.

The ‘Core Group’ in the US involved departments at the local, state, and federal levels, formed early in the process, to coordinate and brainstorm about problems and solutions with help from the public and the Advisory Council. The National Oceanic and Atmospheric Administration held ‘focus group’ meetings with various users including scientists, commercial fishermen, divers, etc. No such methodical steps were taken by the MoEF in India. The NCZMA and the SCZMA in India mostly function in isolation, away from the public eye. The Indian government does not seem to acknowledge that ‘increased participation by the general public and the wider scientific and management communities is absolutely critical for long term success’ (Ehler and Basta 1993) of ICM.

Shortcomings in the Indian ICM implementation

All modern textbooks on methodologies (Cicin-Sain and Knecht 1998; Clark 1996) for ICM accord extreme importance to certain key components which have been absent in the Indian efforts. Important among them are public participation and capacity building.

Public participation

ICM programs require a high degree of public participation. Most likely, people who live along the coast and have traditionally used coastal resources will be greatly affected by any new rules and procedures. Therefore, if they are to support the program they must have a voice in the formation of coastal policies and rules on resource use. Broad participation will also provide an opportunity to resolve conflicting points of view among

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1 Representative of the Ministry of Environment and Forests, Government of India, during the open discussions at the seminar on 'Integrated Coastal and Ocean Space Management 1998', Seminar organized by 'Equations', an NGO group, at Shanti Sudan, Bangalore (19 June 1998).

2 The author has been member of coastal zone management committees of the Government of India and the Government of Goa. He has also participated in many NGO seminars and committees on the subject of ICM. This article is mainly based on his experience besides the literature cited.
various stakeholders so that later the ICM program will meet lesser political resistance (Cicin-Sain and Knecht, 1998).

According to Renard (1986), 'public participation is a tool available to the entire management community to ensure the quality and the effectiveness of the management solutions to be implemented. People are not the object but the subject of development, and makers of their own history'.

South Africa, which had launched its ICM programme in 1988, almost during the same period as India, had unlike India started a 'coastal liaison exercise' while piloting it. It is now widely accepted that the ICZM in South Africa has been very successful. The objectives of the liaison exercise were, among others, to (Coetzee 1991)

- test the public response and susceptibility to the draft policy and objectives for ICM;
- explain in simple terms the physical and ecological process operating in the coastal zone the interactions with management actions;
- demonstrate the use of guidelines for coastal land use by means of case studies;
- explain the reason for coastal regulations;
- explain the coastal structure planning process and to emphasize the need for the public to become involved in order to ensure that their needs and aspirations are adequately reflected;
- try to foster the need for effective communication between the various levels of government and the public; and
- seek ways in which the public can actively assist with ICZM on an ongoing basis.

'...These efforts to involve the public both in the US and South Africa contrast sharply with the Indian approach to ICM, which has comprised issuing notifications, guidelines, and directives to citizenry ignorant of the purpose, planning, and the processes behind them.'

**Conclusions**

Much heat and dust has been raised in India over CRZ issues. If the public had been involved in full confidence along with scientists and other coastal stakeholders from the beginning, much of the degraded environment and ecology might have been saved as economic sustainability was then an easier goal to achieve. Absence of modern methods of consolidating databases has made it difficult to know exactly what has been lost.

India is already a late starter in ICM. The earlier a start is made for improvements, especially in public participation at all levels, the better it would be for the coast and for posterity.

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**Beach Shacks: Conflict over Tourists and Resources**

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This paper aims at understanding the conflict over tourism and resource-use and its implication for policy through a case study of beach shacks in Goa, more specifically in two villages in North Goa, namely Calangute and Candolim. The paper begins by a definition of shacks with reference to restaurants and their differences, and goes on to see how shacks have come into prominence at the beach as an industry, and how the development of shacks led to conflicts and the emergence of policy.

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* This article is based on data collected during the year 1999–2001.