

Managing coastal tourism: perspectives from India and the European Union

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Introduction

Tourism can, and does, impact local development and the environment, as we have seen in this multi-authored volume, and attention is needed to avoid what we have termed as the 'golden goose' problem. The beauty and environmental quality of tourist destinations are what attract tourists, and local people are increasingly anxious to participate in and draw the benefits of tourism while preserving their own identities, the natural environment, and the historic and cultural heritage from the impact of uncontrolled tourism. The question then becomes one of developing and managing coastal tourism as an activity that generates profits to the industry and, at the same time, contributes proactively to the sustainability of local communities, without stressing the environment.

The coast, as we have argued in the introduction, poses a special dilemma for sustainable management, because it involves a land-ocean interface: a mix of property systems, multiple users, and multiple jurisdictions. It requires a special effort at governance and multidisciplinary approaches, as both the social and the natural sciences are needed for effective management. It suggests a need for paying attention to issues of concern to stakeholders within and

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between generations. To encourage a development that will 'last', the focus of policy has to be on its effectiveness, that is, to actually achieve the objectives it sets out to achieve and to address the general public rather than just the main stakeholders, as these may already be committed to status quo (Schulze and Ursprung 2001). A multi-stakeholder-sensitive policy for managing coastal tourism may improve the situation on the ground by creating better incentives to shape behaviour.

In this volume, a case study in Goa has been used to bring out the issues and concerns involving coastal tourism, environment, and local development, using a combination of the driver-pressure-state-impact-response framework with a population-consumption-environment framework in order to strengthen both the explanatory and policy values of the study. In this final chapter, we bring together the major findings of our study; assess policy as it exists in India; and examine innovations in the EU (European Union) policy. European policies do hold lessons for countries such as India, as the European political system holds together many nations under a common umbrella, with innovative principles such as subsidiarity and integration, which underlie environment and regional planning activities. India's federating states can gain an insight into the concept of common but differentiated responses from the EU's experience in coastal management. The chapter ends with suggestions on what needs to be done to move towards more sustainable coastal tourism.

Major findings of the study

The following key issues were used to help us focus the case study in order to address the central question: 'How are societal drivers – particularly tourism – impacting coastal ecosystems in the study area?'

- Population and population movements
- Occupational shifts
- Ecosystem or resource use
- Institutions
- Health of the ecosystem.

Population movements

Coastal areas in Goa have witnessed (and continue to witness) considerable population movements. Out-migration, before 1961,

from the study area to the rest of India and, during the 1970s, to the Gulf countries was an issue. Since then, there has been a steady influx into the state. Out-migration created spaces for others to come in and also for alternative sources of income. On one hand, this created a new demand for land and, on the other, by reducing pressure on land due to out-migration, it made land available for conversion. In-migration was high soon after liberation in 1961, and then was positive but lower. The in-migrant creates a demand for land in part, but more important, he/she makes possible the continuation of services to agriculture (where necessary) or the introduction of new services such as those required by tourism. The tourist is also a temporary migrant creating his or her own set of demands in the area.

Shift from primary economic activities

While agriculture and fishing were the major economic activities of a very large proportion of the workforce in these coastal villages in 1961, over the four decades, there has been a steep fall in the percentage of population in the primary sector while the participation of the workforce in other sectors has increased. In our study area, we have seen how agriculture and fishing have declined, but fishing in particular has been displaced by coastal tourism, as these activities compete both spatially and temporally. The period after 1961 witnessed the growth of small, medium, and large industries in the area. However, the transition was more from the primary to the tertiary sector; rapid tertiarization of the economy is evident ever since 1961.

Adoption of new resource-use patterns

This transition has aided the shift of land as a resource in the coastal belt from being a means of production to a commodity for trade, involving a group of players in the market for land that include the political class of bureaucrats and the elected representatives (De Souza 2000). Conversion from agricultural and orchard land into land for putting up buildings is common. Land is no longer central to the production process. A disjunction is observed between the social process and legal superstructure. While new progressive laws relating to agricultural lands were enacted to keep people in

land and increase its productivity (GoG 1992a; 1992b), the strength of the demonstration effect arising from the high visibility of those engaged in the tertiary sector and the desire to cross class lines created pressures towards moving out of agriculture. Tourism and linked economic activity provide the opportunity.

Pressures on local institutions

The involvement of the local population in the main tourist villages is high at various levels, such as supplying goods and services to the industry, running hotels, and even providing land and housing to accommodate tourist infrastructure. However, the type and nature of involvement varies across the different types of establishments. There are enormous pressures on the central and state governments from hotel and builder lobbies (for construction permits) and on local governments – the *Panchayats* – from the local community (for permission to build in coastal areas).

Impact on the ecosystem

Three types of ecosystem impacts are observed from human activity in our study area.

- 1 Land use and cover changes
- 2 Stress on coastal aquifers
- 3 Degradation of coastal vegetation, with different implications for the health of the ecosystem.

Land use and cover changes

Agricultural fields, sand dune vegetation, mangroves, and coconut groves are experiencing a number of changes. Particularly affected are the *khazans*, multifunctional coastal ecosystems, whose uses emerged and developed over time from management practices adopted. These changes have not, however, been a result only of tourism, but also of changes in local political, social, and legal institutions over time, such as capital inflows in the form of remittance income, democratic institutions, new tenurial laws, and changes in common property systems (Noronha, Siqueira, Sreekesh, *et al.* 2002). These are processes, which began in the last part of the 19th century and then moved on to a qualitatively different and hastened plane post-1961 with the advent of tourism (Siqueira 1999).

The earlier movements of people out of Goa created spaces for people to come in. This was mostly to service, agriculture, and – later – the education and government sectors. Tourism created new opportunities for both permanent and seasonal migrants into Goa in the 1980s and 1990s. Tourists added to this influx. These population movements created a demand for land and housing, from both immigrants and those who had out-migrated but wanted second homes and created a demand through remittance income. This was met through supply from agricultural land, coconut groves, and extensions of houses by local people, who have increasingly become less involved in land as resource for production, because of alternative incomes, high wage labour, and unclear tenurial laws. The *khazan* lands under a common property system, the *Comunidades*, have been particularly affected by the changed tenurial systems, brought about by land laws. These laws, in an effort to be progressive, have privileged private uses over communal uses of land and have created incentives for its encroachments and break-up (Noronha, Siqueira, Sreekesh, *et al.* 2002).

An important finding that emerged from a survey done in 2000 was that while households attach considerable importance to coastal ecosystems for the community services that they provide to the village, the relative importance to them personally was perceived as much lower. People's perceptions can be important indicators of the direction of change. This is perhaps one explanation for the alienation and sale of land under ecosystems, since the personal gain is not perceived as high. The benefit of the land to the individual is perceived highest when land is alienated through sale, rather than through the use of the goods and services the ecosystem provides. When the personal and community interest in the ecosystem coincides, conservation follows. When a disjunction occurs, common management systems do not work and each individual works in his/her own narrow interest. Thus, land conversions can be seen to be a result of clear decisions taken by individuals or groups acting as individuals, which reflect the perceived relative advantages of holding land in different forms.¹

To summarize, the main societal drivers and pressures that have caused changes in land use and cover in the study area are

¹ See Swanson (1995) for an interesting discussion on land conversions and a reduction of biodiversity as a result of development and global forces more generally.

population and population movements, demand arising from remittance income, demand from tourism, lower personal dependency on the ecosystem, insufficient knowledge of ecosystem values, lower personal as compared to community valuation of ecosystems, short time horizons, zoning rules and the need to preempt their enforcement, changes in legal rules that had implication for management regimes, local politics, and power configurations.

Stress on coastal aquifers

It is evident that coastal aquifers in the Baga–Nerul watershed are at risk, both quantitatively and qualitatively. While this is a high recharge area, not all recharged water is available for use because of the high drainability of aquifers shown by rapid fluctuations in groundwater levels. The aquifer vulnerability mapping using the DRASTIC index reveals a fairly high vulnerability to pollution in most parts of the study area. The chemical and biological analysis of groundwater samples from open wells in the study area indicates that the groundwater is heavily contaminated with bacteria and, to some extent, nitrates. The main sources of contamination are presumed to be the sewage disposal sites, the septic tanks, and soak pit disposals. Cadmium and bacterial contamination is found to be high in a number of wells. Very little water quality monitoring exists. Most tourist establishments have tube wells, as public water supply is insufficient. The research suggests a rapidly developing water market serviced by tankers.

To summarize, the main pressures on aquifers in the study area are increased demand from population, growth (host and tourist), lack of policy to regulate access and use, technology of extractive equipment, economic activity, insufficient attention to the system attributes, development of a private water market to serve tourism in the absence of an adequate public water supply, and the absence of protection zoning for wellheads.

Degradation of coastal vegetation

As for vegetation, tourism seems to have made the area greener, but reduced the diversity. It is evident from this research that while mangroves have increased marginally in terms of extent, the area under sand, coconuts and cashew plantations, and dense semi-natural woodlands have reduced in a number of villages. While the Normalized Difference Vegetation Index has increased, the species

diversity has reduced in the study area, with a loss of the original vegetation. Higher greenness of the study area is associated with the increase in area under anthropic woodlands and grass. Wet fields are found to be structurally homogeneous, whereas mangroves are less homogeneous. This is suggested because of the presence of paths and flooded areas among the canopy cover. Areas with strong human impacts, such as urban areas and degraded vegetation, show poor vegetation cover and high spatial fragmentation. Dune vegetation has been particularly disturbed in the tourism villages due to indiscriminate clearing of dunes for construction sites and/or due to the behaviour of users who – due to lack of knowledge – trample the vegetation assuming they are 'weeds'. Population, user behaviour, poor rule enforcement, poor waste management, and short time horizons of the industry are all factors that have led to this degradation.

The coastal waters off the study area remain clear and unpolluted. The rivers and creeks, however, do show bacterial contamination due to local input of sewage. Metal values for cadmium, lead, and mercury in dissolved state in water as well as in sediments show nominal presence without any indication of polluted waters. The biological parameters also indicate good water quality with the presence of normal coastal and estuarine biota. Interestingly, no important changes were observed during the monsoon land run-offs. Possibly the watershed area was too small to observe any marked impacts. No decadal changes have been observed in the water quality from 1988 through 2001, during which period tourism has increased manifold as an industry in the study area. It can be concluded from this research that, as of now, there is no noticeable ill effect due to tourism-related activities on the near-shore water quality. This is not so much due to good environmental practices related to human activity, but because of the high regenerative capacity of the coastal waters in this locality.

More generally, increased reliance of local people on tourism and tourist income is observed. Whether this path of social and economic development is more sustainable or less will depend on its likelihood of generating new opportunities, capabilities, and skills that will lead to improved functioning and well-being of the local population. This is the subject of another study. The research does suggest, however, that a tourism development path is being followed that seeks to

reproduce for the international tourist his/her home conditions and for the domestic tourist the conditions that emulate the West, instead of adopting a path that will provide the tourist a more 'variegated experience', allowing diversity to flourish. When tourism was less global in the sense that it catered to the discerning tourist looking for a different kind of experience, it impacted the ecosystem far less. But with modern mass tourism and the goods and services being developed to cater to such tourists, tourist villages are orienting themselves towards production of more homogenous outputs. We believe that society can adopt a tourism development path that 'lasts' through being less homogenous and uniform in its orientation and more participatory in nature. This is particularly of relevance, given the opening up of the tourism sector to foreign investors and operators under GATS (General Agreement on Trade and Services). The main constraint to such diversified paths in the local and state contexts seems to be emerging from the 'room to manoeuvre' available to the state in making sustainable choices.

Before we make recommendations towards a more sustainable coastal tourism policy, we briefly examine the current policy in India that relates to the coast and to tourism, as policy is an important influence on the way a situation unfolds.

Policy and legal framework in India of relevance to coastal tourism

Policy objectives and focus

India does not have a specific coastal focus in its development policies. There is an attempt to provide a coastal focus through the use of coastal zoning in order to spatially separate incompatible uses and protect fragile ecosystems. There is also an attempt at introducing a notion of integrated coastal management,² but the meaning of integration is still not quite clear. It has policies and plans for sectoral development, and has environmental policies and legislation to protect the environment from such development.

² In 1998, the Department of Ocean Development with the assistance of the World Bank took up an infrastructure development and capacity building programme to facilitate adoption of the concept of ICMAM (Integrated Coastal and Marine Area Management) by coastal areas. The programme focuses on development of expertise in ICMAM-oriented activities and dissemination of knowledge gained to the coastal areas through organized training programmes. So it can be expected that in the future India will develop a more integrated approach to coastal management.

From a coastal development–environment interface perspective, the most significant Indian policies are those contained in the Indian Constitution, the international agreements that it is party to, the investment policies adopted in 1991, and the NCS (National Conservation Strategy) and the Policy Statement on Environment and Development, adopted in June 1992. The first provides the direction of rights and duties of the state and its citizens, while the second refers to its responsibilities as global citizens, investment policies determine the nature of investment and the scale of economic activity and resource use, and the NCS provides the basis for the integration and internalization of environmental considerations in the policies and programmes of different sectors. It also emphasizes sustainable lifestyles, and the proper management and conservation of resources. The policy statement on pollution abatement, announced by the government in 1992, reiterates the government's commitment to arrest deterioration of the environment.

At the land–ocean interface, different property systems and jurisdiction exist. Land towards the shore and the beaches are the property of the coastal state and land inland from that point is private or common property. Article 297 of the Indian Constitution (1) treats the territorial waters as part of the territory of India and (2) vests the maritime territory in the Union as against the federating coastal states (Rao 1983). Within 12 nm (nautical miles) off the coast, seaward, the water belongs to the Indian state as its territorial waters; in the exclusive economic zone up to 200 nm and on the continental shelf to the outer edge of the continental margin, the Indian state has no sovereignty, but has rights over exploring, exploiting, conserving, and managing the resources of the superjacent water, seabed, and subsoil.³ If the continental shelf extends beyond 200 nm, then the coastal state has no rights over the superjacent waters, but only over the seabed and subsoil. This mix of property systems creates a variety of incentives, which result in contradictory behaviour towards coastal resources, and possible negative environmental outcomes.

³ Offshore rights and responsibilities are affected by India's ratification of the United Nation Convention on the Law of the Sea in 1996. International law recognizes the sovereignty of the state over its water and defines its rights and obligations. The international boundaries include the Contiguous Zone, 12-mile Territorial Sea, and the Exclusive Economic Zone.

The institutional matrix

India has, what is popularly termed three tiers of government, within a structure of cooperative federalism. The first tier is the central government, the second is the state government, and the third is the village level, known as the *panchayat* system. A key feature of India's Constitution is the existence of lists that demarcate the responsibilities between the central and state governments. Part XI of the Indian Constitution governs the administrative and legislative relation between the centre and the states. Article 246 divides all subject areas of legislation into three lists. When a central law conflicts with a state law in a concurrent subject, the former prevails.

Figure 1 provides a broad conceptualization of this with reference to coastal governance, though the details may vary among states. This is not to suggest that there is a clear matrix for coastal governance in India. What exist are different institutional arrangements for decision-making for development and ensuring safeguards for the environment; these occur at three levels of government: national, state, and local. Development activities are coordinated by the respective ministries, depending on whether the subject is within the central or state list. The two main nodal bodies for decision-making

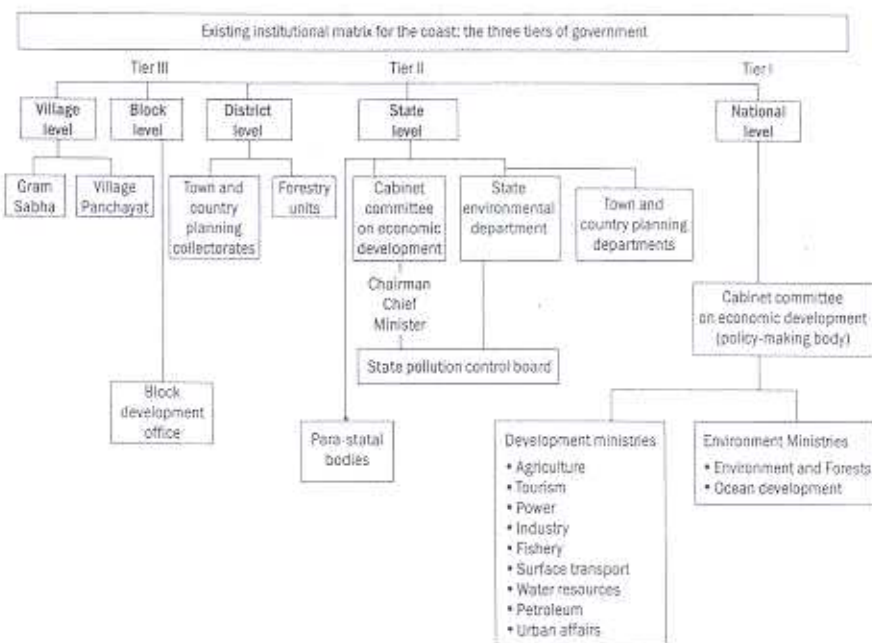


Figure 1
Institutional matrix for development and environment relating to the coast

relating to impacts of activities, potential or actual, in coastal areas and the seas and oceans are the MoEF (Ministry of Environment and Forests) and the Department of Ocean Development. Numerous other agencies operate at the other two tiers of government: state and local. It is evident that there are multiple jurisdictions on the Indian coast, ranging from the private to the state and within the state. Policy is framed at the centre and the state depending on the subject involved and its place in the lists of the Constitution.

The legislative framework

In India, coastal development is regulated through the CRZ (Coastal Regulation Zone) notification of 1991 issued by a joint venture of the union and the coastal state government by which a uniform law provides for the development by states of management plans based on certain defined coastal zones. These zones regulate development and construction in the coastal and estuarine regions. The policy has evolved over the last decade and a half, through legislation along with notifications (both central and state), court orders, and rulings. An important provision under these laws limits the nature and development of land that is located close to the sea. The objectives of interventions in land use, as seen in land conservation policies, may be characterized into three categories: (1) preventing certain type of land uses from being implemented; (2) modifying the form of existing land uses; and (3) stimulating land uses, which would otherwise not take place (Hodge 1995).⁴

These implied objectives of the policy can be seen in the four coastal regulation zones defined by CRZ notification, which limits development to beyond 200 m from the high-tide line in CRZ III and beyond 500 m in CRZ I. Tourism development in the coastal regions also comes under the purview of the CRZ.⁵ For a few years after the issuance of the notification, the MoEF did not set up any institutional framework or designate an existing one to prepare plans or identify and categorize the CRZ along the coastal stretches. Most

⁴ Hodge (1995) further explains that the latter category includes the maintenance of land uses, which would otherwise not be in place (p. 90).

⁵ Under section norms for regulation of activities of the CRZ (Coastal Regulation Zone), tourism-related construction is permitted in CRZ III with prior approval of the Ministry of Environment and Forests, for construction of hotels / beach resorts for temporary occupation of tourists/visitors subject to the conditions stipulated in the guidelines at Annexure II.

coastal states and centrally administered territories delegated this complex job to town and country planning departments, which, in India, mostly include builders and architects. The trend has, therefore, been not to conserve, but to circumvent rules to enable construction activity to continue unhindered.⁶ More recently, the NCZMA (National-level Coastal Zone Management Authority) and the SCZMA (State-level Coastal Zone Management Authorities) have been formed to pilot the Integrated Coastal Management plans in India, but the NCZMA and the SCZMA in India mostly function in isolation, away from public knowledge.

The tourism policy

Tourism is the second largest net earner of foreign exchange in India generating about 3 billion dollars annually. Tourism has been given explicit attention through the Tourism Policy of 1982; the Report of the National Committee on Tourism, 1988; the National Action Plan, 1992; and National Tourism Policy, 1998. The Seventh Five-Year Plan also proposed that tourism be declared an industry so that it could avail of the concessions available to industry. This decision was, however, left to the states, and not all have accepted. It also received an indirect boost through the rupee depreciation, which was part of the reform package as it made travelling to India that much cheaper and attractive. In the Eighth Five-Year Plan document, the importance of private sector participation in the future expansion of tourism is especially mentioned. The Plan directly addresses the 'local development' potential of tourism, by providing for the need of 'master plans' at the state level to integrate area plans with development of tourism.

The Ministry of Tourism is the nodal agency for the formulation of national policies and programmes and for the coordination of activities of various central and state government agencies and the private sector for development of tourism. State governments / district administration / local bodies, and councils are responsible for tourism at the regional and local level. The ministry sets out very specific rules and regulations for the hotel industry, which is entitled to various benefits including fiscal concessions and priority considerations for its various requirements.

⁶ See, for example, GoG (1996).

In Goa, planned tourism development started in 1965 but more concerted efforts began in 1982 with the setting up of the Goa Tourism Development Corporation. Other than this exercise and attempts to have tourism master plans in 1982 and again in 2001, the policy has been essentially a reactive one. In 2001, the government adopted a tourism policy for Goa. While this is more sensitive than earlier pronouncements to local concerns, it does not go far enough to address the concerns for a sustainable and quality coastal tourism.

Comments on policy

Several tensions, conflicts, and inconsistencies in policy are evident on the ground. Our comments here are two-fold.

- 1 Those that relate to coastal management policy more generally
- 2 Those that relate to coastal tourism more specifically.

Based on analysis of the policy, the following observations suggest possible reasons for the unsustainable use of coastal resources and negative impacts on the environment.

- The absence of a coastal focus in Indian policy results in little attention to the impacts of various sectoral policies on coastal resources use and on the need to connect development (in this case tourism) policy with environment policy. This is compounded by the approach to management of ocean resources and the environment at the national level and coastal development on the landward side at the state and local level, which results in redundant efforts, inefficiency, ineffectiveness, and lack of coordination among agencies.
- The human and social dimensions are missing in the coastal research policy in India. Most research and the institutions are of 'natural sciences'—heavy and focused on sciences and technology with no attention to the social aspects and the management of unsustainable human behaviour and consumption. There is little dialogue between these research communities, as a result integrated management and processes remain elusive. The end result is that a lot of the coastal research is not socially relevant and is unable to inform development issues.
- The wrong signals provided through liberal loans on concessional terms for setting up, deepening, and energizing water wells and subsidizing the supply of energy have been instrumental in

increasing the rate and intensity of the depletion of groundwater. This has also prompted the growth of a water market in Goa, which meets the demand of the hotel industry that is, otherwise, unable to fulfil its needs from public water supply.

- No policy regime exists for groundwater use and quality control and no integrated conjunctive approach exists for the use of ground and surface water (Moench 1998a; 1998b).
- Regulations exist, but enforcement is poor or non-existent. The CRZ notification is violated in Goa and a number of other states as are Acts relating to water and air. Action constraining rules, such as source-specific standards, quotas on emissions and effluent discharges, land zoning, etc., are typical 'command-and-control' mechanisms. This policy strategy, however, presupposes that the enforcement mechanisms, such as the administrative agencies and the judicial system, are in place and are able to act. If they do not, or cannot, for reasons of incapacity or political economy, the options available to individuals – though appearing to change – have, in fact, not changed, and the policy is ineffective in shaping environmental behaviour.

Coastal tourism policy

At the state level, various policy directions, in terms of support to the private sector as also the state's direct involvement in the tourism industry, accompanied the development of tourism in Goa.⁷ This involvement of the state often led to direct conflict with the local people who wanted to carry on tourism trade on a small scale while the state wanted to establish large tourism complexes. This conflict was particularly acute in the Baga watershed through the 1970s and 1980s, and got resolved – or lost – in the policy space provided by the CRZ notification in 1991 that prevented any new buildings within 500 m of the coast, which is where the state planned to locate its tourist complexes. The CRZ notification, some suggest, may have been instrumental in pushing for more construction activity in the private sector, even to, as the local press has termed it, a state of 'panic construction'. Others believe that because the zones arrived at have been at the national level, they have failed to take account of

⁷This is also the case in other parts of India where tourism is an important activity.

local level specificity and, hence, create contradictions between what is intended and what happens.

Further, tourism policy encouraged the development of beach resorts and guesthouses, while the CRZ froze land up to a distance from the coast. Pressures are felt on the local government when local people are in the forefront of illegal constructions and infringing laws. Hotel chains, with direct access to the central government and wanting to build as close as possible to the beach, are in head-on collisions with local environmental groups. Many of these are only resolved in courts.⁸ In fact, increasingly, courts in Goa have been doing the work of the executive arm of the government due to the lack of willingness and ability on the part of the enforcers of the law. Apart from poor enforcement of law due to low capability and sometimes unclear understanding, there is also an institutional dilemma at work here, when regulating authorities at the village level find themselves in conflict between the need to implement rules on the one hand and responding to the needs of local residents and groups, which they represent, on the other. In the tourist villages, local people have been in the forefront with demand for land conversions and are instrumental in selling land to the tourist industry. This has come about as locals have seen a role for themselves in appropriating the benefits of tourism.

The tourism policy, as it evolved, was ad hoc and often exploitative, and over time has given rise to serious resentment from local people as it often commodified local people and culture in its promotional aspects. It also concentrated only on promoting tourism without attention to the resources, social and environmental, that gave the place its charm, beauty, and attractiveness. Failure to be sensitive to host populations has led to irritation and adversarial behaviour, which, if not corrected, can result in a lower threshold of social acceptance of tourism. At the same time, we have seen a lack of attention to cleanliness of beaches, to water availability, and to ensuring quality tourism. If some coastal systems are still not stressed, as for example, marine waters, it is because of their intrinsic resilience, but this does not suggest that they are not at risk if behaviour continues as it is.

⁸ Over a period of 12 years since 1988, 19 public interest litigations have been filed by the environmental group, Goa Foundation, against starred hotels in Goa on grounds of violation of environmental conditions or CRZ rules (Alvares 2002).

At a multi-stakeholder workshop, the following views on policy in Goa in relation to tourism were put forward.

- Inadequate, fragmented approach to promotion by the captains of industry
- Wavering government policy
- Bad image arising from mismanagement of assets and from social ills
- Distasteful projection of Goa by tourism officials
- Non-handling of tourism-related social and environmental ills by government
- Non-transparent policy-making
- Stresses from inadequate basic infrastructure, rising cost of living.

Our analysis of policy also suggests that the following areas need attention.

For the industry

- Relatively high operating costs as compared to other destinations in Asia
- High taxation, both income tax and a multitude of sales and service taxes.

For the tourist

- Lack of attention to visitor care
- Poor infrastructure
- Lack of cleanliness on the beach and surrounding areas
- Poor lighting and signage
- Time lags in obtaining visas and poor connectivity to Goa.

For the host population

- Lack of transparency of policy
- Insufficient attention to
 - tourism multipliers income and employment
 - impacts on the environment, especially water availability
 - social ills such paedophilia and HIV/AIDS.

For enforcement agencies

- Lack of positive incentives such as awards at local panchayats and municipal levels for maintaining
 - good water quality

- cleanliness of beaches
- industrial areas and safety
- village/town cleanliness
- aesthetics.

Our research also suggests the need for development policy that would look into the following.

Shifts in occupational distribution in tourism areas

Tourism can be transient, and overexposure can cause the tourist to move away, as has happened to many destinations of the world. Hence, a precautionary slant has to be adopted in policy to ensure that local communities are not affected badly in the event of such an occurrence.

Education, training, and skills of the local youth

Tourism can be a seductive activity, luring the youth with easy work and money. In the absence of attention to education and skill formation, there may be a loss of interest in such training other than that involves providing services to tourism such as singing, dancing, guiding, etc. In the event of tourism fading as an activity, we have a lost generation in terms of skills and readiness, as it cannot avail of the opportunities available in other markets.

Training to support the tourism industry

Training to enhance the skills of the local people will not only infuse a greater professionalism in the services provided, but also empower the local communities and increase their manoeuvrability in terms of locations and occupations. There is need for policy to strengthen the local people as hosts.

Role of the local *panchayats*

The constraints or opportunities that the *panchayats* provide for good governance need to be studied.

- Health security and well-being issues that can accompany tourism
- Land-use changes to avoid a reduction in ecosystem functionality to the detriment of the diversity of local livelihoods
- Vulnerability of coastal aquifers to salt-water intrusion

In the following section, we dwell on some of the policies and thinking within the EU on matters relating to coastal management, quality coastal tourism, and groundwater to learn from the mistakes and the experience and to draw some lessons for India.

Management of coastal areas: lessons from the European Union

European coastal areas can be divided into three main categories.

- 1 Urban and industrial areas, which correspond to high concentrations of population with great effects on the surrounding environment
- 2 Intensive tourism areas, where urbanization is combined with tourism and great seasonal population variations, and which are often characterized by chaotic development and conflicts over land and sea use
- 3 Natural, rural, and fishing areas, which are associated with scattered settlements, where agriculture combines with fishing [They are also potential areas for conservation of natural resources.]

The main reasons for the environmental problems and conflicts occurring in European coastal zones are not very different from the reasons discussed in the Indian context: the sectoral character and the lack of coordination of legislation and policy, planning decisions taken without considering the long-term opportunities of sustainable development-based approaches, rigid structure of administrative systems, lack of funding and support to local coastal management initiatives, limited understanding of coastal processes and ecosystems, and insufficient communication between the scientific community and policy-makers. Experience in environmental action programmes and regional planning has clearly shown that sustainable development is being implemented too slowly given the seriousness and complexity of the problems of coastal zones. Specific joint action by the EU and member states is, therefore, required in order to improve the effectiveness of legislation and of existing financial and planning tools.

There are three reasons for the EU's interest in the fate of the coastal zones that are of relevance to India, given its size, coastal areas, and federal structure.

- 1 The European dimension, because of which the problems cannot be solved by member states alone (common natural and cultural heritage, transfers of pollutants and sediments, tourist flows, maritime safety, etc.)
- 2 The impacts of the EU's policies and development measures of the coastal zones (regional, transport, fishing, environment, agriculture, energy, and industrial policy)
- 3 The need for exchange of experience and know-how in a field where success is still rare and where there is substantial public and political demand for the conservation of the coastal zones and their sustainable development.

Since 1996, the European Commission has been working to identify and promote measures to deal with the problems of deterioration of their environmental, socio-economic, and cultural resources and to improve the overall situation in coastal zones. From 1996 to 1999, the Directorates-General for Environment, Fisheries, and Regional Policy operated a demonstration programme on the ICZM (Integrated Coastal Zone Management) designed around a series of 35 demonstration projects and six thematic studies.

This programme aimed at

- providing concrete technical information about the factors and mechanisms, which either encourage or discourage sustainable management of coastal zones, and
- stimulating a broad debate and exchange of information among the various actors involved in planning, management, or use of European coastal zones.

The programme was intended to establish consensus regarding the appropriate measures necessary at the European and other levels of competence in order to stimulate the ICZM in Europe. The ICZM is a continuous process of administration with the general aim of putting into practice sustainable development and conservation in coastal zones and maintaining their biodiversity. To this end and by means of a more effective management, it aims at establishing and maintaining optimum (sustainable) levels of use, development and activity in coastal zones, and eventually improving the physical status of the coastal environment in accordance with certain commonly held and agreed norms.

The demonstration programme was specifically aimed at applying the principles of subsidiarity and integration,⁹ which underlie European environment and regional planning activities. This programme revolved around three key concepts: coordination, cooperation, and consultation. The success of the programme was linked to the degree to which those responsible for the demonstration projects were in a position to ensure good cooperation between the various planning authorities—from local to community level. It was an exercise in implementing the principle of subsidiarity, since true subsidiarity means not only that everyone takes responsibility at their own level, but also that they systematically examine the consequences of the action they are planning together with the others.

The EU cannot have a direct policy for coastal zones. In fact, the entire ESDP (European Spatial Development Planning) is limited due to the nature of the EU: all European spatial plans can include only what national planners agree to. The ESDP goals were first decided by a committee of national ministers responsible for spatial planning: an integrated vision of the entire European territory, a more balanced geographical distribution of production activities to correct the trends of concentration in the most competitive areas, a more sustainable land-use policy to ensure the most appropriate choices in terms of basic infrastructures, and a greater sensitivity to specific territorial needs. However, the EU has no formal authority to make a 'Grand Plan for Europe'.

Nevertheless, different regional plans have been produced in recent years, developing an integrated perspective: regional development plans, integrated transport plans, integrated coastal management plans, and strategic environmental assessment. Management and planning of European coastal areas is often dealt with through land-use control mechanisms managed at national, regional, and local levels and programmes designed to protect sites of particular interest. In most countries, government action in the planning processes is defined by guidance documents, rather than regulatory instruments. Some countries have issued more specific

⁹ The Subsidiarity Principle states that the community takes action only if and in so far as the objectives of the proposed action cannot be adequately met at national, regional, or local level and are better achieved by the community. The environment programme links this concept with shared responsibility, complementarity of projects, and the need for cooperation between the different levels of authority. The Principle of Integration is set out in Article 130 R of the Maastricht treaty, which stipulates that environmental protection requirements must be integrated into the definition and implementation of other community policies.

plans concerning coastal zones, but the protection of sites of natural and biological interest has a long tradition in the Netherlands, Germany, Denmark, Sweden, and Finland. Most European countries have coastal water quality monitoring programmes, as well as programmes intended to reduce eutrophication and, particularly in northern Europe, information campaigns have been organized, often by NGOs, on coastal protection and tourism management. Improving the quality of coastal tourism has recently involved a special effort (EC 2000).

Towards quality coastal tourism

Improving quality coastal tourist destinations is essential to satisfy tourists' needs, making the industry more competitive and ensuring that tourism develops in a balanced and sustainable way. Quality exists only to the extent that a product or a service meets the customer's requirements and expectations. Thus, in case of tourism, quality would mean taking into account and having a favourable impact on the activities of tourism professionals; tourists; the local population; and the environment, that is, the destination's natural, cultural, and manmade assets. Quality assessment should be based on the premises of visitor satisfaction; the satisfaction of tourism industry professionals; integration in the community, measured in terms of satisfaction of residents and other socio-economic agencies in the destination and its neighbouring area; and environmental protection and sustainable use of natural and cultural resources (EC 2000).

The quality that tourists expect is determined by their implicit or explicit expectations, which, in turn, depend to a large extent on the type of customer involved, previous experiences, and so on. However, the customer's expectations and perceptions of the quality of a service can be modified by active communication and by the destination's marketing policy. Therefore, in order to accomplish sustainable coastal tourism, it is necessary that tourists behave responsibly towards the environment and that their satisfaction derives not just from their experience of the services, but also on more general factors such as hospitality, safety and security, sanitation and salubrity and traffic and visitor management (EC 2000).

The objective of quality management is to continually close down gaps between expected, perceived, provided, and desired quality levels in order to bring the service supplied in line with the customer's expectations. Furthermore, this type of quality approach to tourism can be used to address the need for global rehabilitation of environment and the need to find balance, in the context of sustainable development, between resource management, economic performance, and social aspirations (EC 2000).

Innovations in groundwater policy

In most EU member states, legislation concerning limitation of hazardous activities endangering groundwater was established in the beginning of the 1970s (Lobo-Ferreira 2000). Legislation concerning protection of groundwater pumping systems was also set up. This special sensibility has led to a remarkable legislative production. All the member states followed with their own legislation, in some cases improving some aspects specifically concerning groundwater protection, which is provided by two kinds of measures, as mentioned below (Margat 1992).

- 1 General regulatory measures, often linked to environmental impact studies
- 2 Definition of two or three protection zones around groundwater pumping systems.

The second measure has been or is being established in most community countries and has proved a success so far. In the EU framework, most member states already have specific legislation, which establishes protection zones around wells, defining the polluting activities to be banned in each zone and having as the main objective, the preservation of groundwater quality. Nevertheless, the application of that legislation is still difficult.

The problem of confined aquifer protection is not specifically addressed in any of the legislation analysed concerning groundwater geographical protection methods used in some European countries. Confined aquifer protection is achieved simply by applying the same methodologies used for unconfined aquifers, reducing the size of protection areas when a superficial impervious or semi-impervious layer is present. This approach is often combined with measures for avoiding the removal of the covering impervious layers protecting the

underlying aquifer. No hydrogeological criteria are used to justify this very simplified approach. Various items of legislation show great differences concerning the degree of specification of banned and/or controlled activities inside protection zones.

The innermost area (the operational courtyard) must be purchased by the well owner and fenced in. All activities that are not strictly related to water abstraction must be forbidden inside this area. In the more external area, which is related to the microbiological protection of the well, the following activities, processes, and installations are generally forbidden or put under control: building sites, waste sites, use of pesticides and fertilizers, animal feedlots, paddocks and breeding, new roads or railways, and transport or storage of any pollutants. In the outer protection zone, in most cases corresponding to the recharge area of the well, some activities are allowed, but a certain amount of control is maintained. A methodology for wellhead protection for the study area has been discussed earlier. The implementation of a wellhead protection programme is very difficult if not supported by measures for

- assuring a good level of compensation for whoever incurs extra costs, resulting from the imposition of the groundwater protection measures;
- establishing an adequate fees or charges policy, specifically aimed at forcing consumers and anyone else endangering the groundwater quality, to bear the cost of protection;
- avoiding diluted responsibilities or conflicts between ministries, state or local departments, state or local agencies, water and/or basin authorities, etc., in the implementation of such programmes; and
- assuring social support from local communities for groundwater and wellhead protection programmes.

Towards more effective coastal management and a sustainable coastal tourism for India

The review of the EU experience and our collaborative research lead us to suggest the need of basing coastal management policy on a combination of creative inclusive arrangements in policy-formulating roles and subsidiarity in the implementation of policy. Such an approach would need to evolve around creative, decentralized forms of management within broad enabling frameworks; indicators to

monitor and manage development activity and impacts; consultative workshops with stakeholders at regular intervals for long-term success; effluent treatment systems common to small units; education of various stakeholders to alter the perceptions, significance, and value they attach to environmental resources and change; and strengthened local communities and NGOs. More specifically, for groundwater management, we suggest a broad regulatory frame, but control in local water districts (may comprise a watershed or more) with an enabling, supportive policy, which provides detailed information on the aquifer system, monitors groundwater quality, sets up protection zones, establishes institutional safeguards to ensure broad access within the villages and supports reinvestment in water harvesting systems at local level where water levels are declining.

Sustainable coastal tourism requires the need to recognize the importance of consumer satisfaction, economic health, host well-being, and environmental and social care. It needs an understanding that while tourism is driven by the market, a host destination can and should decide what kind of tourism it wants to have. Tourism must be recognized and perceived as a positive activity for all involved, and harmony must be sought between the needs of the visitor, the industry, and the host population. Our research suggests the need for a redefining of tourism in Goa and the need for a model of tourism where

- all stakeholders have a 'voice' in its development;
- local communities participate and 'benefit';
- tourists 'experience' the destination;
- all tiers of government are of importance;
- there is transparency in policy-making;
- greater 'integration' within industry;
- innovative links are created with other sectors of the economy; and
- social, environmental, and economic concerns of various groups find reflection.

Such an approach needs to involve a longer season, more products, more balance between foreign and domestic tourists, less dependence on charter tourists, more balance between different types (low, middle, high, luxury) and needs of tourism to aim at ensuring economic health for the industry, greater inclusiveness for the host

population, higher foreign exchange earnings, increased revenues for government, increased income and employment, and responsible tourism. This approach has to also enhance the level of preparedness for greater liberalization under GATS. To ensure that the opening up of the tourism sector does not adversely affect local development and the environment, there is need for greater integration of tourism and environmental rule-making and better implementation of the law to protect the impacts of tourism growth to the environment and to avoid inter- and intra-sectoral conflicts. There is need for infrastructure improvements and development, as this holds the key to a successful tourism trade; there is also need for more opportunities for local spending and monitoring of tourism activity to avoid social ills and inequities. Planning for the small and medium sector to ensure them a place in the sun is essential or else larger and richer players will swamp them.

Implementation of such a 'participatory model' of tourism would need the following.

- A state-level tourism board with strong representation of all main stakeholders
- District- and local-level councils with similar representation to speed up decision-making and ensure lower level transparency, planning, and distribution of duties
- An international promotion company to promote the destination
- A multi-stakeholder advisory committee to address tourism-related environmental, governance, and social issues
- A response cell (partnership of government agencies and NGOs) to take action when cases of paedophilia and other tourism-related social ills are brought to attention.

We would like to suggest that the participation of all legitimate stakeholders in a more participatory model of tourism supported by polycentric governance systems¹⁰ would move us towards more sustainable coastal tourism and better coastal management. But such a 'participatory, multi-stakeholder' approach would face challenges in the following areas.

- Creating appropriate institutions to promote such an approach
- Building trust among stakeholders.

¹⁰ See Ostrom (2001) for a discussion on such governance systems.

- Dealing with uncertainty and the fads of tourism
- Establishing equity in information flows
- Building capacity for government, NGOs, and industry to monitor impacts
- Building effective systems and mechanisms for addressing tourism needs and impacts
- Building of social capital to enable more participatory approaches
- Strengthening local governance.

The challenges notwithstanding, the journey must begin...

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